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LGBTQ+ College Students' Perceptions of Social Presence and Self-Disclosure in Online
Learning: A Single-Case Study

A dissertation manuscript submitted in partial fulfillment
of the requirements for the degree of
Doctor of Education in Adult and Lifelong Learning

by

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Abstract

Social interaction among learners plays a significant role in online learning environments (Garrison, 2006; Kreijns et al., 2014; Mykota, 2017). The construct of social presence in online courses is important because it influences interaction and connectedness among learners and its effects on their learning outcomes and emotional well-being. Social presence at its essence refers to how an individual is perceived as a "real person" in an online environment (Gunawardena & Zittle, 1997). Online students must decide what aspects of their social identities they share in their interactions with their peers and instructors. Furthermore, LGBTQ+ students must negotiate what aspects of their sexual orientations or gender identities they wish to self-disclose while taking online classes.

In the past, research has explored how LGBTQ+ individuals use social media and online resources to negotiate their online social identities. Members of the LGBTQ+ community have used online platforms to explore their identity, facilitate the coming out process, and as a means of social support with other members of the community and its allies. However, LGBTQ+ perspectives regarding online social presence and self-disclosure in online learning environments are unknown.

The purpose of this single qualitative case study was to explore LGBTQ+ college students' perceptions of social presence and its indicators, affective expression, open communication, and group cohesion in online courses related to their decisions surrounding self-disclosure. Data collection occurred through recorded participant interviews on Zoom. The interviews used semi-structured, open-ended questions created by the researcher. Interview recordings were transcribed and analyzed to uncover LGBTQ+ participants' perceptions of social presence and the factors that influenced their decisions related to self-disclosure. Their responses

were coded and categorized using the Community of Inquiry (CoI) and social identity theory (SIT) as theoretical frameworks.

The study's findings showed that the lack of collaborative and interactive activities in online classes that promote social presence left participants uncertain about how they perceived their classmates and how they may have been perceived by them. Participants described their experiences in online classes as lacking a sense of belonging and authentic connection. Furthermore, participants were reluctant to share personal information in the initially limited exchanges with their classmates. Participants' decisions to self-disclose information related to their gender identity and sexual orientation were based on factors like privacy, perceived social and political climate, and openness in professional and personal lives. Participants suggested that creating safe online spaces may reduce barriers to self-disclosure through instructors identifying as allies, sharing pronouns, and displaying symbols associated with support of the LGBTQ+ community. Further research is warranted for LGBTQ+ students' perceptions of social presence in online classrooms where their identities have been affirmed through institutional and environmental support.

Keywords: Community of Inquiry, LGBTQ+, self-disclosure, Social Identity Theory, social presence

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None of this would be possible without a kind, benevolent God who gave me a mind that craves knowledge and a heart that yearns for fairness for all of His children, no matter their gender identity or sexual orientation. As the Rev. Dr. Martin Luther King, Jr. stated, “Human progress is neither automatic nor inevitable... Every step toward the goal of justice requires sacrifice, suffering, and struggle; the tireless exertions and passionate concern of dedicated individuals.” May this work be one small step towards that goal.

I could have never undertaken this journey without some significant people in my life. First and foremost, I owe my parents a huge debt of gratitude for their love and encouragement throughout this process. Whenever I became discouraged, they were there cheering me onward. They may not have understood my research topic entirely, but their faith in what I could accomplish never wavered.

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Dedication

This dissertation is dedicated to the memory of father, Tony Ray Wright. From my earliest years, my dad taught me that education has the power to open doors where none existed previously. He taught me never to take no for an answer. Furthermore, he set the standard for what sheer grit and determination can accomplish when focusing your mind, body, and spirit toward a task.

Unfortunately, my dad passed away just shy of two months before my graduation. It felt like a race to complete this work during his last couple of weeks and spend those few precious remaining days and hours with him. He left this world knowing that I loved him, and, in return, I knew he was already proud of me. So, Dad, your race is now finished, and this is for you.

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Chapter 1: Introduction

Historically, educational scholars have highlighted the importance of social interaction in online learning environments (Kreijns et al., 2014; Mykota, 2017). The extent to which learners feel socially connected is often considered as a primary factor in online course success (Richardson & Swan, 2003). In contrast to online classrooms, students and instructors in face-to-face classrooms can observe each other and form social perceptions based on different aspects of identity like age, gender, ethnicity, emotional state, and level of attractiveness (Allison et al., 2000). Social perceptions influence how learners interact and communicate with their instructors and peers both verbally and nonverbally (Berry et al., 1997; Martikainen, 2020). Additionally, social perceptions have been shown to shape students' sense of belonging and support from peers and teachers (Anderman, 2003). However, in online learning environments, social perceptions are primarily formed through text-based communication rather than visual cues or spoken words (Garrison et al., 2000; Rourke & Anderson, 2002; Rourke et al., 1999).

Social aspects of learning include interrelated and complex constructs of social presence and social identity (Lowenthal & Dennen, 2017; Mingfang & Qi, 2018; Phirangee & Malec, 2017). According to Tu (2017), social presence and social identity are deeply connected and provide the basis for social interaction and collaborative learning communities. The nature of how both constructs relate to one another in online learning spaces has been explored by past research. Rogers and Lea (2005) argued that social presence is facilitated through a shared sense of social identity between collaborative group members in online classes. In contrast, Shen et al. (2010) examined how social presence can positively affect the social identities of community members in online spaces. Social presence and social identity are multidimensional due to different social presence indicators and multiple social identities (Tu, 2017).

Social presence is a construct found within the Community of Inquiry (CoI) framework that is described as how a learner can project their identity in an online space so they can be perceived as a 'real' person (Garrison et al., 2000; Kreijns et al., 2014; Kreijns et al., 2021; Lowenthal & Dunlap, 2010). Scholars consider social presence in the online environment to be significant due to how it influences social interaction and its effects on learning and social outcomes. Other researchers have described social presence as establishing social connectedness between instructors and students in online classes (Liu et al., 2007). In addition, past research has shown that students' perceptions of social presence can positively influence participation (Swan & Shih, 2005; Tu & McIsaac, 2002), course satisfaction (Akyol & Garrison, 2008; Cobb, 2009; Swan & Shih, 2005), and perceived learning (Hostetter & Busch, 2013; Richardson et al., 2017; Richardson & Swan, 2003).

Social presence was based on the early work of Short et al. (1976) that held that the degree of social presence was dependent on the physical attributes of communications media. Short et al. (1976) used social presence to describe the quality or state of being there between two individuals using a communication medium. With more research, the focus shifted from the aspects of the media to the dynamics through which participants create "their own subjective perceptions of other people's presence" (Wang & Tai, 2011, p. 111). Later, Garrison (2009) described social presence as progressing through three distinct phases (1) projecting a social identity, (2), have purposeful communication, and (3) building relationships. According to Tu (2017), social presence and social identity exist in collaborative, group, and community online learning spaces. Much of the relationship-building found through social presence depends on participants' intuition gained from reading others' written messages and their willingness to disclose aspects of their private life (Gunawardena, 2015). Learners' perceptions of social

presence may be associated with the trustworthiness they intuit from repeated communication with their classmates and instructors. In turn, demonstrations of self-disclosure are linked to the expression of social identity.

Social identity is described as "the individual's knowledge that he belongs to certain social groups together with some emotional and value significance to him of this group membership" (Tajfel, 1972, p. 292). According to the framework of social identity theory (SIT) (Tajfel, 1974; Tajfel & Turner, 1986), individuals have numerous facets of identity that include personal identity and a range of social identities. Social identity confers a shared or collective representation of who a person is through self-categorization (cognitive), self-esteem (evaluative), and commitment (psychological) factors (Bergami & Bagozzi, 2000; Ellemers et al., 1999; Hogg & Abrams, 1988; Tajfel, 1978). Social and cultural contexts may impact learners as they construct and experiment with different personal and social identities to facilitate social presence (Tu, 2017). Learners require the autonomy to create their ideal and intentional identities in learning spaces based on the contexts of that environment and their interactions with their peers and instructors.

In online courses, each student decides what aspects of their social identities they reveal or hide in their interactions with their peers and instructors. LGBTQ+ individuals are often discriminated against or stigmatized because of characteristics that are deemed socially unacceptable (Ciszek, 2017; Veelen et al., 2020). Throughout history, LGBTQ+ individuals have endured institutionalized forms of prejudice, discrimination, and violence ranging from extermination in Nazi concentration camps to the passage of legislation that bans gender-affirming healthcare for minors passed in statehouses across the United States (Jensen, 2002; Kidd et al., 2021). Despite more recent cultural acceptance of LGBTQ+ rights globally,

conservative political leaders and mainstream Christian belief systems still stigmatize LGBTQ+ individuals as being morally inferior (Gadarian & van der Vort, 2018; McQueeney, 2009; Stulhofer & Rimac, 2009;). As a result, LGBTQ+ students taking online classes may be reluctant to share aspects of their identity related to their sexual orientation or gender presentation due to their perceptions of support and belonging from their peers or instructors. The anonymity of online courses allows students more choice in the identity they share with other students and may or may not match their identity in the physical world. However, there are limitations to the anonymity that online classrooms provide LGBTQ+ students. For example, trans students may experience microaggressions committed by faculty and peers through misgendering or class rosters that do not reflect the name they use to identify themselves (Goldberg et al., 2019).

In recent years, research has been devoted to how LGBTQ+ individuals represent themselves on social media platforms and online chatrooms (Bates et al., 2019; Fox & Ralston, 2016; McConnell et al., 2018). Social media and online platforms have offered LGBTQ+ people safe spaces for identity exploration, management, and social support without the risk of stigmatization. In addition, LGBTQ+ individuals engage in social and experiential learning on social media sites like Facebook or Tumblr (Fox & Ralston, 2016). Nevertheless, there is a lack of research related to LGBTQ+ college students' social identities and their perceptions of the indicators of social presence in online learning communities.

LGBTQ+ (lesbian, gay, bisexual, transgender, queer) college students have been referred to as the invisible minority (Sanlo, 2004). Members of this population are acutely aware that their decision to self-disclose their identity may increase vulnerability with friends, family, and institutions (Garvey et al., 2019; Ragins et al., 2007; Ragins, 2008). As a result, LGBTQ+ students face discrimination, verbal harassment, microaggressions, and social ostracism from

their peers and often lack meaningful institutional support and inclusive practices from their colleges and universities (Hill et al., 2020; Rankin et al., 2010; Kilgo, 2020). In turn, these issues contribute to higher rates of depression and suicide attempts among LGBTQ+ college students (Woodford et al., 2018).

Students from marginalized populations who have been the victims of discrimination often choose online classes for the perceived anonymity and protection from harassment or bullying that online learning provides (Bawa, 2016; Hill et al., 2020). Students who participate in online courses constantly negotiate what versions of their social identities they share with their peers and instructors (Phirangee & Malec, 2017). Online courses often lack the communication and social cues found in the face-to-face classroom, leaving learners with vague and sometimes biased impressions of other students (Sherblom, 2010, as cited in Greenan, 2021). Students in online classes need to feel that their identity is accepted, validated, and appreciated to fully engage in collective group course work and interactions with their peers (Rovai, 2002). LGBTQ+ college students who enroll in online courses still face the decision to self-disclose their identity to their peers and instructors. For LGBTQ+ students, self-disclosure in an online environment is fraught with many of the same risks and uncertainty as in the real world. The contextual nature of identity means that sexual and gender minorities often struggle with which version of themselves they share in different online settings they experience.

Statement of Problem

Social presence is a multidimensional psychological construct operationalized in terms of warmth, authenticity, communication, emotion, sensitivity, and social interaction in online learning environments (Cleveland-Innes & Campbell, 2012; Garrison, 2016; Tu, 2002; Short et al., 1976). Establishing social presence in an online environment is "critical for all identities,

experiences, beliefs, and knowledge sets to be accepted rather than marginalized" (Phirangee & Malec, 2016, p. 161). Although much research is available on social presence, the current problem is that the LGBTQ+ experience with the construct is currently unknown. Learning is a social process that requires interaction and communication with others (Jarvis et al., 2003). Students in online courses often describe feeling isolated and disconnected due to their physical sense of separation and reliance on text-based communication lacking social cues (Kehrwald, 2008). Social presence influences online learning experiences (Vanek et al., 2018) and has been shown to ease feelings of isolation (Tu, 2002). Other researchers have argued that social presence can increase a learner's sense of belonging and community (Rourke et al., 2001).

The construct of social presence has been applied to explain online learners' social and emotional behaviors (Rourke et al., 2001). However, the limitations of online learning environments often make establishing an individual's social presence and identity problematic. Online learners have varying degrees of social presence dependent on how much they contribute and the level they share of their identity in course communications and interactions with peers and the instructor (Lowenthal & Dennen, 2017). LGBTQ+ learners face the additional pressure of deciding how much of their identity to display due to fear and uncertainty surrounding the reactions of fellow students and the instructor. Lack of safe online learning spaces only exacerbates the problem (Brown, 2011; Mays & Cochran, 2001).

Past researchers have examined social media and online community groups used by LGBTQ+ students as avenues for identity exploration, affirmation, and involvement (McConnell et al., 2018; Miller, 2017). Additionally, scholars have investigated the dynamics between social presence, identity, and online communities and how social presence shapes identity in group collaborations (Phirangee & Malec, 2016). However, LGBTQ+ student experiences with social

presence and identity disclosure in collaborative online learning environments are unknown. Further research is required to explore how LGBTQ+ learners influence the construction of social presence and if additional methods are needed to support these types of students in online classes.

Background of the Study

Historically, people who identify as LGBTQ+ have depended on alternative forms of communication for social interaction with members of their population (Chan, 2017; Fox & Ralston, 2016). For example, gay men in the United Kingdom used an underground language called Polari to communicate with one another during the 1950s and 60s when homosexuality was criminalized (Schulman, 2012). Through the centuries, LGBTQ+ individuals have used cryptic or symbolic methods like the pink triangle, the rainbow flag, and the handkerchief code to pass along information and self-identify (Frederick, 2014; Jensen, 2002). These symbols were used to express ideas, concepts, and identities within the LGBT community. More recently, social media platforms like Grindr and Tinder have provided LGBTQ+ individuals opportunities for self-identification and identity exploration (Castañeda, 2015; Fitzpatrick et al., 2015). Unlike their heterosexual, cisgender counterparts, LGBTQ+ individuals must decide if and when to disclose their identity or "come out" in online and face-to-face environments. Cass (1979) proposed a pioneering homosexual identity formation framework that asserts "the interaction process that occurs between individuals and their environments" is paramount to the evolution of a salient sexual minority identity (p. 219). Models like the one proposed by Cass have been the target of greater scrutiny by researchers (Bilodeau & Renn, 2005). The models described queer identity formation as a linear process where the individual goes through progressive stages.

Other scholars have explored LGBTQ+ identity development (D'Augelli, 1996, as cited in Miller et al., 2021). According to D'Augelli (1996), an individual's identity development evolves and changes throughout their lifetime. Rather than developing in progressive stages, he describes six interactive processes related to lesbian, gay, and bisexual identity formation. More recent research (Patton et al., 2015) includes social identity development theory frameworks that separate sexual and gender identity development.

LGBTQ+ Identity Exploration

Although researchers have conducted significant research into the LGBTQ+ community's use of online spaces, they have yet to explore LGBTQ+ college students' perceptions of social presence. Historically, individuals exploring LGBTQ+ identities have been subject to systemic violence or threats that discouraged them from seeking public resources or support groups (Garnets et al., 1990). LGBTQ+ identity and cultural contributions have often been removed or minimized from historical artwork, films, and texts, denying their existence, or calling them a perversion. (Bridges, 2018; Rosenthal, 2017; Scot, 2014). Over the past two decades, researchers have focused on how LGBTQ+ individuals use the Internet to aid in identity development and formation. Researchers have explored the creation and use of blogs, YouTube videos, and websites geared specifically to the LGBTQ+ community (McInroy & Craig, 2017; Miller, 2017). More recent research has explored the social identities of LGBTQ+ individuals on social media (Bates et al., 2020; Ciszek, 2017). Additionally, LGBTQ+ individuals have utilized social networking sites like Facebook, Instagram, and Twitter as informal learning environments during the formative stages of their identity development (Fox & Ralston, 2016). For example, DeHaan et al. (2013) found that LGBT youths' offline experiences and resources often work in conjunction with their online activities to "shape their emerging identities, social lives, romantic

relationships, sexual behaviors, and physical and sexual health" (p. 430). Additional research found that identity disclosure online often led to the gradual process of identity disclosure and enactment in offline environments (Kosciw et al., 2015). Managing identity disclosure, considering when and where to disclose, is part of the college experience for many students (Orne, 2011). However, there are significant gaps in the research regarding LGBTQ+ individuals in online learning environments, leaving unanswered questions about their social identity formation, the limits and motivations for self-disclosure, and their perceptions of social presence.

Online Learning and Social Presence

The past decades have seen continuous growth in online learning (Singh & Thurman, 2019). In 2018, a total of 6,932,074 students were enrolled in distance education courses at degree-granting postsecondary institutions (National Center for Education Statistics, 2019). This explosive amount of growth brings a myriad of challenges where the "one size fits all approach" often found in face-to-face classrooms no longer applies in online learning environments. One challenge of online learning is that students often feel disconnected from their instructors and fellow students (Kruger-Ross & Waters, 2013). This perceived barrier can often lead to disengagement and less than satisfactory educational outcomes. The solution to this issue is the development of social presence in online learning environments. Instructors now employ collaborative learning tasks to engage socially isolated learners by requiring them to interact with their peers (Jaques & Salmon, 2007).

Social presence often determines the interactivity and effectiveness of online learning (Mykota & Duncan, 2007). According to Gunawardena and Zittle (1997), social presence refers to being perceived as a "real person" in an online environment. Social presence refers to the ability of an individual to actively create interpersonal relationships with other learners and

manage their interactions within the social medium (Garrison, 2007). In short, social presence is "used to describe and understand how people socially interact in online learning environments" (Keengwe et al., 2009, p. 124). The construct serves as a conduit of socialization in online spaces. Feedback from peers in groupwork can bolster a learner's sense of identity. Social presence can be understood through the lens of social interactions that promote reliable communication (Garrison et al., 2010). While much is known about social presence and its role within the CoI model, little is known about marginalized groups' perceptions of the construct within an online learning space. The CoI framework highlights social presence, teaching presence, and cognitive presence as essential elements to facilitate successful educational experiences in online learning environments. Garrison et al. (1999) described it as a theoretical framework for optimal learning in online environments that enable critical thinking, critical inquiry, and discourse among students and instructors.

Researchers have explored the role that collaboration plays within the CoI framework. Collaboration refers to the community members' interactions focused on a central, shared goal (Garrison, 2006). Collaborative learning occurs when learners interact with each other to create mutual interests. Collaborative activities in online environments include case study analysis, peer review and evaluation, discussion groups, and role-playing games (Swan et al., 2006). Success in online learning experiences requires interaction and collaboration with instructors, peers, and content. LGBTQ+ learners face the additional stress of what portions of their self-identity they share with their classmates and instructors during these exercises. While past research has examined the importance of social presence in student interaction during collaborative activities (Cobb, 2009; Kehrwald, 2010; Akcaoglu & Lee, 2016), more focus is needed on how marginalized populations perceive, perform, and interact with others under these conditions.

Purpose of the Study

The purpose of this qualitative case study was to explore LGBTQ+ college students' perceptions of social presence in online courses as it related to their social identity self-disclosure. Within the context of online learning environments, LGBTQ+ learners make ongoing decisions about if, how, when, and to whom they disclose their sexual orientation and gender identity. According to Gunawardena (2014; 2015), “self-disclosure is associated with trust building and the expression of identity” (p. 39). Instructors and students contribute to the overall success of online classes by acknowledging students' multiple identities and encouraging identity expression by all group members (Phirangee & Malec, 2021). In addition, students establish a sense of online community when they interact with each other resulting in building high levels of trust, which increases the amount of perceived risk when expressing one's thoughts and experiences, leading to higher-level learning (Shea, 2006). For example, an LGBTQ+ student may be reluctant to share personal details related to their sexual orientation and until they determine if their peers and instructors are trustworthy judging from past collaboration and communication.

Furthermore, students with positive attitudes and confidence tend to perform better academically in online environments (Yeboah & Smith, 2016). Social presence and its indicators (affective expression, open communication, and group cohesion) are essential constructs that reflect the degree a learner interacts and shares within a class (Lowenthal & Dennen, 2017). Exploring how LGBTQ+ learners perceive social presence within the context of their online identity, positionality within the class group, and choices related to self-disclosure is critical to improving the experience of social presence for these students.

Significance of the Study

This study was needed because, historically, research has shown that the lack of safe learning spaces that provide support for LGBTQ+ students lead to higher rates of distress, isolation, depression, and discrimination (Mays & Cochran, 2001; McCabe et al., 2013) compared to their heterosexual peers. LGBTQ+ university students are at higher risk for self-harming behaviors (Muehlenkamp et al., 2015) and suicide (Gnan et al., 2019). Negative campus experiences can cause LGBTQ+ students to feel invisible or underrepresented in the face-to-face classroom (Kilgo, 2020). Universities offering supportive environments and having visibly out faculty and staff can help mitigate many of the mental health problems in LGBTQ+ students (Gnan et al., 2019). Research has revealed that validating practices within academic spaces contributes to greater student involvement as well (Faulkner et al., 2020). However, little is known about creating safe spaces in online learning environments to support these often-marginalized students.

LGBTQ+ individuals often use the Internet to safely explore their sexual and gender identities and learn factual knowledge about sexual orientation and gender expression in informal settings like Facebook, Tumblr, and Twitter. Social networking sites often contribute to the individual's sense of identity and belonging (Fox and Ralston, 2016). Coming out is usually a gradual process in both online and real-world environments due to the fear of discrimination and victimization. Trust is a vital component to aid in the process. Revealing versions of their "real self" to their instructors and peers may have far-reaching implications for how LGBTQ+ learners experience social presence and their perceived sense of connectedness online.

There is a lack of research related to the LGBTQ+ population within the context of formal online learning environments and, therefore, this topic required further exploration.

Gaining a more in-depth understanding of the lived experiences of online LGBTQ+ students and the pressure and uncertainty they face surrounding their decision to self-disclose could assist scholars and practitioners in creating strategies to develop more welcoming, safe learning spaces for LGBTQ+ students. If implemented, these strategies would promote diversity, equity, and inclusion (DEI) in online learning environments.

Theoretical Frameworks

The community of inquiry model (CoI) (Garrison et al., 2000; Garrison & Arbaugh, 2007, Lowenthal, 2009; Swan, 2019) and social identity theory (SIT) (Hogg, 2020; Tajfel, 1974; Tajfel, 1982; Tajfel & Turner, 1979) served as dual theoretical frameworks for this research study. The CoI theoretical framework refers to a process of creating deep and meaningful learning experiences through three independent constructs: social, cognitive, and teacher presence (Garrison et al., 2000). Researchers have seen CoI as a prominent model to analyze online learning (Akyol et al., 2009; Arbaugh, 2007). Other scholars have examined social network and content analysis (Shea et al., 2010) and digital identity formation (Bozkurt & Tu, 2016) using the CoI theoretical framework. Researchers have explored the relationship between social presence and the CoI model. According to Garrison et al. (2000), self-disclosure is described as an example of "emotional expression contributing to the development of social presence" (p. 100). Additionally, social presence significantly impacts student satisfaction and achievement in online environments (Zhan & Mei, 2013). Earlier research by Arbaugh (2001) proposed that social presence can engender stronger peer connections, strengthen feelings of psychological connection to others, and reduce feelings of isolation. More recent research has focused on the relational facet of social presence and its contribution to identity construction

(Wang & Chen, 2013) and a sense of belonging in online learning communities (Sung & Mayer, 2012).

SIT was first proposed by Tajfel and Turner (1979) and focuses on how an individual's perception and development of self-concept is based upon group affiliation (Hogg, 2020; Tajfel, 1974; Tajfel, 1982; Tajfel & Turner, 1979). SIT has been used to examine conformity and socialization in peer groups (Archer, 1992; Harris, 1995) and group-based prejudice (Reynolds et al., 2001; Schmitt et al., 2003). In addition, scholars have drawn upon SIT to investigate perceived discrimination among LGBT employees in the workplace (Gacilo et al., 2017). Furthermore, SIT has served as a framework to explore the role of social context (Tyler & Schmitz, 2017) and social media outreach (Ciszek, 2017) for LGBTQ+ young adults.

SIT was considered for this study because self-identity is heavily correlated with successful learning outcomes (Bliuc et al., 2011). An individual may relate more closely to an identity based on self-definition, life experiences, beliefs, and the depth of attachment to the group (Seering et al., 2018). For example, an online student whose LGBTQ+ identity is central to their self-concept may perceive more alienation from their hetero cis-gender classmates and experience more significant identity incongruence. A student's sense of self in an online learning environment is primarily informed by how they see themselves in relation to the group. Identity congruence refers to when a student's identity fits within a group's goals and beliefs. Students experience identity incongruence when their identity does not fit with the group (Hughes, 2007). When learners experience identity incongruence in an online learning space, they may feel a lack of social presence and a weak sense of community with their classmates (Hughes, 2007; Phirangee & Malec, 2021).

Disclosing one's sexual or gender identity involves significant risks (Jamieson et al., 2020; Swank et al., 2013). The complexity and inherent risks of the self-disclosure process are significantly difficult for LGBTQ+ individuals when presenting their social identity in online spaces (Duguay, 2016; Haimson et al., 2015; McConnell et al., 2017). Identity disclosure within the context of unsupportive online environments can lead to rejection, loss of support, and diminished well-being (McConnell et al., 2018). Online environments also provide context for identity development, like exploring sexual or gender identities and same-sex attraction without risk of stigma (Bates et al., 2019). Continued exploration online can facilitate controlled self-disclosure during the coming out process because of a shared sense of connection and community with peers and affirming allies (Fox & Ralston, 2016). However, very little is known specifically about LGBTQ+ students' perceptions of social presence and what role controlled self-disclosure plays in forming their social identities within the context of online learning. More research related to the experiences of sexual minorities within online learning communities is warranted.

Research Design

This qualitative single-case study explored LGBTQ+ learners' perceptions of social presence and its indicators and identity self-disclosure. This study will grant scholars and practitioners a better understanding of the experiences and perspectives of sexual and gender minority students in online learning environments. A qualitative methodology was appropriate because it allowed exploring diverse perspectives and behaviors in context (Merriam & Tisdell, 2015; Patton, 2015). Case studies present an in-depth understanding of the case within a real-life setting (Yin, 2015). Various designs and versions of case studies exist (Creswell & Poth, 2018). However, a holistic single-case method was appropriate due to the single unit of analysis within

a shared context (Yin, 2018). A single case study design was selected for this research study because it may provide a deeper understanding of the explored subject (Gustafsson, 2017).

The unit of analysis for this was the LGBTQ+ college student. The unit of analysis is the primary entity that the researcher is analyzing in the study, like an individual, groups, artifacts, or social interactions (Yin, 2015). Qualitative case studies seek to describe the unit in depth, holistically, and in context (Patton, 2015). For this research study, the unit focused on individual participants (Yin, 2018).

LGBTQ+ college students who have completed one or more online courses were recruited from a university in the South-Central region of the United States. In addition to sexual and gender identity, the criteria included that participants must be 18 years of age or older. Individuals not meeting the criterion were excluded from the study and not allowed to participate. Both purposeful and snowball sampling were utilized to recruit participants. Data collection occurred from participant interviews. As with most qualitative research, sample sizes in case studies tend to be small (Yin, 2018). The initial appropriate sample size for this study was 12 participants or until data saturation occurs. The small sample size allowed me to explore the phenomenon more in-depth and gain a crucial understanding of how LGBTQ+ learners experience social presence and how it may influence their self-identity with peers and instructors in online courses. A semi-structured interview protocol (Appendix B) was applied to gather information about participant perceptions and experiences related to social presence and the role that identity self-disclosure played in their participation and sense of belonging. Semi-structured interviews were conducted online using open-ended questions. Each interview was recorded and transcribed for review and data analysis. A line-by-line analysis of each transcript was

conducted. MAXQDA software was used to analyze each interview transcript. Data with similar meaning or content was thematically coded.

Triangulation uses multiple data sources in qualitative research to develop a deeper understanding of the phenomenon and contributes to the reliability of the research questions (Patton, 2015; Yin, 2015). Triangulation was used to compare different participant viewpoints found in transcripts from interview recordings, the university's 2019-2021 diversity and inclusion strategic plan, and field notes for this study.

Research Questions

The following research questions were proposed for this qualitative study:

RQ1. How do LGBTQ+ college students describe their perceptions of social presence and its indicators in online courses?

RQ1a. What are LGBTQ+ college students' self-perceptions of affective expression in online courses?

RQ1b. What are LGBTQ+ college students' self-perceptions of open communication in online courses?

RQ1c. What are LGBTQ+ college students' self-perceptions of group cohesion in online courses?

RQ2. What considerations inform LGBTQ+ college students' decisions about self-disclosure related to the socio-cultural dimensions of sexual orientation and/or gender expression of their online social identities?

RQ3. How do LGBTQ+ college students describe their perceived social identities in online courses?

RQ4. How do LGBTQ+ college students describe their experience of others' perceptions of their social identities in online courses?

Definitions of Key Terms

Key terms for the study were defined as follows:

Affective Expression. One of the three categories of behavior that operationalize social presence. Affective expression represents the socio-emotional components of communication to form interpersonal relationships. Indicators of affective expression include expressions of emotion like the use of emoticons, conspicuous capitalization, use of humor, and self-disclosure (Kreigns et al., 2014).

Asexual. A person who does not have a sexual attraction to or sexual interest in other people. A person who does not prioritize sexuality in relationships (Reczek, 2020).

Asynchronous. This term refers to the interpersonal communication within an online setting occurring at altered times (Clarke et al., 2015).

Biromantic asexual. A person who is romantically attracted to multiple genders, but is not sexually attracted to anyone (Lowell, 2021)

Bisexual. A person who is attracted to both men and women; a person who is attracted to people of any gender (Reczek, 2020).

Cisgender. A person whose assigned sex at birth aligns with their gender identity and expression (Reczek, 2020).

Coming out. Becoming aware of one's sexual orientation or gender identity and beginning to disclose it to others. Coming out is a process that takes place over time, in some cases over many years (Bochenek & Brown, 2001).

Community of Inquiry (CoI) framework. The CoI framework is a process model of learning in online environments developed by Randy Garrison, Terry Anderson, and Walter Archer (2000).

It is grounded in a social constructivist view of higher education. The CoI is a dynamic model of the necessary core elements – cognitive, teaching, and social presence – for the development of community and the pursuit of meaningful inquiry with learning located at the intersection of these three presences (Whiteside et al., 2017).

Face-to-face. This term is used to describe the traditional classroom environment where students and the instructor meet synchronously in the same room, also referred to as "on-ground" or "on campus" learning (online glossary terms, n.d.).

Gay. An adjective used to describe people “whose enduring physical, romantic, and/or emotional attractions are to people of the same sex (e.g., gay man, gay people) (GLAAD, n.d.).”

Gender minority. A person whose gender identity does not align with normative gender expectations; minority status reflects both a statistical minority and the reduced access to resources and power as a result of this status (Reczek, 2020).

Gender nonconforming. A person whose gender expression and identity differs from or lies outside of the gender categories of man and woman (Reczek, 2020).

Genderqueer. A person who eschews the binary sex and gender system; a person whose gender identity and expression lies outside of the normative gender categories of man and woman (Reczek, 2020).

Group cohesion. One of the three categories of behavior that operationalize social presence.

Group cohesion reflects the shared social identity of the community and its collaborative behavioral intention. Indicators of group cohesion are vocatives (i.e., addressing participants by name), using inclusive pronouns (i.e., addressing the group as we, us, our group), and phatics or salutations (e.g., greetings, closures) (Kreigns et al., 2014).

Heterosexual. A person who is primarily attracted to people of different sex is a person who identifies as heterosexual or straight (Reczek, 2020).

Intersex. A person born with a combination of sex traits that are typically presumed to be either exclusively male or female (e.g., physical genitalia or gonads incongruent with sex chromosomes) (Reczek, 2020).

Lesbian. A woman whose physical, romantic, and/or emotional attraction is to another woman. Some lesbians may prefer to identify as gay or as gay women (GLAAD, n.d.).

LGBTQ+. An acronym used for individuals who identify as Lesbian, Gay, Bisexual, Transgender, or Queer. However, it must be noted that lesbian, gay and bisexual are terms used to define someone's sexual orientation/identity. Rankin et al. (2010) stated that "sexual identity is usually discussed more narrowly in terms of three distinct, immutable categories: heterosexual, gay/lesbian, and bisexual" (p. 48). Sexual orientation/identity, as defined by the American Psychological Association, is "an enduring emotional, romantic, sexual, or affectional attraction toward others" (Rankin et al., 2010, p. 48). The T in LGBTQ refers to transgender. Transgender does not denote sexual orientation but indicates someone's gender identity. "Gender identity refers to an individual's sense of hir (his/her) own gender, which may be different from one's birth gender or how others perceive one's gender" (Rankin et al., 2010, p. 49). Sanlo (2015) noted that "transgender people may be lesbian, gay, bi or straight" (PPT slide #30). Queer, however, "is used by some—but not all-LGBT people as an identity category including sexualities and gender identities that are outside heterosexual and binary gender categories" (Renn, 2010, p. 132) and as fluid.

Online learning. This term refers to the modality of teaching that is not face-to-face. Online learning is the process of teaching and learning within a virtual space (What Is Online Learning?,

2017). This often includes asynchronous tasks to be completed by a specific timeframe. Students engage in classroom activities at times that are most convenient for their schedules (Clark et al., 2015).

Open communication. One of the three categories of behavior that operationalize social presence. Open communication reflects the interactive and purposeful nature of the communication. Indicators of open communication are continuing a discussion thread, quoting from others' messages, asking questions, and getting feedback, complimenting, or expressing appreciation and expressing agreement (Kreigns et al., 2014).

Pansexual. A person who is attracted to people of any gender (Reczek, 2020).

Queer. An umbrella term for all others who claim a nonnormative, nonheterosexual identity (Mayo, 2017, Chapter 11, p. 296). “Typically, for those who identify as queer, the terms *lesbian*, *gay*, and *bisexual*, are perceived to be too limiting and/or fraught with cultural connotations they feel don’t apply to them (GLAAD Media Reference Guide, 2021).”

Self-disclosure. Self-disclosure is the process of making the self known to others (Jourard & Lasakow, 1958). In the context of the LGBTQ+ community, self-disclosure means an individual shares their sexual or gender identity with others. It is commonly referred to as coming out (Fox & Ralston, 2016). From a Community of Inquiry context, Garrison et al. (2000) believed that self-disclosure is an example of "emotional expression contributing to the development of social presence" (p. 100).

Sexual minority. A person whose sexual identity, attraction, or behavior does not align with heterosexuality; minority status reflects both a statistical minority and the reduced access to resources and power due to this status (Reczek, 2020).

Social Identity Theory. Social identity theory is a social psychological analysis of the role of self-conception in group membership, group processes, and intergroup relations. Social identity theory defines groups cognitively – in terms of people's self-conception as group members. It was first developed at the start of the 1970s by Henri Tajfel (Hogg, 2020).

Social presence. Social presence refers to the psychological experience and attributes of online environments. Being connected socially and emotionally with other human beings as "real people through the medium of communication being used (Garrison et al., 2000; Short & Christie, 1976).

Synchronous Instruction. Synchronous instruction exists when learners are present for the instruction simultaneously (Smaldino, 2005).

Transgender. A person whose gender identity is other than their sex assigned at birth or someone who takes a trans identity, including transwoman, transman, or transgender (Reczek, 2020).

Summary

Since the advent of distance education, scholars have wrestled with the way learners present themselves and interact with others in virtual environments (Garrison et al., 1999; Rourke et al., 1999; Short et al., 1976). Social presence and social identity are interconnected, multidimensional constructs that form the basis of social interaction within online learning spaces. Much research has gone into understanding social presence as interpreted through learners' perspectives (Lowenthal, 2010; So & Brush, 2008; Swan & Shih, 2005; Tu, 2002). The purpose of this single qualitative case study was to explore LGBTQ+ students' perceptions of social presence in online courses and their experiences related to self-disclosure of sexual and gender minority status. Learning is a social process that requires collaborative interaction

between instructors, students, and the content to construct knowledge, share ideas, and feel a sense of belonging (Hausfather, 1996; Meeuwisse et al., 2010). Social presence is a significant contributor to learners' cognitive, social, and emotional experiences within online learning environments (Garrison et al., 2003; Kehrwald, 2008). Nevertheless, the experiences of sexual and gender minorities in collaborative learning communities remain unexamined and warranted further exploration.

Chapter 2 presents the literature review related to the theoretical frameworks proposed for the study and a detailed exploration of related research topics; online identity management, LGBTQ+ identity, digital media, and inclusive classroom practices for LGBTQ+ students.

Chapter 2: Literature Review

The purpose of this single qualitative case study was to explore LGBTQ+ college students' perceptions of social presence in online courses and their experiences related to self-disclosure of sexual orientation and/or gender presentation in their online social identities. The research questions that guided this inquiry are:

RQ1. How do LGBTQ+ college students describe their perceptions of social presence and its indicators in online courses?

RQ1a. What are LGBTQ+ college students' self-perceptions of affective expression in online courses?

RQ1b. What are LGBTQ+ college students' self-perceptions of open communication in online courses?

RQ1c. What are LGBTQ+ college students' self-perceptions of group cohesion in online courses?

RQ2. What considerations inform LGBTQ+ college students' decisions about self-disclosure related to the socio-cultural dimensions of sexual orientation and/or gender expression of their online social identities?

RQ3. How do LGBTQ+ college students describe their perceived social identities in online courses?

RQ4. How do LGBTQ+ college students describe their experience of others' perceptions of their social identities in online courses?

A comprehensive review of existing literature examined research related to this phenomenon. These topics included social identity theory, stigmatized identities, and self-disclosure. Additionally, the literature related to how the Internet has facilitated social identity

exploration, experimentation, self-presentation, and social identity management. The chapter examines topics related to LGBTQ+ identity, digital media, and inclusive classroom practices for LGBTQ+ students.

Databases were used to access research articles for this study. The databases included searches in EBSCOhost, ProQuest, Taylor & Francis Online, and Google Scholar. Searches included the following research topics: affective expression, asynchronous, coming out, community of inquiry, distance education, distance learning, group cohesion, LGBT students, LGBTQ+ students, online education, online learning, online identity management, open communication, satisfaction, self-disclosure, social identity theory, social presence, and stigmatized social identities. The research strategy used for the study included searches for qualitative studies, quantitative studies, and peer-reviewed journal articles. Articles were identified and accessed through the University of Arkansas library databases. Articles were downloaded and organized using Mendeley software. Books from my digital and physical libraries were also used.

Community of Inquiry

The CoI model recognizes the importance of the online environment in shaping the educational experience. The CoI is a collaborative environment based upon open and purposeful communication by the community of learners (Garrison, 2009). CoI theory was a natural selection for this study because participants' perceptions of social presence, one of the framework's essential constructs, are central to the first research question guiding the study. SIT was developed to describe how individuals create and define their self-concept based on group membership, group processes, and intergroup relations (Hogg et al., 1995). SIT aligned with the guiding research questions of the study exploring how LGBTQ+ college students project and

manage their identity through selective self-disclosure in an online learning space. Both theoretical frameworks seek to understand the motivations and factors influencing individuals who disclose different versions of their identities based upon group context.

The CoI theoretical framework informs research and practice in online education (Garrison & Arbaugh, 2007). CoI is influenced by John Dewey's collaborative-constructivist approach to teaching. Dewey believed that the process of inquiry was dependent on the formation of a learning community (Swan et al., 2009). He viewed inquiry as a social activity where students constructed and confirmed meaning. Within the CoI theoretical framework, the instructor and learners create meaningful knowledge construction and sharing through communication and collaboration in the online learning environment.

The CoI framework distinguishes between learning in a face-to-face classroom, where synchronous communication occurs, and an asynchronous online environment that relies heavily on text-based communication, where social and visual cues are absent. The theory's overall objective was to invoke a curious nature in the student to explore and investigate learning through interaction (Garrison et al., 2010). The community of inquiry theory assumes that student satisfaction with online learning requires developing a community that supports meaningful inquiry and deep learning. An online course based on the community of inquiry should provide learners ample opportunities to communicate, interact, collaboratively construct knowledge, and foster a sense of connection and belonging (Garrison & Arbaugh; 2007; Shea & Bidjerano, 2009; Stodel et al., 2006). The CoI theoretical framework represents a process of creating a deep and meaningful learning experience by developing three interdependent components: cognitive presence, teaching presence, and social presence (Akyol & Garrison, 2011; Garrison et al., 2000). According to Garrison, Anderson, and Archer (2003), these three

elements are essential to a successful online learning experience. The overlapping and intersecting constructs of cognitive presence, teaching presence, and social presence are shown in Figure 1.

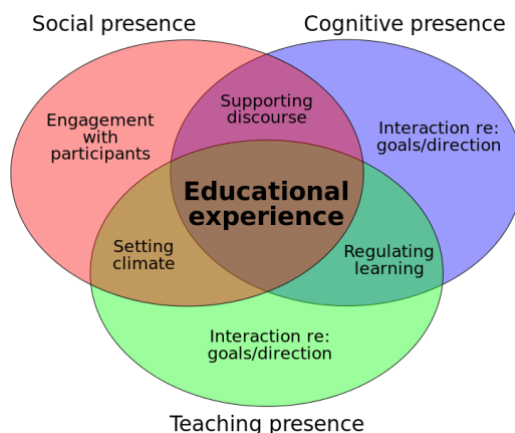


Figure 1. The Community of Inquiry Model. Used with permission. Matbury, CC BY-SA 3.0, via Wikimedia Commons.

Cognitive Presence

Garrison et al. (2001) described cognitive presence "as the extent to which learners are able to construct and confirm meaning through sustained reflection and discourse in a critical community of inquiry" (p. 11). Cognitive presence manifests itself by critical thinking, collaborative problem-solving, and the construction of meaning through student-to-student and student-to-teacher interactions. Cognitive presence is considered a social-constructivist process involving a shortened version of Dewey's (1933) cycle of practical inquiry (Whiteside et al., 2017). Cognitive presence is a process of inquiry that involves thinking, listening, and expressing thoughts in the process of critical inquiry (Garrison, 2017). The concept of critical inquiry based on Dewey's model is operationalized into four phases: a triggering event, exploration, integration, and resolution (Darabai et al., 2011). Within the context of online learning, the learners identify a triggering event and explore it individually and socially to generate ideas.

Next, learners construct meaning from the ideas developed in the exploratory phase and reflect on outcomes to accomplish the integration of the ideas. Evidence is inferred from communication among learners. In the resolution phase, learners take action to create solutions for the triggering event or problem (Garrison et al., 2001). When students understand the critical inquiry process and what is required at each phase, they demonstrate the skills necessary to progress through each phase to resolution (Cleveland-Innes et al., 2019).

Teaching Presence

Teaching presence, characterized by course design, course facilitation, and directing cognitive and social processes for worthwhile learning outcomes (Garrison et al., 2001). According to Cleveland-Innes et al. (2019), teaching presence ensures identifying relevant societal knowledge, designing experiences that promote reflection and discussion, and diagnosing and assessing learning outcomes. The functions of teaching presence fall into three instructional categories: the design and organization of instruction, the facilitation of discourse, and direct instruction. Activities in the design and organization include building curriculum materials like learning objects, repurposing materials like lecture notes and mini-lectures. Additionally, the category consists of the right mix of group and individual activities and the overall design of the course. Facilitating discourse involves the teacher reading and commenting on student posts. The final category involves teachers sharing their subject matter expertise with students, providing scholarly leadership, and providing scaffolding for their learning (Anderson et al., 2001).

Social Presence

According to online educational researchers, social presence is often described as the ability of the student to project their identity both socially and emotionally in an online

environment, so they are perceived as "real" (Akyol & Garrison, 2008; Rourke et al., 2001). Research on social presence continues to grow. However, educational researchers have yet to reach a unified definition for the construct (Lowenthal & Snelson, 2017). CoI research views social presence from a dual approach "in terms of communication behaviors and the perceptions of participants in online discussions" (Whiteside et al., 2017, p. 65). A common misconception is that social presence supports learner engagement for purely social purposes. While having a sense of belonging is critical, social presence contributes to a learning environment that helps learners question, express, and contribute to ideas (Cleveland-Inness et al., 2019). In the CoI framework, social presence is operationalized in three broad categories and indicators of each category (Rourke et al., 2001). The categories derived from the research are affective communication, group cohesion, and open communication. Each category, along with its indicators, will be explored at length later in the chapter.

Past researchers have explored each of the constructs (cognitive presence, teaching presence, and social presence) separately using the CoI theoretical framework (Akyol et al., 2011; Annad, 2011; Harmon et al., 2002; Rourke et al., 1999; Shea & Bidjerano, 2009). Other researchers have examined social presence using different frameworks like social presence theory (Biocca et al., 2003, Gunawardena, 1995), social presence model (Whiteside, 2007, 2015), and the social information processing theory (Ramirez et al., 2002; Walther, 1996). However, the bulk of the research on social presence continues to be conducted utilizing the CoI framework (Diaz et al., 2010, Lowenthal, 2009; Swan, 2019).

Educational researchers in the CoI framework have taken a dual approach to understanding social presence in terms of communication behaviors and participant perceptions (Whiteside et al., 2017). According to Swan and Shih (2005), social presence refers to "the

degree to which participants in computer-mediated communication feel affectively connected one to another" (p. 115). Social presence is an essential construct for understanding how learners project their social identity in an online learning environment and the degree of connection and belonging they feel with others in the group (Lowenthal & Dennen, 2017; Phirangee & Malec, 2017). For this study, a review of prior research will provide an understanding of the significance of social presence in online learning environments.

Communication Behaviors of Social Presence. Short, Williams, and Christie (1976) conceptualized the term social presence to understand the influence of technology on how individuals communicate in task-oriented business communications. They believed that the quality of some media was better at allowing individuals to be perceived as "real people" through the conveyance of subtle visual or vocal cues than other media. The concept became more critical with the growth of online learning that employed text-based communication in online discussions. However, researchers began questioning Short et al.'s understanding of social presence based upon the choice of media. Researchers began to view social presence through student perceptions of the construct as an objective quality of the medium (Gunawardena & Zittle, 1997; Richardson & Swan, 2003).

Furthermore, Rourke, Anderson, Garrison, and Archer (1999) described social presence as the learner's ability to position themselves in a group of people with shared goals. Social presence was defined as the participants' ability to project themselves both socially and emotionally (Garrison et al., 2000). Researchers began linking social presence to course retention (Boston et al., 2009), student satisfaction (Gunawardena & Zittle, 1997; Richardson & Swan, 2003) and perceived learning (Richardson & Swan, 2003; Caspi & Blau, 2008; So & Brush, 2008).

Categories of Social Presence. Past research related to social presence had focused primarily on the communication behaviors through content analysis of discussion boards in online classes (Rourke et al., 2001; Swan, 2002). Through content analysis, three categories of social presence indicators emerged within the CoI framework due to the work of Garrison et al. (2000), Rourke et al. (2001) and Swan (2002). According to Garrison et al. (2000), social presence was grouped into the categories of emotional (affective) expression, open communication, and group cohesion. These categories were refined by applying indicators from the literature and transcript analysis of online discussions (Lowenthal & Dunlap, 2014). Rourke et al. (2001) developed specific indicators of social presence to code examples of social presence in online discussions. Other researchers built upon Rourke and his colleagues' indicators of social presence (Swan, 2003; Hughes et al., 2007). According to Swan & Richardson (2017), students work to achieve social presence through affective expression (emotion, value, humor, and self-disclosure), group cohesion (group references, social sharing, and course reflection), and open communication (acknowledgment, agreement-disagreement, and approval). Each of these categories, used to operationalize social presence, is examined in greater detail.

Affective expression. Affective or emotional expression reflects the socio-emotional components of communication to form interpersonal relationships (Kreijns et al., 2014). Affective expressions occur in interpersonal communications and include indications of emotion, feeling, or mood. Using humor (teasing, irony, sarcasm), emotion (use of emoticons, conspicuous capitalization), and self-disclosure (expressing details of personal life, expressing vulnerability) serve as indicators of affective expression (Kreijns et al., 2014; Rourke et al. 1999). When visual or oral cues are absent in online learning environments, learners must use

emoticons or parentheticals to express humor, emotions and project their self-identity (Arbaugh et al., 2010; Derks et al., 2008).

As an affective expression indicator, self-disclosure provides another opportunity to establish a connection between instructor and students and students with their classmates. Sharing personal experiences that reveal attitudes or interests helps cultivate a learning environment where learners want to share (Garrison et al., 2000; Swan 2002). Self-disclosure allows the student to communicate aspects of their personality to others in their group. Furthermore, learners reveal characteristics of their online identities through their choice of topics and how the emotions they convey to others in online discussion boards and other collaborative activities. For example, ice breaker activities at the beginning of online courses allow students to reveal personal information about their life related to their families, interests, and hobbies. Activities like these are where LGBTQ+ students must decide how much information to disclose related to their sexual orientation and gender identity.

Group Cohesion. Group cohesion refers to online activities that reflect the group's shared social identity and produce feelings of connection or belonging among participants (Kreigns et al., 2014). Group cohesion has also been referred to as a sense of solidarity with group members and is significantly vital in group dynamics. Successfully cohesive groups are cooperative and share a standard model when completing group tasks (Yoon & Leem, 2021). Group cohesion is achieved when learners identify with the group and perceive themselves as part of the online learning community (Cleveland-Innes et al., 2019). Within the CoI framework, group cohesion allows learners to project their personalities through text-based communication and encourages sustained discourse (Garrison et al., 2010). Indicators of group cohesion involve addressing participants by name, using inclusive pronouns (we, our group, us), social sharing, and self-

reflection (Kreigns et al., 2014; Rourke et al., 1999; Swan, 2003). A cohesive learning community increases the capacity for collaboration, the sharing of meaning, and the quality of learning (Cleveland-Innes et al., 2019).

Additionally, a cohesive community encourages participants to share personal meaning (Garrison et al., 2000). Group cohesion allows learners to develop interpersonal relationships with their peers by using proper names and fostering a sense of belonging. A sense of belonging to a community is an essential factor in openness and well-being among LGBTQ+ students (Vaccaro & Newman, 2016).

Open Communication. Open communication is the degree of comfort in interacting with others. Open communication reflects "the interactive and purposeful nature of the communication" (Kreijns et al., 2014, p. 8). The operationalization of open communication within the CoI includes continuing a thread in a discussion board, quoting from the messages of others, and communicating appreciation. Critical indicators of open communication are acknowledgment, expressing agreement, expressing approval, complimenting, and asking questions (Rourke et al., 1999). Open communication is characterized by reciprocal and respectful exchanges with classmates and the instructor in discussion board threads (Garrison et al., 2000).

Participant Perceptions of Social Presence. Other researchers examined the participants' perceptions of social presence in online discussions (Arbaugh et al., 2008). According to Tu and McIsaac (2002), social presence refers to "the feeling, perception, and reaction of being connected" (p. 140). According to Picciano (2002), social presence centers around the learners' sense of being and belonging in a course. Kehrwald (2008) argued that an individual's sense of belonging and being part of a group allowed them to overcome barriers to

social presence like loneliness and isolation. Other researchers have argued that social presence has decreased feelings of isolation (Clark et al., 2015; Cunningham, 2015) and increase feelings of belongingness (Kozan & Richardson, 2014).

The construct of social presence involves how learners represent themselves in online learning environments and their perceptions of connectedness to others. Plante and Asselin (2014) described that the absence of visual social cues and direct communication as significant barriers to perceiving social presence in asynchronous online learning. Overcoming these barriers often involves the members of the learning community sharing personal experiences and information through self-disclosure. According to Garrison et al. (2000), self-disclosure is an example of emotional expression contributing to social presence. Projecting an online identity requires the learner to share personal information during discussions and communication with classmates and the instructor. Learner participation in collaborative discussion activities aids in creating the perception of the learner's social identity (Kreijns et al., 2014).

Self-Disclosure

Self-disclosure is the process of making the self known to others (Jourard & Lasakow, 1958). The self-disclosure of personal information related to an individual's sexual, or gender identity is highly significant to LGBTQ+ learners in online learning environments. Often LGBTQ+ students lack the social and visual cues in these settings to recognize if it is safe to openly discuss or share information about their sexuality or gender identity unless the course instructor explicitly mentions it. Being open about their identities might expose them to negative social behaviors like criticism, ostracism, or ridicule from their classmates or teacher. Therefore, LGBTQ+ learners may be less likely to share personal details related to their sexual or gender identities if they are uncertain of the reactions of others in the group. This uncertainty may shape

their perceptions of social presence. Kear et al. (2014) state that the perception of the absence of social presence is often associated with feelings of isolation due to a lack of authentic social connections with others. According to Miller et al. (2021), LGBTQ+ students have been shown to have higher levels of depression and isolation in online environments.

Other research has discussed the challenges of creating, maintaining, and perceiving social presence in the online environment (Whiteside et al., 2017; Swan & Shih, 2005). Online instructors create and maintain most social presence in online learning environments (Thomas et al., 2017). Strong interpersonal communication, norms, values, self-identity, and social behavior influence how individuals enter and participate in collaborative online experiences. In the online environment, the structure of social support occurs through communication that builds social presence.

Previous researchers have examined social presence within the contexts of perceived learning (Swan & Shih, 2005), satisfaction (Richardson & Swan, 2003; Akyol et al., 2009), higher academic performance (Joksimović et al., 2015; Zhan & Mei, 2013), retention (Boston et al., 2009), and interactions. Despite the vast amount of research that exists, there are many gaps related to social presence that remain unexplored. Current research does not explicitly address LGBTQ+ learners' experience with social presence within the CoI theoretical framework. Researchers have not investigated how LGBTQ+ college students present their social identities in online learning environments without social and visual cues. Furthermore, LGBTQ+ students may use selective self-disclosure regarding what parts of their sexual or gender identities they share with classmates and instructors in online learning environments. The decision to self-disclose is shaped by perceived acceptance, context, and varying degrees of individual outness, making it very complex and challenging to examine (Sabat et al., 2014).

This study used the community of inquiry as the basis for one of its two theoretical frameworks (along with social identity theory) to explore LGBTQ+ students' perceptions of the construct of social presence within an online learning environment. There is a gap in the research related to LGBTQ+ college students in online learning environments. The examination of social presence within the CoI framework allowed for the exploration of LGBTQ+ students' experiences in online learning environments. LGBTQ+ students often face decisions regarding self-disclosure of their sexual and gender identities in various social contexts. Online learning environments lack various communication cues found in face-to-face classrooms further complicating their choice. Their uncertainty may shape their perceptions of social presence and warrants further exploration.

Social Identity

According to Kakarika (2012), SIT "offers richer explanations of individual behavior in diverse contexts, examining one's need to identify with a social group" (p. 496). SIT is described as a social psychological theory of the role of self-conception in group membership, group processes, and intergroup relations (Hogg, 2020; Hogg et al., 1995). The concept originated with the early work of British social psychologist Henri Tajfel on social factors in perception and intergroup conflicts and discrimination. Tajfel's experiences as a Jewish prisoner of war during the Holocaust influenced his early research interests in categorization, focusing on stereotyping and prejudice (Ispas, 2013; 2012). According to Hogg et al. (2004), the goal of Tajfel's research was to explain prejudice, discrimination, and intergroup conflict without relying on an individual's personality or individual differences. Tajfel sought to avoid reducing large-scale phenomena to an aggregate or individual process.

Tajfel conducted a series of studies in the early 1970s referred to as "minimal group studies" that later became a methodology in social psychology to examine the minimum conditions necessary for discrimination to occur between groups (Reicher et al., 2010). These studies later became among the most famous in social psychology and laid the groundwork for Tajfel's SIT's motivational explanation for intergroup behavior. Tajfel later collaborated with John Turner to fully formalize the theory in the mid to late 1970s (Hogg, 2020; Tajfel, 1974; Tajfel, 1982; Tajfel et al., 1979). Tajfel and Turner's work around SIT has provided the foundational basis for much of the social psychology research conducted over the past forty years.

Tajfel defined social identity as "the individual's knowledge that he belongs to certain social groups together with some emotional and value of significance to him and the group membership" (Tajfel 1972a, as cited in Abrams & Hogg, 1990, p. 7). In other words, an individual's social identity is derived from their membership in various social groups or categories. Turner referred to social groups as "two or more individuals who share a common social identification of themselves or, which is nearly the same thing, perceive themselves members of the same social category" (Turner 1982, as cited by Abrams & Hogg, 1990. p. 7). Social identity is formed through the individual's self-concept based on their membership in similar social groups like race, religions, nationalities, occupations, sexual orientation, and gender (Brewer & Pierce, 2005; Miller et al., 2004). The individual's self-concept is formed through various social group memberships during different stages in their life and the salience of the group to the individual. According to Ridings & Gefen (2004), motivation for joining face-to-face groups can be extended to membership in online communities as well.

Three Components of Social Identity

Three components contribute to an individual's social identity: self-categorization, social comparison, and affective commitment. Self-categorization serves as a cognitive component that refers to an individual's awareness of their membership in a social group. Social comparison refers to the evaluative component where the individual associates a positive or negative value to group membership. Social comparison is sometimes referred to as group self-esteem. Affective commitment acts as the third component in social identity. Affective commitment is commonly referred to as the emotional component due to an individual's sense of emotional involvement with a group (Bergami & Bagozzi, 2000; Ellemers et al., 1999).

Self-categorization. Self-categorization allows individuals to classify themselves in relation to social categories (Stets & Burke, 2000). According to Hogg (2020), the categorization process is often a binary choice of belonging to a group (being a member of an in-group) or not belonging to a group (being an out-group member). The individual perceives similarities in attitudes, beliefs, and behavioral norms between themselves and other members of the in-group. Individuals organize people into categories that are similar or different from themselves to understand their social environment. Self-identification with a social category allows the individual to make salient group information like attitudes and rules that guide group behavior (Stets & Burke, 2000).

According to Hogg and Abrams (1988), an individual's self-concept is primarily made up of self-descriptions in terms of the defining characteristics of the social groups to which one belongs. These self-descriptions are often spontaneous in nature, with an individuals' self-categorization and self-description affected by the comparative context they occur (Rhee et al.,

1995; Bettencourt & Hume, 1999). Therefore, social identities are fluid and vary depending on the social context (Onorato & Turner, 2004).

Social Comparison. Social comparison occurs when an individual labels people who are like them as the in-group and people who differ from the individual as the out-group. Social identity is partially defined by comparison to out-groups. An individual's self-esteem and belonging are enhanced by positively labeling the in-group and members of the out-group. Individuals with high collective self-esteem are more likely to enhance their in-group, while individuals with low collective self-esteem are more likely to denigrate their out-groups (Long & Spears, 1997).

Additionally, group members will attempt to elevate the status of their social group to boost their self-esteem and self-image. Luhtanen and Crocker (1992) distinguish between personal self-esteem and collective self-esteem. Personal self-esteem is based on an individual's evaluation of skills and attributes that make up their personal identity (Aviram & Rosenfeld, 2002). Collective self-esteem refers to an individual's subjective self-assessment of a portion of their self-concept based on their membership in various social groups.

Individuals may criticize or demean members outside their social group using prejudiced stereotypes or discriminatory language. Social comparison can lead to exaggeration where the individual may overstate similarities and differences between in-groups and out-groups. An individual's collective self-esteem in social group membership is contingent upon the positive or negative evaluation of the group compared to other groups.

Affective Commitment. Affective commitment refers to an individual's emotional responses to one's membership in a social group (Bergami & Bagozzi, 2000; Ellemers et al., 1999). According to SIT, individuals classify themselves to different social groups to define and

contextualize their identity within a given social environment (Tajfel & Turner 1979, as cited in Hogg & Turner, 1985). Individuals are motivated to maintain and build their self-esteem by identifying with groups who are perceived by society positively. Therefore, they develop a sense of emotional involvement with their identified social groups (Ellemers et al., 1999). Due to the emotional component of social identity, an individual develops loyalty and citizenship behaviors in group settings (Bergami & Bagozzi, 2000). A person is likely to feel more emotionally involved with groups that contribute more to their positive social identity and may be inclined to hide their membership or distance themselves from less socially accepted or stigmatized groups. For example, a gay student who is not "out" to his classmates or instructors may try to hide or camouflage his group membership that makes up this aspect of his social identity.

However, suppose an individual's distinct social group is sufficiently important. In that case, people may exhibit signs of strong emotional involvement while acknowledging or even emphasizing the perceived negative characteristics of the group (Mlicki & Ellemers, 1996, as cited in Ellemers et al., 1999, p. 373). In the previous example, if the student feels a strong emotional connection to his gay social-group identity, he may be socially "out" and acknowledge his sexual identity to his classmates in the classroom environment.

Social Identity and Personal Identity

According to SIT, individuals define themselves in terms of their memberships to social groups. Both social and personal identity are viewed through the perceptions of others with whom the individual interacts (McClean & Syed, 2014; 2015). However, social identity should not be confused with personal identity. Erikson (1968) bases his definition of personal identity on two simultaneous observations "the perception of the selfsameness and continuity of one's existence in time and space and the perception of the fact that others recognize one's sameness

and continuity" (Erikson, 1968, as cited in McClean & Syed, 2014; 2015, p.116). Individual personal identity development occurs through the individual's interaction with society at large. The individual shares personal information about themselves with others by socially interacting. SIT proposes that there is a social component to identity in addition to an individual's personality attributes. Social identity is simultaneously individual and social. Individuals have as many personal identities and social identities as there are groups (Reicher et al., 2010). For example, an individual who identifies as a heterosexual, cisgender male defines his personal identity and has memberships in groups with other individuals who identify in the same sexual orientation and birth sex groups. Memberships like these cannot be reduced to a person's individuality. Sexuality and gender have historical and cultural contextual identities as well. However, the concept of social identity provides "a bridge between the individual and the social and how it allows one to explain how socio-cultural realities can regulate the behaviors of the individual" (Reicher et al., 2010, p. 50).

Stigma and Social Identity

According to Goffman (1963), the term stigma describes an individual who is disqualified from full social acceptance. Individuals are often stigmatized because of characteristics that set them apart from others and which designate them in some sense inferior (Crabtree et al., 2010). Stigmatization is routinely manifested through negative attitudes, exclusion, and discrimination towards individuals belonging to a stigmatized social group. SIT proposes that an individual's self-evaluation and collective self-esteem depends on how the group they belong to is perceived by society and their ability to leave a stigmatized group if they wish by potentially hiding their membership (Tajfel & Turner, 1986, as cited in Abrams and Hogg, 1988). In contemporary society, individuals who belong to social groups like ethnic

minorities, LGBTQ+, the mentally ill, and those with learning disabilities are routinely stigmatized (Crocker et al., 1999).

Members of stigmatized groups often suffer from the devaluation of social identity, prejudice, and discrimination against their stigmatized group (Crocker et al. 1999; Heatherton et al., 2000, as cited in Rags, 2008). Additionally, individuals in stigmatized groups often suffer from lower levels of satisfaction and collective self-esteem due to group membership contributing directly to individual self-identity (Hogg & Abrams, 1988; Jetten et al., 2001; Leyens et al., 2000). However, SIT seems to imply that collective self-esteem issues can be addressed through mental health treatment that promotes a collective identity (Aviram & Rosenfeld, 2002).

Visible Stigmatized Identities

Social groups with visible stigmas are described as having no permeability, meaning that individuals cannot hide their membership or claim membership in another group (Ellemers et al., 1990; Jackson et al., 2016). An individual may be able to hide their social identity based on their religion or political views. However, it is much more difficult for an individual to hide attributes like gender or race. According to researchers in SIT, individuals who cannot conceal group membership will suffer from internalized stigmatization (Latner et al., 2005). Stigmas play a significant role in shaping a stigmatized individual's identity and influence their cognition, emotions, and behaviors (Phelan et al., 2008; Miller & Kaiser, 2001).

Invisible Stigmatized Identities

Other members belonging to stigmatized groups have invisible stigmatized identities (Rags, 2008). Individuals with invisible stigmatized identities include members of the LGBTQ+ community, lower socioeconomic classes, ambiguous biracial identities, and different

religions. Other individuals suffer from invisible stigmatized disabilities like alcoholism, drug abuse, cancer, or mental illness (McNeil, 2000, as cited in Ragins, 2008). Persons with invisible stigmatized identities use various strategies to manage their stigmatized identities. For example, gays, lesbians, and bisexuals may use counterfeiting or an attempt to pass as heterosexual. They may use avoidance to evade the issue of sexuality through self-editing, censoring, or half-truths. This requires these individuals to remain socially distant and avoid discussing any aspects of their personal lives. Finally, they may use an integration strategy of managed self-disclosure to openly disclose their stigmatized identity to certain members of their group (Ragins et al., 2007; Woods, 1994, as cited in Ragins, 2008).

Challenges and Benefits of Self-disclosure

Identity plays a significant role in the decision to self-disclose (Chaudoir et al., 2010; Greene et al., 2006; Phillips et al., 2009). According to Jourard and Lasakow (1958), self-disclosure is the process of making the self known to others. Social science researchers consider self-disclosure a social exchange process where the individual evaluates the cost and benefit of sharing information with others (Worthy et al., 1969, as cited in Ragins, 2008). According to Greene et al. (2006), self-disclosure "plays an important role in validating self-worth, and personal identity" (p. 409). Researchers have examined the dimension of self-disclosure ranging from non-disclosure, where the individual refuses to share any detail of their stigmatized identity, to full disclosure, where the person shares intimate details about their life and personality (Daskalopoulou et al., 2017; Ragins et al., 2007).

Individuals with invisible stigmas face several of the same challenges as prejudice and discrimination related to their stigmatized identity as those with visible stigmas (Crocker, 1999; Ragins et al., 2007; Ragins, 2008). However, persons with invisible stigmas often confront issues

that are unique to their stigmatized identities. As was previously mentioned, individuals of this group face the decision whether to disclose information about their stigmatized identity to others in their social groups (Ragins et al., 2007). The decision to self-disclose is often accompanied by feelings of fear, guilt, and concerns about rejection for the stigmatized individual. An additional challenge that complicates disclosure is that individuals with an invisible stigma are usually not perceived as different. Often, individuals attempt to pass or appear "normal" within the social group context (Ragins, 2008). Individuals often lack control over the disclosure process, bringing about anxiety and uncertainty (Ragins et al., 2007). For example, a gay man who has concealed his sexual identity at work may run the risk of being "outed" if a coworker sees him with his partner at a public event. Another difference that distinguishes visible from invisible stigmas is the impact disclosure may have on different relationships within the individual's social groups (Ragins, 2008). Friends, family, and classmates may feel uncomfortable or threatened around the individual once disclosure has occurred. A person may be verbally harassed, socially isolated, or even risk physical assault (Clair et al., 2005).

However, other researchers have shown positive aspects related to disclosure (Clair et al., 2005; Ragins et al., 2007; Woods, 1994, as cited in Ragins et al., 2007). Some individuals may feel a sense of relief for no longer needing to conceal their stigma or project their false identity. Other benefits include closer inter-personal relationships and increased self-esteem (Lee et al., 2019). Other researchers have found a reduction of role stress in persons associated with hiding a stigmatized identity or managing different identities in different contexts, both in face-to-face and online environments (Clair et al., 2005; Mesch, 2012). Self-disclosure allows individuals of the same stigmatized social group to identify and associate with each other online and face-to-face (Joinson et al., 2010; Nguyen et al., 2012; Strand et al., 2020). Persons belonging to the

same social group can share resources, support, and advocacy (Ragins, 2008; Batson et al., 2002, Pasek et al., 2017, Thacker et al., 2018). For example, during the AIDS epidemic of the 1980s and early 1990s, members of the gay community in the United States organized different advocacy groups like ACT UP to protest the federal government's slow response to the epidemic and outright discrimination against patients from healthcare providers (Gould, 2002; 2009).

The decision to disclose a stigmatized identity, like an individual's sexual orientation, is a complex process often dependent on an individual's environmental support (Ragins et al., 2007).

Three primary sources of environmental support for disclosure include:

- the presence of other persons who have successfully disclosed their stigma,
- the presence of supportive relationship with individuals who are not members of the stigmatized group, and
- institutional support that offers protection and support for the stigmatized individual (Ragins et al., 2007; Ragins, 2008).

These sources provide social, instrumental, and symbolic support.

The presence of persons who have successfully disclosed their stigma lends affirmation, empathy, and acceptance to those contemplating disclosure (Ragins, 2008). For example, LGBTQ+ youth have used online forums to connect to peers who have successfully navigated coming out (Craig & McInroy, 2014). According to Frable (1997), gay men who had other gay friends reported high self-esteem, well-being, and low distress. The presence of similar others had a more substantial impact on the self-esteem and emotions of individuals with invisible stigmas than those with visible stigmas.

Supporters and allies provide a second source of environmental support for individuals contemplating self-disclosure (Ragins, 2008). Support for disclosure can come from family

members, friends, coworkers, supervisors, classmates, and instructors. Ally relationships are supportive relationships that advocated for stigmatized groups and their members. They take a public role in advocating for the rights of the stigmatized group (Ragins, 2008). Colleges and universities offer Safe Zone ally training for faculty and staff to support LGBTQ+ students on campus related to inclusive pedagogical practices and the normalization of chosen names and pronoun usage (Kilgo, 2020). Ji et al. (2009) examined a college academic course that prepares heterosexual students to be allies to the LGBT communities. By supporting the group and the individual, partners support those who may or may not have disclosed their stigmatized identity (Ragins, 2008). These relationships provide social support and acceptance for the stigmatized group and individuals contemplating self-disclosure.

A significant source of support for disclosing stigmatized identities comes from institutions that possess climates, practices, and policies that support the stigmatized group and individuals belonging to the group (Ragins, 2008; Kilgo, 2020). Institutional support may be symbolic or instrumental. Symbolic forms of institutional support include community-sponsored gay pride festivals and hosting meetings about issues important to the stigmatized group. Colleges and universities may host gay pride events and or have sexual orientation and gender identities in their definition of diversity. Instrumental support involves actions aimed at protecting and supporting the stigmatized population (Ragins, 2008). Colleges and universities have policies and protections against discrimination against stigmatized people that promote an inclusive campus climate (Cuyjet et al., 2011; Kilgo, 2020; Wimberly, 2015). The inclusion of safe spaces in online learning to combat marginalization and promote open communication has become significant with the explosive growth of online learning (Brown, 2011). Yet, there is a lack of formal research related to how safe spaces can be incorporated into online learning and

their value for members of stigmatized groups. Several studies have examined how institutional support facilitates disclosure among LGBTQ+ individuals (Garvey et al., 2019; Ragins, 2008). Organizations that offer institutional support validate and protect stigmatized individuals through the self-disclosure process by engendering trust and safety through their policies and climate (Ragins, 2008; Cuyjet et al., 2012; Kilgo, 2020; Wimberly, 2015).

The Internet and Social Identity

Internet-based technologies and social media sites have provided new avenues for developing social identity (Code & Zaparyniuk, 2010; Harrison & Thomas, 2009; Miller et al., 2009). The anonymity that the Internet provides allows identity exploration and experimentation, self-presentation, and self-categorization with groups of individuals with shared values, interests, and beliefs. Social identities are fluid, social contextually dependent, and often negotiated by the individual (Code & Zaparyniuk, 2010; Onorato & Turner, 2004). The Internet allows individuals to develop and present multiple social identities and experiment with new virtual ones. The social identity presented and perceived in online environments may not reflect the individual's social identity in face-to-face settings (Code & Zaparyniuk, 2010, Slater, 2002). An individual's social identities evolve from within social groups. Social media networks allow for the facilitation of comparison between similar and different individuals within groups (Stoddart & Tindall, 2010). The Internet provides relative anonymity, selective disclosure, and ease of searching for individuals in social groups who match shared traits and interests than face-to-face communication (Bargh & McKenna, 2004; McKenna et al., 2002; Walther, 2007, as cited in Code & Zaparyniuk, 2010, p. 1347). Researchers have also examined how the anonymity the Internet provides individuals may strengthen an individual's sense of identity within mediated online groups (Postmes et al., 2001). Members of online groups may develop a social identity

created from social connections that individuals establish with other members entirely online (Bagozzi et al., 2007; Code & Zaparyniuk, 2010; Thomas et al, 2016).

Internet-based communication technologies extend social contexts where individuals can interact (Code & Zaparyniuk, 2010). Social networks and Internet messaging allows the individual to identify themselves through various social group contexts. According to Jenkins (2004), social identification is a product of an individual's internal-external dialectic processes (Code & Zaparyniuk, 2010). A nominal identity is a label an individual provides themselves with, while a virtual identity is the experience of the nominal identity. For example, a student may consider themselves quiet and shy in face-to-face classes (nominal identity). Yet, in an online course, they may present themselves as loud and outgoing (virtual identity) (Code & Zaparyniuk, 2010). This is a form of social identity experimentation.

The Internet plays an essential role in social identity formation and development because it allows individuals to "try on" different social identities in environments they perceive as safe (Code & Zaparyniuk, 2010; Jans et al., 2011). 3D online gaming, social networks, and online chat allow individuals multiple opportunities for social identity experimentation. There are many motivations for identity experimentation (Code & Zaparyniuk, 2010). An individual may wish to explore how others react (self-exploration), overcome shyness (social compensation), facilitate relationship formation (social facilitation). Wang and Bagaka (2002) investigated the dimensions of self-exploration of college students in web-based learning environments. Other researchers have explored college student's social compensation in online dating (Poley & Luo, 2012). Social facilitation has been examined in research through college students' use of web-based learning activities to generate explanations about a critical concept taught in a face-to-face classroom (Hayashi., 2020).

Self-presentation is an individual's projection of their self-concept in the social world (Valkenburg & Peter, 2011). People can alter their persona to match a social audience and setting and have as many versions of their social "selves" as there are situations. One of the many challenges of online communication is that an individual may misrepresent their identity. Multiple research studies have examined this in online dating and personals (Ellison et al., 2012; Gibbs et al., 2006; Toma & Hancock, 2010). Other social psychology researchers have investigated how individuals present themselves on social media sites like Facebook and Instagram (Chua & Chang, 2016; Djafarova & Trofimenko, 2019; Hogan, 2010; Seidman, 2013). Self-presentation has been explored through graduate students' self-introductions in online courses (Meskill & Sadykova, 2007). Students self-presented either through their academic status and as professionals of some kind.

College Students and Social Identity

Most relevant research studies related to SIT have focused on racial and ethnic minorities, gender identity, and homosexuality (Mingfang & Qi, 2018). However, there is a gap in the research related to LGBTQ+ college students' social identities in the context of online learning. There have been a few studies that specifically focused on college students and social identity. Yujong (2010, as cited in Mingfang & Qi, 2018) investigated an individual's social and self-identities as significant determinants for developing affective commitment and intrinsic motivation in a technology-mediated learning environment. Non-Hispanic White, African American, and Hispanic/Latino university students were examined using SIT and multicultural theory to investigate their ethnic identity and levels of ethnocentrism (Negy et al., 2003, as cited in Mingfang & Qi, 2018). Past researchers have found that college students have experienced a social identity crisis or dilemma. The problem is often related to society, school, family, or the

students themselves (Li & Liu, 2010, as cited in Mingfang & Qi, 2018; Ying & Tang, 2016, as cited in Mingfang & Qi, 2018). The Internet negatively influenced college students' self-esteem and their sense of life (Ye, 2015, as cited in Mingfang & Qi, 2018).

Other researchers have explored the relationship between college students' life satisfaction and social identity. Social identity of college students positively correlates with their well-being (Li Fenglan et al., 2011, as cited in Mingfang & Qi, 2018). Personal identity and collective identity have been shown to relieve stress among college students (Chen & Jia, 2012, as cited in Mingfang & Qi, 2018). Little research has examined the learning performance of college students and social identity. College students with good grades were found to have a high degree of personal identity (He Liya, 2017, as cited in Mingfang & Qi, 2018). Online learning performance and life satisfaction positively affect college students' social identities (Mingfang & Qi, 2018).

Online Identity Management

The Internet, social media sites, and mobile applications (apps) have served as conduits for identity exploration, identity experimentation, and self-presentation (Code & Zaparyniuk, 2010; Jensen Schau & Gilly, 2003; Leung, 2011). Around 50% of the world's 3.80 billion population use some form of social media, and more than 5.19 billion people globally use mobile phones regularly (Adjei et al., 2020). The use of mobile messaging apps, social networks, and Internet message boards has extended an individual's multiple social identities. For example, a professor can identify themselves as teachers, parents, friends, and colleagues on Facebook, allowing them to adopt different roles and adapt to various social contexts (Code & Zaparyniuk, 2010). Social media promotes interaction outside of traditional face-to-face settings and creates a

significant number of identity management and access burdens like identity security and privacy for users (Adjei et al., 2020; McConnell et al., 2018).

Context collapse refers to the flattening of multiple audiences into a single homogenous context on social media (Brandtzaeg & Lüders, 2018; Marwick & Boyd, 2014; Vitak & Kim, 2014). In face-to-face environments, individuals have a greater degree of control over their self-presentation because of the predictable nature of the audience. An individual might share personal information with a family member that they would not consider sharing with a supervisor or instructor. However, audiences are often combined into a single group on social media sites, which makes varied-self presentation extremely difficult (Vitak & Kim, 2014). According to Davis and Jurgenson (2014), context collapse can be further differentiated into context collusions and context collisions. Context collusions refer to the intentional flattening or blurring of contexts by an individual using various social media platforms. The person is inviting various contexts together, often out of convenience (Davis & Jurgenson, 2014). The researchers use the example of a wedding where different social contexts overlap because the couple invited individuals from other social groups to their event ranging from distant relatives to coworkers. Context collisions occur when an individual attempts to solidify the contextual boundaries, utilizes privacy and attempts to avoid spreading information (Davis & Jurgenson, 2014). Context collisions occur when contexts come together unintentionally without any effort by the individual with potentially disastrous results.

Often context collapse causes individuals to present a social identity that satisfies "the lowest common denominator" of their perceived audience (Hogan, 2010). Individuals will share information about themselves on social media platforms only to the extent they are comfortable with the audience seeing it. For example, an individual may not post about controversial

religious or political subjects out of fear of upsetting individuals in the contextually collapsed audience (Hogan, 2010). A person may review past social media posts and photos and selectively remove or edit them (Zhao et al., 2013, as cited in McConnell et al., 2018). Selective disclosure is a process that affects everyone because it deals with the construction of the private self and the public self (McConnell et al., 2018). Individuals may use various privacy and security tools on social media platforms to control or select which audiences see specific types of posts or pictures (Adjei et al., 2020). An individual shares information with a limited group of people based on trust and proximal distance of inter-relationships as opposed to a larger group made up of the public.

Members of the LGBTQ+ community face significant challenges regarding which audiences they disclose different portions of their social identities related to their sexual orientation or gender identity across the digital landscape of social media and communications platforms. These individuals experience discrimination in social media and online forums, leaving them feeling fearful or vulnerable (Fox and Ralston, 2016). The following section explores the social identities of LGBTQ+ individuals in online environments.

LGBTQ+ Identity and Digital Media

LGBTQ+ individuals must consciously navigate the emergence and disclosure of their identities in markedly different ways than their cisgender, heterosexual peers (Ceglarek & Ward, 2016; Fox & Ralston, 2016). Identity exploration and socialization for LGBTQ+ individuals are guided through direct questioning, observation, and personal experiences (Cass, 1979; Savin-Williams, 1990; Troiden, 1988; as cited in Fox & Ralston, 2016). A Gallup Daily Tracking Survey found that 5.6% of United States adults identify as LGBT (Jones, 2021). While there is a growing acceptance of LGBTQ+ individuals in the United States, persons that identify within the

population are at risk for discrimination, harassment, and violence (Casey et al., 2019). Sexual and gender minority youth are at increased risk for stress, depression, and suicidality (Fulginiti et al., 2020).

SIT refers to the way that an individual's self-concept is based on their membership in social groups (Tajfel, 1982, Tajfel & Turner, 1979). Individuals who identify as LGBTQ+ may conceal or disclose their social identity depending on particular social contexts (Bry et al., 2017; Weisz and Quinn, 2016). For many LGBTQ+ individuals, the Internet and social networking sites are the first places they explore sexual and gender minority-related issues and interact with other persons who identify as LGBTQ+ (DeHaan et al., 2013; Gray, 2009).

The growth of the Internet in the 1990s allowed LGBTQ+ individuals unprecedented access to information and communities of sexual and gender minorities. Past research focused on gay and bisexual men's use of computer-mediated communication (CMC) such as chat rooms, discussion forums, and newsgroups (Groves et al., 2014; Tikkanen & Ross, 2003). The anonymity provided by the Internet provided individuals who were marginalized the opportunity to meet others like them through participation in virtual groups and communities (McKenna & Bargh, 1998, as cited in Fox & Ralston, 2016). LGBTQ+ individuals had the opportunity to self-disclose in a safe and accepting environment that was often not afforded to them offline (McKenna & Bargh, 1998, as cited in Fox & Ralston, 2016; Campbell, 2004, as cited in Fox & Ralston, 2016). The use of virtual groups and communities improved participants' feelings of self-acceptance and reduced social isolation. Despite these breakthroughs, LGBTQ+ young people still often describe themselves as feeling isolated and vulnerable (Ciszek, 2017).

Before the Internet became widely accessible, LGBTQ+ individuals seeking information related to their identities were subject to threats or violence. They were generally discouraged

from seeking out resources or means of support (Garnets et al., 1990). Gay-themed materials were often removed from public libraries (Burke, 2008). Individuals often relied on adult or gay-themed bookstores in major metropolitan areas as primary sources of information (Hickey, 2011; Kinder, 2021). The Internet proved to be invaluable by providing members of the LGBTQ+ unfettered access to information (DeHaan et al., 2013, as cited in Fox & Ralston, 2016). Most of the past research has focused on how LGBTQ individuals seek information related to sexual health (Magee et al., 2012, Flanders et al., 2017; Hawkins & Giesecking, 2017).

Social networking sites (SNS) and social media are important because they allow LGBTQ+ individuals to seek out and establish relationships with similar others based on shared backgrounds and interests (Fox & Ralston, 2016). Social networking sites allow members of the LGBTQ+ community a platform for self-expression, identity construction and experimentation, and management (Craig & McInroy, 2014; Fox & Ralston, 2016; McConnell et al., 2018). Persons who identify as LGBTQ+ have used social media to confront cyberbullying and participate in social activism (Fox & Ralston, 2016; Jenszn, 2015; 2017; Martin, 2016).

Social networking sites and the Internet serve as a conduit for LGBTQ+ individuals to participate in various forms of traditional, experiential, and social learning (Fox & Ralston, 2016). Traditional forms of learning refer to searching and obtaining information directly from online sources. Individuals use various digital platforms ranging from Reddit to social media sites like Facebook to identify and locate available LGBTQ+ resources. Searching for information across digital platforms allows users to develop a more nuanced understanding of their sexual and gender identities (Fox & Ralston, 2016). The process allowed them to develop their language better to describe their identities in more fluid terms.

Social learning involves observing, modeling, and imitating the behaviors, attitudes, and emotional reactions of others (Bandura, 2000). LGBTQ+ individuals were able to identify other LGBTQ+ individuals or groups that shared ties across social networking sites like Twitter, Instagram, and Tumblr (Fox & Ralston, 2016). Learning occurred through reading about LGBTQ+ peers or celebrities' experiences shared in social media posts. Study participants identified role models among their peers on different social media platforms. The role models increased the participants' self-efficacy for behaviors related to coming out or managing self-disclosure (Fox & Ralston, 2016).

For LGBTQ+ individuals, the coming out process is a form of experiential learning (Fox & Ralston, 2016). Participants in the Fox and Ralston study reported different ways to engage in identity role-playing before being fully out to explore boundaries. Experiential learning provided interactivity and social feedback as well. Social media users can interact by exchanging messages with others through instant messengers or by responding to social media posts made by others.

The self-disclosure process is often the most stressful part of an individual's identity formation (D'Augelli, 1996, as cited in Miller et al., 2019). Sexual minority identity development involves personal engagement and sharing one's identity with selected persons in the individual's life (Cass, 1979). Past researchers have examined the coming out process or disclosing one's sexual orientation or gender identity (Saguy et al., 2020; Kosciw et al., 2015). Many contextual factors contribute to an individual's coming out, like levels of social support, financial independence, family relationships, and geographical location (Klein et al., 2015, as cited in Miller et al., 2019).

LGB students have used careful identity management strategies to control identity disclosure. Approaches have ranged from employing counterfeit identities or trying to pass as heterosexual, avoiding discussing the issue, and selective disclosure to only specific audiences within the individual's life (Lasser & Wicker, 2007, as cited in Miller et al., 2019). LGB individuals utilize self-disclosure strategies like these as coping mechanisms against discrimination, harassment, and minority stress. Researchers have advocated a more holistic view of visibility management that weighs the context, risks, and benefits (D'haese et al., 2016, cited in Miller et al., 2019). The self-disclosure experiences of transgender individuals and the decision to pass as cisgender have been examined by researchers as well (Catalano, 2015; Nicolazzo, 2016). Trans male college students have described the stress and energy expenditure from navigating the conflicting demands of other trans men, their peers, and their undergraduate institutions (Catalano, 2015). According to Nicolazzo (2016), transgender college students navigate college environments where enforced genderism is prevalent through practices based on resilience and various kinship networks of like-minded peers.

The Internet and digital media have served a critical role in LGBTQ+ identity development and self-disclosure of sexual and gender identity (Craig & McInroy, 2014). LGBTQ+ youth have used websites, social networks, and video sharing sites as a means for identity exploration and facilitation of the coming out process. Using multiple social network sites and communication platforms is particularly challenging due to context collapse (McConnell et al., 2018). Researchers have explored the complexities of LGBTQ+ online social identities and their management (DeVito et al., 2018, Dhoest & Szulc, 2016; Craig & McInroy, 2014). LGBTQ+ young people use a variety of identity management strategies ranging from online expression monitoring, using privacy and security controls, restricting LGBTQ+ related

materials to more anonymous online contexts (Duguay, 2016; Cooper & Dzara, 2010, as cited in McConnell et al., 2018; McConnell et al., 2017; Vivienne, 2016, as cited in McConnell et al., 2018). The importance of supportive relational contexts from family and peers plays a vital role in how LGBTQ+ individuals manage their identity disclosure online and offline (Fox and Ralston, 2016; McConnell et al., 2018).

The following section examines current research related to meeting the learning needs of LGBTQ+ college students and the challenges involved in creating more inclusive classrooms for these students.

Inclusive Classroom Practices for LGBTQ+ Students

One of the many challenges that higher education institutions face is meeting the growing needs of a diverse student population. In a 2019 survey from the American College Health Association National College Health Assessment, 10% of college students identified as gay, lesbian, bisexual, or queer, and another 1.8% identified as transgender ([ACHA-NCHA-II], 2019). The LGBTQ+ college student population cannot be treated as one large monolithic group when creating inclusive practices for their motivation and empowerment in the classroom (Kilgo, 2020).

Inclusive Pedagogy

According to Spratt and Florian (2015), inclusive pedagogy refers to "a pedagogical approach that responds to learner diversity in ways that avoid the marginalization of learners in the community of the classroom" (p. 90). Inclusive pedagogy enables instructors and students to work together to create a supportive classroom environment where every student has access to knowledge (Fassett & Golsan, 2017, as cited in Faulkner et al., 2020). Researchers have investigated the linguistic practices of inclusion and exclusion relating to sexual orientation in

the context of language education (Sauntson, 2018) and the inclusion of trans pedagogy in English classrooms (Helton, 2020). Other research has encouraged post-secondary educators to apply the principles of Universal Design beyond to students with disabilities and include students who may be marginalized based on the sexual orientation or gender identity (Couillard & Higbee, 2018).

Teacher Immediacy

Instructors can make LGBTQ+ students feel more welcome and include immediate behaviors both in the face-to-face and the online classroom (Faulkner et al., 2020). Teacher immediacy refers to a set of verbal and nonverbal attributes that generate perceptions of psychological closeness with students (Andersen & Andersen, 1982, as cited in Comstock et al., 1995). These behaviors are both verbal and nonverbal in nature and communicate warmth and intimacy, showing that the person is approachable and available for communication (Frymier & Houser, 2000, as cited in Faulkner et al., 2020). Research has shown a significant relationship between teacher immediacy and student learning (Allen et al. 2006). Verbal immediacy behaviors include referring to students by their names, using correct pronouns, and allowing students to articulate their ideas and opinions (Faulkner et al., 2020). Many verbal immediacy behaviors run parallel to many of the indicators associated with social presence within the CoI theoretical framework (Garrison et al., 2000). Nonverbal behaviors related to teacher immediacy include making eye contact with students, smiling, and moving around the face-to-face classroom (Faulkner et al., 2020).

Teacher immediacy takes on significant importance in online learning environments due to learners favoring interactions with both their peers and instructors (Sellnow-Richmond et al., 2020). Immediacy can include the instructor engaging with students in the discussion board and

communications forums (Dixson et al., 2017). The instructor's approach to the syllabus and text and video messages can create a positive, welcoming space for students in online classrooms (Pacansky-Brock et al., 2019). Additionally, instructors can give individualized assignment feedback using short video comments (Thomas et al., 2017; Lowenthal, 2021). Personalized feedback provides the student a better sense of the instructor's personality along with forming an emotional connection by listening to aural and visual cues that are often missing in the online learning environment.

Supportive Communication

LGBTQ+ students have additional barriers to navigate beyond the classroom (LeMaster & Johnson, 2019). Instructors can empower students using supportive communication (Faulkner et al., 2021). The use of social support by instructors has been associated with student psychological well-being (Cosden & McNamara, 1997). Instructor communications that are characteristically high person-centered legitimize students' experiences and emotions (Bodie et al., 2012, as cited in Faulkner et al., 2021). Instructors who communicate social support to their students can influence their learning and perceived well-being.

Summary

The summary of the above literature review indicates that LGBTQ+ students' perceptions of social presence and their decisions related to self-disclosure of their sexual and gender identities in online courses warranted further exploration. This chapter began with a review of the literature pertaining to the CoI theoretical framework and the contributions of social presence within the model for online learning. SIT was next introduced, and the literature surrounding the three components of social identity was examined in detail. Additionally, the concepts of social identity and personal identity were differentiated for the benefit of the reader.

The role stigma plays in social identity formation was examined. The process of self-disclosure for stigmatized populations within the social identity framework was investigated. Research related to the use of the Internet for social identity exploration and experimentation was examined as well. A review of research regarding college students and their social identities was explored. Finally, the chapter concluded with investigating online identity management, LGBTQ+ identity and digital media, and inclusive classroom practices for LGBTQ+ students.

Chapter three discusses the methodology and design proposed for this study. The case study methodology outlined in chapter three provides a framework for exploring LGBTQ+ college students' perceptions of social presence and the challenges they face related to identity disclosure to their peers and instructors within the context of the online learning environment.

Chapter 3: Methodology and Research Approach

The purpose of this qualitative single-case study was to explore the perceptions and experiences of LGBTQ+ students attending college in the South-Central region of the United States (U.S.) with self-disclosure, social presence, and its indicators (affective expression, open communication, and group cohesion). A holistic single-case study was chosen to describe and understand a specific marginalized group's situation through their lived experiences in hopes of contributing knowledge to the LGBTQ+ community and online learning.

Chapter three outlines the research method used for the qualitative case study of LGBTQ+ college students' decisions about self-disclosure and their perceptions of social presence in online courses. The chapter begins with the research questions to address the problems. The chapter continues with the selected methodology, research design, and population of LGBTQ+ college students who participated in the study. Furthermore, the materials and study procedures are explored at length, along with the data collection and data analysis procedures that were utilized. The chapter continues with a discussion of the study's limitations, delimitations, and trustworthiness. The ethical implications of the study are also fully outlined at the chapter's conclusion.

Research Questions

The research questions proposed for this study were:

RQ1. How do LGBTQ+ college students describe their perceptions of social presence and its indicators in online courses?

RQ1a. What are LGBTQ+ college students' self-perceptions of affective expression in online courses?

RQ1b. What are LGBTQ+ college students' self-perceptions of open communication in online courses?

RQ1c. What are LGBTQ+ college students' self-perceptions of group cohesion in online courses?

RQ2. What considerations inform LGBTQ+ college students' decisions about self-disclosure related to the socio-cultural dimensions of sexual orientation and/or gender expression of their online social identities?

RQ3. How do LGBTQ+ college students describe their perceived social identities in online courses?

RQ4. How do LGBTQ+ college students describe their experience of others' perceptions of their social identities in online courses?

Research Methodology and Design

This research study employed a qualitative research methodology to answer four research questions and three sub-questions regarding LGBTQ+ college students' perceptions of social presence and its indicators (affective expression, open communication, and group cohesion) along with their decisions to self-disclose or conceal their sexual orientations and gender identities in online courses.

Qualitative research is often used for exploring problems that require a complex understanding of the issues directly from the individuals who have experienced the phenomenon under investigation (Creswell & Poth, 2018). Past studies involving LGBTQ+ students have utilized qualitative research to address complex issues related to inclusive learning environments and virtual communities (Steck & Perry, 2018; Martin et al., 2018; Jackson, 2017). Once the

research questions were formulated to address the problem, I selected the appropriate design to answer each research question.

The participants' perceptions and experiences were analyzed through the social identity lens using a holistic single-case study. The case study process allows for a straightforward but flexible approach for gathering data. Yin (2018) defines case study methodology as an empirical method that holistically contributes to understanding "the case" within a real-world context. He further states that case studies provide insights into "opinions about people and events, or their insights, explanations, and meanings related to certain occurrences" (p. 119). According to Yin (2015), case study design is particularly suited to situations where the phenomenon's variables are not easily separated from their context. Similar to Yin (2018), other researchers (Thomas and Myers, 2015) argue that a case study is not defined by the researcher's methods as much as the bounds put around the case.

Creswell & Poth (2018) describe four defining characteristics of case study research:

- 1) Exploration of a real-life, contemporary bounded system (a case).
- 2) In-depth, detailed data collection involving multiple sources (observations, interviews, documents, and reports).
- 3) Findings include a description of the data based on identified themes or patterns.
- 4) Unit of analysis may be multiple cases or a single case.

This case study explored the perceptions of social presence for LGBTQ+ college students, and the unit of analysis was the LGBTQ+ students taking online classes at a university located in the South-Central region of the U.S. (Merriam, 2009). Although there are various designs and versions of case studies (Creswell & Poth, 2018), a holistic single-case design was appropriate due to the single unit of analysis within a shared context (Yin, 2018). The approach

was appropriate for the study since the LGBTQ+ community was being examined as a whole and not as subpopulations of the larger community. The students who participated in this study come from one university and, therefore, share a context. Additionally, a holistic approach was applicable because the experiences of students from other ethnic or cultural groups are not examined. Prior qualitative research on social presence has examined the cultural perspectives of African American and Latino/a first-generation college students (Plotts, 2018). However, none has explicitly focused on the perceptions of LGBTQ+ learners. A holistic single-case study allowed for a deeper understanding of student perceptions within the LGBTQ+ community at this institution.

Study Setting

The participants who responded to the recruitment flyer or social media posts were representative of undergraduate and graduate students pursuing both on-campus (face-to-face) and fully online (asynchronous) degrees at the University of Arkansas (UA). The institution is a public land-grant research university located in Fayetteville, Arkansas. UA is the flagship campus of the University of Arkansas System and has a student enrollment of 27,562 as of fall 2020 (University of Arkansas, 2021a; University of Arkansas, 2021b). Fourteen thousand seven current students take at least one online course, and 3,154 students study exclusively online (University of Arkansas, 2021c). All selected respondents met the study's inclusion criteria; being over the age of 18, identifying as a member of the LGBTQ+ community, and having taken at least one asynchronous online course during their academic career at the university. Students who were recruited for the study met each criterion. If one or more was not met, they were disqualified from participating in the study.

Research Population, Sample, and Data Sources

Purposive and snowball sampling was utilized for this study. Purposive sampling allows the researcher to sample a group of people that informs the research problem in question (Creswell & Poth, 2018). Unlike random sampling that selects participants by chance (Creswell & Creswell, 2017), purposive sampling emphasizes an in-depth understanding of specific information-rich cases (Patton, 2015). Snowball sampling (O'Dwyer & Bernauer, 2013) consists of "elements that are selected using a system of referrals and recommendation from one element to another" (p. 84). Snowball sampling will prevent participant attrition by asking established participants to recommend qualified others (Patton, 2015). Members of the LGBTQ+ community are often self-protecting and private. Potential participants were recruited through LGBTQ+ student organizations on campus along with fliers and social media posts. Following the completion of interviews, participants were asked if they knew of any individuals who may be willing to participate in the study. Any individuals identified were contacted via email. Participants in this study were limited to students who identify as LGBTQ+ based on the research questions guiding the study. Participants needed to self-identify as a sexual or gender minority or engage in behaviors consistent with a sexual or gender minority. This may include, but is not exclusive of lesbian, gay, bisexual, transgender, or queer. Semi-structured interviews served as the primary method of data collection.

Study Procedures

IRB protocol approval was gained from the University of Arkansas's Office of Research Compliance (RSCP). Participants were recruited through the Center for Multicultural and Diversity Education under the UA's Division of Student Affairs, the university's Lavender Employee Impact Group, and the PRIDE registered student organization. Representatives of

these organizations offered to tell their members about the research project through word of mouth, and social media announcements and posts. Additionally, I submitted an Arkansas News article requesting participants through the university's daily news feature. The recruitment invitation to participate email (Appendix E) contained preliminary information about the study, participants' rights to stop participating at any time, a request to complete the participant demographic questionnaire, and a corresponding web link to the Qualtrics participation survey. At the conclusion of the survey, individuals were asked if they were willing to participate in a virtual interview using Zoom. Interested participants provided their contact email address, and preferred times to be interviewed.

Before engaging in official data collection, I presented the interview protocol questions (Appendix A) to an expert panel for multiple reviews to address potential bias and trustworthiness. Professors with extensive research experience were asked to review materials associated with the study and interview protocol questions. Individuals on the panel completed a validation rubric (Appendix F) by White and Simon (2016) on the interview protocol for the initial review. Members of the panel reviewed the interview protocols a second time after all recommended revisions were completed. Feedback from the expert panel was implemented before data collection commences.

Interviews were scheduled as willing individuals were identified and consent had been explained and obtained. Participants were contacted via email about their interest in participating in the research. Furthermore, participants were informed of their right to participate in the research and were free to decline or withdraw from the study at any time without penalty. The informed consent form included information about the nature of the study, participant privacy, recording of the interview, and the right to leave at any time during the interview. The informed

consent document was delivered to the participant's email and returned in a signed electronic format before any interviews occurred or data was collected. Virtual interviews were conducted using individual Zoom password-protected private meetings. I used a Zoom account that I purchased privately using my own funds. While video conferencing, the designated researcher interview site was located within a closed-door room that serves as a home office. No other individuals were within 12 feet of the vicinity of the designated researcher interview site when interviews were conducted. Due to the sensitive nature of the topics discussed in the interview protocol, individuals were encouraged to participate from a closed-door nonpublic meeting space to ensure comfort and privacy. Participants were also given the option of keeping their webcams turned off during the interview as an additional privacy measure. Individuals were informed when the interview recording began and when it ended.

All interviews were recorded using Zoom. Open-ended interview questions were posed to the participants using the interview protocol. I included follow-up questions to gain clarity and deepen understanding of the participant's perceptions. Recordings were saved to a secure cloud storage location. Data contained on an Intel based Mac is protected using encryption technology called FileVault to prevent data breaches (Apple Platform Security, 2021). Furthermore, Apple operating system kernels use access controls to restrict what data an application can access. iCloud.com provides data encryption during transit and storage using a TLS 1.2 encryption protocol (iCloud security overview, 2021). I kept detailed field notes throughout the interview process related to participant responses. Field notes serve to supplement participant responses and deepen my understanding of participant experiences. After the interview, each participant received a research debriefing that allowed them to make comments, ask questions, and ensure no harm had occurred (Merriam & Tisdale, 2015). The following steps in the research process

were outlined along with any need for future contact, including member checking of interview transcripts.

Transcription of interviews occurred automatically using Otter.ai live transcription service for Zoom. Interview transcripts were emailed to the interviewee for member checking and accuracy within 24 hours after completing the interview. Participants were notified they had up to 10 days to review the content and make any needed changes. No follow-up response from the participant meant the transcript was deemed accurate, and analysis could occur.

Materials

Researchers often employ interviews to collect qualitative analysis data (Creswell & Creswell, 2017; Merriam & Tisdale, 2015; Yin, 2015). According to Brinkmann and Kvale (2015), the qualitative research interview is described as "attempts to understand the world from the subjects' point of view, to unfold the meaning of their experience to uncover their lived world" (p. 3). Individual semi-structured virtual interviews were conducted by Zoom video conferencing to gain data from participants. Zoom is a collaborative, cloud-based video conferencing service offering features including online meetings, group messaging, and secure recording sessions (Archibald et al., 2019). Due to the COVID-19 Pandemic, researchers were encouraged to conduct human research remotely using web conference technology like Zoom by the University of Arkansas's Office of Research Compliance Institutional Review Board (IRB) (Guidelines for Conducting Human Subjects Research During the COVID-19 Pandemic, 2020). Zoom's use for qualitative interviewing has key advantages like rapport, convenience, and user-friendliness (Archibald et al., 2019). Semi-structured interviews are guided by a list of questions or issues to be explored and provide more flexibility in responding to the situation at hand (Merriam & Tisdale, 2015). Open-ended questions were created and presented to participants to

solicit open-ended answers. Interviews were recorded and transcribed. Common themes were identified from the transcripts of participant interviews.

I created an interview protocol consisting of ten semi-structured, open-ended questions (Appendix A). Participants were expected to answer the ten to twelve questions during the virtual interview that was expected to last up to 110 minutes. The time estimate was based on a similar study (Plotts, 2018; Yin, 2015). The questions were designed to align with the research questions outlined for this study. Questions were created to elicit responses from participants related to their perceptions of self-disclosure, social identity, and social presence based on the two theoretical frameworks used for the study, community of inquiry (CoI) (Rourke et al., 2000; Garrison et al., 2001; Garrison & Arbaugh, 2007) and social identity theory (SIT) (Hogg, 2020; Tajfel, 1974; Tajfel, 1982; Tajfel et al., 1979). A matrix detailing the alignment between interview questions and research questions has been furnished (Appendix A).

In addition to the interview protocol, the study utilized a participant demographic questionnaire to contextualize participant considerations related to self-disclosure and gender and sexual identities (Appendix D). Demographic questions are background questions that identify the characteristics of the person being interviewed (Patton, 2015). The questionnaire was created using Qualtrics, an online survey tool. The participant demographic questionnaire asked for the following information in advance of interviews: preferred pronouns, age, gender expression, sexual orientation, student class standing, academic major, racial/ethnic identities, and the number of online classes taken in their degree program. Answers related to the demographic questions on age, gender expression, sexual orientation, and the number of online courses taken served as cutoffs for participant inclusion in this study. For example, a cisgender heterosexual male who had never taken an online class would not fall within the study population.

Data Collection, Processing, and Analysis

Coding provides reliability to the data analysis phase of qualitative research. Coding is described as symbolically assigning descriptive attributes to a word or short phrase, identifying concepts, and finding relationships between them (Saldaña, 2021). Coding allows for the organization of data for the purposes of examination and analysis (Miles et al., 2020). Coding was used to categorize and interpret the data collected during this study. Descriptive codes were assigned to distinct data points. Through organization and synthesis, patterns emerged from the collected data. Themes are statements representing interview participants' ideas that "summarize what is going on, explain what is happening, or suggest why something is done the way it is" (Rubin & Rubin, 2012, as cited by Saldaña, 2021, p. 257). The lived experiences of LGBTQ+ college students, and their perceptions of social presence in online learning environments were reported through thick, rich descriptions (Merriam & Tisdell, 2015; Patton, 2015).

MAXQDA software was utilized for the coding process. Interview transcripts, researcher field notes, and the UA Diversity and Inclusion strategic plan was uploaded to MAXQDA for analysis. The coding software allowed for line-by-line analysis of individual interview transcripts using the study's conceptual framework (Yin, 2018). Coding breaks down larger data sets into categories, themes, and critical words for analysis (Creswell & Poth, 2018). Triangulation was used to validate the individual data sources. Triangulation strengthens the credibility and consistency of findings in a qualitative study (Yin, 2018).

Assumptions

The assumptions for this study were based upon participants' backgrounds and social identities. Social identity refers to the part of an individual's self-concept that is formed from the knowledge created through their membership in a social group, along with the value and

emotional significance derived from the membership (Tajfel, 1981). The first assumption embedded in this study is that LGBTQ+ college students answered the questions truthfully to the best of their knowledge based on their lived experiences, perceptions, and beliefs related to disclosure and social presence in online learning environments. A second assumption is the study provided a safe and supportive space for LGBTQ+ college students to have a voice and share their stories. Another assumption the study makes is that LGBTQ+ participants were comfortable and open enough to share their experiences with the researcher. An additional assumption is that the study participants were familiar with the terms related to the interview questions and could provide effective responses pertaining to disclosure and social presence. Furthermore, there is an assumption that qualitative methods captured the social identity-related aspects of participants' perspectives (Yin, 2015). The last assumption is that participants in the purposive sample represent the larger population of LGBTQ+ college students engaged in online coursework (Patton, 2015).

Limitations

Limitations occur in all research studies (Yin, 2015). Limitations represent "the weaknesses within the study that may influence outcomes and conclusions of the research" (Ross & Bibler Zaidi, 2019, p. 261). Transferability was a possible limitation in this study. Transferability is defined by the degree to which research can be applied to other contexts or populations (Yin, 2015). This study's scope included the perceptions of LGBTQ+ college students taking online classes at the flagship campus of the University of Arkansas System. The study relied upon a small purposive sample within a unique subculture of the university population. Smaller, non-random, purposive samples allow the researcher to understand participants' lived experiences in-depth but are challenging to transfer to general populations

(Patton, 2015). The perceptions of an individual or a small group are not representative of all similar groups or contexts. This study did not include similar participants from other colleges and universities in the region. Additionally, it did not include anyone who failed to meet one or more recruitment criterion. Case studies allow the researcher to draw conclusions only about the participants being observed (Creswell & Poth, 2018).

An additional limitation may relate to the participants' ability to recall events as they occurred. The information provided by the participants in this study was self-reported. Self-reporting requires individuals to articulate experiences and beliefs based on memory and personal biases (Yin, 2015). Recall bias occurs when participants do not remember previous events or emotional experiences accurately or exclude details (Colombo et al., 2020). During self-reporting, participants tend to over-estimate negative emotional experiences. Conversely, some individuals exaggerate positive views of past events to foster well-being and resilience (Colombo et al., 2020). No methods can accurately capture an individual's experience in real-time as they occurred during this study. The research is limited to how participants responded during the interview process.

The sensitive nature of the lived experiences of LGBTQ+ students taking online classes was a significant limitation for this study. LGBTQ+ individuals often struggle with the stigma surrounding their identities and whether they are comfortable sharing their identity with others (Lasser & Wicker, 2008; Morgan, 2013). LGBTQ+ individuals may conceal their identities out of fear of discrimination or harassment (D'haese et al., 2016; Quinn & Meiners, 2011). As a result, study participants may have been selective in what they chose to share with me about their perceptions related to social presence and issues surrounding their decision to self-disclose or not. The design of the research protocol attempted to foster a comfortable atmosphere for

participants during the interview process. Participants were encouraged to select locations for virtual interviews that ensured privacy. The purpose of the study, participant privacy, and the individual's right to stop the interview at any time were outlined in the informed consent document and the script read by the interviewer at the beginning of each interview. I attempted to build rapport with participants through warmth and tone and by emphasizing they are in a safe, welcoming space. At the conclusion of the interview, individuals participated in a research debriefing that allowed them to ask questions and make comments. Member checking allowed participants to review the interview transcripts and make corrections or clarifications to statements made during the interview.

Delimitations

According to Simon and Goes (2013), delimitations of a study involve characteristics that arise from limitations in the study's scope and conscious exclusionary and inclusionary decisions made by the researcher at the study's outset. Steps were taken to address the outlined limitations. The first delimitation deals with the sample population. This study was limited to examining one group of LGBTQ+ students' perceptions at the University of Arkansas. Qualitative research with socially stigmatized populations is sensitive due to the emphasis on the population's marginalized status. Barriers arise in sampling and data collection due to these factors (Abrams, 2010). For the purpose of this study, familiar sexual and gender identity nomenclature was used in recruiting participants.

Additionally, study participants were recruited using university organizations that provide resources and programs for LGBTQ+ students. A detailed description of the study was provided to all potential participants, anonymity was outlined, and informed consent was obtained. Meyer (1995) found that individuals who do not accept themselves and who have not successfully

"come out" are less likely to participate in studies related to sexual orientation than those who accept themselves. Therefore, participants who are further along in accepting their recognized sexual or gender identities may have been more willing to participate than those individuals who were eligible but declined to participate. This may have potentially limited observation of the full spectrum of sexual identities and gender identities that could inform how LGBTQ+ college students negotiate self-disclosure in online classes and their perceptions of social presence.

Another delimitation arises from the sample population. For the purposes of the study, I focused on the LGBTQ+ community as a whole rather than specific subpopulations (gay, lesbian, bisexual, queer, and transgender). Yin (2003) states that a single case study is the best choice when the researcher wants to study a single group. Single case studies also allow the researcher to gain a deeper understanding of the subject (Dyer & Wilkins, 1991). The larger LGBTQ+ community has several shared experiences. However, individuals who identify with a particular subpopulation(s) may have unique experiences relative to their decision to self-disclose and their perceptions of social presence. Purposive and snowball sampling were employed for this study. Limitations in the study population's size and recruitment timeframe did not allow for multiple case studies of each subpopulation within the LGBTQ+ community. Appropriate sample size and saturation were researched. This is necessary to build validity and reliability in qualitative case studies (Yin, 2018) so that the data can be generalized.

Trustworthiness

Trustworthiness in qualitative research refers to the study's ability to demonstrate credibility, transferability, dependability, and confirmability (Lincoln & Guba, 1985). Credibility links the study's findings to the participants' responses to establish believability and appropriateness (Merriam & Tisdell, 2015; Saldaña, 2021; Yin, 2015). Transferability is the

degree to which the study results can be generalized to other contexts and settings (Merriam & Tisdell, 2015; Saldaña, 2021; Yin, 2015). Dependability refers to the stability of the study's findings over time and the degree to which they can be replicated in other studies (Yin, 2015). Confirmability is the confidence level in the objectivity and limitations of potential researcher bias within the research findings (Patton, 2015). The outlined dimensions are the quantitative research equivalents of internal validity, external validity, reliability, and objectivity, authenticating the research data and process (Merriam & Tisdell, 2015). This study included multiple methods and procedures such as triangulation, reflexive journals, field notes, member checking, coding, and rich, thick description to address each dimension associated with the research's trustworthiness.

This study was a single-case study that focused on one cultural group. As with most qualitative research, sample sizes in case studies are typically small (Yin, 2018). Data saturation may be obtained by as little as twelve interviews depending upon the population's sample size (Guest et al., 2013). The initial appropriate sample size for this study was 12 participants or until data saturation arises. Saturation has emerged as one means of estimating sample size within case study research (Creswell & Creswell, 2017). Data saturation occurs when gathering new data no longer provides new insights or properties within identified themes or categories, and the study is replicable (Charmaz, 2006; Guest et al., 2013). Sampling should continue until theoretical saturation is reached (Guest et al., 2013). Saturation promotes trustworthiness in qualitative research (Merriam, 2009).

Triangulation contributes to the trustworthiness and credibility of qualitative research by using different sources of data (Cope, 2014; Creswell & Poth, 2018; Patton, 2015; Yin, 2015). Additionally, the use of triangulation can explore and validate emerging themes and concepts in

qualitative studies (Jonsen & Jehn, 2009). Triangulation was used to compare different viewpoints found in individual participant interview transcripts, the university's 2019-2021 diversity and inclusion strategic plan, and field notes for this study.

Triangulated reflexive inquiry increases researcher self-awareness and limits potential bias during the study's data collection and analysis phases by incorporating questions related to the researcher, the study participants, and the potential study audience (Patton, 2015). Qualitative researchers often use reflexive journals to describe their own experiences, reactions to events, and reflections on the research process (Barry & O'Callaghan, 2008). Using guided questions based upon the triangulated reflexive inquiry framework, I reflected on my thoughts and feelings related to my identities as a researcher and as an openly gay man, assumptions about the study participants and their experiences, and the future audience for the completed research.

Additionally, the journal served as a framework to limit potential biases and identify emerging themes from participants during the interview process (Jonsen & Jehn, 2009; Merriam & Tisdell, 2015). Furthermore, the journal provided an audit trail supplying detailed context and rationale for decisions being made during the research's data collection and analysis phases. I added reflections and impressions of participants' body language, vocal tone, and affect to provide a richer description of the interview process to the research journal. Detailed accounts provide extreme value when working with a population that may be selective in what they disclose about their life experiences and what they choose to share with the researcher.

Qualitative researchers use field notes to record thick, rich descriptions of what is observed and considered important during the data collection process (Patton, 2015). Thick, rich descriptions can address confirmability in qualitative research (Cope, 2014). Field notes provide valuable documentation of the study context, setting, interactions with participants, and

researcher impressions (Merriam & Tisdell, 2015). Detailed field notes provide the researcher "a robust understanding of the participants' lives, contextualizing their response to the phenomenon of interest (Phillipi & Lauderdale, 2018, p. 385). I provided thick, rich descriptions following each interview using a field notes journal. Additionally, the field notes served as an audit trail during the interview process giving descriptive details and context.

The process of member checking allows study participants to provide feedback related to their interview responses (Patton, 2015; Saldaña, 2021; Yin 2015). Member checking substantially enhances credibility in qualitative research by providing additional opportunities to check the collected data's accuracy (Cope, 2014; Patton, 2015). The process allowed participants an additional opportunity to contemplate their ideas and perceptions captured in their interview responses (Merriam & Tisdell, 2015). Additionally, member checking enabled participants to correct any misconceptions and clarify their statements during the interview process (Merriam & Tisdell, 2015; Yin 2015). It also allowed the researcher to identify their own biases and misunderstandings of what was observed (Maxwell, 2013, as cited in Merriam & Tisdell, 2015, p. 246). Interview transcripts were emailed to study participants for member checking and accuracy within 24 hours after completing the interview. Participants then had ten days to review the content and submit any needed corrections or clarifications to me.

This study addressed the dimensions related to trustworthiness through various methods and approaches. Credibility was addressed through the inclusion of methods triangulation and triangulated reflexive inquiry in a research journal. The interview protocol utilized open-ended questioning to elicit genuine, candid participant responses. Member checking conducted after each interview also bolstered the study's credibility. The study addressed transferability by

explicitly describing the data collection methodology, including the study population, sample size, materials, and procedures.

Additionally, field notes provided thick, rich descriptions of the data collection process and my decisions. Dependability was addressed by the inclusion of a comprehensive methodology chapter that outlined the study's research design and planned implementation. A reflexive journal and field notes enhanced the audit trail and further strengthened the study's dependability. The study addressed confirmability by including triangulation, reflexive journals, audit trails, and coding and synthesis of data.

Researcher Positionality and Reflexivity

Qualitative researchers play an inherent role in data collection and analysis (Merriam & Tisdell, 2015). All researchers bring values and biases to the study based upon background and life experiences. The qualitative analyst seeks to balance understanding and an authentic depiction of the subject in all its complexity while exercising a reflexive consciousness about their perspective (Patton, 2015). Creswell and Poth (2018) assert that researchers should convey their background and assumptions within the study and how it appraises their interpretation of the data. Reflexivity allows the researcher to reflect on how their interpretations are shaped through personal factors such as gender, culture, history, and socioeconomic origin (Creswell & Creswell, 2017).

In examining researcher positionality, it was relevant to say that I am a Caucasian, gay, cis-gender male in his mid-forties. Some of these characteristics place me in a position of privilege compared to others within the United States. To limit potential bias as a researcher and as an "out" gay man, steps were taken to minimize my own biases in the study. The participants of this study are viewed as experts of their own lived experiences. I recognized that my

perspectives as an openly gay male taking online courses may not be equal to study participants' experiences related to self-disclosure and perceptions of social presence. Each participant's experience is valued and contributes to the findings of this study and the larger body of research for LGBTQ+ individuals. Throughout the research process, I maintained a reflexive research journal consisting of my thoughts, observations, and assumptions to reduce bias. Continued reflection established an audit trail that documented my preconceptions, biases, and any mitigating influences on the reported findings (Patton, 2015). A peer debriefer with experience in online learning reviewed the field journal to discuss my reactions and interpretations applied to the research findings. The debriefer offered alternative views, assumptions, and inferences (Merriam & Tisdell, 2015). Additionally, the debriefer did not have access to confidential information related to study participants or raw data (Yin, 2015). The debriefer was required to sign a non-disclosure form as an additional step to protect the privacy of study participants.

In-depth semi-structured interviews were utilized to collect information from study participants. Interview questions were open-ended in format to gain as comprehensive responses as possible. Participants in studies of marginalized groups are often suspicious of researchers who are members of the dominant culture (Merriam & Tisdell, 2015). Individuals may be wary of the researcher's agenda and how they might be portrayed as participants. I recognized that being an "out" gay man may allow me to recruit participants and develop trust more quickly than a researcher from the dominant (heterosexual, cisgender) culture. Therefore, some study participants may have known my name, sexual orientation, and my professional role within the research site. I endeavored to establish clear boundaries between myself and the study participants. As a precaution, there was minimal sharing or disclosure of information related to myself or my interest in the topic during the interview process. My opinions or perspectives were

only discussed if directly asked by a participant following the interview's end after all questions had been posed. The rationale for this practice is to reduce the interviewer's unintentional influence on the participant's answers. The interview protocol was reviewed and approved by a panel of experts and dissertation committee members. Recommended revisions and changes were made prior to any interviews being conducted. Furthermore, I continued to practice introspection by examining my roles, ideas, and feelings regarding the study methodology, participants, and potential findings through my research journal and field notes.

Ethical Assurances

The protection and privacy of study participants was of utmost importance. Additionally, I had a responsibility, as the researcher, to inform and protect participants using informed consent, explain to them how their personal information will be protected, and acquiring IRB approval before any data collection began (Merriam & Tisdell, 2015; Yin, 2015). Data collection protocols was included in this study. The IRB ensured that appropriate integrity levels were demonstrated to protect the research participants and myself. All necessary safeguards were described to protect participants.

Participant's confidentiality and privacy were protected. The limitations of participant confidentiality and privacy were outlined in the informed consent document (Appendix C) and were discussed and approved by all participants prior to any data collection. Adult participants were required to provide informed consent before participating in the study. Participants were contacted via email about their interest in participating in the study. Furthermore, participants were informed they had the right to participate in the research and were free to decline or withdraw from the research at any time without any harm or penalty. Informed consent documents were signed and collected before any interviews were conducted or data was

collected. The informed consent document was delivered to the participant's email and returned in a signed electronic format. This method provided the participant information about the study, confidentiality and privacy, and limitations to the confidentiality of the research, as well as an understanding of participation expectations and time commitments for the study. Participants could obtain additional information and ask questions related to the study at the beginning of the virtual interview. Furthermore, the email included appropriate researcher contact information, which included an email address and phone number.

The informed consent document included:

- Participant and researcher expectations.
- Methods to withdraw from the study.
- An outline of the potential risk to the participant along with any benefits.

Participants were notified that they could leave the interview at any time for any pain or emotional distress. The document outlined methods for retaining, storing, and reviewing data. The timeframes for the disposal of data were also defined. Finally, participants were given instructions on obtaining the findings of the research study upon completion.

Aliases were assigned to participants to protect their identity. Participants' privacy was preserved by not disclosing names and responses to anyone not associated with the study. Once the transcripts of the interviews were completed, participants had an opportunity to review the transcripts and correct any discrepancies made during the interview process. Information contained in paper documents was kept in a locked electronic safe. Any electronic files were retained on a password-protected desktop computer and password-protected cloud server.

Summary

This chapter provided a comprehensive review of the qualitative research methodology proposed for this study. Past research has examined the interconnectedness of social presence and social identity within a general student population. However, there is a shortage of research on how marginalized groups like LGBTQ+ students perceive social presence and their online social identities. After an extensive literature review, I determined that a qualitative design using a single exploratory case study would significantly contribute to the current research body on LGBTQ+ identity development and social presence in online education. Semi-structured interviews were used to collect data. Data collection occurred until saturation was reached. A line-by-line analysis of participant interviews was conducted to search the data for meaning and themes.

Chapter 4: Findings

Chapter four reports the results of this qualitative single-case study of the perceptions and experiences of LGBTQ+ college students with self-disclosures, social presence, and its indicators (affective expression, open communication, and group cohesion). Transcriptions of participants' Zoom interviews were completed. Participants included students who identified as LGBTQ+ and had taken at least one asynchronous online course over the past year from a college located in the South-Central region of the United States. A line-by-line analysis was conducted using MAXQDA software, and themes related to the study research questions emerged. Triangulation was used to validate the data sources, including interview transcripts, field notes, and the research site's diversity and inclusion strategic plan.

Permission for this study was granted from the IRB at the University of Arkansas Fayetteville. Upon receiving authorization, participants were recruited for the study. Inclusion criteria were that all participants were over the age of 18, identified as a member of the LGBTQ+ community, and had taken or were taking at least one asynchronous course during their academic career at the university. Both purposive and snowball sampling was used to recruit participants for the study.

Participants obtained information regarding their potential involvement through social media announcements, the university's daily newsletter feature, and researcher recruitment through LGBTQ+ student organizations on campus before participating in the study. Potential participants were informed about the purpose of the study, potential risks and benefits, their rights as participants, and contact information for the primary investigator through the informed consent document. A field test was conducted before the data collection process. The question protocol was reviewed and tested before participant interviews began to ensure dependability and

reliability. A total of ten participants were selected for the study. The gender identities and sexual orientations of participants are listed below (Table 1).

Table 1

Gender identities and sexual orientations of study participants

Gender Identity	Sexual Orientation	Total
Female	Bisexual	2
Female	Queer	2
Female	Lesbian	1
Male	Gay	2
Non-binary	Bisexual	1
Non-binary	Pansexual	1
Non-binary	Self-identify: Bi-romantic	1
	Asexual	

Interviews were conducted on Zoom using the interview questions protocol created for the study. Additional data sources included the transcripts of the recorded Zoom interviews, field notes made during the individual interviews, and the research site's diversity and inclusion strategic plan. The additional data sources were used during the triangulation process to validate data consistency. Audio recordings from participant interviews were transcribed to obtain qualitative data from the twelve semi-structured interview questions. MAXQDA software was used to code and identify major themes and subthemes associated with social presence and self-disclosure.

Field notes and a reflexive journal were used to recount the researcher's experiences, reactions to interview participants, and reflections on the research process (Barry & O'Callaghan,

2008). In addition, field notes collected anecdotal observations about each participant's body language, tone, and overall mood during the interview process. Finally, the field notes and reflexive journal worked as a framework to limit potential biases and identify possible emerging themes during the interview process (Jonsen & Jehn, 2009; Merriam & Tisdell, 2015).

Ten participants were recruited for the study. Each participant had completed at least one asynchronous online course over the past year. Participants self-identified as a member of the LGBTQ+ community by completing an eligibility demographic protocol survey. More specifically, study participants identified within categories of gender identity as male, female, and non-binary. Additionally, participants identified within categories of sexual orientation as bisexual, gay, lesbian, queer, pansexual, and bi-romantic asexual. The race and origin of eight participants were eight white, one Hispanic, and one Other Asian. The ages of participants ranged from 19-43. Interviews were conducted from September 14th – 27th, 2021. Before study participation, each participant was given an informed consent form outlining participant rights and an overview of the study. Next, participants completed interviews on Zoom and provided information about their experiences with self-disclosure and their perceptions of social presence within the online classes they had taken or were currently taking.

Ten participants answered questions from an interview guide created by the researcher. There were twelve open-ended questions, with some questions having multiple parts. According to Creswell and Poth (2018), qualitative research is often used to examine problems that require a sophisticated understanding of the issues directly from the individuals who have experienced the phenomenon under investigation. Qualitative research interviews allow the researcher to understand the world from the subject's point of view and gain meaning from their lived experiences (Brinkmann & Kvale, 2015). Following the interview conclusion, participants were

allowed to ask questions and make comments during the research debriefing. Member checking allowed study participants to review their interview transcript and make any needed corrections or clarifications to the statements they made during the interview. Member checking strengthens credibility in qualitative research by allowing for more opportunities to check the collected data's accuracy (Cope, 2014; Patton, 2015).

Interview transcripts were organized and analyzed line-by-line using coding methods. Single words and phrases were summarized in each participant's narrative responses and then grouped by related interview questions. Participants' perceptions of social presence in online learning environments were reported through thick, rich descriptions (Merriam & Tisdell, 2015; Patton, 2015). Coding memos were added to codes containing noteworthy or observable differences in responses. Additionally, content analysis was performed to determine counting frequencies, sequence, and locations of words and phrases (Saldaña, 2021). Coding analysis was used to identify trends related to participants' feelings and experiences with self-disclosure and social presence in online courses. Similar words and phrases were placed into descriptive categories. The participants' direct quotes and observational points gleaned from field notes were reviewed for any possible patterns. Color coding was applied to the patterns to ensure appropriate categorization. Additional codes were added and categorized to increase coding reliability and validity. From these categories, significant themes related to each of the four research questions emerged. The major themes and related sub-themes are included in Table 1.

Results

The qualitative data collected sought to answer the research questions posed in this study. The data included transcripts of audio recordings of participant interviews, field notes, and the research site's diversity and inclusion strategic plan. Additionally, the following research

questions were used to examine LGBTQ+ colleges students' experiences with self-disclosure and their perceptions of indicators of social presence in online classes:

RQ1. How do LGBTQ+ college students describe their perceptions of social presence and its indicators in online courses?

RQ1a. What are LGBTQ+ college students' self-perceptions of affective expression in online courses?

RQ1b: What are LGBTQ+ college students' self-perceptions of open communication in online courses?

RQ1c: What are LGBTQ+ college students' self-perceptions of group cohesion in online courses?

RQ2: What considerations inform LGBTQ+ college students' decisions about self-disclosure related to the socio-cultural dimensions of sexual orientation and/or gender expression of their online social identities?

RQ3: How do LGBTQ+ college students describe their perceived social identities in online courses?

RQ4: How do LGBTQ+ college students describe their experience of others' perceptions of their social identities in online courses?

Line-by-line analysis was applied to each of the ten interview transcripts. First, words and phrases were analyzed for meaning and designated with a code. The first round of analysis generated approximately 483 codes. Next, the data were categorized and recoded two more times, and significant themes emerged. The major themes and sub-themes are listed below (Table 2).

Table 2
Themes identified from semi-structured interviews

Research Questions	Sub-Questions	Themes	Sub-Themes
How do LGBTQ+ college students describe their perceptions of social presence and its indicators in online courses?	What are LGBTQ+ college students' self-perceptions of affective expression in online courses?	Students were often unable to form distinct impressions about their peers.	<ul style="list-style-type: none"> • Uncertainty • Ambiguousness
		Students were reluctant to share personal information in initial superficial exchanges.	<ul style="list-style-type: none"> • Bare minimum • Hesitancy
	What are LGBTQ+ college students' self-perceptions of open communication in online courses?	Group interactions with peers were often superficial and task driven.	<ul style="list-style-type: none"> • Shallow interaction • Indifference • Half-hearted
What considerations inform LGBTQ+ college students' decisions about self-disclosure related to the socio-cultural dimensions of sexual orientation and/or gender expression of their online social identities?	What are LGBTQ+ college students' self-perceptions of group cohesion in online courses?	Peer relationships were perceived as limited and associated with lacking a sense of belonging and authentic connection.	<ul style="list-style-type: none"> • Remoteness • Disconnected • Inauthenticity
		Some students chose not to disclose based on concerns over privacy along with the social and political climate.	<ul style="list-style-type: none"> • Not worth it • Political issue
		Students disclosed in online classes based on their openness in professional and personal environments or when content was relevant to the topic.	<ul style="list-style-type: none"> • Openness in other areas. • Subject matter relevancy • Positive peer interactions

Table 2 (Cont.)
Themes identified from semi-structured interviews

Research Questions	Sub-Questions	Themes	Sub-Themes
		Creating safe online spaces reduces the barriers to self-disclosure.	<ul style="list-style-type: none"> • Teacher Immediacy • Sharing pronouns • Displaying symbols
How do LGBTQ+ college students describe their perceived social identities in online courses?		The structure of online courses rarely offered organic opportunities for expressing social identity.	<ul style="list-style-type: none"> • Structure of online classes • Absence of shared experiences
		The absence of visual social cues and direct communication between participants were barriers to expressing social identity.	<ul style="list-style-type: none"> • Limited peer interaction • Nonverbal communication
How do LGBTQ+ college students describe their experience of others' perceptions of their social identities in online courses?		Students described their instructors' perceptions of their identities as generally positive.	<ul style="list-style-type: none"> • Academic performance • Positive instructor interactions
		Students were ambiguous or negative about their peers' perceptions of their social identities due to limited interaction and direct communication.	<ul style="list-style-type: none"> • A name on a screen • Inconsequential • Uncertain

RQ1. How do LGBTQ+ college students describe their perceptions of social presence and its indicators in online courses?

Research question one is examined through three sub-questions related to LGBTQ+ college students' self-perceptions of the three indicators of social presence: affective expression, open communication, and group cohesion (Rourke et al., 2001).

RQ1a. What are LGBTQ+ college students' self-perceptions of affective expression in online courses?

According to Kreijns et al. (2014), affective expression indicates the socio-emotional components of communication to form interpersonal relationships between peers in online classes. Students' expressions of humor, emotion, and self-disclosure serve as indicators of affective expression (Rourke et al., 1999). Self-disclosure provides students with opportunities to share information about their personalities and personal lives. Sharing personal information offers an opportunity for a shared sense of belonging between the instructor and students and between students and their classmates. LGBTQ+ study participants recounted their inability to make inferences about their classmates due to limited opportunities to engage with their peers in meaningful ways. As might be expected, participants expressed reluctance in sharing personal information about themselves in superficial course activities.

Students were often unable to form distinct impressions about their peers. An online learning environment that prompts learners to share experiences, interests, and viewpoints facilitates self-disclosure. Online classes with limited affective expression opportunities lack opportunities for learners to share humor, emotions, and to self-disclose. Usually, these deficiencies leave learners with vague and sometimes biased impressions of their peers (Sherblom, 2010, as cited in Greenan, 2021). Success in online learning experiences requires

collaborative activity between classmates (Cobb, 2009; Garrison, 2006; Kehrwald, 2010; Akcaoglu & Lee, 2016; Swan et al., 2006). Several LGBTQ+ participants reported difficulty articulating their impressions of their peers due to a lack of opportunities to interact with their classmates during course activities or assignments. A participant who identifies as non-binary and bisexual described their communication with classmates as "basically non-existent." They went on to say:

I don't know who's in my class. We don't ever talk. There's no GroupMe or anything like that. So, I don't know who's in my class. So, I haven't talked to any of them. Non-binary Bisexual 4

Additionally, another participant reported:

I'd say they didn't really see me as a real person because we didn't have the opportunity to get to know each other. And like the only, the only time that we got to know anything about each other was like in the beginning introductions. Male Gay 10

Six out of ten LGBTQ+ participants stressed the difficulty of communicating in text-based discussion boards. Participants used terms like frustrating and isolating to describe interacting with their classmates in text-based discussion assignments. Lack of visual or oral cues in online learning environments can serve as barriers to expressing humor, emotions, or projecting self-identity (Arbaugh et al., 2010; Derks et al., 2008). Another gay male participant recounted making a joke about his dialect accent, and no one in class commented about it to his annoyance.

Students were reluctant to share personal information in initial superficial exchanges.

LGBTQ+ participants were asked about the personal information they shared with their instructors and classmates in discussions and specifically introductory activities or icebreakers. Participants expressed some degree of reluctance to share personal information during icebreaker activities. Initially, most participants felt comfortable sharing information about their educational programs and professional backgrounds. For example, a female queer participant reported

sharing information about her professional experience and her pet. She noted, "I've never been a person who puts like personal things up because they can be weaponized too easily, in my opinion." One participant who identifies as non-binary and pansexual reported cutting and pasting from their LinkedIn profile each time they completed an icebreaker activity. They discussed doing this because of the ease involved, and it allowed them to keep what they share intentionally vague.

I am a big fan of copy-pasting my little LinkedIn paragraph. Because it's easy. And I put a lot of time into writing at once and don't want to do that again. So, I normally cut that down a lot and just leave in like general. Hey, here's my name. Here's some stuff about what I do professionally. And here's what you can find me doing outside of work. I keep things a little vague. I have. So, I'm actually in a polyamorous relationship. And so, I have a boyfriend, and I have a girlfriend, and I keep it vague on LinkedIn and just say, um, maybe I'm exploring Northwest Arkansas with my partner or something like that. And so, it's vague in the sense of gender, and it's vague in the sense of quantity almost, or not. Non-binary Pansexual 3

RQ1b: What are LGBTQ+ college students' self-perceptions of open communication in online courses?

Open communication is often described as the degree of comfort in interacting with others. According to Kreijns et al. (2014), open communication is defined as interactive and purposeful. Additionally, it is characterized through reciprocal exchanges with classmates and instructors (Garrison et al., 2000). When learners share a connection, they are more likely to share ideas and work together (Whiteside, 2015). LGBTQ+ participants described their interactions with their classmates as lacking connection, superficial in nature, and task driven.

Group interactions with peers were often superficial and task driven. One attribute of open communication is where students respond to others during class activities or assignments (Garrison et al., 2000). Eight out of ten participants discussed having interactions with classmates on discussion boards. However, participants described these exchanges as frustrating,

lacking depth, and superficial. A male gay participant stated that students in face-to-face classes are more thoughtful about what they express in front of classmates. He added that online students only want to get the discussion board activity done and are unconcerned about engaging with classmates. Another queer female participant expressed frustration with being interested in a particular topic only to have difficulty finding a classmate to engage with about the material from the lesson. Another male gay participant noted that he felt more connected to his classmates in their thirties and forties. He experienced more engagement and participation when he interacted with his older classmates than those in their twenties.

RQ1c: What are LGBTQ+ college students' self-perceptions of group cohesion in online courses?

Group cohesion allows learners to cultivate interpersonal relationships with their classmates and encourages a sense of belonging (Garrison et al., 2000). Learners achieve group cohesion by perceiving themselves as part of the online learning community (Cleveland-Innes et al., 2019). LGBTQ+ students often exhibit higher levels of depression and isolation in online environments (Miller et al., 2021). LGBTQ+ participants reported struggling with the degree of connection and sense of belonging with their peers.

Peer relationships were perceived as limited and associated with lacking a sense of belonging and authentic connection. Group cohesion refers to online activities that mirror a group's shared social identity, connection, and belonging (Kreigns et al., 2014). Five out of ten LGBTQ+ participants reported having no sense of belonging shared with their classmates in their online classes. Participants described online classes as solitary experiences with limited opportunities to interact with other students. Additionally, two other participants had difficulty

characterizing their sense of belonging in the online classes they had taken. A non-binary, bisexual participant lamented the lack of communication in their online course:

Um, I mean, I guess I feel like I belong, but it's hard to really gauge that when there's barely any communication. And I only talked to my professor like once a week when I got my grade back on the weekly project. Non-binary Bisexual 4

Three other participants reported that both students or instructors had added semi-synchronous chat platforms to their online classes, which aided in their sense of belonging and shared community. A female bisexual participant described the class GroupMe channel as a more casual setting for conversations with classmates. According to a male gay participant, the course GroupMe channel allowed classmates to vent their frustrations over the structure and types of assignments. He went on to add:

And we hated the class because it was terrible. So, in that case, I felt that I belonged more, because we were all the time complaining about how bad the assignments were, how terrible that specifically, specific setting setup of the class was. So, I felt like really connected with my classmates. Male Gay 8

A female queer participant revealed that she struggled with a particular class GroupMe channel over academic integrity issues. She described at first feeling great about making friends with classmates, but that was short-lived after someone shared all the answers to a test in the class.

RQ2: What considerations inform LGBTQ+ college students' decisions about self-disclosure related to the socio-cultural dimensions of sexual orientation and/or gender expression of their online social identities?

The act of self-disclosure is an exchange process where the individual evaluates the cost and benefit of sharing information with others (Chaudoir et al., 2010; Greene et al., 2006; Phillips et al., 2009). Identity plays an essential role in self-disclosing (Chaudoir et al., 2010; Greene et al., 2006; Phillips et al., 2009). LGBTQ+ individuals navigate the disclosure of their

identities in a markedly different way than cisgender, heterosexual people (Ceglarek & Ward, 2016; Fox & Ralston, 2016). LGBTQ+ participants decided to disclose in online classes based on privacy, social and political climate, being out in other areas of life, and relevance to the subject matter covered in the course.

Some students chose not to disclose based on concerns over privacy along with the social and political climate. LGBTQ+ individuals, who have been characterized as belonging to invisible stigmatized groups, must decide whether to disclose their gender identity or sexual orientation to others in various social groups (Ragins et al., 2007). For example, a non-binary bi-romantic asexual participant revealed that they weren't worried about disclosing their gender identity or sexual orientation to classmates or instructors in their online class because they considered themselves “straight passing”:

Usually, it's pretty, okay. I'm not too worried about that kind of stuff, especially if my picture isn't out like I don't have. Like, I'm pretty, like straight passing. And stuff like that. So, I'm not usually worried about people catching weird vibes. Although if you saw my water bottle, you might, you might see something a little more suspicious.
Non-binary Bi-romantic Asexual 5

Another female queer participant revealed that disclosing her identity to her classmates wasn't worth her effort because she doubted, she would ever interact with them again once the class was over. The participant smiled slightly exasperated as she explained her reasoning. Additionally, she cited issues related to her privacy because some online courses require her to record video discussion posts and peer responses. She revealed she felt uncomfortable revealing personally vulnerable information about herself. Another participant who identifies as both non-binary and bisexual revealed that they choose not to disclose because the issue is irrelevant in the classroom setting.

A male gay participant, who was noticeably frustrated, shared that he did not disclose based on the perceived conservative social and political campus climate of the area:

I just kind of um avoid any topic related to being out that I don't have the energy to argue about like you know, like I know I'm in like a wasp nest of Republicans here so like I am now, and I'm just not going to I don't need to waste my time talking to them about it. So, in general, I just kind of stay quiet and neutral and try not to say, you know, like anything that would bring, like unwanted attention or conflict, I don't know. Male Gay 10

Students disclosed in online classes based on their openness in professional and personal environments or when content was relevant to the topic. A participant who identifies as female and lesbian revealed she shares that she has a wife and child in the first weeks of class when students introduce themselves. She added that she's never received a negative response from any classmates or instructors. Another female bisexual participant shared that she is comfortable disclosing in an academic setting. She shared her sexual orientation with classmates during a course topic on sexual orientation. The participant said her experiences discussing her bisexuality were good, and nothing bad ever came from her disclosure. However, she added that she might be more reluctant to self-disclose in classes with topics unrelated to her sexuality.

Another male gay participant reported that he shares his sexuality in course introductions because of how open he is about his sexual orientation:

I'm very open about my sexual orientation; I think it's a big part of my identity. And I think it's something that defines me as a person. So, I generally have something showing that I belong to the community, or I always share something about myself that discloses that part of who I am. Male Gay 8

Creating safe online spaces reduces the barriers to self-disclosure. LGBTQ+ students experience environmental support for self-disclosure through the presence of others who have fully disclosed, supportive relationships with individuals outside the stigmatized group, and institutional support that provides protection and support for the stigmatized individual (Ragins et al., 2007; Ragins, 2008). Safe spaces in online classes are one such example of institutional

support. Safe spaces combat marginalization and promote open communication (Brown, 2011). Teacher immediacy is a behavior that reflects both institutional and environmental support. It comprises a set of verbal and nonverbal traits that generate perceptions of empathy and open communication with students (Frymier & Houser, 2000, as cited in Faulkner et al., 2020). Nine out of ten participants cited teacher immediacy as essential in creating an online safe space. In addition, participants shared that the instructor plays a significant role in setting the tone for the online classroom:

Um, probably, if they were like, in their syllabus that had a nondiscriminatory policy that made it very obvious. We don't tolerate harassment based on gender, sexuality, anything like that. That would open up the realm to feel safe for me to come out if I wanted to. Or something along those lines, like making it established. You cannot. Like you know, no discrimination, just putting it out there. Non-binary Bisexual 4

Um, I would say just that, like, you know, having us go around and like, say, our preferred names or profile or pronouns, and even had like a, a, I guess a class or two where we're talking about being, like, culturally competent regarding the LGBTQ plus community, just because I feel like a lot of people on campus aren't too like educated on that topic. And so like, I feel like that's like in even in the beginning, I feel like that's something that could go along during syllabus week, like just talking about how it's important to be aware of like other people the way other people identify and because usually in my experience like in classes where that subject is always brought up. Female Bisexual 9

Hmm. I mean, it's always nice to hear someone in a position of power explicitly state that they're an ally. And maybe like, For me that's all that's the big thing. I've been dealing with these issues since before 1996 about my sexuality. So, like I'm kind of good with it all. I just need it to be explicitly stated that I'm supported. And I don't really need much special attention other than that. Male Gay 10

Seven out of ten participants revealed that having the instructor and classmates share their pronouns would be a small yet significant step in creating an online safe space. Faulkner et al. (2020) recommended using correct pronouns to promote verbal immediacy for instructors. A male gay participant revealed that he feels safe when others use correct pronouns and display a symbol of inclusion like a rainbow flag or marker. Historically, symbols like the rainbow flag or

pink triangle have been used to express ideas, concepts, and identities within the LGBT community (Frederick, 2014; Jensen, 2002). A female queer participant further suggested that the online class banner should support the LGBTQ+ community, Black Lives Matter, and a safe sanctuary for immigrants.

RQ3: How do LGBTQ+ college students describe their perceived social identities in online courses?

Within the CoI framework, social presence has been described as essential for understanding how learners project their social identity within the online classroom and their degree of belonging towards others in their group (Lowenthal & Dennen, 2017; Phirangee & Malec, 2017). SIT states that individuals define themselves based on their memberships to social groups. Social and personal identity are viewed through the perceptions of others with whom the individual connects (McClean & Syed, 2014; 2015). Participants have expressed frustration with expressing their online identities due to the structure of online learning. Classes provided little chance for students to share information about themselves or their life experiences. Additional barriers that study participants identified are the absence of visual social cues and direct communication among classmates.

The structure of online courses rarely offered organic opportunities for expressing social identity. LGBTQ+ participants described missed opportunities in getting to know each other. Multiple participants lamented that online classes don't lend themselves to the social activities like the ones experienced in the traditional classroom, like going to lunch with classmates. Another participant described missing the small talk students often experience in face-to-face classes on topics ranging from course material covered to test preparation. One non-binary bisexual participant described the barriers they face in the following terms:

There's no way to express myself; there's no discussion board where I can talk about myself. There's no GroupMe where I can introduce myself to other classmates. It's kind of isolating, really because I don't talk to anyone at any given point. Non-binary
Bisexual 4

According to Rovai (2002), students in online classes need to feel that their identity is accepted, validated, and appreciated to engage and interact with their peers fully. A question asking about perceived barriers in projecting social presence led to many frustrated responses from participants. A female queer participant stated that the biggest obstacle to expressing her social identity is the lack of opportunities to talk about who you are as a person. She described the online class experience as being task oriented. A male gay participant described an online class as "minimum interaction, maximum result, whatever that is." Another study participant shared that online learning spaces have no room for elaboration or sharing personal experiences.

The absence of visual social cues and direct communication between participants were barriers to expressing social identity. In the past, students in online courses have described a feeling of isolation due to the reliance on text-based communication that often lacks visual social cues (Kehrwald, 2008). Five study participants expressed feeling isolated even in an online course with a synchronous component where students and faculty occasionally meet in real-time. For example, a male gay participant described feeling like he was never really seen because the instructor gave students the option of turning off their cameras. Another female queer participant lamented the lack of visual social cues in her online classes:

This is kind of weird, but like, we don't know what anyone looks like, and, on the one hand, it shouldn't matter. But on the other hand, sometimes it does. It's that signaling and stuff, and so if there are no like, head nods, signaling, or like, whatever, you really can't figure out what's going on.

RQ4: How do LGBTQ+ college students describe their experience of others' perceptions of their social identities in online courses?

According to SIT, social identity is observed through the perceptions of others with whom the individual interacts (McClean & Syed, 2014; 2015). While participants generally reported positive experiences with their instructors, they struggled to describe their peers' perceptions of their social identities due to a lack of direct interactions and communication.

Students described their instructors' perceptions of their identities as generally positive.

Online instructors play a pivotal role in the facilitation of exchanges in online classrooms (Andersen & Andersen, 1982, as cited in Comstock et al., 1995; Garrison, 2006; Kreigns et al., 2014). Instructors often serve as the first point of contact for students with inquiries or concerns about the online class. Five out of ten participants reported being comfortable interacting with their instructors, whether through email or web conferencing. Participants used terms like "friendly" and "good student" when asked about their instructors' perception of their identity. Students who shared information with their instructor related to their sexual orientation noted that the instructors seemed to affirm or mirror the language they had used to describe themselves or a significant other. Three participants noted that their instructors seemed to have no reactions or stayed "neutral" when they revealed information about their sexual orientation either in class assignments or in emails to the instructor.

Students were ambiguous or negative about their peers' perceptions of their social identities due to limited interaction and direct communication. Study participants had more difficulty describing their classmates' perceptions of their social identities. Three of the ten participants described their classmates' perceptions negatively. Students perceived their classmates' indifference towards them as a negative factor. The lack of opportunities to interact with their peers caused some participants to have negative perceptions about their classmates' overall engagement and willingness to share personal information about themselves. Words and

phrases like “disengaged” or “phoning it in” were used to describe their classmates’ attitudes towards their classes and any limited interactions the participants shared. A non-binary bi-romantic asexual participant described themselves as “just being a name in a long list of others.” One participant described being worried and self-conscious about how he is perceived online. He revealed, somewhat exasperatedly, that he spends too much time worrying about what others think of him during online classes. Other participants used phrases like “very vocal,” “highly clinical,” and “a pain in the ass” to describe their classmates’ perceptions of their social identities.

Summary

The purpose of this qualitative single-case study was to explore the perceptions and experiences of LGBTQ+ college students with self-disclosure, social presence, and its indicators: affective expression, open communication, and group cohesion (Rourke et al., 2001; Swan & Richardson, 2017). Permission to conduct the study was gained from the IRB at the University of Arkansas. Study participants were provided informed consent forms that included additional information regarding the study. Additionally, the study was field-tested before data collection. A total of 10 participants were interviewed over two weeks. Semi-structured interviews featuring twelve open-ended questions were used to collect the insights and experiences of study participants for data collection.

Field notes related to participant observations and perceptions were recorded during the interview process. Interviews were digitally recorded and later transcribed using Otter.ai live transcription service for Zoom. A line-by-line analysis of each interview transcript was conducted for coding. Words and phrases were assigned codes to categorize and compare participant responses. Distinct themes and patterns emerged. Saturation was reached with 10

participants. Triangulation was performed to validate data consistency. Interview transcripts were compared to field notes and the research site's diversity and inclusion strategic plan.

This research concluded that LGBTQ+ college students' self-perceptions of social presence and its indicators were often limited due to the lack of interaction and communication with their classmates. Social presence has been described as an individual's ability to project themselves both socially and emotionally (Garrison et al., 2000). Participants described their limited interactions with classmates as superficial and task driven. Concerns over privacy and the social and political climate contributed to some participants choosing not to disclose their sexual orientation and gender expression. Other participants chose to disclose in their online classes based on their level of outness in both their professional and personal lives. Most participants agreed that creating online safe spaces would greatly reduce barriers to disclosure. LGBTQ+ participants revealed that the structure of online classes limited their ability to talk about themselves or their interests. The absence of visual social cues and direct communication were also cited as barriers to expressing their social identities. However, participants described generally positive experiences with instructor's perceptions of their social identities in online courses. Nevertheless, participants had difficulty describing their classmates' perceptions of their social identities, either describing them in either ambiguous or negative terms.

Chapter five includes interpretation, implications of these results, and suggestions for future practice and further research.

Chapter 5: Implications, Recommendations, and Conclusions

The purpose of this qualitative single-case study was to examine the perceptions and experiences of LGBTQ+ college students with self-disclosure (Jourard & Lasakow, 1958) and the indicators of social presence: affective expression, open communication, and group cohesion in online courses (Rourke et al., 2001). A review of the literature warranted further research of LGBTQ+ college students' experiences with the construct of social presence was currently unknown. Furthermore, this study was needed because past research has shown that without safe learning spaces, LGBTQ+ students experience higher rates of distress, isolation, depression, and discrimination (Mays & Cochran, 2001; McCabe et al., 2013) when compared to their cisgender, heterosexual classmates. In addition, LGBTQ+ students have reported feeling invisible or underrepresented in face-to-face classrooms (Kilgo, 2020).

Social presence significantly contributes to the well-being of marginalized student populations, like that of students who identify as LGBTQ+. The construct of social presence allows researchers to identify how learners project their social identity and their sense of belonging towards other classmates in online classes (Lowenthal & Dennen, 2017; Phirangee & Malec, 2017). Other researchers have argued that social presence decreases feelings of isolation and loneliness (Clark et al., 2015; Cunningham, 2015) and increases the learner's sense of belonging (Kozan & Richardson, 2014). Social presence also contributes to the overall well-being of students and mental health (Ceglarek & Ward, 2016). Additionally, learners often overcome barriers to social presence by sharing personal experiences and information through self-disclosure.

According to Jourard & Lasakow (1958), self-disclosure is a social process that involves an individual sharing information with others. For members of the LGBTQ+ community, self-

disclosure takes on great significance through choosing to share personal information about an individual's gender identity or sexual orientation. Self-disclosure plays a vital role in confirming an individual's self-worth and personal identity (Greene et al., 2006). Lack of online safe spaces further complicates LGBTQ+ students' decisions related to self-disclosure in online classes. Additional research was required to understand how LGBTQ+ colleges students negotiate decisions related to self-disclosure in the online classroom, along with their perception of social presence and the role it plays in allowing learners to feel connected and seen as individuals.

Social presence is a psychological construct found within the CoI framework. Garrison et al. (2000) proposed that social presence was a significant contributor to the success of an online learning experience. Furthermore, Garrison (2009) characterized social presence as having three phases: first projecting a social identity, next having purposeful communication, and finally, building relationships. Past research has revealed that social presence and social identity coexist in collaborative online learning spaces (Tu, 2017). According to SIT, learners require autonomy to create their ideal and intentional identities based on the conditions of the learning environment and their interactions with their instructors and peers. Yet, researchers have not explored how LGBTQ+ students perceive social presence and what factors influence their decisions to self-disclose personal information using the CoI and SIT frameworks.

Both CoI and SIT were used to compose the four research questions that guided this study. The first research question and three sub-questions used the CoI framework to gauge students' self-perceptions of the indicators of social presence: affective expression, open communication, and group cohesion (Rourke et al., 2001). CoI and SIT framed the remaining three research questions that explored considerations for self-disclosure of sexual orientation and gender expression in online learning environments, perceived social identities in online courses,

and experiences related to instructor and classmates' perceptions of their perceived social identities in those courses.

Limitations

As with any research study, this qualitative study had limitations. One of the significant limitations of this research study was the small number of participants that were interviewed. Sample sizes involving case studies tend to be small (Yin, 2018). The sample size of this single case study consisted of ten participants who identified as LGBTQ+. Specific subpopulations of the LGBTQ+ community were not equally represented or, in some cases, represented at all. No individuals who identified as trans were interviewed about their perceptions of social presence. Furthermore, the sample did not represent a wide array of racial and ethnic groups—eight out of the ten participants identified as white. Due to cultural differences and belief systems, different racial and ethnic groups may have different perspectives regarding social presence and self-disclosure. Additionally, this study did not explore the themes of the intersectionality of race, gender, and sexual orientation. None of these multifaceted connections were investigated in this study. Nonetheless, further qualitative research on the intersectionality of these different constructs is highly recommended.

Implications for Practice

This research study provides detailed accounts of ten LGBTQ+ college students who participated in at least one online asynchronous class at the research site. Participants were asked to describe their perceptions of the different indicators of social presence and what factors influenced their decisions about self-disclosure of their gender and sexual identities. The participants openly shared their reflections on belonging to a marginalized group while taking online classes and how that shaped their interactions with instructors and peers. Implications for

online course design methods, instructional pedagogy, professional development, and institutional support were identified.

RQ1. How do LGBTQ+ college students describe their perceptions of social presence and its indicators in online courses?

RQ1a. What are LGBTQ+ college students' self-perceptions of affective expression in online courses? Affective expression illustrates the socio-emotional components of text-based communication in online classes that lead to forming interpersonal relationships between classmates and peers and classmates and instructors (Kreigns et al., 2014). Data from interviews revealed that participants were often unable to create distinct impressions about their classmates due to limited opportunities to engage in meaningful socio-emotional exchanges. Participants also showed that even when allowed to self-disclose information about themselves in course introductory activities, most were reluctant to share detailed information about their personal lives beyond answering the few question prompts found in the icebreaker exercise. Participant responses revealed a trust deficit in their relationships with instructors and classmates. Visual cues were not there to allow students to connect names with faces. Students often form vague or biased opinions about their peers without opportunities to share humor, emotions, and self-disclose (Sherblom, 2010, as cited in Greenan, 2021).

RQ1b: What are LGBTQ+ college students' self-perceptions of open communication in online courses? Open communication is characterized as being interactive and purposeful (Kreijns et al., 2014). However, data from the interviews revealed that most participants felt that the nature of online classes did not allow for deep, meaningful debate or discussion among peers. Without a shared connection, students are less likely to engage with each other or work collaboratively. Participants described how frustrating discussion board exchanges were due to the superficial

responses they received to their posts. Even if a student found the content engaging, it was often difficult to find classmates willing to contribute to meaningful conversations about the material.

RQ1c: What are LGBTQ+ college students' self-perceptions of group cohesion in online courses? Group cohesion describes the online activities that contribute to a class's shared social identity. Actions like these often engender feelings of belongingness or solidarity with other group members (Kreigns et al., 2014). However, with the absence of these activities, data from participant interviews revealed a sense of isolation and lack of online community. Participants described how small and self-directed online classes often seem without opportunities to collaborate on group assignments or paired activities. As a result, participants expressed their interactions with their classmates as disconnected or inauthentic.

RQ2: What considerations inform LGBTQ+ college students' decisions about self-disclosure related to the socio-cultural dimensions of sexual orientation and/or gender expression of their online social identities? Decisions related to self-disclosure are based on perceived acceptance, context, and varying degrees of individual outness (Sabat et al., 2014). The data garnered from the participant interviews largely mirrored the concepts found in this research. Some participants chose not to disclose due to concern for personal privacy and a distinct apathy towards their relationships with classmates. Another participant was reluctant to disclose based on the cultural and political values he had witnessed in other students around campus and the surrounding area. Yet, other participants shared that they had disclosed their sexual orientation in class discussions on related topics with human sexuality. Other participants disclosed at the start of the class term when students often introduce themselves through icebreaker activities. Participants who were willing to disclose revealed that they were open with their sexual orientation in all other areas of their lives in professional and personal settings. Participants who expressed a willingness to

disclose were also more engaged with LGBTQ+ support groups on campus and in the community.

RQ3: How do LGBTQ+ college students describe their perceived social identities in online courses? Social presence has been deemed essential to understanding how learners project their social identity within an online classroom (Lowenthal & Dennen, 2017; Phirangee & Malec, 2017). Tajfel described social identity as an individual's knowledge that they belong to social groups with emotional significance as group members (Tajfel 1972a, as cited in Abrams & Hogg, 1990, p. 7). Social identity is formed through an individual's self-concept based on their membership in similar social groups based on race, religion, occupation, sexual orientation, and gender (Brewer & Pierce, 2005; Miller et al., 2004). The data gained from interviews indicated that participants indicated frustration in the way online courses are typically structured. Lower perceptions of social presence may also influence how students project their social identities. Participants indicated that online courses rarely allow students to talk about themselves or share their interests outside the perfunctory icebreaker. Many participants expressed dismay over not participating in social opportunities in online classes like they would in a face-to-face class. The nature of communication in online courses also served as a barrier to students expressing their social identities with their classmates. There was an absence of visual social cues and body language that caused students never to get a clear idea about their peers' personalities. Opportunities for direct interaction between peers were limited, and these further diminished students' abilities to exhibit their social identities in their online courses.

RQ4: How do LGBTQ+ college students describe their experience of others' perceptions of their social identities in online courses? An individual's social identity is shaped through the perceptions of others with whom they interact (McClean & Syed, 2014; 2015). The data drawn

from participant interviews indicated that many students perceived their courses to have lower degrees of social presence. Students had difficulty articulating how their peers perceived their social identities in class with little opportunity to interact or communicate outside of discussion boards. Some participants assumed their classmates saw them negatively or worse, yet, not at all.

Recommendations for Practice

The results of this research produced practical implications for applied practice. Professional development of inclusive teaching practices that promote understanding of the LGBTQ+ student experience and the benefits of allyship is needed to support LGBTQ+ students in online classes. Additionally, faculty and instructional designers should strive to incorporate inclusive pedagogy in online courses. Inclusive pedagogical approaches respond to the diversity of learners that avoid marginalization (Spratt & Florian, 2015). Course content related to LGBTQ+ issues should be integrated into mainstream courses like human development and family educational policy (Rothblum, 2012). Inclusive pedagogy encourages instructors and students to work together to create a supportive learning space. Instructors and instructional designers should also apply the principles of Universal Design (UDL) to improve the experiences of LGBTQ+ students. These principles emphasize fair use of classroom materials that address a diverse set of learning needs and styles and a community of learners where sustained and supportive interaction between students and faculty is encouraged (Couillard & Higbee, 2018).

Additionally, faculty and instructional designers should emphasize best practices that promote more significant opportunities for collaboration and meaningful communication among students to increase perceived social presence in online learning environments. Finally, instructors should adopt a more constructivist approach that encourages self-disclosure, where

learners are encouraged to draw from their social identity and lived experiences in lesson activities and assignments. These strategies promote student success in online courses not only for LGBTQ+ students but for all students.

Recommendations for Future Research

This research study builds upon a growing body of literature related to the needs of LGBTQ+ college students. The results extend the understanding of the importance of validating safe online learning spaces in higher education. Online classes often leave students feeling isolated and vulnerable, with LGBTQ+ students exhibiting higher rates of isolation and depression (Mays & Cochran, 2001; McCabe et al., 2013). The focus of the study was to gain a deeper understanding of how LGBTQ+ colleges students perceive the construct of social presence and its indicators. Of particular interest were the considerations contributing to LGBTQ+ students' decisions to disclose personal information about their gender identity or sexual orientation to classmates and instructors. The study reflected that online courses perceived to have low social presence presented few opportunities for students to engage authentically with their instructors and classmates. Sharing personal information through the process of self-disclosure fosters a sense of belonging. Safe spaces have been shown to combat marginalization and promote open communication between participants (Brown, 2011). This study examined how creating online safe spaces may reduce barriers to self-disclosure through teacher immediacy and sharing of pronouns and inclusive symbols.

Future research on online safe spaces' role on LGBTQ+ students' perceptions of social presence is warranted. Past research has explored how online students' perceptions of social presence can positively influence participation (Swan & Shih, 2005; Tu & McIsaac, 2002), course satisfaction (Akyol & Garrison, 2008; Cobb, 2009; Swan & Shih, 2005), and perceived

learning (Hostetter & Busch, 2013; Richardson et al., 2017; Richardson & Swan, 2003). Over the past decade, higher education has championed diversity and inclusion for LGBTQ+ students through Safe Zone ally training and inclusive pedagogical practices in physical classrooms and campus environments (Kilgo, 2020). Consideration for diversity and inclusion in online learning spaces deserves the same level of commitment. Presently, no research has explored how LGBTQ+ students perceive social presence in online classrooms where their identities have been affirmed through institutional and environmental support. Additionally, the exploration of the role of the instructor in facilitating safe online spaces which promote perceived higher social presence merits further examination. Qualitative studies that address instructors' role in creating more empathetic, equitable learning spaces may reveal previously unknown inclusive teaching strategies and practices.

Additionally, a mixed-methods study would identify how course design influences LGBTQ+ students' perceptions of social presence. Past research by Swan and Shih (2005) adopted a mixed-methods approach that examined student survey results and qualitative interviews with students. The researchers discovered that correlations with other learner characteristics suggest that course design may significantly affect the development of social presence among learners. However, after reviewing the literature, no research was found that examines specifically how course design may influence how LGBTQ+ students experience social presence.

Further research is warranted to understand how intersecting identities shape the perceptions of social presence in online learning spaces. Miller (2018) explored the intersections of disability and queer identities in higher education looking at how individuals navigated change, built resilience, and resisted oppression. Plotts (2018) explored how Latino/a students

perceived social presence in online courses related to their cultural perspectives. However, no research currently exists that explores the experiences of college students with intersectional identities and how they perceive social presence in online learning from multiple contexts and perspectives.

Conclusions

This qualitative single case study examined the perceptions and experiences of LGBTQ+ college students with self-disclosure and social presence in online classes. Ten LGBTQ+ students were interviewed to collect information on how each perceived the indicators of social presence and what considerations informed their decisions about self-disclosure of their gender expression and sexual orientation in online classes they had taken. The participants shared experiences involving their interactions with instructors and classmates. Additionally, the participants reflected on their perceived social identities in online courses and how they thought others appraised them. While each participant shared unique perspectives with taking online classes, similar themes emerged regarding their experiences with the construct of social presence.

The study findings hold notable implications for online course design methods, instructional pedagogy, and the LGBTQ+ student populations on campuses across the United States. While there has been a remarkable shift in attitudes towards LGBTQ+ people, this study found that there is still a vast need to foster safe online learning spaces that promote inclusivity and open communication among LGBTQ+ students and their peers. In addition, LGBTQ+ students often lack the institutional and environmental support needed as they face discrimination, verbal harassment, microaggressions, and social ostracism (Hill et al., 2020; Rankin et al., 2010; Kilgo, 2020).

This study focused on how LGBTQ+ students perceive social presence, which is critical to the social process of learning that requires interaction and communication with others (Jarvis et al., 2003). Participants in this study often described feeling unseen and unheard in their online classes, much like past participants in related research on social presence. Isolation knows no gender or sexual orientation. However, understanding the specific needs of LGBTQ+ students require further study and should be encouraged to support safe, supportive, and equitable online learning environments.

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Appendices

Appendix A: Interview Question Matrix and Guide

Interview Questions	Related Research Questions
1. Tell me about yourself and your college experience up until this point?	Background
2. How would you describe your openness about your sexual orientation and/or gender identity in your personal, professional, and academic settings? a. What has contributed to your decisions about self-disclosure in each of these areas?	Background, RQ2
3. Why did you choose to take an online class?	RQ1, RQ2, RQ3
4. How did you introduce yourself in your online classes? a. What personal information did you share in your introductions?	RQ1, RQ1a, RQ1b, RQ2, RQ3, RQ4
5. What were your experiences with sharing information about your sexuality or gender identity with your classmates or instructor? a. If you shared, how would you describe the reactions of your instructors?	RQ2, RQ3, RQ4
6. If you shared, how would you describe the reactions of your peers?	
7. How did you determine if sharing information about your sexual orientation and/or gender identity was safe in an online class?	RQ2, RQ3, RQ4
8. How would you describe an online safe space? a. What did your instructor(s) or classmates do to create a safe space?	RQ2, RQ4
9. How would you describe your comfort level interacting and participating with your classmates and your instructors in your online classes? For example: discussion board posts, instructor feedback, peer feedback, interactions in group projects	RQ1, RQ1a, RQ1b, RQ1c, RQ3, RQ4
10. How would you describe your sense of belonging in your online classes? a. How would you describe your relationships with your peers?	RQ1, RQ1c, RQ2, RQ3, RQ4
11. How do you think you were perceived by your classmates and instructors during your online classes?	RQ1, RQ2, RQ3, RQ4
12. How would you describe your experiences with online classes compared with face-to-face classes you have taken? a. What differences in social interactions and cues with instructors and peers did you notice? b. What barriers to expressing your social identity have you experienced during your online class? c. What could your instructor or peers have done to improve your experience?	RQ1, RQ1a, RQ1b, RQ1c, RQ2, RQ3, RQ4
13. Is there anything else that you would like for me to know or that you would like to elaborate on?	RQ1, RQ1a, RQ1b, RQ1c, RQ2, RQ3, RQ4

Appendix B: Interview Protocol Script

STUDENT SEMI-STRUCTURED INTERVIEW PROTOCOL SCRIPT

Good morning/afternoon/evening,

Brief self-introduction (if we have not already met) ...

Thank you again for your interest in my study and for agreeing to participate and be interviewed. This interview will contribute to research that I am conducting for my doctoral dissertation. My research is about how LGBTQ+ student experience online classes at the university. Specifically, my study involves how LGBTQ+ college students experience the construct of social presence, which involves your interactions with classmates and your instructors. Additionally, my study examines how LGBTQ+ students manage their sexual and gender identities while in online classes and what parts of those identities they choose to share with classmates and instructors.

This interview will last no longer than 110 minutes. You may choose to turn your camera off before we begin recording as an additional consideration for your privacy. You may at any time indicate that you would rather not answer a question if you wish not to. You may also choose not to participate in the study at any time. If you should say something that you consider especially sensitive that you would not want to be in a report, please feel free to tell me so. As indicated in the letter of consent, I will treat all interviews and discussion with you as strictly confidential. For example, I will not use your name in any written report. I will always use pseudonyms or codes to replace your name and the names of anyone you should mention. I am simply trying to better understand how LGBTQ+ college students experience social presence in online classes and what information they share related to sexual and gender identities.

With your permission, I would like to record this interview to have an accurate record of our conversation. Is that ok with you? yes no

If at any time you are uncomfortable with what is being recorded, you can ask me to stop the recording.

Before we get started, is there anything more I can tell you about the purpose of this research?

yes no

I would like to start by asking you some background information.

Thank you so much for taking the time to share your stories with me. I have really enjoyed having a chance to learn more about your experiences. I will be emailing you a copy of the interview transcript for you to review. You may correct any information or remove any sensitive information that you do not want included in the study. You will have up to ten days to review and email me with any changes or corrections to the interview transcript.

Before we go, I would like to review the purpose of the study and your rights as a participant.

*At this point, the participants will be given a list of on campus mental health resources available to the participants in case they experience discomfort or emotional distress as a result of participating in this study.

Appendix C: Informed Consent

Informed Consent

You are invited to participate in a research study to investigate how LGBTQ+ college students experience online learning. The study is being conducted by Scott Wright, under the direction Dr. Kit Kacirek in the University of Arkansas Department of Rehabilitation, Human Resources and Communication Disorders. You were selected as a possible participant because you are an undergraduate or graduate student who is at least 18 years of age and identifies as LGBTQ+ and has taken at least one online class in the past year.

What will be involved if you participate? If you decide to participate in this research study, you will be asked to participate in an interview on Zoom that uses open-structured questions to ask you to share your story and construct meaning about your experience as a LGBTQ+ student taking online classes. Throughout the interview, follow-up questions may be asked to verify my understanding of how you personally experience online classes. Your total time commitment will be approximately no more than 110 minutes.

Are there any risks or discomforts? The process of participating in an in-depth interview may cause discomfort or emotional distress for you at times. It is possible that answering some of the questions may cause you to think about feelings or experiences that make you sad, angry, or upset. It is also important to note that you will be speaking while being video or audio-recorded with a researcher from inside of the university community. You may choose to leave your webcam off during the interview if you desire to further protect your privacy.

If at any time you experience distress because of your participation in this study, a referral list of mental health providers is listed provided your use. (Please remember that any cost in seeking medical assistance may be at your own expense.)

Are there any benefits to yourself or others? If you participate in this study, there are no direct benefits to your participation. There may be indirect benefits from the time and space spent reflecting on your experiences as a LGBTQ+ student taking online classes at the university. It is my hope that this research will contribute to the body of knowledge that helps college and university administrators, faculty and staff cultivate both face-to-face and online learning environments that support and empower LGBTQ+ college students. I cannot promise that you will receive any or all the benefits described.

Will you receive compensation for participating? There is no compensation for participation.

Are there any costs? There are no costs associated with participation.

If you change your mind about participating, you can withdraw at any time during the study. Your participation is completely voluntary. If you choose to withdraw, your data can be withdrawn as long as it is identifiable. Your decision about whether or not to participate or to stop participating will not jeopardize your future relations with the university.

Participants Initials _____

Page 1 of 2

Appendix D: Interview Demographic Questions Protocol

Interview Demographic Questions Protocol

My name is Scott Wright, and I am the principal investigator in research related to LGBTQ+ college students online learning experiences. As a potential participant in this study, you are asked to fill out a demographic interview survey that asks for demographic information like your age, current enrollment status, and your sexual and gender identity. The purpose of the survey is to see if you match the criteria to participate in the study. If you qualify, you will be asked to participate in an interview that uses open-ended questions to ask you to share your story and construct meaning of your experience as a LGBTQ+ student at the University of Arkansas. The survey should take no more than ten minutes to complete.

Your participation in the survey is strictly voluntary and refusing to participate will not adversely affect any relations with the University or researchers. If you do not qualify for the study, all information that you submit in the survey will be deleted.

If you have questions about this study, please contact Scott Wright by phone at [REDACTED] or by email at [REDACTED] or Dr. Kit Kacirek by phone at [REDACTED] or by email at [REDACTED].

If you have questions or concerns about your rights as a research participant, please contact Ro Windwalker, the University's Human Subjects Compliance Coordinator, at (479)-575-2208 or by email at irb@uark.edu.

1. What is your year of birth?
2. Are you currently enrolled as a student at the University of Arkansas?
 - Yes
 - No
3. How many online classes have you taken at the University of Arkansas in the past year? (Online classes are defined as asynchronous, meaning you did not meet with your classmates and instructor at regularly schedule weekly times. Most of the work you did for the class was self-guided.)
 - 0
 - 1-2
 - 3-4
 - 5-6
 - >6
4. What is your academic class standing?
 - Freshman
 - Sophomore
 - Junior
 - Senior
 - Graduate Professional
5. What is your race/ethnicity? (Check all that apply)

- White
 - Hispanic, Latinx, or Spanish Origin
 - Black or African American
 - Southeast Asian (Hmong, Laotian, Cambodian, Vietnamese)
 - Other Asian
 - Native American or Alaskan Native
 - Hawaiian Native or other Pacific Islander
 - Some other race, ethnicity, or origin_____
6. Which term best describes your gender identity?
- Female
 - Male
 - Transgender female
 - Transgender male
 - Non-binary or gender queer
 - Self identify: _____
7. What are your gender pronouns?
- He / Him / His
 - She / Her / Hers
 - They / Them / Theirs
 - Ze / Zir Hir / Zirs Hirs
8. Which term best describes your sexuality?
- Asexual (You experience little to no sexual attraction.)
 - Bisexual (You are attracted sexually and/or romantically to two or more genders.)
 - Gay, lesbian, or queer (You are a man or a woman who is attracted sexually and/or romantically to others of the same gender.)
 - Heterosexual/straight
 - Pansexual (Gender is irrelevant to you in matters of sexual and/or romantic attraction.)
 - Questioning (You are someone who is questioning your sexual orientation.)
 - Self identify: _____
9. Would you be willing to participate in a one-on-one interview via Zoom to discuss your experiences as an LGBTQ+ student taking online classes at the University of Arkansas?
- Yes
 - No
10. What is your preferred contact email?
- Email Address

Appendix E: Recruitment Email



Subject: Research Study Request for Volunteers

Dear Student,

My name is Scott Wright, and I am a doctoral candidate at the University of Arkansas in the Department of Rehabilitation, Human Resources and Communication Disorders. I am currently working on writing my dissertation and will be conducting my research at the university. I would like to invite you to participate in my study.

The purpose of my research is to investigate LGBTQ+ college students online learning experiences. As a participant in this study, you will be asked to participate in an interview that uses open-ended questions to ask you to share your story and construct meaning of your experience as a LGBTQ+ student at the University of Arkansas.

Throughout the interview, follow-up questions may be asked to verify my understanding of your experience in online classes. Your total time commitment will be about 110 minutes maximum. All interviews will occur online using Zoom.

No identifying information will be used in any reports or publications resulting from this research; your name in all transcripts of interviews, comments, observations, and documents would appear in written reports under a different name-a pseudonym. You may also keep your webcam turned off during the interview to protect your privacy if you prefer.

Thank you very much for your consideration. I sincerely hope you will volunteer to participate. Please let me know by clicking on this link to [email me](#) if you would like to participate in an interview as part of this study. You may also contact me by telephone or email if you have any questions or would like more information.

Scott Wright

Doctoral Candidate, Department of Rehabilitation, Human Resources and Communication Disorders, University of Arkansas

Phone: [REDACTED] * Email: [REDACTED]

Appendix F: Social Media Posting and Graphic

Social Media Posting

Research Study Opportunity Related to LGBTQ+ Students' Online Learning Experiences

Help with research related to LGBTQ+ students online learning experiences at the University of Arkansas!

As a participant in this research, you would be asked to:

- Complete a brief screening questionnaire ([linked here](#))
- Participate in a 1-on-1 interview via Zoom about online learning experiences

Eligible students will be prompted to provide their email address to participate in a one-on-one remote interview. This interview will take about 110 minutes maximum for you to complete. No identifying information will be used in any reports or publications resulting from this research. You may also leave your webcam turned off during the interview for additional privacy if you choose.

If you are interested, please contact me: [REDACTED] or [REDACTED].

Social Media Graphic

VOLUNTEERS NEEDED FOR ONLINE LEARNING RESEARCH

The research is about the
online learning experiences of
LGBTQ+ college students.
As a participant in this research,
you would be asked to:

- Complete a brief survey
- Participate in an interview via Zoom

If interested, please contact:
[REDACTED] **or** [REDACTED]

Appendix G: University of Arkansas Newswire Press Release

Research Study Opportunity Related to LGBTQ+ Students' Online Learning Experiences

Help with research related to LGBTQ+ students online learning experiences at the University of Arkansas!

As a participant in this research, you would be asked to:

- Complete a brief screening questionnaire ([linked here](#))
- Participate in a 1-on-1 interview via Zoom about online learning experiences

Eligible students will be prompted to provide their email address to participate in a one-on-one remote interview. This interview will take about 110 minutes maximum for you to complete. No identifying information will be used in any reports or publications resulting from this research. You may also leave your webcam turned off during the interview for additional privacy if you choose.

If you are interested, please contact me: [REDACTED] or [REDACTED].

Appendix H: Survey/Interview Validation Rubric for Expert Panel – VREP©

Survey/Interview Validation Rubric for Expert Panel – VREP©

By Marilyn K. Simon with input from Jacquelyn White

<http://dissertationrecipes.com/>

Criteria	Operational Definitions	Score				Questions NOT meeting standard (List page <u>and</u> question number) and need to be revised. <i>Please use the comments and suggestions section to recommend revisions.</i>
		1=Not Acceptable (major modifications needed) 2=Below Expectations (some modifications needed) 3=Meets Expectations (no modifications needed but could be improved with minor changes) 4=Exceeds Expectations (no modifications needed)				
		1	2	3	4	
Clarity	<ul style="list-style-type: none">• The questions are direct and specific.• Only one question is asked at a time.• The participants can understand what is being asked.• There are no <i>double-barreled</i> questions (two questions in one).			X		
Wordiness	<ul style="list-style-type: none">• Questions are concise.• There are no unnecessary words				X	
Negative Wording	<ul style="list-style-type: none">• Questions are asked using the affirmative (e.g., Instead of asking, “Which methods are not used?”, the researcher asks, “Which methods <i>are</i> used?”)				X	
Overlapping Responses	<ul style="list-style-type: none">• No response covers more than one choice.• All possibilities are considered.			X		See attached document

	<ul style="list-style-type: none"> There are no ambiguous questions. 					
Balance	<ul style="list-style-type: none"> The questions are unbiased and do not lead the participants to a response. The questions are asked using a neutral tone. 			X		Along with “negative wording” – some questions assume positive experiences of co-teaching
Use of Jargon	<ul style="list-style-type: none"> The terms used are understandable by the target population. There are no clichés or hyperbole in the wording of the questions. 				X	
Appropriateness of Responses Listed	<ul style="list-style-type: none"> The choices listed allow participants to respond appropriately. The responses apply to all situations or offer a way for those to respond with unique situations. 					N/A – open ended questions
Use of Technical Language	<ul style="list-style-type: none"> The use of technical language is minimal and appropriate. All acronyms are defined. 			X		
Application to Praxis	<ul style="list-style-type: none"> The questions asked relate to the daily practices or expertise of the potential participants. 				X	
Relationship to Problem	<ul style="list-style-type: none"> The questions are sufficient to resolve the problem in the study The questions are sufficient to answer the research questions. The questions are sufficient to obtain the purpose of the study. 				X	
Measure of Construct: A: Dialogue	<ul style="list-style-type: none"> The survey adequately measures this construct. <i>Dialogue involves interaction and conversations between teachers, can occur</i> 			X		See attached

	<i>formally or informally, is substantive, and involves discussion of instruction, curriculum, and other aspects of running a classroom.</i>					
Measure of Construct: B: Decision-making	<ul style="list-style-type: none"> The survey adequately measures this construct. <i>Decision-making includes considering alternatives, examining evidence, and deciding what to do based on the data presented.</i> 			X		See attached
Measure of Construct: C: Taking Action	<ul style="list-style-type: none"> The survey adequately measures this construct. <i>This involves actions that the team takes related to improving classroom practices in order to enhance student learning.</i> 			X		See attached
Measure of Construct: D: Evaluation of Practice	<ul style="list-style-type: none"> The survey adequately measures this construct. <i>Evaluation of practice involves teachers reviewing data and reflecting on their practice.</i> 			X		See attached

Permission to use this survey and include in the dissertation manuscript was granted by the author, Marilyn K. Simon, and Jacquelyn White. All rights are reserved by the authors. Any other use or reproduction of this material is prohibited.

Comments and Suggestions

A well written guide. Please see attached for comments. Comments come from a critical perspective, so please feel free to disregard if they do not fit with your methodology. Consider the situated experience of the participant before asking about their thoughts – i.e., do they like co-teaching? Would they choose to co-teach? Are they mandated? Do they have training? Also, as the researcher, are you a teacher? Are you familiar to them? Are you in a position of power, leading them to want to impress you with their answers?

Best of luck!

Laura Hartman, PhD, OT Reg. (Ont.)

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W: <http://www.linkedin.com/pub/laura-r-hartman/2b/114/b71>

Types of Validity

VREP is designed to measure face validity, construct validity, and content validity. To establish criterion validity would require further research.

Face validity is concerned with how a measure or procedure appears. Does it seem like a reasonable way to gain the information the researchers are attempting to obtain? Does it seem well designed? Does it seem as though it will work reliably? Face validity is independent of established theories for support (Fink, 1995).

Construct validity seeks agreement between a theoretical concept and a specific measuring device or procedure. This requires operational definitions of all constructs being measured.

Content Validity is based on the extent to which a measurement reflects the specific intended domain of content (Carmines & Zeller, 1991, p.20). Experts in the field can determine if an instrument satisfies this requirement. Content validity requires the researcher to define the domains they are attempting to study. Construct and content validity should be demonstrated from a variety of perspectives.

Criterion related validity, also referred to as instrumental validity, is used to demonstrate the accuracy of a measure or procedure by comparing it with another measure or procedure which has been demonstrated to be valid. If after an extensive search of the literature, such an instrument is *not* found, then the instrument that meets the other measures of validity are used to provide criterion related validity for future instruments.

Operationalization is the process of defining a concept or construct that could have a variety of meanings to make the term measurable and distinguishable from similar concepts. Operationalizing enables the concept or construct to be expressed in terms of empirical observations. Operationalizing includes describing what is, and what is not, part of that concept or construct.

References

Carmines, E. G. & Zeller, R.A. (1991). *Reliability and validity assessment*. Newbury Park: Sage Publications.

Fink, A., ed. (1995). *How to measure survey reliability and validity v. 7*. Thousand Oaks, CA: Sage.

Appendix I: University of Arkansas IRB Approval Letter



To: Scott A Wright
L00010674null
From: Justin R Chimka, Chair
IRB Expedited Review
Date: 09/07/2021
Action: **Expedited Approval**
Action Date: 09/07/2021
Protocol #: 2108347959
Study Title: LGBTQ+ College Students' Perceptions of Social Presence and Self-Disclosure in Online Learning: A Single-Case Study
Expiration Date: 08/15/2022
Last Approval Date:

The above-referenced protocol has been approved following expedited review by the IRB Committee that oversees research with human subjects.

If the research involves collaboration with another institution then the research cannot commence until the Committee receives written notification of approval from the collaborating institution's IRB.

It is the Principal Investigator's responsibility to obtain review and continued approval before the expiration date.

Protocols are approved for a maximum period of one year. You may not continue any research activity beyond the expiration date without Committee approval. Please submit continuation requests early enough to allow sufficient time for review. Failure to receive approval for continuation before the expiration date will result in the automatic suspension of the approval of this protocol. Information collected following suspension is unapproved research and cannot be reported or published as research data. If you do not wish continued approval, please notify the Committee of the study closure.

Adverse Events: Any serious or unexpected adverse event must be reported to the IRB Committee within 48 hours. All other adverse events should be reported within 10 working days.

Amendments: If you wish to change any aspect of this study, such as the procedures, the consent forms, study personnel, or number of participants, please submit an amendment to the IRB. All changes must be approved by the IRB Committee before they can be initiated.

You must maintain a research file for at least 3 years after completion of the study. This file should include all correspondence with the IRB Committee, original signed consent forms, and study data.

cc: Kit Kacirek, Investigator

