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Social presence in an online cohort

Marlo Barnett-Allen

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ABSTRACT

SOCIAL PRESENCE IN AN ONLINE COHORT

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Social presence in online learning has become significant in discussion in higher education. The current study was designed to reveal more fully the student perception of social presence within an online cohort. The research described in the current paper was a phenomenological study designed to examine the experiences of seven students who had graduated with master's degrees from an online cohort program. Specifically, the research examined students' perception of social presence through the lens of the Community Inquiry model, along with social cognitive theory, to determine the factors that might influence the levels of social presence in an online cohort. Analysis included an examination of whether or not students' perceptions of social presence changed throughout students' matriculation through the cohort program. Participants were recruited and interviewed for the study.

Findings indicate a variety of factors that influenced students' perceptions of social presence in an online cohort. Some influences are cohort design, the formation and maintenance of relationships, and self-motivation. Future research can build on the findings to determine the impact of family dynamics or educational groups on social presence in an online learning environment. In addition, professors should strongly advocate that students rotate in groups instead of matriculating with the same group in a cohort program. Additionally, more research is needed to understand the relationship of social presence in online learning to the two new elements of the Community of Inquiry model: learning presence and emotional presence.

NORTHERN ILLINOIS UNIVERSITY
DE KALB, ILLINOIS

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SOCIAL PRESENCE IN AN ONLINE COHORT

BY

MARLO BARNETT-ALLEN

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“I can do all things through Christ which strengtheneth me” (Philippians 4:13 KJV).

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DEDICATION

To my husband Leo and my two daughters, Dajae' and Faith
Also to my mom and my late grandparents, Charles and Lorraine Barnett
Thank you for your love and support

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CHAPTER 1

INTRODUCTION

According to a report by Ginder and Stearns (2014), the number of students taking online courses continues to increase. These government data from the National Center for Education Statistics were released in a series of Web tables of online learners by state, region, institution, and a number of other factors. Furthermore, in an annual report by the Babson Survey Research Group, Allen and Seaman (2014) stated, “The number of students taking at least one online course increased by over 411,000 to a new total of 7.1 million” (p. 2014). In addition, the Babson Survey Research report suggests that online enrollment in 2013 varied by institution. The report found that private, nonprofit four-year institutions experienced the largest percentage boost in online enrollment, followed by public four-year institutions. However, for-profit, four-year institutions reported the first drop in enrollment, decreasing 8.7% or by 66,600 students.

Among the most surprising findings in the Babson Survey Research group report is the statement by Allen and Seaman (2014) that there is a shifting age of online students. Although distance-education students are often assumed to be older, the report found that the popularity of online undergraduate programs is growing among those under 25. According to the report, 34% of undergraduate online students were under the age of 25 in the spring of 2013, up from 25% in 2012. The percentage of online graduate students under 25 also grew, from 13% in 2012 to 19% in 2013. Allen and Seaman (2014) stated that these changes could be due to two factors: the economic pressure to work when going to school and increasing familiarity with online courses. However, Aslanian and Tomassi (2010) suggested that the percentage of online graduate students under 25 is increasing because more students are experienced and familiar with online classes due to many high schools requiring online classes before graduation. Although the study

by Aslanian and Tomassi (2010) highlighted various trends in student preferences, a report by Jaggars (2014) suggested that online students are split on many issues, from how often they would like to engage with a faculty member to their tolerance for synchronous, or live, courses. Furthermore, Jaggars (2014) stated that when students were asked specifically about their online learning concerns, the highest percentages of students reported their ability to self-motivate during their online program (27%), perceptions about the quality of online study (27%), and the cost of online study (26%).

Chapter 1 gives background information about the evolution of the social presence theory and researchers' examination of it, as well as a brief insight into cohort model. In addition, subheaded sections include the problem statement of social presence, the significance of the study, the research questions, the theoretical constructs, the definitions of terms related to the research, and a brief summary. The following section addresses background information.

Background

The above data are necessary to consider when conducting research about online classes. More specifically, the above statistical data reveal that students' perceptions of the quality of education is a concern with online students (Jaggars, 2014). This statistical data cited by Jaggars (2014) is important because this current study examines students' perception of social presence in an online environment. As research has expanded in the online learning environment, Beldarrain (2006) has specified that trends of online education reveal "a shift in pedagogical perspectives and theoretical frameworks, with student interaction at the heart of learner-centered environments" (p. 139). Zawacki-Richter and von Prummer (2010), who reviewed 695 articles in distance-education journals between 2000 and 2008, also highlighted research trends in distance-education focus on interaction and communication patterns in computer-mediated communication (CMC), instructional designs, learner characteristics, and educational technology.

The integration of new technologies, such as Learning Management Systems (LMSs), helps to foster student interaction and collaboration. The tools that are designed in these LMSs vary but also assist students in organizing their work and interacting effectively (Coates, James, & Baldwin, 2005). This trend in distance education improves communication and technology in online instruction and makes it possible for teachers to achieve the best practices in online instruction and satisfy student needs (Beldarrain, 2006; Zawacki-Richter, 2010). Social presence has been found to be one of the greatest factors and an essential component to promote a sense of community in online learning (Cobb, 2009; Gunawardena & Zittle, 1997; Rovai, 2002).

For an online learning relationship to exist between social presence and participation in online student discussions (DeSchryver, Mishra, Koehler, & Francis, 2009), students with higher social presence must be more involved and engaged in such conversations (Cobb, 2009; Swan & Shih, 2005). Similarly, Bai (2003) indicated that social presence can lead to reduced feelings of isolation and detachment and, at the same time, can encourage student interaction and participation in online courses. Another advantage that helps to foster social presence is utilizing the LMSs, which allow students the ability to work independently at their own pace and time, the convenience of not being limited to one physical location/travel expense, and lower social/peer-pressure consequences (Hostetter, 2012; Matthews, 1999; Picciano, 2002). Another advantage of social presence is that it can create a sense of student satisfaction (Richardson & Swan, 2003). However, online classes can have many disadvantages, such as more work, intense requirement for self-discipline, and little or no face-to-face interaction (Hickey, 2014). Due to some of these disadvantages, students may tend to experience isolation in online classes (Aragon, 2003; Wei & Chen, 2012)

As online enrollment increases, many people question whether or not online learning can deliver the same results and/or achievement that a traditional classroom with a teacher and other students can offer (Burnett, 2001; Dell, Low, & Wilker, 2010; Hofmann, 2002). The resulting research indicates that little to no difference exists between online and face-to-face classes in

terms of student outcomes (Burnett, 2001; Dell et al., 2010; Hofmann, 2002). Additionally, Rovai (2002) summarized that “it is the method not the media that matters most in learning effectiveness” (p. 41).

The lack of difference between face-to-face and online learning classrooms has further driven the adoption of online learning and also sparked more research into ways in which to improve online learning (Wulff, Hanor, & Bulik, 2000). Palloff and Pratt (2003) suggested that when presenting best practices for improving online learning and improving interaction and interactivity, one area of great interest to both researchers and teachers is social presence theory.

Short, Williams, and Christie (1976), in their book *The Social Psychology of Telecommunications*, defined social presence theory as “the degree of salience of the other person in the interaction and the consequent salience of the interpersonal relationships” (p. 65). Over the past three decades, many researchers have devoted efforts to investigating social presence. Some researchers have focused on the theories and definitions of social presence, e.g., Biocca, Burgoon, Harms, and Stoner (2001); ; Short et al. (1976); Tu (2000); Tu, McIsacc, Sujo-Montes, and Armfield (2012); and Wei and Chen (2012). Others have examined the relationships between students’ perceived social presence and learning outcomes as well as online course satisfaction, e.g., Akyol and Garrison (2008); Caspi and Blau (2008); Crim (2006); Gunawardena and Zittle (1997); Hostetter (2012); Leong (2011); Richardson and Swan (2003); Tu (2001); Tu and McIsaac (2002); Tu, Sujo-Montes, Yen, Chan, and Blocher (2012); and Wise, Chang, Duffy, and Del Valle (2004). In addition, some researchers have developed instruments to measure social presence, e.g., Biocca et al. (2001), Gunawardena and Zittle (1997), Richardson and Swan (2003), Short et al. (1976), Swan and Shih (2005), and ; others have created activities and strategies for establishing social presence within online communities, e.g., Aragon (2003); Lowenthal et al. (2009); Shore (2007); and Tu, Sujo-Montes et al. (2012).

Although much of the research into social presence theory has sought to define it, measure it, or explore its benefits, little focuses on the depth and breadth of social presence by

examining it over a longer period of time. Many researchers provide some listing of best practices as revealed by their findings, but few seek to categorize fully and test the ways in which social presence can be fostered and encouraged in the online community (Wise et al., 2004). More specifically, for the current study, little previous research has examined social presence in an online cohort program.

Cohort

In a college setting, a cohort is a group of classmates who enter the same program and complete their courses together. Some college programs emphasize the partnership among cohorts by focusing on group work and team projects. Other schools provide the technology that allows cohorts to chat, debate, or collaborate (Cross, 1998; Maher, 2005).

In an online cohort program, students may enroll in any degree program or specialty certificate program, which are non-degree programs. Students enroll with fellow students who share interests and career objectives (Cross, 1998; Maher, 2005). Online cohorts are important because students share an interest in the subject matter and they are motivated to make connections between the content and the real world (Cross, 1998; Maher, 2005). Cohort peers are motivated to discuss similar issues and are likely to be eager to brainstorm and share ideas. Furthermore, students are likely to learn as much from the interaction with peers as they would from solitary study (Cross, 1998; Maher, 2005).

Different Types of Cohorts

There are several types of cohort models, as well as several types of online models. Reynolds and Hebert (1998) and Conrad (2005) suggested several types of cohorts, including structural-assigned cohorts (the group with which students take all their courses). Many times, a cohort consists of individuals from a single corporation or employer (such as a military unit, for

example). In this case, a student would complete the courses together with others, not just for academic development but for clear and tangible career objectives.

Another model is the structural-functional cohort (students take specialized courses/ programs together, which are non-degree programs) (Conrad, 2005; Reynolds & Hebert, 1998). Although students are not achieving degrees, students still share common interests and career objectives. Last is the informal-functional cohort model (in which students have study buddies and informal help groups) (Conrad, 2005; Reynolds & Hebert, 1998). This type of cohort is similar to a social networking group one might join on Facebook or MySpace. Because students create it themselves, they don't have to limit group members to students from their online college. Instead, they can open their group to any individuals who are studying the same subject, or who have the same professional and career interests.

Different Types of Online Cohorts

When students enroll in an online cohort, they can also select from various types of online models for their specific cohort (Köse, 2010; Rovai & Jordan, 2004). "Synchronous" means "at the same time," and "asynchronous" means "not at the same time." Synchronous learning can happen in either in a traditional classroom setting or in an online learning environment that involves live communication, chatting online, or teleconferencing (Köse, 2010; Rovai & Jordan, 2004). Asynchronous distance learning involves students given a set of directives or instructions from their instructor, with which they can work independently or with other cohort members outside of synchronous class time. With open schedule online courses, students are allotted the greatest amount of freedom. This is an asynchronous form of learning in which students are provided Internet-based textbooks, mailing lists, and email and bulletin boards to complete their coursework (Köse, 2010; Rovai & Jordan, 2004). At the beginning of classes, students are provided a set of deadlines but are allowed to work at their own pace as long as the work is turned in by the deadline. When students are participating in asynchronous online

discussions, learners can participate wherever they have Internet connection and at any time that is convenient for them (Ajayi, 2009; Angeli & Valanides, 2008; Cheung & Hew, 2004; Hammond & Wiriyapinit, 2005; Tremblay, 2006; Yukselturk, 2010). However, in contrast to traditional face-to-face classroom activities, in an asynchronous online discussion, students can finish a complete thought to a question and not be interrupted by other classmates (Xin & Feenberg, 2006). Asynchronous online discussion may have an increased sense of community and connectedness because students are matriculating through the program together (Dawson, 2006; Köse, 2010; Rovai & Jordan, 2004; Whiteside, 2015).

A great deal of research shows students' positive perceptions of online discussions (Hammond & Wiriyapinit, 2005; Lo, Johnson, & Tenorio, 2011; Palmer, Holt, & Bray, 2010; Pelz, 2004). Miyazoe and Anderson (2010) found that students generally believed asynchronous online discussions to be "both challenging and useful" (p. 192). Moreover, despite the lack of social cues, learners may perceive the discussions as personal (Gunawardena & Zittle, 1997) or comment that reading classmates' postings promotes a sense of community (Moisey, Neu, & Cleveland-Innes, 2008; Pelz, 2004). However, not all research supports this idea. For example, Vonderwell (2002) found that some students experienced asynchronous online discussions as impersonal.

Blended courses include face-to-face sessions in addition to online sessions; hybrid courses combine synchronous and asynchronous online learning to create a structure in which students are required to meet at a specific time in a classroom or Internet chat room (Köse, 2010; Rovai & Jordan, 2004). However, students are allowed to complete assignments on their own time and may turn them in through an online forum. Students taking a hybrid class may do so within an online cohort program.

Online cohort models have increased in popularity because the cohort structure helps with students' need for affiliation and offers the opportunity for a more fully integrated learning experience (Cross, 1998; Maher, 2005). In addition, Maher (2005) added that students liked the

structure of knowing the course schedules for the program at the start, faculty liked the clearly defined format to plan ahead for teaching assignments and course preparation, and administrators liked the predictability of enrollment to plan resources and expenditures.

Understanding the structure and cohort model is key when examining social presence in the online cohort environment. However, social presence is a highly complex construct for study (Swan & Shih, 2005). Social presence is a perception; it can and does vary from individual to individual. It can also be situational and vary across time for the same individual, making it a highly complex construct for study (Akyol & Garrison, 2008; Caspi & Blau, 2008). Researchers and educators need to examine its nature for the purpose of understanding interaction and social presence in an online environment. Understanding learner experiences and perspectives is important in an online cohort environment because students most likely make individual as well as group decisions about the value and sustainability of online learning for themselves and the others in their group based upon their experiences and impressions of those experiences. Therefore, if learners in an online cohort perceive themselves and their group members as having a great deal of social presence, then it is possible that they have had a good experience, which may have caused them to finish the program and possibly enroll in other online cohort programs. However, if the experience was the opposite and the learners did not perceive themselves or their group members as having a great deal of social presence, then it is possible that they had a bad experience, which may have an effect on how students view future online cohorts (Akyol & Garrison, 2008; Caspi & Blau, 2008).

Previous studies of social presence have been conducted in traditional classrooms and single online classes (Akyol & Garrison, 2008; Caspi & Blau, 2008; Crim, 2006; Gunawardena & Zittle, 1997; Hostetter, 2012; Leong, 2011; Richardson & Swan, 2003). Results from these studies have indicated that social presence is a significant predictor of students' satisfaction.

Problem Statement

Although Burnett (2001), Dell et al. (2010), and Hofmann (2002) suggested that there is little to no difference between traditional courses and face-to-face courses in terms of student outcomes, there are areas in online learning that are problematic for students. Students who take online courses are more likely to drop out than are students who attend traditional classes (Park & Choi, 2009; Xu & Jaggars, 2011). Students who have taken online classes have complained of being isolated and technically confused (Aragon, 2003; Wei & Chen, 2012).

However, just as in the traditional face-to-face classes, students need to experience a sense of connectedness (Lee & Robbins, 1998). The term “connectedness” refers to a sense of belonging.. It refers to a person’s belief that a relationship exists between him or her and at least one other individual in his or her social environment. Moreover, Lee and Robbins (1998) suggested that “people with high levels of connectedness are better able to manage their own needs and emotions through cognitive processes” (p. 338). Those individuals who are connected are more willing and able to engage with others and participate in activities.

Several studies conducted by Haythornthwaite, Kazmer, Robins, and Shoemaker (2000); Kanuka and Jugdev (2006); Rovai (2002); Shaw and Polovina (1999); Shieh, Gummer, and Niess (2008); Wegerif (1998); Xu and Jaggars (2011); and Zembylas, Theodorou, and Pavlakis (2008) suggested that isolation and not connecting with other students online is a major problem in online classes. Furthermore, Zembylas et al. (2008), who investigated the emotions of 92 online learners in a qualitative study, found that one of the major categories associated with negative emotions was loneliness and isolation. Students used words such as “alone,” “desperation,” “hopelessness,” “distress,” “stress,” and “anxiety” to describe their states of emotion in diary entries, interviews, final reports, phone conversations, and e-mails.

There is a need for distance education to be able to provide flexible learning opportunities in which students are connected with one another and interacting without compromising the quality of instruction (Tu & Corry, 2004). To examine this issue, Tu and Curry (2004), along

with other researchers, have conducted studies on social presence in online learning classes. The term “social presence,” introduced by Short et al. (1976), refers to the degree to which individuals perceive intimacy, immediacy, and their particular role in a relationship. Researchers have suggested that there is a relationship between social presence and student satisfaction in online learning environments (Gunawardena, 1995; Gunawardena & Zittle, 1997; Hostetter & Busch, 2006; Richardson & Swan, 2003; Russo & Benson, 2005; Swan & Shih, 2005).

For instance, Richardson and Swan (2003) found that students who were identified as having high social presence online were highly satisfied with their instructor. Further, Richardson and Swan (2003) found a link between student satisfaction with the instructor and perceived learning. Russo and Benson (2005), like Richardson and Swan (2003), found a relationship between student satisfaction with learning and instructor presence. Both studies found a strong relationship between student satisfaction and the perceived presence of other students, thus suggesting that it is important for instructors and students to build and maintain social presence in online learning environments.

Social presence has also been found to influence online interaction (Moore & Kearsley, 2005; Richardson & Swan, 2003; Tu, 2000; Tu & McIsaac 2002). Specifically, student-to-student interaction has been found to be motivating and stimulating for students (Moore & Kearsley, 2005). In addition, research has also shown that interactivity affects human learning and knowledge construction (Richardson & Swan, 2003; Tu, 2005), thus reinforcing the belief that one learns more when he/she connects with another (Hiltz, Coppola, Rotter, Toroff, & Benbunan-Fich, 2000). In addition, McInnerney and Roberts (2004) also reiterated the belief that when students interact in an online learning environment, they become aware of their own sense of self and eliminate the feeling of isolation.

However, the majority of past research, such as Moore and Kearsley (2005), Richardson and Swan (2003), Tu (2000), and Tu and McIsaac (2002), examined social presence only from the point of view of a student taking an online class. There is a need in research to determine the

perception of social presence in online cohort programs. When social presence is examined through a cohort lens, student experiences can be examined in more depth and breadth. A cohort environment allows a researcher to delve more deeply into other factors that may contribute to social presence as a predictor of satisfaction. A cohort environment allows participants to share their experiences from an entire program, whereas the current literature captures student experiences only from semester to semester, with various classmates and instructors. A study conducted by Dunlap and Lowenthal (2011) suggested that future research should focus on determining if there is an ideal combination of strategies for achieving the right level of social presence in an online course. Examining social presence in an online cohort could shed more light on achieving those strategies.

In online cohorts, students work together in predetermined classwork (Lipson Lawrence, 2002). Online cohort programs offer some flexibility for students, providing them an opportunity to learn from anywhere with access to the Internet. However, one of the problems that exist within online cohort programs is the lock-and-step course requirements, which provides no flexibility in course selection and sequencing (Barnett, Basom, Yerkes, & Norris, 2000; Maher, 2005).

Significance of the Study

Researchers have suggested social presence as a factor in the acquisition of learning and the positive satisfaction gained by learners (Gunawardena, 1995; Gunawardena & Zittle, 1997; Hostetter & Busch, 2006; Richardson & Swan, 2003; Russo & Benson, 2005; Swan & Shih, 2005). The findings of these researchers have suggested a connection between student perception of social presence and student satisfaction in an online class. However, the research on establishing a sense of social presence within an online environment over a period of time is limited (Lowenthal et al., 2009). In an online cohort program, students continue together throughout a predetermined amount of coursework, whereas in a single online class, students

might have only one class and semester for assignments and activities (Taylor, 2002).

Examining social presence in an online cohort can give a researcher greater insight into the factors that contribute to student perception of social presence. Greater insight may be obtained through a clearer understanding of students' connections and communication from class to class as they matriculate the program together. Furthermore, examining social presence in a cohort environment may reveal the establishment, fostering, and maintenance of social presence over a much longer period of time without the interruption and the instability of various students entering and leaving a class.

Students deciding to enroll in an online cohort program face both pros and cons. A benefit of the same students matriculating through a program together is the cohort students learning not only from the instructor but from their peers as well (Lipson Lawrence, 2002; Smith & Robinson, 2003; Wenger, 1998). Another benefit is a cohort design often including various methods of content delivery. Most online cohorts are offered through some type of LMS platform. This LMS platform allows students the ability to communicate with an instructor and peers through email, facilitated discussions, and synchronous webinars, and the opportunity to work in teams or groups (Coates et al., 2005; Lipson Lawrence, 2002; Smith & Robinson, 2003; Wenger, 1998). Therefore students are always interacting and communicating with one another. Moreover, the cohort-based approach allows students to build a community of learners that can engage students in the learning process and motivate them (Lipson Lawrence, 2002; Smith & Robinson, 2003).

However, there are cons to students enrolling in an online cohort program. Students may receive less individual feedback from instructors (Lipson Lawrence, 2002; Smith & Robinson). Students may receive less one-on-one instruction. Assignments and projects are due as a group instead of individually.

Whether a learner enters a traditional classroom or an online classroom, there is generally some apprehension. Though some learners are socially comfortable in the academic

environment, others enter with a social uneasiness and may be isolated. They may be concerned with how they are likely to be perceived and how they can interact with others. However, this study may provide information as to how students can become more comfortable in taking online line classes, especially in a cohort class.

Online cohorts can be extremely powerful motivators because they compel everyone in the group to keep going, even when they may experience stress or high anxiety, and to avoid dropping out (Lipson Lawrence, 2002; Smith & Robinson, 2003; Wenger, 1998). Students in active cohorts are less isolated (Lipson Lawrence, 2002). They also enjoy a sense of continuity beyond the cohort (Taylor, 2002). Although instructors may change from one class to the next, cohorts stay connected. Students report satisfaction and learning from online classes, although social presence has not been found to predict substantive engagement with the ideas of development of meaningful discourse (Haythornthwaite, 2006).

The structure of an online cohort model allows students to work together cohesively, to bond, to complete assignments and projects, and to share ideas and give different perspectives and viewpoints on topics. Examining social presence at this emergent level may help to understand students' interactions as groups within in the cohort as well as with instructors..

In addition, this study can provide critical knowledge to allow administrators, technology professionals, faculty, and other stakeholders to make decisions that can shape the future of online learning. For example, this study may support the allocation of resources to increase professional development for online instructors or to develop online learning programs and classes. In addition, the results from this study may provide online students with a better understanding of the specific factors that may influence their own sense of presence. This knowledge may decrease a student's level of anxiety of isolation within an online learning environment.

Purpose of the Study

The purpose of this phenomenological study was to explore students' perception of social presence in an online cohort learning environment. The concepts of social presence, which were intimacy and immediacy, were explored. However, Lowenthal (2012) stated, "During the past few years, researchers have focused less on studying social presence by itself—opting instead to study social presence as one aspect of a CoI [Community of Inquiry]" (p. 39). Therefore, for a more holistic view, social presence was examined through the lens of the CoI Model as well as social cognitive theory (SCT). This study is guided by the following research questions.

Research Questions

Research Question 1 (RQ1): How do Educational Technology, Research and Assessment technology specialist graduates perceive social presence in an online cohort?

Research Question 2 (RQ2): How do Educational Technology, Research and Assessment technology specialist graduates' experiences in an online cohort contribute to their perception of social presence?

Theoretical Constructs

To achieve the goal of the research, it is critical to identify and understand the factors that contribute to social presence in an online learning environment. Garrison, Anderson, and Archer (1999) developed a model of the teaching and learning interactions for online learning. The model assumes that in this community, learning occurs through the interaction of three core components: cognitive presence, teaching presence, and social presence. These components work together in the CoI framework (see Figure 1).

The first element in the model is the development of cognitive presence, defined as the extent to which the participants in any particular configuration of a CoI are able to construct meaning through sustained communication (Garrison et al., 1999). The second element is

teaching presence, which includes designing and managing learning sequences, providing subject-matter expertise, and facilitating active learning (Garrison et al., 1999). The third element is social presence, defined as the ability of learners to project themselves socially and emotionally in a CoI (Garrison et al., 1999). The function of social presence is to support the cognitive and affective objectives of learning (Garrison et al., 1999). Social presence supports cognitive objectives through its ability to instigate, sustain, and support critical thinking in a community of learners (Garrison et al., 1999). It supports affective objectives by making the group interactions appealing, engaging, and, thus, intrinsically rewarding, leading to an increase in academic, social, and institutional integration and resulting in increased persistence and course completion.

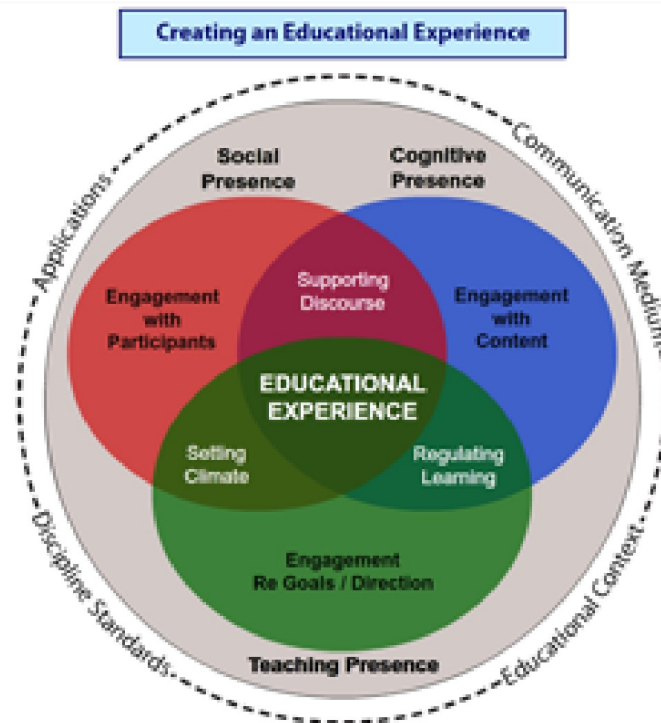


Figure 1. CoI model (Garrison et al., 1999, p. 88)

In addition, considering the social interaction dimension of online learning it is important to consider the development of social cognition. How one considers and perceives one's behavior and others' behavior in a social environment sets the stage on how one begins to interact and communicate with people. The SCT is important when examining social presence because it provides a framework for a deeper understanding of the cognitive processes in how a student may choose to interact with peers and instructors. Research in social cognition focuses increasingly on how people act together and understand each other in interactive situations (Bandura, 1989; LaRose & Eastin, 2004). This implies that a cognitive approach is used to study social experiences. Among other things, researchers who study social cognition examine ways in which people encode and decode social information, mentally organize and store this information, and use social knowledge to form opinions and make decisions regarding themselves and others (Bandura, 2000). People learn through observing others in their behaviors, their attitudes, and the outcomes of those behaviors (Bandura, 1989; LaRose & Eastin, 2004). Most human behavior is observed and learned through modeling, i.e., one forms an idea of how new behaviors are performed and then re-enacts that behavior (Bandura, 1989). Social learning theory explains human behavior in terms of continuous reciprocal interaction among cognitive, behavioral, and environmental influences (Bandura, 1989).

Definitions

Terms specific to this study are defined as follows:

Online learning: Learning that takes place via the Internet, where participants interact with instructors, content, and other participants through CMC (Arbaugh, 2004).

Online community: A group of students and instructor who communicate and interact through CMC tools to achieve learning goals or to complete a course of study (Aragon, 2003).

Synchronous online learning: Interactive online learning that occurs at the same time, involving more than one participant and/or instructor (Rovai & Jordan, 2004).

Asynchronous online learning: Interactive online learning that occurs at separate, independent times, resulting in time gaps between participants and instructors (Rovai & Jordan, 2004).

Computer-mediated communication (CMC): Communications that are delivered via computer-based applications such as e-mail, news forums, discussion forums, and web-conferencing (Zawacki-Richter & von Prummer, 2010).

Social presence: The extent to which students perceive themselves as real people engaged in real communications and interactions in an online learning environment (Garrison, Anderson, & Archer, 2001).

Teaching presence: The extent to which students perceive the instructor's activities in the design and facilitation of the learning experience in an online learning environment (Garrison et al., 2001).

Cognitive presence: The extent to which students perceive an ability to construct meaning in an online learning environment (Garrison et al., 2001).

Cohort: A group of individuals who enter a program at the same time, proceed through all classes and academic requirements together, and complete those courses and academic requirements together, thus creating an atmosphere for learning in which a synergy is present and the learners' effectiveness is increased (Maher, 2005).

Summary

In summary, Chapter 1 discussed an overview of the statement of the problem. It proposed the use of the CoI framework to gain a comprehensive understanding of the complex interactions happening in the online learning environment, specifically examining social presence. It provided an overview of current research findings and highlighted the need to look at the entire online learning process. It also claimed the need for the awareness of interaction in

online classes, and it raised questions of online learning experiences in the perceptions of current online learners.

In Chapter 2, I review the literature on the theoretical frameworks of social presence, the various definitions of social presence, and several constructs pertinent to social presence. In addition, I also discuss the importance of examining social presence in an online cohort, as well as the various types of models of online cohorts.

CHAPTER 2

LITERATURE REVIEW

Introduction

Although there has been an increase in the percentage of empirical studies on social presence in online learning environments, there has been little research on examining social presence within an online cohort model (Alman, Frey, & Tomer, 2012). Mason (2000) discussed a cohort of student teachers' CMC, but her focus is on CMC as it is used to enhance students' face-to-face learning rather than on either online learning or the cohort experience. Strohschen and Heaney (2000) have discussed the role of team teaching and learning and some cohort dynamics in attempting to implement a critical pedagogy approach in an online degree program, which offers an important beginning to understanding online cohorts' facilitation of learning. However, given that cohort programs have met great success in face-to-face degree programs made up of adult learners, it is indeed surprising that there has not been more consideration of cohort learning with a specific focus on social presence in online environments (Tisdell et al., 2004).

As a result of this gap in the literature, studies conducted on social presence in an online cohort program other than single online classes have been reviewed not only to inform and shape this proposed research but to provide a deeper understanding and knowledge regarding the topic of social presence. This chapter begins with the theoretical framework, definition, and concept of social presence. A brief discussion is included on understanding factors that influence social presence,(e.g., the variety of ways online interaction occurs). In addition, this chapter includes the definitions of terms of the online cohort model, as well as a brief summary that includes gaps within the literature.

CoI Framework

The CoI framework is generic in that it is conceptually grounded in theories of teaching and learning in higher education. Philosophically, the CoI framework is consistent with John Dewey's work on community and inquiry (Garrison, Anderson, & Archer, 2010). It has been suggested that the CoI framework provides sustainable principles and processes for the purpose of guiding online educational practice (Swan, Garrison, & Richardson, 2009).

The CoI framework developed by Garrison et al. (1999) was based on a model of critical thinking and practical inquiry. Garrison et al. (1999) suggested that learning occurs through the interaction of social presence, cognitive presence, and teaching presence within a CoI composed of teachers and students. Based on content analysis of postings in asynchronous discussion forums, they looked for postings or segments of postings that showed that the indicators of the three essential elements of the CoI (social presence, cognitive presence, and teaching presence) were present. These indicators consist of the occurrence of certain key words or phrases or synonyms of each presence. They then grouped these indicators into categories to indicate more clearly the phase or aspect of each element that was being demonstrated by each group of indicators (Anderson, Rourke, Garrison, & Archer, 2001; Garrison et al., 2001; Rourke, Anderson, Garrison, & Archer, 2001).

Swan (2001) noted that there is a correlation between the three types of presence making up the CoI model and the three types of interaction, which are interaction with content, interaction with instructors, and interaction with classmates. Swan (2001) suggested that cognitive presence can be equated with interaction with content, teaching presence with interaction with instructors, and social presence with interaction among students. Viewing these forms of interaction within this context provides a good depiction of the various types of interactions and how they work together to provide the educational experience (Swan, 2001).

Social Presence

Social presence in the CoI's framework consists of three categories: open communication, group cohesion, and affective expression (Akyol & Garrison, 2008; Garrison et al., 1999). Open communication is described as reciprocal respectful exchanges exemplified by mutual awareness and recognition of each one's contributions. The closely related second category is group cohesion, as students view themselves as part of a group that yields a sense of belonging. Garrison et al. (1999) described this category as "focused collaborative communication that builds participation and empathy" (p. 101). Its significance is in leading to effective cognitive educational experience and knowledge construction. Expression of emotion is more difficult to achieve with education at a distance within a primarily text-based communication mode (Akyol & Garrison, 2008; Garrison et al., 1999). Garrison et al. (1999) noted that emotional expression is demonstrated through the sharing of feelings, attitudes, experiences, and interests.

However, as more researchers have examined social presence, some of the labels of the categories have changed. In a study to assess social presence and interactions, Rourke et al. (1999) suggested that an important step in content analysis is the development of categories and indicators that researchers can then use to analyze the transcripts. Therefore, Rourke et al. (1999) relabeled the categories to better reflect the nature of the emergent indicators that define their study. Open communication is now referred to as "interactive responses," referring to indices of threaded interchanges combined with messages of a socially appreciative nature. Emotional presence has been renamed as "affective responses," and group cohesion has been relabeled as "cohesive responses."

Cognitive Presence

Cognitive presence is key to achieving critical thinking, which is the goal of higher education (Garrison et al., 1999). Within the CoI framework, a learner moves ideally from a

triggering event to exploration, integration, and ultimately resolution (Garrison et al., 1999). However, there seems to be great difficulty in moving beyond the exploration phase to reach critical-thinking levels (Garrison & Arbaugh, 2007). More research is needed to show that higher order learning can be achieved (Garrison & Arbaugh, 2007). Garrison et al. (2001) defined the first category as a triggering event, which is an issue, dilemma, or problem in which an instructor issues a learning challenge or activity that leads to student examination and analysis. The second category is exploration, in which students search for information to gain knowledge and make sense of the problem (Garrison et al., 1999). Through this process, students move from the individual world to that of the shared world of the CoI, characterized by critical reflection and social exploration of ideas (Garrison et al., 2001). The third category is defined as integration, in which learners gain meaning from the ideas developed during the exploration phase (Garrison & Arbaugh, 2007). Students can connect the ideas and progress to the higher level of critical thinking through gained insights (Garrison et al., 1999, 2001). The fourth category is the resolution of the issue or problem, which is the application of the new knowledge within the educational context or a transfer to workplace settings (Garrison & Arbaugh, 2007).

Teaching Presence

Teaching presence has three components: instructional design and organization, facilitating discourse (building understanding), and direct instruction (Garrison & Arbaugh, 2007). Anderson et al. (2001) described the facilitation of discourse:

The teacher shares responsibility with each individual student for attainment of agreed-upon learning objectives. The teacher supports and encourages participation by modeling appropriate behaviors, commenting upon and encouraging student responses, drawing in the less active participations, and curtailing the effusive comments of those who tend to dominate the virtual space. (p. 7)

Therefore, social presence lays the groundwork for higher level discourse. Moreover, the structure, organization, and leadership associated with teaching presence creates the environment in which cognitive presence can be developed (Garrison & Arbaugh, 2007). Consequently, the

CoI model can be used as a template for analyzing the many interactions among members of a collaborative, online learning experience (Garrison et al., 1999). However, to further understand these social interactions, the SCT must be examined. The next section discusses the SCT and its components and the role they play in social interactions.

Social Cognitive Theory (SCT)

Many people (especially introverts) find it hard to open their hearts and share their feelings and problems to people they know, let alone strangers (Brainbridge, 2015). Social interaction is the way in which people engage with one another. Research on social interaction is examined by looking at patterns, theories, and human behavior.

SCT explains that people learn by watching/observing others. In psychology, it explains personality in terms of the ways in which one thinks about and responds to one's social environment. For example, Bandura (1989) argued that when people see someone else rewarded for behavior, they tend to behave in the same way to attain a reward.

In SCT, the expected outcomes of a behavior are important determinants of one's performance (Bandura, 1989; LaRose & Eastin, 2004). This infers that the capacity to exercise control over one's own thought processes, motivation, and action is a distinctive human characteristic. Judgments and actions are partly self-determined; as a result, people can effect change in themselves and their situations through their own efforts (Bandura, 1989). The strength and effort of a person in any situation brings about the term "self-efficacy."

Self-Efficacy

Self-efficacy plays a role in how we interact with one another (Bandura, 1989; LaRose & Eastin, 2002). Bandura's (1989) theory emphasized the role of observational learning, social experience, and reciprocal determinism in the development of personality. In other words, self-efficacy is a person's belief in his or her ability to succeed in a particular situation. Bandura

(1989) described these beliefs as determinants of how people think, behave, and experience emotions.

Bandura (2000) suggested that self-efficacy beliefs affect thought patterns that may be self-aiding or self-hindering. These cognitive effects take various forms. Most people's actions are played out in the mind first, although, there are times when actions comes before thought. However, a major function of thought is to enable people to predict the occurrence of events and to create the means for exercising control over those that affect their daily lives (Bandura, 1989). In other words, people should think before they act. Sometimes that cognitive process may be hard to do when a person is engaged in social interactions in various social settings.

Social Interaction

People are social creatures and need to mingle and interact for health of mind and body (Paddock (2010). The use of technology can provide plenty of ways to engage actively with one another. Social interactions can be great, as well as bad, experiences (Rummel, 1976)

The cognitive process plays a significant role during social interaction, especially in conflict resolutions (Fernandez-Berrocal & Santamaría, 2006; Keysar, Barr, Balin, & Brauner, 2000; Putman, Ford, & Tancock, 2012). Social engagements can bring about shared viewpoints as well as differences of opinions. Face-to-face interaction requires participants in conversation to act quickly; such a quick and easy comprehension strategy is a crucial cognitive tool for resolving ambiguity in conversation (Keyzar et al., 2000). This cognitive process in conflict resolution can be attributed to metacognition (Putman et al., 2012). The act of reflecting on information and its possible application to one's context, falls ideally within the realm of metacognition, thus making it an additional variable that can further refine the definitions of the current stances and potentially add new ones (Putman et al., 2012).

Social interaction skills are also building blocks for success (Putman et al., 2012; Rhode, 2002). They provide the organization, framework, and events to foster the growth of these skills

through educational and recreational activities for people of all ages. Some of these interactions can be viewed as essential, although others may be viewed as supplemental (Putman et al., 2012; Rhode, 2002). Interactions are essential in an educational setting. Instructors and students must be active participants in the learning process (Putman et al., 2012; Rhode, 2002).

The cognitive process during social interaction reflects the occurrence of mutual scaffolding between and among participants, which can be known as “shared relational scaffolding,” that is, the possibility of solving the problem simultaneously by communicating the models in a social interaction condition (Fernandez-Berrocal & Santamaría, 2006). Bandura (1989) and Fernandez-Berrocal and Santamaría (2006) suggested that learning happens in a social environment. Moreover, Bandura (1989) suggested that human behavior can be explained triadic reciprocally: interactions among behaviors, the individual, and the environment. “Reciprocal determinism” is a key term developed by Bandura (1989). Both Bandura (1989) and Fernandez-Berrocal and Santamaría (2006) suggested that social interaction incorporates some ideas of behaviorism but emphasizes the notion that environment is not the only thing that influences behavior. Instead, people are influenced by their own self-beliefs, thoughts, and ideas, as well as the environment, but in addition, they influence, through their behavior and attitudes, the way the environment works; there is back-and-forth communication among the internal self, action, and the external world.

Interpreting Social Interaction

Comprehension at any level involves decoding words as well as one’s perception of the source of the information (Eberhard, Spivey-Knowlton, Sedivy, & Tanenhaus, 1995; Fussell & Krauss, 1992; Keysar et al., 2000). People use various strategies to decode information. For instance, one might occasionally use an egocentric heuristic to comprehend (Eberhard et al., 1995; Fussell & Krauss, 1992; Keysar et al., 2000). Language is inherently ambiguous---every linguistic expression can convey more than one intention. Therefore, interpreting language can

be extremely complex and can be misinterpreted. Comprehension requires ambiguity resolution at all levels of linguistic processing, from the perception of phonemes, through syntactic parsing, to the identification of the speaker's intention (Eberhard et al., 1995; Fussell & Krauss, 1992; Keysar et al., 2000).

One's perception of other people can result in one's reaction toward them (Keysar et al., 2000). This means often times that people judge other people from their first impressions. One's first encounter with an individual can set how one begins to interact with that individual and to what extent. Keysar et al. (2000) also suggested that those who can understand the nuances of body language have an advantage over those who comprehend the world only through spoken words. Those who can infer or "read between the lines" learn to understand the subtle hints hidden in the glint of the eye or the slight smile of the speaker. Keysar et al. (2000) suggested that those who know how to read body language can surely be more alert and observant of others.

However, Eberhard et al. (1995), Fussell and Krauss (1992), and Keysar et al. (2000) suggested strongly that human nature is complex and should not be judged exclusively on the clues that body language gives. Keysar et al. (2000) described the body as being in constant movement. It changes from moment to moment with the meaning of what one thinks and tries to say out loud in company.

The body is seldom static (Keysar et al., 2000). In addition, body language in particular can potentially provide additional information about thoughts and feelings. It may reveal an incongruence between what is being said and what is really happening inside. Therefore, it is an art to master the interpretation of body language. Nevertheless, Keysar et al. (2000) suggested that comprehension is critical to understanding human social interactions.

Moreover, there are various components and levels of social cognition and multiple ways in which humans interact with one another. In addition, self-efficacy has a strong impact on behavior and plays a significant role in social interaction (Bandura 1989). Therefore, when people think about and understand their own behavior and the ways in which they interact with

others through verbal and nonverbal cues (e.g., body language), their perception of social presence may increase (Shea & Bidjerano, 2010). The following section defines the term “social presence.”

Definitions of Social Presence

Short et al. (1976) defined social presence as “the degree of salience of the other person in the interaction and the consequent salience of the interpersonal relationships” (p. 65), which characterizes communication media in terms of their potential to communicate socio-emotional cues such that the “other” is perceived as physically present and prominent. Similarly to Short et al. (1976), Gunawardena and Zittle (1997) defined social presence as being perceived as a “real person” online. This implies that individuals are aware of human emotions and can interpret nonverbal communications. Nonverbal communication involves the conscious and unconscious processes of encoding and decoding. Encoding is the act of generating information via facial expressions, gestures, and postures. Decoding is the interpretation of information received from sensations and previous experiences (Krauss, Chen, & Chawla, 1996). Gunawardena and Zittle also suggested that social presence can be described as a construct that comprises a number of dimensions relating to the degree of interpersonal contact.

Garrison et al. (1999) suggested a view of social presence that is an alternative to that of Short et al. (1976). The main difference is that online courses did not exist in 1976, whereas Garrison et al. (1999) had an opportunity to experience an online learning environment. Therefore, Garrison et al. (1999) defined social presence as “the ability of participants in the CoI to project their personal characteristics into the community, thereby presenting themselves to the other participants as ‘real people’” (p. 89). This definition differs from the previous one for several reasons.

First, Garrison et al. (1999) shifted the focus from a potential medium that allows communication and the transmission of social cues to the actual communication observed.

Second, although Short et al. (1976) focused on some of the limitations that a medium imposes on an interaction, Garrison et al. (1999) focused on the ways in which people overcome these constraints. Third, and most important, instead of focusing on the ways in which some people perceive others, they consider “social presence” to be a projection of the self. Caspi and Blau (2008) suggested that the perception of others and self-projection are two independent processes. Moreover, Caspi and Blau (2008) and Swan and Shih (2005) suggested that perception is a subjective process; it is quite possible that, despite the projection of oneself into an online community, the other participants might not necessarily perceive that self as a “real” person. However, Biocca and Levy (1995) and Biocca and Nowak (1999) suggested that through responses to spatial cues and the mental models of mediated spaces that create the illusion of place, social presence is perceived as “being there.”

Rourke et al.’s (2001) research into social presence focused on the indicators. Rourke et al. (2001) identified three categories of social presence indicators---affective responses, cohesive responses, and interactive responses---and explored their use in online discussion. Affective responses contain personal expressions of emotions, beliefs, and values. Cohesive responses are communication behaviors that build and sustain a sense of group commitment, such as greetings and salutations and group or personal reference. Interactive responses are behaviors that provide evidence that others are attending, such as agreement/ disagreement, approval, and referencing previous messages. Rourke et al. (2001) have developed protocols for coding online discussion based on these indicators, which they have established as reliable in a pilot content analysis of two online class discussions.

Caspi and Blau (2008) suggested that there was a difference between the way people perceive the level of social presence in a text-based discussion group and the level that is uncovered by a participant’s self-awareness within that group. However, Swan and Shih (2005) found that the perception of social presence was related to its presentation. A more recent study by Garrison and Akyol (2013) focused once again on the indicators of social presence. Garrison

and Akyol (2013) suggested that the indicators evolve over time. The indicator of open communication should be at a higher level at the beginning of an interaction and decrease toward the end of the interaction. On the other hand, indicators of interpersonal and cohesive communication are likely to increase as group members engage and interact more effectively in the learning process.

Trying to define social presence is a difficult matter as researchers are not in agreement themselves as to what this phenomenon encompasses. This is possibly due to many researchers' lack of confidence in CMC systems to effectively promote social and interpersonal communication that foster teaching and learning (Lowenthal, 2009). Therefore, no consistent definition was found for social presence within research literature. As social presence in an online learning environment evolves, researchers continue to redefine this term. The following section discusses the components of social presence.

Components of Social Presence

Two concepts of social presence are intimacy (Argyle & Dean, 1965) and immediacy (Wiener & Mehrabian, 1968). Tu and McIsaac (2002) later suggested that developing strategies for intimacy and immediacy increase interactivity. These components of social presence were the results of researchers examining ways to communicate online with the lack of traditional communication cues (Tu & McIsaac, 2002). However, although researchers claim that there are important differences among immediacy, intimacy, and social presence, the distinctions are not clear (Gunawardena, 1995; Lowenthal, 2012; Short et al., 1976) This section describes, briefly, intimacy, immediacy, and interactions.

Intimacy

Keysar et al. (2000) suggested that intimacy involves body movements and plays a significant role in interactions. This is known as the Intimacy component within the element of

social presence. Intimacy, according to Argyle and Dean (1965), is a function of eye contact, physical proximity, and topic of conversation. In addition, intimacy can be referred to as communication and bodily movement that displays intimacy, such as body leaning forward and smiling. However, when a student's intimacy level becomes uncomfortable, he/she will alter his/her behavior to adjust his/her comfort level, which is called "equilibrium" (Sung & Mayer, 2012). However, Argyle and Cook (1976) suggested that the levels of intimacy that people adopt are derived from cultural norms and from a need for affiliation. Argyle and Cook (1976) argued that the discussion topic might contribute to the level of intimacy. A more familiar and more comfortable discussion topic is associated with a greater degree of intimacy. The following section describes immediacy.

Immediacy

Immediacy is a measure of the psychological distance that a communicator puts between himself or herself and the object of his/her communication (Gunawardena & Zittle, 1997; Mehrabian, 1971; Short et al., 1976; Sung & Mayer, 2012; Walther & D'Addario, 2001). Immediacy is conveyed through speech (which can be in text) and associated with verbal and nonverbal cues (Walther, 1992). Nonverbal communication can add nuance or richness of meaning that cannot be communicated by verbal elements alone (Gajadhar & Green, 2003). Gunawardena and Zittle's (1997) findings indicated that participants who experienced a higher sense of social presence enhanced their socioemotional experience by using emoticons to express missing nonverbal cues in written form.

However, in a different approach, the principle of interrelationship of verbal and nonverbal codes is associated with face-to-face and CMC formats (Anderson et al., 2001; Ramirez, Walther, Burgoon, & Sunnafrank, 2002). Verbal and nonverbal codes interrelate with one another (Anderson et al., 2001; Ramirez et al., 2002). Both synchronous and asynchronous classrooms have potential to present verbal and nonverbal cues. Therefore, according to the

social presence theory, rich social cues (verbal and nonverbal) can help social presence enhancement (Short et al., 1976).

Verbal immediacy behaviors such as asking questions in dialogue, initiating discussion, addressing individual students by name, using personal examples, or talking about experiences outside of class may be used by online instructors in a variety of formats to increase psychological closeness among learners (Baker, 2001; LaRose & Whitten, 2000). Responding to email or threaded discussion in a timely and consistent manner is one way to be immediate. The results from Baker (2001) suggested that instructor immediacy in feedback was the strongest predictor of learning. Studies demonstrate that immediacy or prosocial behaviors correlate positively with both affective and cognitive learning (Baker, 2001; LaRose & Whitten, 2000).

In another study, “students felt that the lack of immediate feedback in the online portion of the course was discouraging and contributed to their limited participation in the online discussions” (Vrasidas & McIsaac, 1999, p. 33). Immediacy, as noted by Woods and Ebersole (2003), “refers to the extent to which selected verbal and nonverbal communication behaviors enhance intimacy in interpersonal communication” (p. 56). Responding quickly to emails or discussion forums assists in establishing a strong sense of immediacy. Woods and Ebersole (2003) found that responding within 24 hours helps to produce a stronger sense of immediacy in an online environment. One of the authors makes consistent use of this strategy, posting an explanation of his response policy in the instructor-profile section of the course’s LMS (i.e., Blackboard). The policy states messages sent to the instructor during the week should receive responses within 24 hours; messages sent after 3:00 PM on a Friday, however, receive responses by Monday afternoon.

Many online instructors build a sense of connectedness and social presence in online courses through verbal and nonverbal immediate behaviors (Baringer & McCroskey, 2000). However, online immediacy becomes difficult to deliver because CMC lacks social nonverbal cues; but this does not negate online immediacy or its importance. Immediacy is necessary for

social contact among online learners and is even more critical than in face-to-face learning environments (Tu, 2002).

Verbal Cues (Asynchronous Class)

Talking to people in an online classroom setting is generally done by typing and reading what other people have typed in asynchronize settings. These messages do not utilize the spoken word but are still verbal communication (Funaro & Montell, 1999; Nippard & Murphy, 2007). What is said or typed in an online environment influences interactions just as it would if stated in a traditional face-to-face classroom. Furthermore, the same principles and ethics that guide face-to-face interaction should be applied during online communication (Murphy & Collins, 1997). This ensures a certain level of respect and professionalism at the collegiate level. Students should continue to be respectful of one another and value viewpoints and opinions even when they do not agree (Collison, 2011).

Social presence can be created through written language in an online learning environment (Collison, 2011). Teachers and students develop social presence through choice of specific tools, through choice of communication conventions, and in a context of digressions from the assignment and topics (Funaro & Montell, 1999; Nippard & Murphy, 2007). Written communication can often become quite lengthy, especially through discussion boards and direct messages (DMs) (Nippard & Murphy, 2007). The findings of Nippard and Murphy (2007) suggested that the choice of tool in the case of the DM affected the length of responses and resulted in abbreviated communication segments. Therefore, students relied on letter combinations that represented specific words, emoticons, and graphic symbols to communicate using DM and discussion boards. These are behaviors expressed in text that are designed to present a recognizable self, set a context for the interactions, share affect and meaning, and minimize misunderstanding (Murphy & Collins, 1997). However, when Internet users encounter pure text without emoticons, most cannot perceive the correct emotion, attitude, and intent of the

sender (Lo, 2008). On the contrary, the use of visual cues together with text has been shown to create a more positive attitude than text alone (Mundy, Sigman, Ungerer, & Sherman, 1986).

In addition, when students or teachers digress from the topic, students become more comfortable in communicating (Gajadhar & Green, 2003; Nippard & Murphy, 2007). Digression plays a role in fostering the level of social presence in students because it exhibits much of their affective and interactive responses in this context. Both teachers and students, at some point in a lesson, have shown a willingness to diverge from the content of a discussion (Gajadhar & Green, 2003; Nippard & Murphy, 2007). Therefore, when students digress, they may become more comfortable within the discussion to share personal experiences and information that may lead to a deeper understanding among others.

Several studies have also been conducted to investigate participants' creative use of written language in an online learning environment through the spontaneous use of figurative language. Figurative language is language used to express a nonliteral meaning, e.g., metaphors as well as hyperboles, idioms, understatement, similes, etc. (Delfino & Manca, 2007; Reyes, Rosso, & Buscaldi, 2012). Figurative language is a means by which to express the social dimension, either in referring to the self and emotions or in conceptualizing the components of the virtual learning setting (Delfino & Manca, 2007; Rosso & Buscaldi, 2012). Delfino and Manca (2007) discussed the social and metacognitive reflection areas, which are mainly related to the expression of the social dimension. The results from Delfino and Manca (2007) indicated that the participants tended to use figurative language more when meaningful or critical events happened. The higher the emotional involvement was, the more metaphorical the language was that was adopted. Further results of the Delfino and Manca (2007) study suggested that the adoption of figurative language seems to be related more to individual attitude than to other factors, such as educational background.

Nonverbal Cues

Nonverbal communication includes body language, gestures, facial expressions, and even posture (Gunawardena & Zittle, 1997). Nonverbal communication sets the tone of a conversation (Crystal, 2001). To set the tone in written communication, emoticons are often used. Thompson and Foulger (1996) referred to them as “pictographs” and stated that their use in CMC is “to express emotion or as surrogates for nonverbal communication” (p. 226). Emoticons such as “smiley faces” are sometimes used to help accentuate or emphasize a tone or meaning during message creation and interpretation (Crystal, 2001; Rezabek & Cochenour, 1998). Furthermore, they help communicate more clearly a current mood or mental state of the author (Constantin, Kalyanaraman, Stavrositu, & Wagoner, 2002), thereby also providing additional social cues about the person (Thompson & Foulger, 1996). Thus, emoticons serve the function of clarifying textual messages, which is similar to nonverbal displays in a face-to-face context (Derks, Bos, & von Grumbkow, 2007; Walther & D’Addario, 2001). Some studies (Kato, Kato, & Akahori, 2007; Lewis & Fabos, 2005) have found that the use of emoticons in instant messaging (IM) is popular in analyzing message logs.

More recent studies have examined whether or not social presence increases within discussion boards using participant photos and videos. When using online forums, some students saw value in adding information and a photo to their personal profile and found it helpful to read the profiles of other students (Kear, Chetwynd, & Jefferis, 2014). However, other students experienced no need for these facilities, had privacy concerns, or expressed the view that reading others’ contributions was a better way to become familiar with them. More recently, against the backdrop of the widespread use of social network sites, the potential benefits of personal profiles have been revisited (Ellison, Steinfield, & Lampe, 2007). In an employment context, Skeels and Grudin (2009) highlighted the value of LinkedIn and Facebook profiles for creating a sense of social presence to help build and maintain relationships among colleagues.

Visual Cues

Visual cues have the ability to convey verbal and nonverbal cues through the use of video technology (Zhang, Zhou, Briggs, & Nunamaker, 2006). This form of technology brings courses alive by allowing online learners to use their visual and auditory senses to learn complex concepts and difficult procedures (Zhang et al., 2006). This ability is important for distance-learning instruction in that most online courses still use primarily text-based materials to deliver instruction. However, the use of multimedia in synchronized or asynchronized sessions can add interactivity to stagnant text-based materials (Michelich, 2002).

The CoI framework (Garrison et al., 1999) has provided insight into ways in which online interactions can improve students' and instructors' social presence and learning. Emerging video technologies may be able to improve these interactions and, thus, more easily support the development of CoIs (Abdous & He, 2011; Abdous & Yen, 2010; Hartsell & Yuen, 2006). Video communication can make instructors seem more real, present, and familiar, and these relationships can be similar to face-to-face instruction (Abdous & He, 2011; Abdous & Yen, 2010; Hartsell & Yuen, 2006).

Designers and practitioners alike previously assumed that face-to-face interaction was the the superior form of communication (Nohria & Eccles, 1992). However, through emerging communication technologies such as email, chat, audio conferencing, videoconferencing, computer-assisted group support systems, and virtual reality, communicators can compensate effectively for structural shortfalls if given adequate time and motivation (Chilcoat & DeWine, 1985; Walther, 1996; Walther & Burgoon, 1992).

As asynchronous video-communication tools have evolved to allow threaded conversations, researchers have sought to find and examine cases about interactive video-communication experiences. Overall, the majority of students indicated that video communication helped improve the social presence exhibited by instructors and peers and that social presence in the course would have been weaker if text communication had been used

exclusively (Abdous & He, 2011; Abdous & Yen, 2010, Hartsell & Yuen, 2006).

Interaction

As mentioned earlier in the SCT section, there is a variety of social interactions online. More specifically, social interaction serves a variety of functions in the educational transaction. These functions allow for learner control, facilitate program adaptation based on learner input, allow for various forms of participation and communication, and act as an aid to meaningful learning (Sims, 1999; Wei & Chen, 2012). In addition, interaction is fundamental to the creation of learning communities (Johansen & Ornelas, 2012; Lipman, 1991). Finally, the value of another person's perspective, usually gained through interaction, is a key learning component in constructivist learning theories (Jonassen, 1991).

Moore (1989) examined interaction and identifies three types of interaction in the online classroom: interaction with content, interaction with instructor, and interaction with learner. A fourth type of interaction, interaction with interface, was later identified by Hillman, Willis, and Gunawardena (1994) to reflect the increasing role of technology in the distance-education process (Woods & Baker, 2004). These four types of interaction have become the basis for much of the literature on interaction in distance education. However, these interactions do not operate in isolation but rather work together to bring about learning online. The CoI model provides a context for understanding these types of interaction and their connection in an online educational environment (Swan, 2001). The four types of interaction are addressed as follows.

Learner-to-Content Interaction

As Moore (1989) stated, "The oldest form of distance teaching that aimed to facilitate interaction with content was the didactic text" (p. 1). This means that text was used only to give instructions and directions about a particular topic or subject. Moore (1989) further stated, "In more recent times, learners have interacted with content broadcast on radio and television

programs and with electronic recordings on audiotape, videotape, and computer software” (p. 1).

In the earlier years of online learning, methods involved options through the use of radio, television, cassette recordings, video recordings, and laser disks (Michelich, 2002; Zhang et al., 2006). However, present-day online learning methods allow for streaming audio and video presentations, which can be a way to ensure learner-content interaction (Michelich, 2002; Zhang et al., 2006). Not only can students interact with content at a time of their own choosing, but these technologies also allow students to stop, restart, and even repeat their access to the content.

Learner-to-Learner Interaction

Student-to-student interaction is the exchange of information and ideas that occurs among students about the course in the presence or absence of the instructor (Hirumi, 2006; Moore, 1989). This type of interaction can take the form of group projects, class discussions, etc. Student-to-student interaction can foster learning through student collaboration and knowledge sharing (Berge, 1999; Northrup, 2001; Schrum & Berge, 1997).

In effective engagement, several factors may be related to student interaction, such as clarity and consistency in course design, contact with and feedback from course instructors, and active and valued discussion (Northrup, 2001). These factors contribute to discussion participants’ use of more verbal immediacy behaviors to support interaction among classmates.

The learner-to-learner form of interaction requires that learners work together (Hirumi, 2006; Moore, 1989). Interaction between or among students, with or without the real-time presence of the instructor, can prove to be a valuable resource for distance learning (Moore, 1989), which marks a clear distinction between the first forms of distance education that were characterized by independent learning, such as correspondence courses, and the current emphasis on constructivist, collaborative learning typified by web-based classrooms (Anderson & Kuskis, 2007). Learner-to learner interaction activities include group projects, demonstrations, sharing content and ideas through online discussions, peer reviews, peer editing, role-playing, case

studies, debates, collaborative writing, and simulations (Berge, 1999; Northrup, 2001; Schrum & Berge, 1997).

In addition, social interaction in an online learning environment has unique characteristics (McKenna & Bargh, 2000). Some of these characteristics include building a relationship with someone one may have never met face-to-face before, choosing when to log on and off, and rewriting repeatedly what one wishes to say. These characteristics give a student far greater control than is usual for a relationship happening in real time and face-to-face (McKenna & Bargh, 2000).

Learner-to-Instructor Interaction

Learner-to-instructor interaction refers to the interaction between the learner and the instructor, which can take the form of the instructor delivering information, encouraging the student, or providing feedback. In addition, this can include the student interacting with the instructor by asking questions or communicating with the instructor regarding course activities (Moore, 1989; Soo & Bonk, 1998)

Learner-to-instructor interaction most closely relates to the traditional classroom dynamics in which the instructor is the link to the course content. This type of interaction refers to the “assistance, counsel, organization, stimulation, and support” (Soo & Bonk, 1998, p. 3) that an instructor provides to a student to acquire new knowledge. A variety of two-way communication methods facilitate instructor and student interaction, including telephone, live and online office hours, instant messaging, and e-mail (Battalio, 2007; Schrum & Berge, 1997). When students and instructors use these communication tools within the online classroom, they engage in specific types of instructor-student interactions, identified by Sugar, Martindale, and Crawley (2007) as information, question, summary, advice, comment, example, experience, assertion, and challenge. Learner-to-instructor interactions provide the dual functions of motivating learners and clarifying content (Hirumi, 2002).

Learner-Interface Interaction

Another form of interactivity that has been suggested is that of learner-interface interactivity (Hillman et al., 1994). This type of interactivity is the “process of manipulating tools to accomplish a task” (Hillman et al., 1994, p. 34). The interaction that occurs between a learner and the interface is different from just using the medium itself to communicate. As Hillman et al. point out, virtually all communication occurs through some intermediate medium. No matter what level of proficiency a user brings to his/her use of a communications tool, the properties of the medium influence the communication and increases collaboration. In addition, students’ interaction and collaboration in groups increases students’ perceptions of social presence and creates a sense of community (Fengfeng & Xie, 2009; Willis, Davis, & Chaplin, 2013). The next section addresses community of learners.

Community of Learners

Fulton and Riel (1999) defined a learning community as a group of individuals who are interested in a common topic or subject and who engage in knowledge-related interactions and transformations within that topic. When an online course is designed to be highly interactive, students tend to experience a stronger sense of community (Fengfeng & Xie, 2009) and of being part of a family of learners (Willis et al., 2013).

However, Miller, O’Brien, Kelly, and Blackler (2010) used a framework of “graduate attributes” to determine if there was a strong sense of community in online learning. These attributes are associated with qualities, skills, knowledge, and abilities that need to be developed by students during their studies for them to be successful in an online learning environment. Miller et al. (2010) suggested that the critical attribute for student success is effective communication in which students are able to interact meaningfully and communicate with others to exchange key concepts and relevant ideas. Moreover, Miller et al. (2010), findings suggested that in an asynchronous online environment, meaningful participant interactions are dependent

on finding a “comfort zone” in which there is an experience of community. This community development, in an asynchronous online context, depends heavily on the involvement and interaction of the moderator or facilitator.

In research conducted by Lucey, O’Malley, and Jansem (2009), discussion threads were analyzed and revealed that reflection activities and postings helped create a safe, comfortable environment in which the students were more likely to engage in meaningful conversations. These reflection and conversation activities led to the development of online communities. Garrison and Cleveland-Innes (2005) suggested that student interaction and engagement are critical features for the development of online communities. Additionally, Garrison and Cleveland-Innes’s (2005) work continues to reinforce the need for a comfort zone in which students experience safety and support by a community when engaging in conversations on constructing knowledge. Both Garrison and Cleveland-Innes (2005) and Muilenburg and Berge (2005) suggested that students come into online courses with disparate preconceived ideas and perspectives that must be integrated into a community’s set of negotiated and accepted behavior norms.

However, Garrison and Cleveland-Innes (2005) suggested that targeted instructional strategies and purposeful course design create an environment that supports engagement and fosters a community of learners. An example of a targeted instructional strategy is collaborative group assignments and projects. It is important to note that just because learners are interacting does not mean they are collaborating. Chang (2012) suggested that students have expressed experiences similar to being together physically when there was effective student-to-student collaboration. The following section addresses briefly learner-to-learner collaboration.

Learner-to-Learner Collaboration

Whether students are interacting with one another or with an instructor online, an effective learning environment should be set up for collaboration (McConnell, 2006; Palloff &

Pratt, 2003). Collaborative learning places great emphasis on the extent and quality of the exchanges that occur among students in a given environment and stresses that students can broaden their knowledge base through interactions with other learners (Macfadyen & Dawson, 2010). Collaboration in web-based learning requires adjustments on the part of students and teachers (Picciano, 2002). Four types of suggested peer behaviors are necessary in a collaborative online learning environment: participation; response; provision of affective feedback; and short, focused messaging. These types of peer behaviors for interaction and collaboration are intended to promote understanding of the course content and stimulate critical thinking (McConnell, 2006; Palloff & Pratt, 2003). McConnell states in his conclusion, “The results are extremely encouraging, showing that when e-learning courses are designed with some care and attention to the meaning of learning in groups and communities, students’ experiences can be very positive” (p. 89). Therefore, group collaboration can create positive experiences for students, as well as increase their perception of social presence and lead to building a community of learners. The following section addresses the benefits of social presences.

The Benefits of Social Presence

An increase in students’ perceived level of social presence has benefits and advantages. For example, an increased level of social presence may have a correlation with students achieving higher grades (Swan & Shih, 2005). Evidence also shows that social presence builds cognitive presence, which may lead to greater learning outcomes (Garrison, Cleveland-Innes, et al., 2010; Goggins & Xing, 2016; Ke, 2010; Shea & Bidjerano, 2009; Wang & Chen, 2008). Additionally, students who experience social presence in asynchronous online discussions may find the experience to be more meaningful and pleasant (Rourke et al., 1999) and score higher on essay exams (Picciano, 2002).

Learners who perceive high levels of social presence tend to be more satisfied with their classes (Akyol & Garrison, 2008; Gunawardena & Zittle, 1997; Horzum, 2015; Ke, 2010;

Richardson & Swan, 2003; Russo & Benson, 2005; Swan & Shih, 2005). Furthermore, although instructor presence is an important factor in determining student satisfaction, social presence appears to play an even larger role in how students perceive the course (Richardson & Swan, 2003). However, when group interaction is not significant for a particular course, learner-learner interaction may not play a role in satisfaction (Kuo, Walker, Schroder, & Belland, 2014). Additionally, Traver, Volchok, Bidjerano, and Shea (2014) found no statistical difference in social presence between students who completed college courses and those who did not complete. However, Leong (2011) found that cognitive absorption could be an intermediary factor between social presence and satisfaction.

Furthermore, it appears it is not the frequency of interactions that influences learning but the quality of the interaction (Tu & McIsaac, 2002). If students perceive the asynchronous online discussions to be too social and digress frequently from the content, the discussions may be considered unproductive (Baxter & Haycock, 2014), potentially leading to decreased learning (Cho & Lee, 2014; Peters & Hewitt, 2010; Rourke, Anderson, Garrison, & Archer, 1999). Students should be encouraged to develop social presence through collective discussions of the content, not just friendly dialogue (Garrison & Arbaugh, 2007; Kozan & Richardson, 2014). However, the learning environment, such as in an online cohort model in which student's interactions and discussions allow for more digression from the topic, can be beneficial to building a learning community (Nippard & Murphy, 2007). Students describe having a strong sense of community in online cohorts (Blankenship & Gibson, 2015; Reynolds & Hebert, 1998; Tisdell et al., 2004). The following section defines the online cohort model.

Online Cohorts

Student cohorts are not a recent phenomenon. Early examples of cohort-based programs have been found as early as the 1940s in professional educational and training programs such as business, law, and medicine (Agnew, Mertzman, Longwell-Grice, & Saffold,

2008; Maher, 2005; Saltiel & Russo, 2001). Apprenticeship training provides another long-standing example of cohorts (Saltiel & Russo, 2001). Educational administration doctoral programs began to group students into cohort groups (Saltiel & Russo, 2001). In addition, business schools have reintroduced cohorts at the graduate level and have begun to implement cohort-based education at the undergraduate level (Saltiel & Russo, 2001).

Currently, cohorts are utilized throughout higher education, especially in programs designed to attract adult students who may juggle school with work and other obligations (Maher, 2005). This has been an effort for administrators in higher education to be more responsive to changing student demographics (i.e., increases in working-adult student populations) and impact retention and completion positively. Undergraduate and graduate programs across a variety of disciplines have increasingly adopted an educational cohort model characterized by group admissions and lock-step curricular course progression (Basom, Yerkes, Norris, & Barnett, 1996; Seifert & Mandzuk, 2006). Research conducted on cohort formats has suggested that they have the potential to fulfill students' need for affiliation in an educational context. Sprague and Norton (1999) have described the extent to which affiliation needs have been met through the development of family-like bonds or strong emotional ties among cohort members. The emergence of strong emotional ties has been linked to positive student outcomes, including reduced attrition (Reynolds & Hebert, 1998) and an increased sense of emotional support (Norris & Barnett, 1994).

One of the reasons for cohorts being utilized at a growing rate in present-day graduate education is the fact that they can be molded to fit particular program needs. Cohorts can vary in program length and types of activities required of students (Maher, 2005). Depending upon program needs, cohorts follow three basic formats: closed-cohorts, open-cohorts, and fluid-cohorts. In closed-cohort models, a small group of students proceed through a prearranged sequence of classes and activities and end the program at approximately the same time (Barnett et al., 2000; Lawrence, 2002; Maher, 2005; Yerkes, 1995). In open-cohort models, students take

core classes with cohort members and enroll in separate classes to fit individual or elective needs (Yerkes, 1995). In fluid-cohort models, students are free to join the cohort at various entry points instead of only at the start of a specific program of study (Yerkes, 1995). Closed and open-cohorts are more frequently used than are fluid-cohorts, perhaps because fluid-cohorts resemble closely traditional class scheduling (Yerkes, 1995) and, therefore, may not offer all the advantages of the other two cohort structures.

Cohort programs group students, usually 12-25 students, into shared programs with the same classes (Reynolds & Hebert, 1998). The number of grouped students can vary from college to college and program to program. Although the cohort model program can be ideal for students, there are some advantages and disadvantages. The following section addresses the advantages of cohorts in higher education.

Advantages

Cohorts in higher education offer students a variety of advantages. Cohorts can afford students three main levels of advantages: organizational structure, intellectual and academic stimulation, and affiliation, in addition to other advantages. This section briefly discusses some of the advantages of cohorts in higher education. Previous research has shown that cohorts provide structural and organizational benefits by offering a predetermined course of study (Maher, 2005; Seifert & Mandzuk, 2006; Teitel, 1997). The course sequencing of cohort programs allows for an integrative curriculum design that groups subject matter together in a unique way that is made possible by the fact that students take all their classes together and in the same order (Saltiel & Russo, 2001). The organizational structure and design of cohort-based programs allow students to focus primarily on learning instead of worrying about curriculum or scheduling issues, thus providing the opportunity for a richer learning experience (Saltiel & Russo, 2001).

Cohorts create independent and interdependent learning opportunities that allow students to be intellectually and academically stimulated (Barnett et al., 2000; Seifert & Mandzuk, 2006; Yerkes, 1995). It is thought that cohort-based programs facilitate higher levels of academic accomplishments, more effective learning (McPhail, Robinson, & Scott, 2008), and increased sharing and critiquing of ideas, which results in enhanced mutual intellectual and academic stimulation (Seifert & Mandzuk, 2006). Because each class in a cohort typically builds upon the class before it and students can forgo the time required to get to know one another at the start of each class, students continuously build upon previously established relationships and course material to develop a commonality of experiences or shared history (Maher, 2005). This type of cohort design and structure makes students comfortable and able to share openly and challenge each other at a more profound level than in noncohort classes, resulting in deeper class discussions and reflections (Teitel, 1997).

Cohorts can facilitate the forming of supportive relationships and interpersonal bonds among students, which help meet students' needs for affiliation (Barnett et al., 2000; Maher, 2005; Seifert & Mandzuk, 2006). Cohort interaction often extends beyond academics and engages the whole person (Lawrence, 2002). Cohort members support one another socially and emotionally throughout the duration of the program (Lawrence, 2002; Mather & Hanley, 1999; Seifert & Mandzuk, 2006).

In addition, the cohort model program can build strong relationships because students start the program and graduate from the program at the same time. This format of learning is team-based and is an invaluable skill in the present-day workplace (Reynolds & Hebert, 1998; Tisdell et al., 2004). In addition, the cohort program gives these students study groups, a sense of community, and a strong team-based learning experience (Blankenship & Gibson, 2015; Reynolds & Hebert, 1998; Tisdell et al., 2004). The following section addresses the disadvantages of cohorts in higher education.

Disadvantages

Just because students are in a cohort learning environment does not guarantee a community of learners (Lawrence, 2002). Furthermore, just because members of the cohort group may share a common goal of learning and work collaboratively is no assurance that a sense of community will develop among cohort members (Lawrence, 2002).

Conflicts between and among group members can arise because of misunderstandings, power struggles, and the tendency for group members to think and behave alike, which may hinder the learning that is derived from unique personalities (Dinsmore & Wegner, 2006; Hubbell, 2010; Mandzuk, Hasinoff & Seifert, 2003). The design of a cohort can also cause collaborative difficulties. For example, if the size of the cohort is not carefully planned, outspoken students or students with strong personalities may dominate cohort objectives and dictate group members' roles and other students may grow bored with fellow members (Beck & Kosnik, 2001; Witte & James, 1998). Additionally, without appropriate faculty attention or commitment, the role of faculty may lead to cohort shortcomings. However, effective cohorts develop learning communities (Norris & Barnett, 1994; Saltiel & Russo, 2001). The following section addresses effective online cohorts.

Effective Online Cohorts

The development of a learning community requires more than placing a group of students into a classroom and assigning common coursework (Norris & Barnett, 1994; Saltiel & Russo, 2001). Effective cohorts that can lead to a community of learners include both structural and communal components (Wathington, Pretlow, & Mitchell, 2010). In a study conducted by Browne-Ferrigno and Muth (2001), by integrating group action research projects and appreciative inquiry activities into the curriculum, students learned the power of collaborative inquiry and the importance of careful use of data and reflection. Furthermore, Browne-Ferrigno and Muth (2001) suggested that by working together in various small-group and whole-class settings,

students learn the challenges of group dynamics when membership changes. Dunlap and Lowenthal (2014) also suggested that through small-group work and collaboration, students experience and appreciate various perspectives; reconsider and/or change their knowledge through argumentation, structured controversy, and the sharing of ideas and various point of views; learn to use colleagues as resources; and are more willing to take on the risk required to tackle complex problems.

Furthermore, an effective cohort model requires a great deal of teacher presence to create and foster a collegial atmosphere by planning team-building activities (Barnett & Caffarella, 1992; Kumar, Dawson, Black, Cavanaugh, & Sessums, 2011). Some of these team-building activities can happen online or face-to-face. Conrad (2005) and Engstrom, Santo, and Yost (2008) suggested that face-to-face encounters encourage a reciprocally valued relationship; seeing and meeting each other, they believed, was a contributing factor to the health of online community.

Conrad (2005) concluded that face-to-face interaction in her study's online community contributed to renewed energy for its second and last face-to-face encounter that occurred one year into the two-year program. However, Conrad (2005) suggested, it was not determined from the data whether those learners who were less positive about online learning at the beginning of the program clung more closely to the fact of, and the value of, the cohort's face-to-face sessions. It was clear, however, that these learners did not perceive online learning as a substitute for face-to-face encounters and that they appreciated the program design that permitted them two three-week sessions together.

In addition to an online cohort possibly building a community of learners, the cohort students share commonalities, such as being distance learners; taking the same classes; and earning the same degree. Traditional college learning environments place students from all majors into unrelated classes. Students must seek out those in the same program; however, every student in the cohort program is in the same program and at the same level. Instead of one or two

classmates seeking a connection, the cohort program offers each student an entire group as a resource and provides an environment for collaborative learning.

Collaborations and positive experiences are also great dynamics for an effective online cohort environment (Alman et al., 2012; Tisdell et al., 2004). Furthermore, Alman et al. (2012) stated that a “successful online cohort program enables the students to deal more effectively with the problem of ‘faceless’ classmates and gives its members the opportunity to get to know each other as a whole person, rather than as a disembodied digital presence” (p. 290). However, there is surprisingly little research on the subject. Many papers discuss the benefits of the cohort learning experience, and a few consider the social dynamics of cohorts, but others consider cohorts to be a factor in “transformative learning.” However, Tisdell et al. (2004) offered empirical evidence in support of the idea that student cohorts provide extraordinary learning experiences for their members.

The research by Tisdell et al. (2004) focused specifically on the extent to which cohort-based learning influences the attitudes and perceived satisfaction of students as compared to students who are not part of a cohort. The findings of this research study provide evidence to suggest that those student subjects in the formally organized online learning cohort were more satisfied than were their peers in the traditional on-campus program. Furthermore, the results strengthen the observations that cohort communities promote cohesiveness, confidence, motivation, and satisfaction among their members and recognize the effects that teaching presence, social presence, and cognitive presence might have on both teaching and learning. In addition to cohorts promoting a strong sense of community, they may also increase retention and attrition rates. The following section addresses student retention rates.

Student Retention

Student retention has always been a topic for students and universities but has received an abundance of attention in recent years. According to a recent report, over 31 million enrolled

students left college without a degree or certificate between 1993 and 2013 (Shapiro et al., 2014). Retention is a universal concern in the field of higher education and has been for over a century (Boston et al., 2011), as attrition has proven to be a normal, unavoidable occurrence that institutions of all types must endure. Remaining enrolled and progressing toward degree completion is important for students just as retaining students is important for colleges and universities (King, 2014). Retaining students has always been and is an objective in higher education (Desai & Johnson, 2013), yet there are many factors around student retention, which makes it complicated. Although there are many negative connotations surrounding this issue, student attrition is a natural occurrence in higher education, and many of the causes are reasonable and justifiable (Cochran, Campbell, Baker, & Leeds, 2014). Many reasons may lead to a student deciding not to finish or to discontinue his/her education, especially unforeseen reasons such as health problems, financial problems, or loss of a job (Thompson & Prieto, 2013).

Currently, many concerns pertaining to online student attrition and retention remain prevalent among colleges and universities. For higher education stakeholders, the increase in the growth and availability of online degree programs leads to an increase in the general importance of retention (Stevenson, 2013). Over the past decade, academic administrators and staff have become increasingly concerned with retaining students who take online courses (Allen & Seaman, 2014; Gaytan, 2013). Multiple studies have confirmed a disparity in the completion rates of students who take courses online and students who attend courses in the traditional classroom setting (Brown, 2011). Currently, the attrition rates of online students remain significantly higher than those of traditional students (Bolliger & Wasilik, 2012); still unknown is how to increase distance-education student persistence (Dray, Lowenthal, Miskiewicz, Ruiz-Primo, & Marczyński, 2011).

The current literature does not suggest how to predict effectively which online students or programs may succeed or fail as students matriculate through their degree path (Gaytan, 2013; Hart, 2012). For instance, in a study involving experienced academic administrators who had

research and practical experience involving online student retention, Gaytan (2013) determined that one of the most influential factors that affected retention was the quality of the interactions between faculty and students.

Nichols (2010) summed up online student retention best when he stated that “student reasons for dropout are as complex as they are numerous” (p. 105). Due to the complexity of this issue, theoretical models used to describe student retention are complicated as a result of the inclusion of a combination of variables that depict student and institutional characteristics (Desai & Johnson, 2013). To further complicate this matter, the characteristics of learners who take online classes are far more different from those of traditional students (Stevenson, 2013).

Even though retention rates of online students have been studied for over a decade (Aversa & MacCall, 2013), a great number of questions surrounding retention remain unanswered. Perhaps many students who enroll in online courses do so for the flexibility and convenience but underestimate the commitments involved. After all, the time commitment required for courses is reportedly higher in online courses than in traditional courses (Wang, 2011). Perhaps retention issues are so complex due to the diverse demographics of online students, or perhaps so many questions remain because of students in online courses chose distance education for so many different, unique reasons. Regardless, the attrition rate of students who take courses online remains a problem that educators need not disregard (Patterson & McFadden, 2009).

Retention rates have implications for institutions as well. Student attrition can make a significant impact on institutions. Poor retention rates can lead to significant financial strain for institutions (Johnson, 2012). When a student fails to persist, the institution incurs a loss in revenue as a result (O’Keeffe, 2013). In addition, it is much more cost-efficient for an institution to retain current students than it is for that institution to recruit new students (Braunstein, Lesser, & Pescatrice, 2006). Institutions of higher learning all across the United States are experiencing financial constraints, especially with looming budget cuts (Harris & Martin, 2012). Moreover,

poor retention rates can lead to a misappropriation of funding and can affect the ability of institutions to secure funding for students (O’Keeffe, 2013; Patterson & McFadden, 2009).

However, as online classes and programs are explored more, ways in which institutions can increase online student persistence are likely to emerge. Most students who have taken online courses in the past generally have a favorable perception of courses delivered in this format and are likely to take additional courses online as they continue their education (Dobbs , Waid, & del Carmen, 2009). Additionally, the number of online courses a student has taken previously is a significant predictor of his or her self-efficacy to complete successfully additional online courses (Shen, Cho, Tsai, & Marra, 2013). Furthermore, students who have taken online courses tend to place a higher value on online courses than do students who have not taken online courses previously (Parker, Lenhart, & Moore, 2011), and their prior success in completing online courses is a strong predictor of future success (Hachey, Wladis, & Conway, 2014).

On the contrary, many students who are unsuccessful in their effort to take online courses are not likely to take further online courses in the future (Fetzner, 2013). Furthermore, students who enroll in online courses but withdraw from those courses are more likely to withdraw from subsequent online courses than are students who have not withdrawn (Cochran et al., 2014). Institutions that are striving to expand their online enrollment could benefit from a better understanding of the online student experience and students’ perceptions of social presence.

Summary

In summary, Chapter 2 discussed articles that were selected to ground the understanding of social presence and the experience of online learners. These articles also brought attention to the importance of developing and supporting online learning environments that are effective in the promotion of learning through the interaction and social presence that are taking place. However, the research contains gaps in regard to understanding social presence in an online

learning environment.

As technologies evolve and new media become increasingly available, people's comfort and familiarity with them is likely to improve, bringing rising expectations for richer and more instantaneous means of communicating (Burgoon et al., 2002). Discussion of future exploration of the actual, real-time behaviors of students participating in online discussion might reveal more of what is happening in this emergent and fascinating medium (Burgoon et al., 2002; Swan, 2001; Tu & McIsaac, 2002). Burgoon et al. (2002) suggested that formats such as video-conferencing may become more commonplace or even supplant text and teleconferencing for task-based interactions, despite the results of this or other studies showing that it is unwarranted to dedicate greater bandwidth to visual social cues.

Social presence should also focus on new Web 2.0 technologies, such as blogs, microsharing, social networking, document co-creation, and resource sharing (Dunlap & Lowenthal, 2011). Educators need specific faculty development/training that helps them not only understand how many of these new technologies work but also ways and reasons for their use in classrooms to support targeted learning objectives and overall student interaction. By taking these steps, educators and administrators can more effectively address the challenges with which students and faculty struggle within an online learning environment (Doering, Veletsianos, Scharber, & Miller, 2009; Dunlap & Lowenthal, 2009). More specifically for this research, in considering online cohort models, further investigation of the cohort model's efficacy is necessary in order to increase an understanding of the larger issue of the linkage between social and cognitive presence and the ways in which such links can be strengthened for more effective teaching and learning.

However, just as with understanding online cohort models and new technology tools, practitioners and researchers alike should be concerned not just for people's perceptions of each of the presences but also in what people, whether instructors or students, actually do during online courses and the relationship of this behavior to their perceptions (Lowenthal & Dunlap,

2014; Tu & McIsaac, 2002). By better aligning the CoI and the indicators of each of the presences, both the research and the practice of online learning is likely to improve (Lowenthal & Dunlap, 2014).

In addition, researchers should grasp a better understanding of the theories underlining social presence (LaRose & Eastin, 2004; Tu & McIsaac 2002). Tu and McIsaac (2002) suggested that social learning requires cognitive and environmental determinates. Social presence is necessary to enhance and foster online social interaction. Therefore, Tu and McIsaac (2002) recommended that the relationships between social presence theory and social learning theory be further examined.

Creating and maintaining social presence in an online learning environment can become challenging for students if they are not aware of some of the language being used. However, the effectiveness of social presence in an online learning environment requires the involvement of all stakeholders, such as teachers, instructional designers, and students (Anderson et al., 2001; Burgoon et al., 2002; McConnell, 2006; Palloff & Pratt, 2003). When these stakeholders work together to cultivate social presence, the entire system of the online learning classroom is likely to benefit, and student retention may increase (Hachey, Wladis, & Conway, 2014). The online learning environment becomes richer and more engaging for all involved. More research is conducted on social presence in an online learning environment can enhance the body of knowledge in this field and be used for best practices. Fostering an environment that can make the nature of online learning more interactive, appealing, engaging, and intrinsically rewarding through the creation of social presence can increase the levels of satisfaction and perceived quality of learning that students derive from an online course and, ultimately, can improve their motivation to persist with enrollment.

Chapter 3 discusses the methodology of this research, describing a qualitative phenomenological approach to the study of social presence in an online cohort. I first explain

the theoretical approach underlying the methodology and, in addition, address the research setting, participants, data-collection procedures, and analytical techniques.

CHAPTER 3

METHODOLOGY

This chapter begins with the theoretical approach to a phenomenological study, methods overview, and the research questions, as well as a discussion on the role of the researcher and assumptions. In addition, the data-collection process, data-collection instruments, ethical issues, and data analysis are described.

Theoretical Approach (Phenomenological)

Theoretical research is concerned with the testing, generating, or enhancing of thinking within a particular discipline (Creswell, 2012). Furthermore, conducting a qualitative study generally has five approaches: phenomenological, case study, narrative, ethnography, and grounded theory. A phenomenological research study is a study that attempts to understand people's perceptions, perspectives, and understandings of a particular situation or phenomenon (Blodgett-McDeavitt, 1997; Creswell, 2014; Moustakas, 1994). Although most of the method designs for qualitative study have similarities, such as achieving an understanding of a phenomenon through case studies and storytelling, they also have distinct differences, such as becoming totally immersed in a group's culture or devising new theories. However, in this study, there is a need to understand participants' perceptions and perspectives of social presence and capture the very "essence" of social presence in an online cohort program. Therefore, the phenomenological design is most appropriate. The phenomenological approach is significant for investigating human experience and deriving knowledge from the described human experiences and condensing these experiences to common themes (Moustakas, 1994).

A phenomenological approach allows for an investigation free of presuppositions and

preconceived notions (Moustakas, 1994). Phenomenology is a form of qualitative inquiry in which the researcher sets aside his or her bias and focuses on the meanings subjects place on an experience or phenomenon (Shank, 2006). This research examines the perception of social presence as experienced and perceived by Educational Technology, Research and Assessment technology specialist students only; thus, a transcendental phenomenological approach was chosen (Moustakas, 1994). The interpretations of the participants themselves were the focus of the investigation (Patton, 2002), and I concentrated exclusively on the experience (Ashworth & Greasley, 2009).

A phenomenological approach allowed me to analyze, logically and systematically, the experiences of seven participants who had experienced perceptions of social presence in the online cohort learning environment (Moustakas, 1994). I was concerned with perceptions of social presence only as they were experienced and perceived by the seven Educational Technology, Research and Assessment technology specialists who participated in this study; no judgment of their feelings and perceptions was made. In order to understand the lived experiences of participants, I disregarded all that is certain in the world (Ashworth & Greasley, 2009).

Methods Overview

The research method for this study was qualitative. The goal was to gain insights into the phenomenon of social presence rather than to generalize its findings to a population. By using a phenomenological approach, researchers seek to understand meaning in events and in human interactions (Bogdan & Biklen, 1997; Glesne & Peshkin, 1992). The data collected in a qualitative study include more than words; attitudes, emotions, vocal and facial expressions, and other behaviors are also involved (Bogdan & Biklen, 2005; Glesne & Peshkin, 1992). Therefore, this study relied on the participants' experiences and perceptions in order to understand the emergence of social presence. This chapter describes the way in which this research addressed

the research questions. The chapter includes a discussion on the theoretical approach of this proposed research study, the procedural guidelines for conducting the research, the step-by-step procedure for the analysis of the data, and a chapter summary. Next, I display in a table how the study addresses the following research questions:

RQ1: How do Educational Technology, Research and Assessment technology specialist graduates perceive social presence in an online cohort?

RQ2: How do Educational Technology, Research and Assessment technology specialist graduates' experiences in an online cohort contribute to their perception of social presence?

Figure 2 summarizes the data collection, analysis, and outcomes relative to these questions.

Research Questions	Data Collection Methods	Data Analysis Methods
<ul style="list-style-type: none"> ● RQ1: How do Educational Technology, Research and Assessment technology specialist graduates perceive social presence in an online cohort? ● RQ2: How do Educational Technology, Research and Assessment technology specialist graduates' experiences in an online cohort contribute to their perception of social presence? 	<ul style="list-style-type: none"> ● Phone interviews with open-ended questions 	<ul style="list-style-type: none"> ● Individual participant profiles development ● Phenomenological analysis: Emergent clusters of meaning from list of significant statements ● Comparison of themes across participants

Figure 2. Summary of data collection and analysis

Role of the Researcher

A phenomenological study requires a researcher to shift his/her attitude to eliminate any preconceptions that may affect his/her view of the phenomenon under investigation (Patton, 2002). A phenomenological attitude, or transcendental attitude, is different from the natural

attitude one normally has in that all intentionalities are contemplated when one enters into the phenomenological attitude (Sokolowski, 2000).

I myself was a previous graduate of the Educational Technology, Research and Assessment technology specialist cohort program, but my objective was to set aside all biases in order to view the phenomenon of sense of social presence with freshness and openness so that it could be examined as it truly exists (Moustakas, 1994). Although I have experienced my own perceptions of social presence in the cohort, along with how I perceived my peers and their interactions, I detached from my own biases and presumptions of sense of social presence because until this was done, I could not truly focus on the lived experiences of others (Leedy & Ormrod, 2010). This challenging process, known as “epoche” (Leedy & Ormrod, 2010; Moustakas, 1994; Reeder, 2010; Sokolowski, 2000), requires a researcher to be highly disciplined methodologically (Ashworth & Greasley, 2009) and adds to the validity of the study.

Through epoche, all beliefs, and the world, along with everything within it, are suspended. As a result of this rigorous process, I became receptive to knowing the sense of social presence as it was experienced by the online Educational Technology, Research and Assessment technology specialist cohort participants (Moustakas, 1994). However, it is simply human nature to approach daily life full of presumptions, though not thinking consciously about each individual experience that is encountered. To alleviate my presumptions, I followed the epoche process, which occurred throughout the entire phenomenological project (Patton, 2002). This allowed me to detach from my usual worldview and focus on the actual appearance of the subject or object under investigation (Reeder, 2010). The perceptions of students were accepted just as they were without question, and all bias was set aside so that this phenomenon could be investigated just as it was experienced by the participants.

My major challenge in seeking an authentic phenomenological method was to select a design method that enabled me to be aware of my own potential for bias, suspend that bias at the commencement of data collection, and then use an explicit process to evaluate the significance of

that bias in data interpretation. There needed to be a functional symmetry between myself and the research focus and then a structural relationship between myself and the data under examination (see Figure 3).

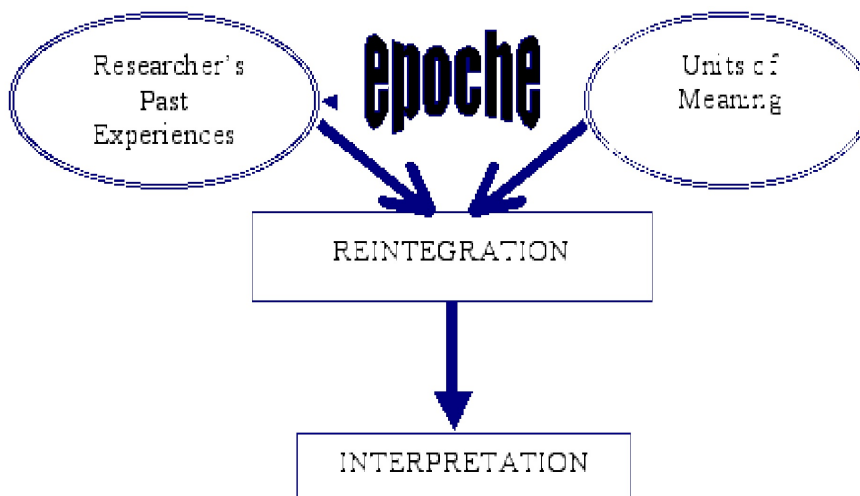


Figure 3: Balance between experiences and units of meaning (Bednall, 2006, p. 127)

Figure 3 attempts to illustrate the balance between my awareness of past experiences of being in the ERTA TS cohort and my perceptions of social presence and the units/clusters of meanings identified in the data accounts of the research respondents. Each were kept apart from each other or held in suspension by *epoche*. The two states were taken through reintegration when the items held in *epoche* were assessed for any synthesis with the flagged items that were data collected from the respondents.

I kept my past experiences separated as I wrote them down in a research journal as an ongoing record of the ideas and impressions that emerged during the conduct of the research interviews and during the written transcription that I performed myself. The research journal was not shared, but I referred to it in data interpretation and it functioned as an *aide-de-memoir*,

which Miles and Huberman (1994) called “memoing,” an important data management process in qualitative research.

Each interview transcript was read repeatedly, along with the interview prompts (Gearing, 2004; Moustakas, 1994). Certain items in the transcripts were flagged for relevance. The flagged items constituted a preliminary list for clustering into topics of significance (Gearing, 2004; Moustakas, 1994). These topics of significance, or statements, are translated into themes and meaning units (Gearing, 2004; Moustakas 1994).

As the initiator of the interview, I played an active role in making certain decisions about the progress of the interview. Each interview was tape-recorded, and I abstracted data from the material after the interview was over. In doing so, I analyzed the information on the tape and translated the interviewees’ responses into meaningful descriptions (De Vos, 2002). Furthermore, I showed sensitivity to the uniqueness of each participant throughout the interview. The topic and interviews opened up difficult experiences that the participant had encountered; therefore, my approach was empathetic and understanding (Holloway, 2005).

Moreover, to reach the core of the reality about the phenomenon under study, I conducted the interview (Creswell, 2014). As the interviewer, I used the probing technique (Creswell, 2014). Probing encourages interviewees to give more information. Probes should be neutral to avoid biasing the participants’ responses. Specific probing techniques I used include the following:

- Open-ended questions: The interview prompts consisted of open-ended questions that were created and aligned with the constructs of social presence, CoI Model, and SCT (see Figure 4) that could not be answered with a one-word answer but would provide interviewees with ample opportunity to express their thoughts (De Vos, 2002). Open-ended questions allow participants to respond in their own words..

Interview Questions	Theoretical Framework	RQ Alignment
1. Please describe your relationships with other cohort members.	SP	1
2. Please describe your feelings about the interactions between you and the instructors.	SP	1
3. Please describe to me how you felt when participating in group discussions (both asynchronized and synchronized).	SP	1
4. What do you think you gained by knowing more about your classmates than you might have in a noncohort online class?	SP	
5. Do you think you were able to form distinct impressions of members in the cohort? (If yes, then: How were you able to form distinct impressions of members in the cohort? If no, then: Why do you think you were not able to form distinct impressions of members in the cohort?)	SP	1
6. During the duration of the TS program, how did you feel about the feedback that you received from your peers/instructor about your performance? Please describe a situation in which the feedback you received from a peer was either helpful or nonconstructive.	SP	1
7. How important were the members in your cohort classes in maintaining your motivation to continue in the program? Please describe any influences they had on you in remaining in the program.	SCT	2
8. Please describe the opportunities you had to discuss with the other students ideas and/or issues related to your coursework. These could be during group activities or situations not related to actual group projects	SP	2
9. Please describe the opportunities you had to work on class projects with the other students in your cohort. How did these opportunities help increase your understanding of the content? Did these opportunities increase a personal relationship with members in your cohort? If so, explain. If not, why didn't you think so?	SP	2
10. Please describe how you would compare and contrast the Educational Technology, Research and Assessment online cohort experience to a single online class in regard to interacting with classmates and your instructor.	SP	2
11. Please describe a situation in which your cohort members handled a disagreement. Were you involved in the disagreement? If so, what was your role in solving the disagreement?	CP	2
12. Please describe how you and your other cohort classmates maintained a sense of trust within the cohort.	SP	1 and 2
13. What impact did being in the Educational Technology, Research and Assessment technology specialist cohort have on your overall completion?	SP	2
14. Please describe any events (if any) that motivated you to complete the program. Were there any times you wanted to quit the program? If yes, what were the events that kept you continuing in the program? Did these events involve your classmates? Can you describe the situation?	SCT	2
15. What types of behavior did your classmates display, such as leadership characteristics or organizational skills, etc.? Did that have an impact on your performance in the program?	SCT	1

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Interview Questions	Theoretical Framework	RQ Alignment
16. How did you feel about the instructor's role as it related to explaining the content or reviewing the content in a way that helped you clarify your understanding?	TP	1
17. How can you apply the knowledge created in the cohort program to your work or other nonclass-related activities?	SP	1 and 2
18. How important is it for you to maintain your relationships with cohort classmates after the program? How will you communicate and how often?	SP	1 and 2

Note. SP: Social Presence; TP: Teacher Presence; CP: Cognitive Presence; SCT: Social Cognitive Theory

Figure 4. Alignment of interview prompts

● **Tracking interviews:** I tracked interviews as I showed interest and encouraged participants to speak by following closely the content and meaning of their verbal conversation, and in doing so, I understood the responses (De Vos, 2002).

● **Clarification:** I asked for clarification from the interviewees, for example, “Can you please tell me more about your experience of participating in the Educational Technology, Research and Assessment technology specialist cohort?” I determined whether questions were misunderstood and clarified matters.

● **Reflective summary:** I repeated, in my own words, the ideas, opinions, and feelings of interviewees correctly (De Vos, 2002).

I recorded and transcribed each of the interviews. Transcripts were created using *Transcribe*, which has a dictation feature that converts voice spoken directly into a microphone into text using voice recognition. Each interview transcript was read repeatedly, along with the interview prompts (Gearing, 2004; Moustakas, 1994). Certain items in the transcripts were flagged for relevance. The flagged items constituted a preliminary list for clustering into topics of significance (Gearing, 2004; Moustakas, 1994). These topics of significance, or statements, are translated into themes and meaning units (Gearing, 2004; Moustakas, 1994).

Researcher Assumptions

My goal as a researcher was to make the participants aware of their status and role. Therefore, at the beginning of the study, I informed the participants of the ways in which they fit into the research purposes and questions (Moustakas, 1994). Then I asked the participants to share their experiences, with an aim to acquire answers for the research questions (Moustakas, 1994). I also encouraged the participants to be open and share rich data about their own experiences. Furthermore, I approached this study with the assumption that multiple, subjective realities were present among participants (Creswell & Tashakkori, 2007), and it was through the various experiences of participants that a valid understanding could be achieved (Moustakas, 1994). I also assumed that the indepth interviews would allow the researcher to uncover the meanings participants placed on their experiences with a sense of social presence, and, as a result of the interview process, I would be able to understand and capture the very “essences” of the experiences participants had with this phenomenon.

Additionally, I assumed that the participants were honest and expressed their true emotions and perceptions concerning the phenomenon under investigation during the interview process. This was an important concept as my methodological assumption was that themes should emerge and be derived solely from the details provided by participants (Creswell, 2007; Moustakas, 1994). However, the success of this investigation depended heavily on the participants’ ability to be in compliance and contribute to the discussion. When conducting a phenomenological study, the role of the participants is of utmost importance as their experiences serve as the sole foundation of the research project.

Data-Collection Site

The data were collected from Northern Illinois University (NIU), which is located in DeKalb, Illinois, 65 miles west of Chicago. NIU has a student population of approximately 20,130. NIU is a world-class, research-focused public institution that attracts students from

across Illinois, the country, and the world. Participants were selected from the Educational Technology, Research and Assessment department within the College of Education at NIU. Educational Technology, Research and Assessment's mission is to advance the development and use of technology, research methodology, and assessment in a variety of settings to enhance teaching, learning, and scholarship. More specifically, participants were selected from the Educational Technology, Research and Assessment technology specialist cohort program. The Educational Technology, Research and Assessment technology specialist cohort program is a blended hybrid program, with face-to-face meetings scheduled at one of the NIU campuses, which are found in Hoffman Estates, Naperville, Rockford, DeKalb, and sometimes a school district partnership location, all in Illinois. The courses last 8-16 weeks (some summer, some half semester). Students take three classes per semester, with an average of 18 students per cohort. Although typically all who start a cohort complete, some may take a semester or two longer. The attrition rate is low.

This site was chosen for several reasons. First, NIU's College of Education is upholding its nationally celebrated tradition of excellence in online graduate programs, according to rankings released by U.S. News & World Report ("Best Online," 2016). Second, I was an NIU alumna and graduated from the program being studied. Last, phenomenology typically requires ready access to the participants multiple times and the ability to establish rapport, both of which are critical to the successful execution of the study design. My proximity to the selected site supported both requirements. The following section addresses the participants and sampling methods.

Participants and Sampling Methods

The *sample* is a subset of a population selected to participate in a research study. The sample defines the selected groups of elements, that is, individuals, groups or organizations. The sample is chosen from the study population that is commonly referred to as the "target

population” or “accessible population” (Creswell, 2014). In this study, the sample consisted of graduates of the Educational Technology, Research and Assessment technology specialist program. The entire program was an accelerated online program. A traditional college course lasts 16 weeks, but an accelerated program compresses courses into shorter 5-, 8- or 10-week sessions. The Educational Technology, Research and Assessment technology specialist online program at NIU ran from fall term to fall term and could be completed in just 14 months. During each term, students attended courses that were grouped together to integrate complementary topics. At the student’s convenience, program participants met online for coursework and attended one prescheduled, face-to-face meeting per term. The students met face-to-face four to five times within the length of the program. Offering shared experiences and networking opportunities, the cohort format provided professional collaboration and program continuity by teaming students with the same group members throughout the course of study.

As is typical of research studies, sometimes it is difficult to recruit participants (Patel, Doku, & Tennakoon, 2003). This study was designed to utilize a purposeful sampling strategy: criterion sampling. Creswell (2003) defined such sampling by stating, “Criterion sampling works when all individuals studied represent people who have experienced the phenomenon being studied” (p. 118). An email (see Appendix A) was sent to all NIU Educational Technology, Research and Assessment technology specialist cohorts (except Cohort 6, the current cohort; this cohort was excluded by the department because its students were currently taking classes). The participants were supposed to be selected due to their experiences with social presence in an online cohort program. The assumption was that they would recognize the development of social presence. *Eligibility criteria* are the reasons or criteria for including the sample in the study (Biernacki & Waldorf, 1981). The eligibility criteria of this study required that the online cohort students have graduated from the NIU Educational Technology, Research and Assessment technology specialist online program.

A few of the participants did not meet the eligibility criteria, which was due mainly to the low response rate to the recruitment letters. During the beginning of the summer semester, when the recruitment letters went out for the first request, I received a request to participate in this study from only one participant. I contacted the NIU Institutional Review Board (IRB) and revised my study to include a gift card as an incentive to recruit more participants. Upon IRB's approval, the second request went out a week later, and I received a request to participate from two more participants. Next, I decided to contact participants via phone and outside of class to recruit more participants, and I received four more participants. I recruited a total of seven participants for this study. This type of sampling strategy is "convenience sampling." Convenience sampling is one of the most commonly used sampling procedures (Farrokhi & Mahmoudi-Hamidabad, 2012). Participants are selected from a class or an institution that is easily accessible to the researcher. Although this sampling method was effective for me to recruit more participants, a disadvantage of the convenience sampling method is sampling bias and that the sample may not be representative of the entire population (Farrokhi & Mahmoudi-Hamidabad, 2012). However, this study is a phenomenological study and intended to gain insight into the experiences of phenomena and not represent or generalize to an entire population.

This study consisted of a sample size of seven participants. In regard to the sampling size, Sandelowski (1995) stated that "a common misconception about sampling in qualitative research is that numbers are unimportant in ensuring the adequacy of a sampling strategy" (p. 179). Nevertheless, some methodologists have provided guidelines for selecting samples in qualitative studies based on the research design (e.g., case study, ethnography, phenomenology, grounded theory) or research method (e.g., focus group). These recommendations are presented by Onwuegbuzie and Collins (2007). In general, sample sizes in qualitative research should not be so large that it is difficult to extract data. At the same time, the sample should not be so small that it is difficult to achieve data saturation (Flick, 1998; Strauss & Corbin, 1990) or informational redundancy (Lincoln & Guba, 1985). Moreover, Boyd (2001) and Creswell (2014)

suggested that 2 to 10 participants are sufficient to reach saturation. Consequently, Dukes (1984) suggested as few as one participant, whereas, Polkinghorne (1989) suggested that it could take up to 325 participants to reach saturation. Therefore, in a qualitative study, it is up to the researcher to determine a sample size that can produce the data to answer the question and to determine whether saturation has been met.. The following section addresses briefly the usage of a demographic survey.

Demographic Survey

Prior to interviews, a demographic survey was emailed to potential participants (see Appendix B). This demographic survey was intended to be utilized with my first choice of sampling method (criterion sampling). The demographic survey was going to be used to confirm that I identified a targeted audience (Rossman & Wilson, 1985). Reaching a certain demographic can help acquire the right respondents for the research being conducted. However, I did not use criterion sampling but used convenience sampling instead. Therefore, the demographic questions were used to gain basic insight into the differences among students based on age, gender, class standing, online experience, course enrollment, and course duration. The following section addresses the interview process.

Interviews

All interviews were recorded via cell phone and varied in length from 45 minutes to one hour. The interviews were informal and open-ended and carried out in a conversational style (De Vos, 2002). The interview process began by establishing a degree of comfort between the interviewer and the interviewee. Participants were asked to share honest, straightforward, and thorough answers to the interview questions. The interview protocol was explained fully to the participants, including a reminder that the interview would be tape-recorded, transcribed, and returned to them for cross checking to ensure accuracy.

Participants were asked 18 open-ended questions relating to their experiences and perceptions that related directly to the research questions (see Appendix C). The interview questions had been adapted from an online survey created by Swan and Shih (2005) (see Appendix C). Swan and Shih (2005) developed and used the instrument in an exploratory social presence study. The results of the Swan and Shih (2005) survey demonstrated reliability or consistency and stability in responses as a prerequisite for establishing validity, which is meaningful and shows that the instrument measures what was intended (Creswell, 2005; Neuman, 2006).

Participants were encouraged to express their opinions and perceptions honestly. Participants were informed that their participation was voluntary.

Creswell (2005) suggested the following steps to conducting an effective interview:

1. Identify the participants.
2. Determine the type of interview to use.
3. Obtain Consent to Participate forms from the interviewees.
4. Schedule the interviews.
5. Locate a quiet, suitable place for conducting the interviews.
6. Tape-record the interview.
7. Take notes during the interview.
8. Have the open-ended questions ready for each interview, but be flexible.
9. Use probes and subquestions to obtain additional information.
10. Complete the interview as close to the time specified as possible.
11. Thank the participants and inform them of the next phase of the study.

The following section addresses ethical issues.

Ethical Issues

Creswell (2003) suggested that researchers include a section regarding ethics, despite the methodology. Several strategies were used for the current study, based on Creswell's (2003) recommendations.

- For the current study, approval was received from both the NIU IRB and the IRB of the institution where data were collected.
- Participation was voluntary; informed consent was necessary before study enrollment.
- Via oral explanation and the informed consent document, participants were made aware of the purpose of the study, risks and benefits to participating, and the necessary data-collection procedures.
- All data and findings were confidential, and reports such as the current report used pseudonyms to protect the anonymity of participants.
- To increase the accuracy of data analysis, member checking of preliminary findings occurred during the group interviews, as discussed in the data collection section later in this chapter.

The following section addresses the procedures of this current study.

Procedure

In a qualitative phenomenological study, the research method should be a rigorous, critical, systematic investigation of phenomena (Creswell, 2014; Groenewald, 2004; Moustakas, 1994). In this study, I was concerned with online cohort students' perceptions of social presence; therefore, its success depended heavily upon the willingness of the participants to share information about their experiences with social presence in an online cohort environment (Leedy & Ormrod, 2010). To achieve the goal of understanding the perception of social presence in an online program, I conducted indepth interviews with seven previous online cohort students. In addition, I was advised to triangulate the data, due to a low participant rate. "Triangulation" is a

process of verification that increases validity by incorporating several viewpoints and methods. In the social sciences, it refers to the combination of two or more theories, data sources, methods, or investigators in one study of a single phenomenon to converge on a single construct and can be employed in both quantitative (validation) and qualitative (inquiry) studies (Creswell, 2014; Denzin, 1978). Aside from the interviews, the second source of data collection that was going to be used to triangulate the data was a survey. However, as this study moved further along in the process, I decided not to use the triangulation method.

Data collection for a qualitative study typically requires a significant amount of time and energy (Leedy & Ormrod, 2010; Shank, 2006). Conducting qualitative research generally involves the tedious process of the examination of a small number of participants, which leads to a great deal of relevant information in return (Patton, 2002). For this study, each participant was asked to set an allotted time of 60 minutes, and the identities of the participants were kept anonymous. However, students were emailed a demographic survey (see Appendix B) to provide information regarding basic characteristics to create a general profile for each participant. In addition, participation in this research project was strictly voluntary; all participants were notified of the option to cancel their participation at any time, and students completed a consent form (see Appendix D).

All interviews were arranged via emails and conducted over the phone. A list of critical questions was addressed in each interview (see Appendix C); however, I had the flexibility of delving more deeply into participant's responses, which led to a richer discussion. My role in the interview process was to make sure the participants described their experiences with the perceived sense of social presence in an online cohort in detail (Pollio, Graves, & Arfken, 2006); thus, the interviews were semistructured, and only open-ended questions were asked (Creswell, 2009; Moustakas, 1994). Open-ended questions are essential in a qualitative study as they allow a researcher to gather as much data as possible about a particular subject.

The responses allowed me to understand the worldview of participants (Patton, 2002). I

paid close attention to emerging concepts during the interview process and asked for clarity in order to elicit further details and gain a deeper understanding surrounding the experiences of perceived social presence in an online cohort environment (Trochim & Donnelly, 2008). As mentioned earlier, I was advised to implement a survey into the research to triangulate the data. A survey was created using NIU Qualtrics and emailed to the seven participants for their responses. This self-rating survey was developed to correlate to the CoI model (Garrison et al., 1999). The CoI scale contains 34 items with a 5-point Likert scale. However, I did not use the survey in data analysis because I decided to keep the study a true qualitative phenomenological study and not conduct a mixed-methods study. Furthermore, the survey is cited because I wanted the procedures to be true to this study and the participants.

I began the interviewing process in the beginning of the Summer 2016 semester. Figure 5 provides more detailed information on weekly procedures.

Timing	Tasks
11 th week of Spring semester	Submit application for institutional review of research involving human subjects to NIU IRB.
17 th week of Spring semester	Submit approved IRB to Educational Technology, Research and Assessment department. Notify and inform course participants through email about the research study and that they will receive a demographic survey.
1 st week of Summer semester (ongoing throughout semester)	Email demographic survey to potential participants.
1 st week of Summer semester (ongoing throughout semester)	Notify and inform course participants through email about participating in a one-on-one interview.
1 st week of Summer semester (ongoing throughout semester)	Schedule interviews.
1 st week of Summer semester (ongoing throughout 2 nd and 3 rd week of the semester)	Conduct interviews.
3 rd week of Summer semester	Emailed link to survey
End of Summer semester	Transcribed all recordings
1 st week of Fall semester	Analyzed data.

Figure 5. Research procedure timeline

The collection of data from the interviews was analyzed. The following section addresses the data analysis.

Data Analysis

Following data collection, I used the data analysis method by Moustakas (1994). An objective of the analysis was to allow the reader to understand the nature of the lived experiences of the participants (Patton, 2002). To begin the analysis, I read through each of the interview transcriptions, paying attention to only general ideas and the tone of the participants (Creswell, 2009). I then engaged with the data in order to “hear what it has to say” and “see what it has to show” (Shank, 2006, p. 146). In this early stage, I horizontalized the data (Moustakas, 1994). Within the CoI model, each equal value was given to each element and perspective of social presence (Patton, 2002), and only general notes were made initially.

A phenomenological study requires the researcher to immerse him/herself totally in the data to understand truly the very essence of the phenomenon (Creswell, 2007). The phenomenological research approach requires that a researcher attempt to “bracket,” or set aside, his or her own experiences as much as possible in order to facilitate entering into each participant’s lived world. Authorities on phenomenological research acknowledge that it is impossible for researchers to free themselves completely from their own subjectivity. However, as I immersed myself in the data, the immersion provided me with an opportunity to release my own thoughts on social presence and understand different perspectives and experiences. Following, I discuss the strategies I used to analyze the data.

First, I transcribed each interview soon after completing it with the help of Dragon Naturally Speaking voice recognition software. I used the following process: as I listened to an interview through headphones attached to a digital voice recorder, I repeated a participant’s words, as well as my own words during the interview, into a microphone connected to the Dragon speech recognition program. Dragon produced a written text of my spoken words. After

speaking the entire interview, I examined the text file produced by Dragon as I listened to the interview again, verifying the transcription's accuracy and correcting errors. This transcription process allowed me to listen quite closely to participants' words in order to speak them myself, which gave me a better sense of their ongoing thought processes and logic flow than I could have received from the typical transcription process, which necessitates repeatedly stopping an interview tape to type words.

Second, before analyzing the data, I wrote a memo describing my own views of the research question in an effort to bracket my experiences. I identified my own experiences in the cohort and my perceptions of social presence and the effect they had on my views of my classmates' interactions in the cohort.

Third, after my initial analysis of the data, I categorized phrases and organized them in a table, as suggested by Smith et al. (2009). In this format, the original transcript text is placed in a column. The next columns consist of "chunking text" (chunks of related data that have similar meaning) and searching for significant themes and formulated meanings. The last columns group the significant statements into theme clusters, followed by an emerging major theme in the left column. Smith et al. (2009) recommended that researchers engage with interview transcripts in a variety of ways (see Figure 6 for an example of this process).

Fourth, after reading and rereading the interviews, I singled out "significant statements" by highlighting them in the transcripts within the table I kept. I also copied these particularly meaningful statements into separate text documents and wrote brief interpretations of them. My formulations of these significant statements became the basis for the emergent themes.

Fifth, I began to cluster the themes that had emerged from my comments into what Smith et al. (2009) termed "superordinate," or much broader, themes for each participant. Sixth, I looked for common themes across the statements. Last, to help insure that my interpretations were accurate to the participants' intentions, a member check was conducted to obtain accuracy from each participant for his/her interview. I emailed the original transcripts to the participants

Interview Text (Raw Data Sample)	Significant Statements	Formulated Meaning	Theme Cluster	Major Theme
<p>(P1) We were pretty professional when it first began and everything. I mean, none of us really knew each other; we were all there for an advanced degree. What we ended up doing later is forming a relationship for the year and a half we were together.</p>	<p>“My relationship with the other cohort members were really interesting and exciting from the very first day of orientation.”</p>	<p>Face-to-face sets the tone for the duration of the program.</p>	<p>The structure of the program assisted cohort students in forming relationships with their peers.</p>	<p>The structure of the program provided students the opportunity to be open and receptive in forming strong and long-lasting student-to-student relationships.</p>
<p>(P2) My relationship with the other cohort members were really interesting and exciting from the very first day of orientation. I got a chance to meet everyone in the cohort. Everyone was friendly and outgoing. I was a little apprehensive and outgoing. I consider myself a late goer of the field of technology, so I came in with a little apprehension of technology. I felt so bad I was behind the curve, but that ended up not being the case. Everyone was accepting of everyone’s experiences and background. So that went a long way toward helping me look for filling and helpful relationships of the cohort.</p>	<p>“The strongest relationships I had was working in group projects.”</p>	<p>Online collaboration could become a factor in students building relationships with one another.</p>	<p>Cohort members were open and receptive to bonding with their cohort members.</p>	<p>The structure of the program provided students the opportunity to be open and receptive in forming strong and long-lasting student-to-student relationships.</p>
<p>(P3) My participation and interaction was good with other classmates during my time in the program. There are different assignments, including group collaborations on different projects.</p>	<p>“Everyone was accepting of everyone’s experience and background. So that went a long way toward helping me look for filling and helpful relationships of the cohort.”</p>	<p>Acceptance and wanting to belong is important in building relationships in online cohorts.</p>	<p>Cohort members were open and receptive to bonding with their cohort members.</p>	<p>The structure of the program provided students the opportunity to be open and receptive in forming strong and long-lasting student-to-student relationships.</p>
<p>(P4) The relationships were pretty good. We were set up to meet up face-to-face and then online. The strongest relationship I had was working group projects. We pretty much stayed with the same groups throughout the cohort, and I still keep in touch with a couple of them. In fact, we help each other with job interviews and difficult projects, and we tried to develop a professional network.</p>	<p>“Everyone was accepting of everyone’s experience and background. So that went a long way toward helping me look for filling and helpful relationships of the cohort.”</p>	<p>Acceptance and wanting to belong is important in building relationships in online cohorts.</p>	<p>Cohort members were open and receptive to bonding with their cohort members.</p>	<p>The structure of the program provided students the opportunity to be open and receptive in forming strong and long-lasting student-to-student relationships.</p>
<p>(P5) My relationship was friendly. I tended to interact with most of the people that I was assigned in my group. As we went through the assignments, we became friends, and then if I didn't have a direct group assignment with them anymore, then we were friendly with each other.</p>	<p>“Everyone was accepting of everyone’s experience and background. So that went a long way toward helping me look for filling and helpful relationships of the cohort.”</p>	<p>Acceptance and wanting to belong is important in building relationships in online cohorts.</p>	<p>Cohort members were open and receptive to bonding with their cohort members.</p>	<p>The structure of the program provided students the opportunity to be open and receptive in forming strong and long-lasting student-to-student relationships.</p>
<p>(P6) We talk every so often and we use social media.</p>	<p>“Everyone was accepting of everyone’s experience and background. So that went a long way toward helping me look for filling and helpful relationships of the cohort.”</p>	<p>Acceptance and wanting to belong is important in building relationships in online cohorts.</p>	<p>Cohort members were open and receptive to bonding with their cohort members.</p>	<p>The structure of the program provided students the opportunity to be open and receptive in forming strong and long-lasting student-to-student relationships.</p>
<p>(P7) My relationship with the other cohort members was it was a nice experience. I met really good people, and we still talk to this day, and we're able to collaborate about different subjects regarding technology.</p>	<p>“Everyone was accepting of everyone’s experience and background. So that went a long way toward helping me look for filling and helpful relationships of the cohort.”</p>	<p>Acceptance and wanting to belong is important in building relationships in online cohorts.</p>	<p>Cohort members were open and receptive to bonding with their cohort members.</p>	<p>The structure of the program provided students the opportunity to be open and receptive in forming strong and long-lasting student-to-student relationships.</p>

Figure 6. Categorized phrases and comments

and asked them for comments, corrections, additional thoughts, and whether they would like me to delete anything from the transcript. None of the participants responded; therefore, no modifications were made.

Although there were only seven participants, saturation was reached at Participant 6. Data saturation is reached when there is enough information to replicate the study, when no new additional information is obtainable, and when further coding is no longer feasible (Fusch & Ness, 2015). Strauss and Corbin (1998) suggested that saturation is a “matter of degree” (p. 136). They suggested that the longer researchers examine, familiarize themselves, and analyze their data, the more potential there will be for the new to emerge. Consequently, I did not stop at Participant 6 but continued to interview Participant 7. Strauss and Corbin (1998) also suggested that sometimes the problem of developing a conclusion to their work is not necessarily a lack of data but too much of it. As analysis begins to take shape, it is important for a researcher to become more disciplined and cut data when necessary. Therefore, it is always better to have more data to work with, even if saturation is met.

Best Practices

I followed four best practices, as recommended by Saldaña (2013), to increase the quality of coding and analysis. First, I began coding in the traditional manual way, using printed copies, pens, and highlighters for initial coding. Second, to keep coding focused, I posted a copy of the research questions in my primary workspaces so they were within sight as I coded (Auerbach & Silverstein, 2003). Third, I posted the following list, a compilation of questions suggested by Emerson, Fretz, and Shaw (2011), although the list was created to assist a researcher with field notes. However, thinking and reflecting on some of these questions as they relate to the transcripts were valuable in the coding process.

- How do members talk about, characterize, and understand what is going on?
- What assumptions are they making?

- What do I see going on here?
- What did I learn from these transcripts?

Saldaña (2013) also suggested continually asking oneself, “What strikes me?”; therefore, this question was added to the list as well. I referred to this list of questions to ensure that I was providing the rigor in examining the data in both breadth and depth. However, most importantly, I wrote analytic memos throughout the data collection and analysis process, recording the full extent of my thoughts, reactions, and reflections on the research process and data (Saldaña, 2013).

The writing of these analytic memos is a highly critical piece of the coding process, as writing about codes and categories leads to insights regarding new, often better, codes, as well as patterns between and among codes (Corbin & Strauss, 2008; Saldaña, 2013). When people are coding, they generally fall within one of two groups: lumpers and splitters (Saldaña, 2013). From the three qualitative research courses I had taken prior to beginning the current study, I had learned that I was a splitter, that is, I tend to begin analysis with many codes. I believe that, for the current study, the use of many different types of codes allowed me to view the data from a variety of different perspectives. Additionally, I believe that this approach allowed me to uncover the multiple purposes that a single utterance might hold (Xin, 2012). It was in finding the patterns and discrepancies among and between the perspectives that true insight occurred, when I had those “ah hah” moments. As stated by Lawrence-Lightfoot and Davis (1997), “However qualitative researchers attempt to systematize and organize their data, they must always listen for the voices and perspectives that seem to fall outside, and diverge from, the emergent themes” (p. 192).

Additionally, I discussed the findings and my initial ideas regarding the implications of the findings with my peers as well as with faculty members who were not from my institution; they had perspectives that led to some additional insights. Study rigor is increased when

researchers discuss findings with other professionals in the field and receive feedback (Yin, 2014). The following section addresses the generalizations of the findings.

Rigor

There is sometimes concern that phenomenological studies may not be rigorous enough for scientific research. A lack of rigor may stem from a failure to follow systematic procedures or to account for disconfirming evidence (Creswell, 2007). Concerns can be mitigated through a detailed accounting of methodology and “rigorous approach to data collection, data analysis, and report writing” (Creswell, 2007, p. 46). Wilding and Whiteford (2005) recommended that researchers use methodological texts to guide their work and increase rigor. The creation of the proposal associated with the current study, as well as the data collection and analysis, was informed by a variety of such texts, including Berg and Lune (2012), Creswell (2003, 2007, 2014), Dyson and Genishi (2005), Krathwohl and Smith (2005), and Thomas (2003). Rigor is increased when “the researcher collects multiple forms of data, adequately summarizes—perhaps in tabled form—the forms of data and details about them, and spends adequate time in the field” (Creswell, 2007, p. 45). This study includes a triangulation of data. My time in the field included conducting interviews for this study, as well as conducting research in the field for research classes that I had taken over the years. In addition, the selection of a “credible theoretical framework,” such as the CoI framework (Garrison et al., 1999, 2010), added to the rigor of the study (Garrison et al., 2006).

Qualitative data analysis is rigorous when it involves multiple levels of analysis, from the particular to the abstract (Creswell, 2007). Moreover, Yin (2014) encouraged researchers to seek and address competing explanations for findings throughout the data collection and analysis processes. Although rigor can take a quantitative spin in the form of “rival hypotheses” (p. 140), it does not have to do so. Rival explanations can come from other ways of looking at data inductively (“from the ground up”) or alternate ways of organizing and describing the data (Yin,

2014). Creswell (2003) referred to the process as seeking “negative or discrepant information that runs counter to the themes” (p. 196). To ensure rigorous qualitative data analysis, I have

- re-examined my application of the concepts from Goffman’s (1959, 1967, 1983) impression management framework (e.g., positive face, negative face, face threats, avoidance rituals) to the data and sought alternate methods of doing so;
- used several coding techniques to think about the data in various ways;
- developed analytic memos throughout the data collection and analysis process and reviewed these often, as a constant reminder of personal conflicting or deviant assumptions about the data; and
- discussed the preliminary findings with colleagues (i.e., faculty in the field of technology) who were able to suggest alternate justifications and ideas (as suggested by Yin, 2014).

The following section addresses the current study’s validity.

Validity

The term “validity” has often been used as a measure of whether a research study is measuring what it is supposed to be measuring (Babbie, 2005). However, validity often has a different meaning in qualitative research. “Validity is one of the strengths of qualitative research and is based on determining whether the findings are accurate from the standpoint of the researcher, the participant, or the readers of the account” (Creswell, 2014, p. 201). There are several types of validity, which are construct, internal, and external. The most appropriate type for this study is construct validity.

Construct validity is present in a study when a researcher has fully operationalized the definitions of the concepts being studied (Yin, 2014). Concepts such as intimacy, immediacy, social presence, teacher presence, cognitive presence, and SCT have been operationalized as part of the theoretical constructs described in Chapter 2. As related to the interviews, construct

validity was present when interviewees understood interview questions in a manner similar to my own.

Trustworthiness of the Data

Denzin (1978) and Shenton (2004) suggested that the trustworthiness of data is associated with establishing validity and reliability in qualitative research. Denzin (1978) also discussed that through this association, the way to achieve validity and reliability in research affected by the qualitative researcher's perspectives is to eliminate bias and, in turn, increase the researcher's truthfulness of a proposition about some social phenomena using triangulation. Furthermore, Creswell (2009) suggested, and I followed, several steps of the research design to ensure credibility and trustworthiness, as follows:

1. I read from a paper copy of the interview protocol to ensure consistency in the questions asked and to document notes about responses during the interview.
2. I audio-recorded all interviews and transcribed verbatim to ensure accuracy of participant responses.
3. I developed a summary table of the emergent common and unique themes to display the operationalized definitions supported by direct quotes (Creswell & Tashakkori, 2007).
4. I conducted a member check in responses from participants to verify my interpretations of the responses.

Summary

In summary, Chapter 3 discussed the methods of the qualitative study. This chapter gave a brief overview of the phenomenological method and provided a highly systematic and rigorous approach to addressing the research questions.

CHAPTER 4

FINDINGS

Chapter 4 begins by revisiting the purpose of the current study and the research questions. This chapter presents the findings through discussion of the interviews that were collected using the interview prompts as a means to reveal perceptions of social presence in an online cohort environment. Particular attention was given to how students interact with peers, the instructor, and the content. In addition, the role that self-efficacy may have played in the participants graduating from the program was discussed. This approach was based upon the CoI theory (Garrison et al., 2000) as well as the SCT (Bandura, 1989), which was used as a theoretical lens to investigate the study. In addition, constructs of the CoI theory and self-efficacy were discussed as they related to the findings of this study. Next, the corresponding categories and themes that emerged as a result of the findings were highlighted. The chapter concludes with a summary.

The purpose of this phenomenological study was to achieve a better understanding of the lived experiences of students as they were enrolled in an online cohort master's degree program. Specifically, I investigated the educational experiences shared by online cohort students in an effort to illuminate the factors that contributed to the perception of social presence in an online cohort environment.

The following research questions were addressed in this study:

RQ1: How do Educational Technology, Research and Assessment technology specialist students perceive social presence in an online cohort?

RQ2: How do Educational Technology, Research and Assessment technology specialist students' experiences in an online cohort contribute to their perception of social presence?

Protecting the Identity of the Participants

Participants were assigned pseudonyms in an effort to protect their confidentiality, and all potentially identifying information has been omitted from this manuscript. In order to provide context for the reader, brief profiles are provided to describe each participant, and Table 1 provides participant characteristic information.

Table 1
Participant Demographics

Characteristic	Detail	Statistics	
		Number (n = 7)	Percentage
Gender	Male	3	43.0
	Female	4	57.0
Age	30-39	4	57.0
	40-51	3	43.0
Ethnicity	African American	5	71.0
	Caucasian	2	29.0
Number of online classes taken	< 10	3	43.0
	10+	4	57.0
Full-time work	Yes	7	100.0
	No	0	0.0

Participant 1 (P1) was a 38-year-old male who was enrolled in the Educational Technology, Research and Assessment technology specialist Cohort 1 at NIU. Prior to his enrollment in the master's program, he had completed 10 online classes.

Participant 2 (P2) was a 51-year-old female who was enrolled in the ERTA TS cohort 2 at NIU. Prior to her enrollment in the master's program, she had completed 41 online classes.

Participant 3 (P3) was a 41-year-old female who was enrolled in the ERTA TS cohort 1 at NIU. Prior to her enrollment in the master's program, she had completed five online classes.

Participant 4 (P4) was a 39-year-old male who was enrolled in the ERTA TS cohort 1 at NIU. Prior to his enrollment in the master's program, he had completed 12 online classes.

Participant 5 (P5) was a 47-year-old female who was enrolled in the ERTA TS cohort 2 at NIU. Prior to her enrollment in the master's program, she had completed more than 10 online classes.

Participant 6 (P6) was a 38-year-old male who was enrolled in the ERTA TS cohort 1 at NIU. Prior to his enrollment in the master's program, he had completed no online classes.

Participant 7 (P7) was a 39-year-old female who was enrolled in the ERTA TS cohort 2 at NIU. Prior to her enrollment in the master's program, she had completed no online classes.

Research Question 1 (RQ1)

RQ1 asked, "How do Educational Technology, Research and Assessment technology specialist students perceive social presence in an online cohort?" This question was formulated to allow me to identify the factors that might contribute to each of the elements of social presence, such as intimacy, interactivity, and immediacy, which were experienced by the participants. However, to receive a broader sense of students' perceptions of social presence, all three components of the CoI theory, which included teacher presence and cognitive presence, were examined to understand the phenomena. The overall theme that emerged from this question during data analysis was positive interactivities in the online cohort increased students' perceptions of social presence. This theme also generated several subthemes: (a) the structure of the program provided students the opportunity to be open and receptive in forming strong and long-lasting student-to-student relationships; (b) when students held discussions, either asynchronous or synchronous communication happened frequently; (c) during discussions and nonrelated activities, students' attitudes were positive; (d) student-to-instructor relationships and instructor feedback were positive.

Interactivities are the foundation to creating and building online learning communities (Lipman, 1991; Sims, 1999). Interactivity also comprises one of the components of social

presence within the community of CoI model. In an online environment, interactivity can occur either as formal interaction that is constructed into the overall course design or as informal interaction that exists outside of an online class environment (Rhode, 2007). Formal interactivity, the focus of this study, is defined as either asynchronous or synchronous opportunities for communication between student and student, student and instructor, and/or student and content. Synchronous communication is that which takes place in “real time” and may include online chat and video conferencing. Asynchronous communication occurs over time and does not require simultaneous, “real-time” interaction. This form of communication may include email, online discussion boards, blogs, and wikis (Moore, 1989). The interactions that were shared during the interactivities in this study were student-to-student, student-to-content, and student-to-instructor. The following sections capture the students’ experiences in each of the subthemes.

The Structure of the Program Provided Students the Opportunity
to Be Open and Receptive in Forming Strong and Long-Lasting
Student-to-Student Relationships

A big part of the cohort experience was building relationships. Student-to-student relationships were extremely important in identifying the intimacy component of students’ perceived social presence within the cohort environment. P2 stated that she was a latecomer to the field, but establishing relationships the first day helped comfort her. She also commented, “My relationships with the other cohort members were really interesting and exciting from the very first day of orientation.” P1 stated, “We were pretty professional when it first began and everything. . . . We ended up . . . forming a relationship for the year and a half we were together.” P4 shared the fact that in his cohort, students stayed with the same group members in that cohort.

The relationships were pretty good. . . . The strongest relationships I had was working on group projects. We pretty much stayed with the same groups throughout the cohort, and I still keep in touch with a couple of them. In fact, we help each other with job interviews, and we tried to develop a professional network.

P5 said,

My relationship was friendly. I tended to interact with most of the people that I was assigned in my group. As we went through the assignments, we became friends, and then, if I didn't have a direct group assignment with them anymore, then we were friendly with each other.

P6 said, "We talk every so often and we use social media." P7 stated, "My relationship with the other cohort members was, it was a nice experience. I met really good people, and we still talk to this day, and we're able to collaborate about different subjects regarding technology."

P3 said, "My participation and interaction was good with other classmates during my time in the program. There are different assignments, including group collaborations on different projects."

The student-to-student form of interaction requires that learners work together (Hirumi, 2006; Moore, 1989). The majority of participating students commented that, by working together in groups and in the cohort as a whole, they were able to form and establish relationships. The participants used words and phrases such as "good," "professional," "interesting," "exciting," and "friendly" in describing relationships with their peers.

The comments from the participants indicated that through the cohort program, they were able to establish and build relationships. These relationships were meaningful, and some became lifelong. Therefore, relationship is a factor that is recognized in student perceptions of social presence in an online cohort. Establishing and maintaining relationships with peers played a huge part in these students' perceived social presence. These students believed that connecting with others in the cohort set the tone for the entire program. They were able to establish real authentic relationships that lasted beyond the cohort.

When Students Held Discussions, Either Asynchronous or Synchronous Communication Happened Frequently

Students interacted with the content through asynchronous and synchronous group discussions. These group interactions also address the intimacy component of social presence. For the most part, students enjoyed the group discussions, but when asked specially about

asynchronous or synchronous discussions, their responses presented a bit of a mixture. P1 suggested that the asynchronous discussions were often difficult at first. “Synchronous was very good; we were always in touch with one another, no one was not doing all the work.” P2 stated, “There were a lot of asynchronous online discussion; I felt that through the asynchronous discussion, I learned so much from the experiences of my classmates.” P2 also commented on the rich deep learning provided by the discussions: “They were all so interesting and fun.” P3 commented, “I was quite comfortable with completing courses. . . . My comfort level was pretty good. No, I didn’t feel isolated or alone.” P4 said, “It was a little difficult to get a hang of the asynchronous discussion, but sometimes it seemed a little forced. . . . I did not feel alone ever.”

P5 was a student who came from the corporate sector of the field, and although she liked the discussions, she commented that they were often one-sided, to accommodate the students that were from the K-12 environment.

So I like the group discussions. My overall personal challenge was the makeup of the background participants. This left me at a disadvantage because my background is corporate, but then the cohort members all came from the educational field. The synchronous and asynchronous interactions allowed us to learn from one another. I had the learning, but I had to make the translations myself and to interpret them to corporate world.

P6 commented that he liked the discussions but did not like some of the technology tools being used.

Basically, I feel pretty good and doing pretty good with the discussion. However, he kept doing it over and over the same way. As for a synchronous dealing with those when we use Adobe Connect, because of some of the different formats and group projects with discussion board, I wasn’t much of a fan.

P7 commented on enjoying the discussions but really did not like going physically to a class. In describing her participation in group discussions, she stated,

I enjoyed it. The fact that I was not out and away from my home; I was able to communicate with the class, and it was a good experience. I didn’t have to leave my house, and I was able to collaborate with everyone. We always communicated. It didn’t matter if we were actually talking to one another through a different portal or doing a presentation; we were always communicated.

Moore (1989) suggested a variety of ways in which students can interact with content in an online learning environment. The participants had several ways in which they interacted with the content in the cohort: through group discussions, class projects, and other activities.

Burgoon et al. (2002) suggested that technology has evolved to a point at which students can have great indepth discussions. Participants used words and phrases such as “always in touch,” “interesting and fun,” “rich, deep learning,” “comfortable,” and “did not feel isolated.” In addition, students also commented that they had plenty of opportunities to discuss ideas and other information. Participants commented that although they discussed course-related topics, some of the discussions digressed to topics on jobs and personal family topics. One student commented that “discussions allowed closeness to other classmates.” These statements contradict Baxter and Haycock (2014), who suggested that when students perceive the asynchronous online discussions as too social and digress frequently from the content, the discussions may be considered superfluous. Instead, students’ digressions led to deeper and richer discussions of the topic because students were able to go beyond the surface. Therefore, the interaction of online group discussions in the cohort added value to the experience, and most of the students were able to connect to the content without difficulty.

However, only a few participants actually distinguished between asynchronous and synchronous discussions. One participant did suggest that asynchronous discussion was difficult to manage. Another participant commented that the discussions were quite one-sided and related only to the teachers who were in the K-12 environment or higher education and did not relate specifically to the corporate side of the field. Student discussions are a factor that relates to student perceptions of social presence. However, to have effective classroom discussion, the topics and discussions should cover all disciplines within the field.

During Discussions and Nonrelated Activities,
Students' Attitudes Were Positive

The group discussions led students to exchange ideas about the class projects and other assignments. P1 stated, "There were a lot of opportunities to discuss ideas." P2 made quite candid comments on the conversations within the group:

Let me preface my answer by saying I think any time you get a group of students together who are in the same courses with the same instructor, you're going to talk about the classes and the instructors. However, whenever we did get together, we were talking about assignments. The assignments were difficult; it was not an easy program. Although we did digress a little and have those candid discussions; but we all worked as a group.

P3 talked about the cohort's constant communication and the organization of their discussions:

We were always communicating, whether on site or on online. The discussions allowed different topics proposed for a particular class, which led to more of an open forum for the peers in the class to talk about that particular topic, so you're able to hear different points and different viewpoints, and that's definitely helpful. I think there's always room for a fair exchange for thought process; how another person thinks is totally different, and I was saying me having the background I have versus the people in my cohort, they were all teachers, and I wasn't, so being able to engage in at that time provided different conversations.

P4 stated,

Most of the nonrelated stuff was small talk in chat, just to see how everybody was doing. I realized a couple of us was already looking for new positions. A lot of the group discussion was around obtaining new jobs and new positions and getting promoted through networks that they were in the school district.

P5 said, "We had a lot of opportunities to do group work, which made us comfortable. We would brainstorm ideas and talk about different things. We would help one another to prepare for interviews." P6 stated, "I'm kind of close with some of the people that are in the cohort. Most of us are teaching and share ideas on instructional technology." P7 said, "I would talk to my group members weekly, and sometimes twice a week, about what we needed to do or what was next for group project we needed to work on. We did have a lot of conversation about our profession."

P1 talked about an app he was working on:

Well, a huge opportunity was being a part of a brand-new mobile-to-mobile project that the cohort had an opportunity to participate in. Being involved in this one-to-one mobile project was a huge opportunity. This led me to do other things; the other things allow me to use mobile apps with curriculum with a more digital platform, and this led to me doing an internship.

P2 commented that she kept an open mind and was flexible in changing her viewpoint about a particular topic.

I would try to work with different groups, not always the same group, and that worked well for me. There were times . . . I might go into a project or a discussion with one point of view, but then after open discussion and talking with someone who perhaps had a personal experience with whatever the topic is, my thoughts on that might have changed a bit.

P3 stated, “I would say there was a level of building better friendships. I wouldn’t say that they’re my best friend, but we definitely have moments, great conversations beyond the classroom.” P4 said, “The projects did increase my knowledge within the coursework. I really enjoyed the projects. Sometimes you go to a class and say, ‘Why did we do this?’, but I didn’t see any of that in this cohort, so that’s good.” Although P5 enjoyed her experiences, she believed that she would have benefited more from the groups if she had not chosen to be with the same group all the time.

I enjoyed the cohort experience. I was with the same group the entire time of the cohort, so it was comfortable for me. I do feel like the instructors should have encouraged us to get to know more of the other members in the cohort. I really got to know my group on a more intimate level working with the same people, so I couldn’t say I got the full benefit of getting all the entire cohort. I think if the professors may have forced us to be with different groups, I think that it might have been different outcome with shared experiences, sometimes bad experiences; you still walk away with something you can use.

P6 said, “We had a lot of group activities.” P7 stated,

Everyone gave different types of insight in the cohort. I know I had a hard time understanding the different instructional models, but somebody in my group was able to explain it so that I could understand it better. Those opportunities created a personal relationship with the other classmates and getting to know them better.

When students work on group projects in an online cohort, they collaborate with one another. Whether students are interacting with one another or with an instructor online, an effective learning environment should be set up for collaboration (McConnell, 2006; Palloff &

Pratt, 2003). Participants commented that there were plenty of opportunities to work on projects, both those specifically related to the class and other opportunities that were not class projects. However, some students commented that during group, it was difficult to keep everyone on task. One person commented that group projects helped to broaden her viewpoints on certain topics. The participants also commented that they had an option to select those students with whom they wanted to work in a group on class projects. Some decided to work in various groups, and some chose to work with the same students throughout the cohort.

Students interact with the content by collaborating on group activities. As students work on these assignments, their discussions on the activities and the outcomes of those activities help to increase their understanding of the content. Therefore, group activities are a factor for students' perceptions of social presence in an online cohort. Collaborations and positive experiences are also great dynamics for an effective online cohort environment (Alman et al., 2012; Tisdell et al., 2004).

Learner-to-Instructor Relationships and Instructor Feedback Were Positive

Interactivity provided a real avenue by which the students could begin to build their relationships with one another. Some participants were able to form a sort of a mentor/mentee relationship with instructors as they moved from the hybrid online cohort master's program to the doctoral-level program. The instructor's role in the cohort was primarily a facilitator's role, in which the instructor sometimes provided direct instruction that sometimes gave an overview of that particular topic and sometimes took an opportunity to step back to allow students to interpret the assignment in their own way and let learning occur. Therefore, another subtheme that was generated under interactions was student-to-instructor interactions. According to Garrison et al. (1999), a strong sense of teacher presence includes managing the e-learning environment, providing subject expertise, and facilitating the learning.

P1 commented that all the instructors had their strengths but provided one-on-one instruction if needed. “I remember I used to struggle with doing presentation and PowerPoints, but an instructor took time with me and gave great instruction on how to use it. P2 said, “Many of them had different teaching philosophies and different teaching approaches than other teachers. Everyone taught in their own way, and that was good for me.” P3 stated, “I think, from what I recall, the assignments were straightforward; if there were a time where more clarity needed to take place, we were able to ask the instructor for more clarity.” P4 commented that the instructors were primarily facilitators, which was the way they modeled their class.

It was pretty good; the instructors, for the most part, guided us on a tour through the cohort. They were there if we needed them, but they did take steps back and let the learning happen, and I actually like that. I try to teach my classes now like that. I teach middle school, and I take the same viewpoint: let the learning happen, don't force it on anybody. I think these instructors did a good job. I felt the support was there if we needed it. I never felt pressured with a professor.

P6 had no specific comment on the instructors role but appreciated the design of the cohort: “The best part is that we always meet face-to-face before the cohort started.” P7 stated,

The classes we took in the cohort was hands-on activities, which helped me retain information versus just reading a book. I got a lot out of the hands-on experience, so they provided a lot of that opportunity outside of direct instruction. It was a lot of hands-on.

However, P5 commented on the fact that some instructors did not delve deeply enough into the content to make it relate to students who had a corporate background: “I struggled how to translate this technology in my real world of corporate America.”

However, just as important as teacher presence was the feedback. Another component of social presence is immediacy. Feedback from peers or the instructor is related to the immediacy component of social presence. In general, students commented that the feedback was extremely constructive and helpful.

Interactions provide the dual functions of motivating learners and clarifying content (Hirumi, 2002). The majority of the students commented that instructors were helpful in facilitating instruction, used various teaching styles in presenting the content to help them

understand, and provided additional one-on-one instruction when more clarity was needed. One of the students commented that “sometimes the instructors took a step back to let learning happen.”

The comments from the participants coincided with Garrison et al.’s (1999) CoI model’s element of teacher presence, which includes designing and managing learning sequences, providing subject-matter expertise, and facilitating active learning. Most of the participants described the feedback from teachers and their peers as immediate and useful. Therefore, teacher presence and feedback were factors that contributed to the perception of social presence in the online cohort. However, one student suggested that the feedback was not deep enough in helping her to understand how the content related to her discipline and that she had only one instructor who was from her discipline. However, to reach all students, the staff should be a diverse representation of the field.

P1 stated, “The feedback was very good and constant from one another.” P2 said, “The feedback was overwhelmingly positive.” P3 commented, “The feedback was positive with discussion boards and remaining positive in the writing styles.”

P4 said, “I think I found that any feedback was useful.” P6 stated, “The feedback was mostly positive. Some of the feedback from the classmates could be highly critical, but it really depends. However, the feedback from my instructors, I would have liked a little bit more.” P7 commented, “I think the feedback I had from my peers was very supportive. . . . The teacher feedback was immediate feedback, after we did our presentations.” P5 commented that although the feedback was rubric based, she would have liked a little more to assist on a deeper level: “So I would say my feedback was surface level, . . . sometimes hard to get feedback when your background is different, so the feedback I received was based on the rubric and didn’t really go deeper.”

Gibbs and Simpson (2004) suggested that feedback should be appropriate for the tasks that learners are performing and should consider learners’ understanding of what they should be

doing. The majority of participants agreed that the feedback was positive and constructive. However, one student did comment that the feedback was not deep enough but only at surface level. Instructor feedback should reinforce and support learning (Gibbs & Simpson, 2004).

Research Question 2 (RQ2)

RQ2 asked, “How do Educational Technology, Research and Assessment technology specialist students’ experiences in an online cohort contribute to their perception of social presence?” This question was formulated to allow me to identify factors that may contribute to participants’ perceptions of social presence, specifically in an online cohort environment, opposed to a single online class. The reason this question was important to address is that students in an online environment are lock-and-step throughout the entire program. When students are together and communicating for an extended period of time, behaviors may change. The SCT explains that people acquire and maintain certain behavioral patterns (Bandura, 1989). A component of the SCT is self-efficacy. Self-efficacy, also referred as personal efficacy, is the extent or strength of one’s belief in one’s own ability to complete tasks and reach goals. All seven participants were graduates of the online cohort program and mentioned that this was a goal when they first enrolled. After examining this research question through the lens of the SCT as well as the CoI framework, the following overall theme that emerged during the analysis was that the cohort experience increased students’ perception of social presence and proved to be successful, with several factors that may have influenced this theme: cohort design, behavior/characteristics, disagreements, and trust. There were several subthemes: (a) the students reflected on their own determination and self-efficacy as motivation to complete the program; (b) post-graduation knowledge of application could be applied in the students’ careers; and (c) post-graduation relationships were still strong.

Cohort Experience Increased Students' Perception
of Social Presence and Proved to Be Successful

Students in a cohort enroll in the same courses and progress through a degree program at the same pace (Rovai, Wighting, & Liu, 2005; Santicola, 2013). At NIU, students who are new to the master's Educational Technology, Research and Assessment cohort program typically begin their enrollment during a fall semester and follow an accelerated course sequence over the following one and a half years. All seven participants indicated that progressing through the degree program in a cohort contributed to their perception of social presence. P4 indicated that the blended model online cohort approach was excellent for the accelerated learning design:

The fact that we can respond and ask questions was great, opposed to my earlier online classes; there was one or two classmates that I saw in a class. Having the same people in the class really helped accelerate the learning because we've already established those lines of communication.

This is was true for P2 as well:

When I take an online course, it's sort of a one-time thing. I may or may not see those people again. In the cohort, I have the opportunity to be with the same group of people from class to class, to each semester. The cohort included group projects and opportunities for us to interact in small groups and partnerships. It allowed me the ability to get to know a lot of different people on a more personal level than I might not have in a noncohort.

P6 agreed, "You get to know the people after a while, and you could help each other along the way." P1 commented, "It was a tighter schedule so we had to be more reliant on one another." P3 indicated that there was more collaboration in the online cohort: "The cohort provided more collaborative opportunities." P5 indicated, "I enjoyed the cohort experience. I was with the same group the entire time of the cohort, so it was comfortable for me." However, P7 indicated that it was a convenience not going to class: "With my single online class, I had to go the location, and I didn't really get to know the individuals in my class, unlike the cohort blended model I was in."

Being in the hybrid-blended online cohort model, increased the level of interactivity and contributed to students' perceptions of social presence. P5 indicated,

One thing I really liked about the online cohort program was the dialogue and a mix of learning strategies. I've taken a lot of online classes, and a lot of the content was presented by answering a couple of questions, and that was it. One thing about our online cohort, we had breakout discussions, we used all of the online tools, we used all the ways to communicate and engage online, which was great.

Futhermore, As students matriculated through the program, participants commented they experienced a stronger connection to their peers and relied on one another for support, which they did not receive in a single online class. In addition, these connections made students comfortable and decreased any anxiety or fear. Bai (2003) indicated that social presence can lead to reduced feelings of isolation and detachment and, at the same time, can encourage student interaction and participation in online courses.

The Educational Technology, Research and Assessment technology specialist program was a hybrid and blended online cohort in which students had the opportunity to have face-to-face encounters (blended) as well as asynchronous and synchronous sessions online (hybrid). This type of cohort allowed the participants to make first impressions of their peers and their characteristics. Most of the students commented that their first face-to-face interactions did assist them in having a first impression. Nonverbal communication includes body language, gestures, facial expressions, and even posture (Gunawardena & Zittle, 1997). However, as the group began to exchange ideas and work on projects, their writing gave evidence of some of the characteristics they possessed as well as how they worked in the group. Verbal cues in synchronous classes are generally given by typing and reading what other people have typed in asynchronized settings. Personality and characteristics can be related to the intimacy component of social presence. Therefore, intimacy was a factor of student perceptions of social presence in an online cohort.

Cohort Design

P1 stated, "One thing about the cohort is there is a set time line. There's established discipline more than a normal online class. The single online class, there's a timeline, but it

could change.” P2 said,

The stand-alone class, I’m sort of limited to just that one semester and as much as I can learn about the content and my classmates just in the confines of that one semester, and then it’s over. In the stand-alone class, I may do a group project, and I can kind of get to know one or two people I’m working with, but at the end of the semester . . . , everybody goes their own separate ways, and then we don’t really get to interact with one another.

P3 commented, “Comparing to my other program, it was just more independent projects and group work, whereas a single online class, there was not much collaboration, and time was limited.”

P4 stated,

I think it’s more personal with the cohort because we do know that person behind the username. When I was with my undergraduate degree, where it really was just sending messages out there hoping someone will respond. Whereas in the cohort, I knew one classmate will get back to me instantly. You start to know other classmates’ schedule, you also understand their writing and not trying to decipher what they really mean.

P6 said, “The biggest thing was the flexibility the cohort provided, opposed to a single online class,” and P7 stated,

My experience with the cohort program allowed me to stay on task with the blended model approach. We were able to get to know who was on the other end of the computer, and we checked in with one another weekly. We communicated on a regular basis versus a single online class I’ve taken. With the single online class, it was hard to stay on task because no one was making sure that they were in contact with you.

The participants all agreed that they liked the design and structure of the Educational Technology, Research and Assessment technology specialist cohort as opposed to a single online cohort. The phrases used included “communicated on a regular basis,” “set time line,” “established discipline,” “provided great interactions,” “mixed learning strategies,” “creative,” and “flexibility.” Descriptions of a single online class were described in an opposite manner: “time line could change.” “maybe class was canceled,” “might not see same people again,” and “no flexibility.” Moreover, P5 commented that “the cohort provided me an opportunity to learn some of those soft skills that you wouldn’t have learned in a noncohort class.” Soft skills are a combination of interpersonal people skills, social skills, communication skills, character traits, attitudes, and career attributes (Andrews & Higson, 2008). P2 commented, “It allowed me the

ability to get to know a lot of different people on a more personal level that I might not have in a noncohort. The interactions really helped me form good, deep, rich learning.”

Reynolds and Hebert (1998), Tisdell et al. (2004), and Blankenship and Gibson (2015) suggested that a cohort program gives students study groups, a sense of community, and a strong team-based learning experience. In this hybrid, blended model, students were allowed to choose their own groups to do group projects. The majority of the students commented that they worked with the same group through the cohort until completion. Those groups really had the opportunity to build strong relationships. Such friends provided direct emotional support, equivalent to family relationships, and buffering support in stressful situations (Wilcox, Winn, & Fyvie Gauld, 2005).

Overall, it appears that self-selected groups did add more value to students' experiences with group work. Allowing students to select their own groups means that they communicate better with each other, have a greater degree of enthusiasm, take more pride in their work, and have a slightly more positive attitude toward working in a group (Chapman, Meuter, Toy, & Wright, 2006). Bandura (2001) suggested that it is the transactions that occur that are most important in social relationships. P5 commented that she would have liked to explore being in various groups, she also commented on the lifelong friendships that she had created with her group members. Therefore, this cohort experience, which included the design of a hybrid blended online model approach, enhanced the students' perceptions of social presence; increased strong relationships; and provided deep, rich learning that went beyond the surface, allowing them to think critically. Moreover, the group dynamics that were developed through student choice allowed social presence to increase in this hybrid blended learning environment, as opposed to a single online class. The groups that formed became extended family members with whom students were able to share ideas about specific course content, then digress from the conversation to discuss everyday life issues and struggles within their homes. This type of interaction made students comfortable, built their trust, and allowed them to broaden their

understanding and apply the content to their careers.

Behaviors/Characteristics

People learn through observing others in their behaviors, their attitudes, and the outcomes of those behaviors (Bandura, 1989; LaRose & Eastin, 2004). Any time individual members of a group interact with one another consistently for an extended period of time, certain behaviors and characteristics are displayed and exchanged, such as trust issues and disagreements. Motivation or what drives them to finish the program may be expressed.

P1 stated, "I think what was most interesting was that everybody had a mixture. Everybody had a fun personality and professional." P2 commented that reviewing writing styles and other nonverbal cues gave her insight into her classmates' personalities. "I had a chance to get to know a little about my classmates, about their writing skills, about the way they present their ideas, and to me, those give me nonverbal cues about a person." P2 said, "When I have a chance to work with them on group projects, then I get to talk with them more and learn their personality, then that informs my opinion about them even more." P3 commented, "I think everybody had an equal part at showing their skills. Not saying that some tried to be more authoritarian but showing that when they needed to put forth more effort, they did so." P3 said,

I think that you could equally say that everybody pulled their own weight. As for myself, perhaps maybe I didn't speak up or give my opinion but as far as the work I did. So I would say everybody had moments of sometimes being quiet or more talkative, and some would take more initiative.

P4 stated,

We definitely got to see who were leaders, who were good team members. Some didn't take the lead, but we could trust that this person is going to get this done. I definitely picked up some good organizational habits from people. I wasn't nervous, so I would always jump up and be the presenter and talk, but there was never a time where someone refused to talk or somebody didn't know what to do.

P6 commented on the ways in which group structure and organization assisted with getting to know everyone personality:

I could not tell the behavior of my classmates first. However we were forced to team up in groups, and then those skills and behaviors came out. You could tell who was really creative, a good speaker, an organizer. After a while, we really got to know one another.

P7 stated,

I think that some of the students had leadership skills, and some were creative. I felt like we came together as a whole to actually put together good projects. Everybody played a role, so you could tell who had those different abilities and characteristics and their roles versus a solely online program where you didn't know who had which characteristics. The group discussions and activities assisted with everyone learning each other's

personality and gaining impressions on their performance in that group. P1 stated, "I was able to form distinct impressions of one another and some of the members. . . . Some of the groups had closer relationships than others." P2 said,

Yes, I definitely was able to form distinct impressions of my cohort members. I think that was a result of the program designed. The design of the program allowed for a lot of communication and interactions. I think all of those components just added to the overall experience, not only in an online cohort environment but me being able to perform impressions about people I'm working with and learning things I might not have learned about through them and their experiences.

P3 stated,

We were all working toward the same outcome; to finish the program, we were all willing to do our part on our assignments, so there was a clear understanding for what was needed to be done and what we had to do regarding our assignments and different project so we were all working toward the same goal. Everyone was excited and happy to be in the group.

P4 said,

I think I was able to form impressions, especially with the people I work closely with and, in general, the entire cohort. I had some sort of feeling of how people operate as we went along in the projects and the presented. We knew everybody and where they was coming from and their goals. What really helped was the beginning and ending sessions when we met face-to-face and, actually, just watching the interactions. Actually, the people we chose to speak to and ate lunch with, that kind of helped. ..We all had our strengths and weaknesses.

P5 said that the students began to digress from the topic and, instead, to speak about the gaps in her learning. "Yes, I would say I learned a lot about the K-12 education background, but I can't say what I learn was transferred over into the corporate world. I had to fill in those areas and how it related to the corporate environment." P6 stated, "You learn each person's personality

along the way. Each person are different, some people are very long-winded in the discussions, and others are not.” P7 did not answer this question.

Disagreements

The ways in which these students perceived each group member’s work ethics in the group helped them to determine the various personalities and individual characteristics. However, sometimes conflicts can occur when one works in small groups within a cohort. But according to the participants, there were rarely any disagreements. There might have been different ways in which students wanted to split up the group work, but they would compromise in the end.

P2 said,

I don’t recall any disagreements while I was a member of the cohort. You don’t always know all of the interactions and dynamics that are happening in other groups, and so I never had any problems with anyone in my group, in any of the groups that I have personally participated.

P3 stated, “Nothing stands out that I can recall for a disagreement for the most part I would say we all remain on good terms.” P1, P4, and P5 all suggested that sometimes there were small conflicts on how to share the work, but then everyone compromised, In the classroom discussions, there might have been slight conflicts on ways in which to divide the work, but they all came to a consensus and moved on, and the work was done.

P6 said,

I was not involved in any disagreement. Some of the students may have had a disagreement with a professor, but I really stay out of that. I do remember one time a group member inputted his ideas at the last minute of our project and suggested that we change the project, and that was not going to happen. That person did drop the program after that instance.

P1, P4, P5, and P7 all suggested that sometimes there was a lot of dialogue on how to split up the work, but then everyone compromised.

Trust

For the most part the participants compromised, which implies that there was a sense of trust that was established or built in the cohort. When asked about the trust in the cohort, one participant commented, "I really don't know how we did that." Therefore, trust was established over time as participants worked in groups and became more familiar with each other's personalities.

P1 said, "Trust was established from the feedback." P2 stated, "We all understood that we were all adults, that we were all professionals, and that we were all there because we wanted to be." P3 commented,

I think trust was typical and throughout the course of us continuously working together. Making sure if there was a portion of our assignments that we were committed to doing and sticking to that. I think that that's how trust was built, continuing to honor what you were going to provide to the group.

P4 said, "I think that we set out knowing that if it's a group project, that everyone was going to pull their own weight. Being clear with the expectations for the group, it wasn't detailed or a contract or anything, but we were organized." P5 stated, "So I think I think there was a mutual, our mutual respect for truth because we were all working adults. P6 commented, "We got to pick out the people we wanted to work with, and we got to know their personalities after a while, and we stuck with those same people." P7 said,

To be honest, I didn't know how we maintained trust within the group. The group of people that I was with, I felt like I could trust them. I felt like I can trust them not only with situations with education in the cohort, but situations at home. The trust build up maybe because we were communicating all the time; sometimes communication happened outside of the classroom, and just when we just talked on the phone about different situation, it just happened and personal conversations which started with projects . . . and then we just kind of digressed to personal conversation.

When students work in groups, sometimes their behavior can seem a bit authoritarian or they might become slackers. Beck and Kosnik (2001) and Witte and James (1998) suggested that students with strong personalities may dominate cohort objectives and dictate group members' roles, but other students may grow bored with fellow members. However, this study's

participants all agreed that the behavior of their peers was professional and everyone pulled his/her own weight and wanted to be successful. The participants believed that they were all there for a specific purpose and everyone's behavior illuminated that purpose.

Conflicts among group members can arise because of misunderstandings, power struggles, and the tendency for group members to think and behave alike, which may hinder the learning that is derived from unique personalities (Dinsmore & Wegner, 2006; Hubbell, 2010; Mandzuk, Hasinoff, & Seifert, 2003). However, when asked specially about disagreements within the cohort, participants commented that no one had experienced any disagreements. Some participants suggested that although there was a great deal of dialogue on how to do the group projects, at no point were there any disagreements.

Student behavior in the group led to a certain amount of established trust. People learn by observing others' behaviors, attitudes, and the outcomes of those behaviors (Bandura, 1989; LaRose & Eastin, 2004). One participant was taken by surprised when asked about trust within the group: "I can't tell you; it just sort of happened." The trust was built in many ways—through the discussions about the content as well as by digressing from the content to speak about personal and family life. Therefore, a student's behavior is a factor in the perception of student presence in an online cohort.

The Students Reflected on Their Own Determination and Self-Efficacy as Motivation to Complete the Program

Although the participants worked and interacted in groups, when asked about motivation to complete or to continue in the program, most of the participants commented on their own self-motivation and determination, with the outcome of obtaining master's degrees to better their lives and careers.

Self-motivation was a factor in students completing the program. P1 said,

Yes, I had a time I wanted to quit the program. I was barely a month into it, and I lost my job. It was a lot of pressure for me and my family, sometimes so you can't control

outside forces. . . . The fact that this education was going to provide in the long run, that became my motivation. I also was offered to go into the doctoral program, and this was motivation to complete the program.

P2 stated, “No I never wanted to quit; in fact, I wanted more of the program.” P3 commented,

There were obvious times I wanted to quit the program because the program was more intense than regular courses, but my overall objective was to complete the program in a designated time frame so I can move forward with better opportunities and career opportunities for myself, so the motivation became completing the program for better opportunities.

P4 said, “I think I was pretty focused on finishing the program. I got very frustrated trying to get the final proposal submitted.” P5 stated,

I wanted to quit this program several times, and the reason why was good and bad. The amount of work was extensive, and that’s good because you want to be better, but for me it was hard to justify as a master’s level; you’re really looking for workplace applications. I think if I had to do it again, I don’t know if I would have gone through this program because it didn’t give me enough professional application at the corporate level. If they would have had more instructors from the corporate-level field, the curriculum could have been richer. I love learning the curriculum, but the examples that were shared by the instructors was so educational, to bring the stories to life, I got concepts and had to bring my own stories from the corporate world.

P6 commented,

It comes back down to this great staff and great professors in the program that made me persevere and going on, but I really wanted that master’s degree, to be able to have that, so it’s my own personal perseverance and my family support.

P7 said, “There was no times I wanted to quit the program. Actually the program went pretty fast, so it wasn’t stressful. It was a very enjoyable experience.”

However, when students asked specifically what the biggest impact of the program was for them, the comments varied. P1 claimed that having trust in the group was the biggest impact. P2 said, “So it wasn’t one thing that impacted my motivation, it was self-motivation, my classmates, the instructors, and the design of the program: P3 stated, “The impact was great not immediately but later, after graduation. I was able to secure a better job.” P4 commented, “I think it was vital to my overall completion.” P5 said, “So the design of the program was my motivation to complete the program, not the people and my overall completion.” P6 stated, “The professors in the cohort helped me finish and persevere to finish the program.” P7 commented,

It had a very positive impact on my completion, that allowed me to stay on task, because it was a blended program. I don't think that if it was a total online program and I didn't get a chance to meet the professor, I don't think that I would have been as successful. The blended model approaches definitely help me with the support system and completing the program. I know I'm definitely an individual that likes brick and mortar. But now because I have a family, it's not easy to get away every week to go to a class. I enjoyed the fact that at least once a month, I go to a class and actually talk to my other classmates face-to-face.

King (2014) suggested that remaining enrolled and progressing toward degree completion is important for students, just as retaining students is important for colleges and universities. The majority of the participating students said that self-efficacy had the biggest impact on their motivation for continuing in the program and completing the degree. Self-efficacy, which is concerned primarily with activation and persistence of behavior, is also rooted partly in SCT and activities. During the past two decades, self-efficacy has emerged as a highly effective predictor of student's motivation and learning (Bandura, 1989; Zimmerman, Boekarts, Pintrich, & Zeidner, 2000). Students also commented that the structure of the program aided them with motivation but, ultimately, it was their own self-efficacy that made them complete. Therefore, self-efficacy is a factor in the perception of social presence in an online cohort.

Post-Graduation

Life after graduation in the cohort experience is about creating a professional network after completion. In addition to the main objective of obtaining a degree is knowledge application in that career or field.

Knowledge Application

P1 said,

I took a lot of the lessons and a lot of the structure and applied it to my career. I also was able to help out family members with the use of technology. I remember, I was talking to a teacher, and they needed to know how to use a certain technology tool, the principal was standing right there and was like I need to hire you.

P2 said,

The things that I learned I applied to my everyday life, and those things include, first and foremost, that I don't know everything---contrary to popular belief; that other people have ideas; that it helps to look at things from other people's perspectives and viewpoints. All of the content knowledge I gained about the field of education and technology, all of the different technology tools I was able to learn how to use and how to use them for educational purposes.

P3 stated, "I have applied this knowledge to my career but not in other aspects yet." P4 commented,

Actually I used a lot of course-related content in my new job. I'm a middle school computer teacher now in a small district. They are trying to build up their technology side, and they have fallen behind with their infrastructure and hardware in the curriculum. When I got hired for this position, they hired me as a teacher, but they also said, "You will be helping the technology group." Now I'm able to contribute my knowledge to where I work; now I can put on what I've learned and contribute in my new job.

P5 said, "So I do apply some of the knowledge. For example, I took what I learned about using the colors metrics in graphic design and apply it when I'm creating presentations. When I do my corporate evaluations, I am able to pull from what I learned about assessments." P6 stated, "I can apply everything, what I've learned, all the courses I took, everything, every last thing that I've learned in a cohort." P7 commented,

I have a better idea of what children should be doing within the educational system. The cohort program allowed me to apply knowledge to understand the deficiency that our school district was facing and to apply my education so that students became 21st-century learners.

Continued Relationships and Communication

P1 said, "I have remained in relationships with quite a few of the cohort classmates." P2 stated,

Well, my class was a class of about 25 people; right after the cohort ended, I kind of kept in touch with a few of them, and we were on social media. I continued on into the doctoral program and still talk to some of them.

P3 commented, "I would say immediately after, there was a lot of collaboration, but as time went on and people got a little bit busier and back to life, after school things kind of trickled off." P4 said,

I stay in touch with a couple of them through social media, primarily Facebook and emails. I know a couple of times we were all looking for jobs, and if we knew someone that had a job, we would say if I thought that job that fits you and you should apply.

P5 stated, “I would have liked to see a professional network of connections created so as things come up, we can all be included and reach out. I keep in touch with some classmates via phone and text messages, no social media.” P6 commented, “There’s a bunch that I still communicate with a lot, but I would only say a few of them I really have a personal relationship with, and some are in the doctoral program.” P7 said,

It’s very important to me because they are part of my life now, and I communicate with them mostly on the phone. We still call one another just to check on each other just to make sure we’re okay. I would say we communicate mostly just depending on what’s going on in our lives. I do use social media a little bit, but not much. This program definitely gave me the opportunity to engage with other professionals and to learn from them. Because we had people that were from the business world, we had teachers, we had professors. We had a variety of individuals that were in the program that made it that much better. Even when I go to the different conferences for technology, I still see some of the individuals that were in the cohort program. A lot of them have received promotions because of the program so they were able to sustain what they learned.

Conrad (2005) suggested that as community grows among individuals, it becomes intentional and sustainable. In addition, bonds are established and constitute the strength of community. Some participating students commented that due to the hybrid blended model approach, they made lifelong friends. Others commented that some relationships had been strong but had diminished over time. Some of the participants stayed in touch with their peers through telephone and social media, and some had developed little pockets of professional network groups. All participants commented that they were able to apply what they learned to their careers. Furthermore, the relationships that were formed into lifelong extended family were “priceless.” The knowledge obtained through these interactions is likely to continue to develop. These participants were not only able to apply their learned knowledge to the instructional technology field but were also able to lean on one another for support in the field. Therefore, the NIU Educational Technology, Research and Assessment technology specialist cohort program not only equipped students with the knowledge to obtain a job in the field, but it also equipped

students with soft skills and mentoring skills that could have a long-lasting effect on the program and NIU itself.

Summary

In this chapter, I presented the findings of the current study. First, I introduced the research participants. Then, I discussed the findings as they related to social presence and the theoretical frameworks associated with this study. The data for this chapter came from the transcripts of the participants' interviews. In the next chapter, I discuss the implications of the current study, examine the limitations, and provide suggestions for future research.

CHAPTER 5

DISCUSSIONS, IMPLICATIONS, AND RECOMMENDATIONS

In this final chapter, I discuss and summarize the findings presented in the previous chapter. I then describe the implications of the current study and the study's limitations. I then recommend ideas for future research and conclude the report.

Discussion of the Findings

RQ1 asked, "How do Educational Technology, Research and Assessment technology specialist students perceive social presence in an online cohort?" Students perceived social presence in an online cohort through the interactivities that took place within the cohort program over an extended period of time. Participants agreed that they formed strong relationships within their cohort. Some even mentioned that these relationships became extended family members and they still shared a close bond. Most of the participants agreed that they would not have such closeness in a single online class. P5 believed she could have benefitted more from interacting with various groups in the cohort. Moreover, all the participants agreed that they communicated all the time, whether asynchronously or synchronously, to work on class projects and assignments. The majority of the communication was positive. The majority of participants agreed that they had plenty of opportunities to participate in class projects and welcomed feedback from the instructors. One student thought that the projects and assignments could have been more balanced in relating the content to the corporate environment as well as to the K-12 environment. However, she was still successful in all her classes.

This study supports the findings that there is a relationship between student perception of social presence and student satisfaction in an online learning environment (Richardson & Swan, 2003; Tu, 2001; Tu & McIsaac, 2002). Moreover, these results indicate that students' perception of social presence during discussions and other collaborative activities contributed to their overall learning experience, rather than to a solitary process. All participants agreed that they enjoyed being in the online cohort environment, as opposed to taking just a single online class. Participants also agreed that their learning was enhanced by other cohort members' perspectives and viewpoints on class projects and assignments. Students noted that as they became more acquainted with students on a personal level over time, they became more familiar with their writing style and communication. The participants noted that when the instructor facilitated group discussions, they were comfortable in answering and asking follow-up questions during these discussions, which resulted in students utilizing their higher-order thinking skills and engaging in deep, rich learning.

Therefore, this study supports the theoretical framework of the CoI model, not only in examining social presence as a single element of the CoI model but also in exploring how the elements (teacher presence and cognitive presence) come into play and overlap one another. The findings support the fact that verbal and written language may have different effects on thinking (Garrison et al., 1999).

However, it is important to understand the characteristics of verbal and written communication to support the educational experiences. Lipman (1991) suggests that learning in a community environment builds on cognitive skills. The basic goal of higher education is to encourage students to think critically.

The term "cognitive presence" is taken to mean the extent to which the participants in any particular configuration of a community of inquiry are able to construct meaning through sustained communication. The participant's cognitive presence was enhanced through the discussions and projects that were facilitated by the instructor. Lipman (1991) also suggests that

the characteristics of inquiry—such as questioning, reasoning, and deliberating—are important to a learning community. Inquiry can also develop problem-solving techniques. The characteristics of inquiry increase deep rich learning in a community of learners. The participants agreed that they had experienced deep rich learning in the online cohort. Moreover, when there are affective goals for the educational process, as well as purely cognitive ones (i.e., when it is important that participants find the interaction during the interactivities in the group enjoyable and personally fulfilling so that they remain in the cohort of learners for the duration of the program), then social presence is a direct contributor to the success of the educational experience. This was found to be true for this study. In addition, the results of this study concur with the educational and communication literature that states that interaction is a main factor behind creating an experience of high social presence (Wegerif, 1998) and learning is an interactive process in which learners actively construct knowledge and then build upon that knowledge through the exchange of ideas with others and the responses/feedback of others (Harasim, 1990).

The construct of teacher presence also contributed to this study in the form of facilitation and immediacy. Facilitation is a responsibility that may be shared among the teachers and some or all of the other participants or students. This sharing of the facilitation function is appropriate in higher education and common in computer conferencing. In either case, the element of teaching presence is a means to support and enhance social and cognitive presence for the purpose of realizing educational outcomes. The majority of the participants agreed that they liked the flow of the program and the ways in which the instructors allowed them to choose their own study and project groups. All the participants agreed that the feedback from their instructors was just and immediate.

This study also supports current research. Armellini and De Stefani (2016) suggest that social presence is core to the teaching and cognitive presence discourse. Both teaching presence and cognitive presence develop more socially than the original CoI framework suggests. Armellini and De Stefani (2016) also support that social presence does not operate well as a

stand-alone construct but plays a central role in the construction of meaningful teaching and cognitive discourse, sense-making, and higher-order learning.

However, Annand (2011) disagrees with Armellini and De Stefani (2016) and other constructivist researchers in regard to cognitive and social presence. Annand (2011) agrees with the objective-based learning approach. Annand (2011) suggests that higher-order cognitive presence indicators within the CoI framework should be more broadly formulated, whereas hard disciplines might be as amenable to the development of learners' critical thinking capacities as soft ones. Therefore, even as research continues to evolve around examining social presence through the CoI model, it continues to change, and new knowledge is formulated.

RQ2 asked, "How do Educational Technology, Research and Assessment technology specialist students' experiences in an online cohort contribute to their perception of social presence?" The overall online cohort experience contributed to students' perceptions of social presence and proved to be successful. The participants' responses to the interview prompts and their involvement in the study evoked their thoughts on the program design. All the participants enjoyed the design of the program—having the face-to-face opportunities, the accelerated pace, and navigating the tools of the LMS.

Moreover, this study supports the current research of Joksimović, Gašević, Kovanović, Riecke, and Hatala (2015), which suggests that course design that scaffolds the classes may increase the level of social presence in online discussions. Furthermore, scaffolded classes in online learning and high levels of teacher presence may tend to engage students in deep and meaningful learning, which may also increase the degree of meaningful interaction and enhance potential knowledge. This might further imply that the students who were deeply engaged in discussions, by building on the knowledge of their peers, might be able to obtain better grades (Cleveland Innes, 2005; Joksimović et al., 2015). Although students' grades were not a factor in this study, all students successfully completed and graduated from the program.

Although the CoI model is used in this research as well as others to examine social presence, Lowenthal and Dunlap (2014) suggest that there are problems in measuring social

presence through the lens of the CoI model. Lowenthal and Dunlap (2014) suggest that researchers should be concerned not just in how people perceive each of the presences but also in what students and instructors actually do during online class interactivities and how this behavior relates to their perceptions. Therefore, this research also examined social presence through the lens of the SCT. Individuals learn behavior through interacting with other individuals, and that behavior influences the way an individual interacts with them. This interaction is dynamic, each impacting the ways in which the other acts and then reacts. This leads to the continuous reciprocal interaction among the personal, behavioral, and environmental influences that SCT identifies as triadic reciprocal causation (Bandura, 2001). The participants' responses and involvement in the study addressed the behaviors and characteristics of all the participants in the cohort. All the participants agreed that students were professional, had great personalities, and were fun to be around. This type of behavior and decorum was established in the beginning of the cohort and reciprocated throughout the duration of the cohort. Through establishing this type of behavior, all the participants agreed that they had established a sense of trust in the cohort as well.

In addition, the participants' involvement in the study triggered their reflections on what impacted them most from the program. The majority of the participants agreed that setting a goal to complete the program and following through with self-efficacy was the biggest impact. Self-efficacy is associated with SCT. SCT contends that individuals have the ability to influence their own behavior and the environment with purpose and direction to achieve their goals (Bandura, 2001). All the participants in the program were working full-time and enrolled in the program. All participants entered the program with a goal of completing and graduating. Setting the goal of graduating from the program meant self-advancement in their careers.

The majority of the participants commented that they could apply the knowledge they learned to their jobs or their new career. Only one participant said that she really could not apply the content to her job. However, all the participants agreed that they would have wanted a

professional network established. Furthermore, the overall online cohort experience contributed to students' perception of social presence and proved to be successful, which supports the research of Tisdell et al. (2004). Tisdell et al.'s (2004) findings suggest that cohort communities promote cohesiveness, confidence, motivation, and satisfaction among their members and recognize the effects that teaching presence, social presence, and cognitive presence might have on both teaching and learning. All seven participants were graduates of the online cohort program. Therefore, this study further supports Tisdell et al. (2004) in that cohorts promote a strong sense of community and that they may also increase retention and attrition rates.

Summary of Findings

I entered the current study as a previous Educational Technology, Research and Assessment technology specialist student who was informed by the literature but maintained an open and fluid perspective of the research. I was guided and led by participants' experiences as they related to social presence in an online cohort in this phenomenological research. I believe the students in this online hybrid cohort environment came together to collaborate ideas, learn, and establish friendships because of the time spent together throughout the duration of the program. I believe that social presence increased in this online cohort environment. Some of the factors that influenced the increase of social presence were cohort design, the formation and maintenance of relationships, and self-motivation.

Participants commented that the face-to-face meetings and the opportunity to choose their own groups in the cohort to do assignments and projects made them comfortable around one another and more engaged in the learning process. Reynolds and Hebert (1998), Tisdell et al. (2004), and Blankenship and Gibson (2015) suggested that a cohort program gives students study groups, a sense of community, and a strong team-based learning experience. Participants also commented that due to the cohort design, communication and discussions were mainly about the content; however, because they spent a great deal of time communicating, this led to

digression from content to family and personal life, which in turn led them to establish and build lifelong friendships. Rourke et al. (2001) suggested that when students communicate in online discussions, they may find the experience to be more meaningful and pleasant, which has an increase in social presence in an online learning environment. Last, participants commented that although they leaned on their peers in the program, ultimately, it was their own self-motivation that pushed them to finish the program. Self-efficacy is a highly effective predictor of a student's motivation and learning (Bandura, 1989; Zimmerman, Boekarts, Pintrich, & Zeidner, 2000).

The factors in this research contributed to an increase in student perception of social presence in an online learning environment. More specifically, these factors in the online cohort gave insight into how social presence can be fostered and encouraged when students are engaged in the online learning process over a period of time.

Implications

As online and blended learning continues to accelerate in higher education, the research activity around it has increased drastically (Allen & Seaman, 2008). Students can perceive social presence as they maintain an atmosphere of trust, open communication, and group cohesion. This sets the grounds for purposeful and collaborative learning processes and activities (Arbaugh, 2004; Swan & Shih, 2005; Wu & Hiltz, 2004). Students who wish to continue to pursue higher education and cannot go to a traditional classroom setting have several online models from which to choose. Online instruction has become a legitimate alternative to the traditional classroom (Patterson & McFadden, 2009), and enrollment in online courses is currently at an all-time high (Allen & Seaman, 2013). More specifically for this study, the online cohort model is becoming more attractive to students. As these trends continue to increase, the more important it will be to examine the elements that engage online students and the experiences they encounter in an online learning environment (Blackmon & Major, 2012; Robinson & Hullinger, 2008).

The questions that drove this research asked, “How do Educational Technology, Research and Assessment technology specialist students perceive social presence in an online cohort?” and “How do Educational Technology, Research and Assessment technology specialist students describe being situated in an online cohort contributed to their sense of social presence?” There has been little, if any, phenomenological research on the perception of social presence in an online cohort. Therefore, the major thrust of this research was to conduct a phenomenological study of the perceptions of online students in a cohort program.

The implications presented in this section were generated from the themes developed during the analysis of data collected through in-depth interviews with the participants of this study. The majority of the implications presented have been suggested by previous research. The current study did not lead to new factors of social presence in an online environment, Rather, the findings of the study gave insight as to how these factors cultivated student perceptions of social presence and how social presence increased over time in an online cohort environment, Moreover, these findings support and strengthen past research as a reminder of the importance of following best practices in using various strategies to increase social presence in an online learning environment (Aragon, 2003; Lowenthal et al., 2009; Shore, 2007; Tu, Sujo-Montes et al., 2012). In addition, following best practices in the field can support and promote a sense of community in online learning (Cobb, 2009; Gunawardena & Zittle, 1997; Rovai, 2002). Furthermore, examining the social presence in a holistic way and looking at its components of intimacy, immediacy, and interactions, along with the use of the CoI Model and SCT as the theoretical lens, provided additional insight into the development of social presence in an online learning environment and the ways in which it was retained over a much longer period of time. Following are the implications of the current study, separated into sections for social presence in online learning, online instructors, online instructional designers/course developers, and higher education administrators.

Implications of Social Presence in Online Learning

Students are choosing to take more online classes each year (Stearns, 2014). However, especially in describing the student concerns for single stand-alone online classes, the major concern for students is their ability to be self-motivated (Jaggars, 2014). However, the finding of this current study agrees with Shen, Cho, Tsai, and Marra (2013), when students enroll in a well-designed online program with clear goals and objectives and when understanding of completion can lead to enhancing their careers, students' self-efficacy becomes a motivating factor in completing the program. Before starting an online program, students should first understand their own reasons for enrolling in an online program (Lytle, 2012). In addition to researching various types of program, for the perfect fit, this understanding can ensure success in the program (Lytle, 2012).

Furthermore, social behaviors contribute to an effective online class. Social behavior is considered to be an important factor in the development of the learning process (Bandura, 1989). Adult learners benefit from the synergy and various perspectives provided in social learning situations (Vygotsky, 1978). All the participants in this study enjoyed learning through their peers' various perspectives on class projects and assignments. These peer interactions increase social presence. A high level of social presence has been shown to enhance, foster, and increase interaction and participation (Tu, 2000).

Implications for Online Instructors

Studies have indicated that immediacy, intimacy, and interaction are positive indicators of student learning outcomes and student satisfaction and that they contribute to social presence (Gunawardena, 1995; Richardson & Swan, 2003). These components of social presence should be modeled by instructors to encourage students to connect with other learners and sustain a learning community. Instructors should support and bridge the gap between the technology interface and the human factors involved in the learning process.

Moreover, in order for instructors to increase student perception of social presence in an online learning environment, they must implement certain strategies and skills. Lowenthal et al. (2009), Beldarrain (2006), and Zawacki-Richter (2010) suggested that the integration of technology improves communication in online instruction and makes it possible for teachers to achieve the best practices and satisfy student needs. Therefore, instructors must teach the skills and strategies for students to learn how to communicate effectively online. When students are introduced to a particular online class or program, they have to be taught how to use the online tools to communicate effectively with peers and instructors and complete class assignments and projects (Ellis, Goodyear, Prosser, & O'Hara, 2006; Wegman & McCauley, 2014). Furthermore, students should be encouraged to help each other and to refer to each other rather than looking to the instructor as the only resource for dialogue or help. Consequently, instructors should initiate and focus discussion topics, exchange information, help students connect ideas, and encourage collaboration and open communication. This can create an experience of trust and connection with other students and encourage students to go beyond minimum participation. When students learn these strategies, they are able to engage in the online learning process, gain a deeper understanding of the content, and reflect or rethink concepts to change perceptions and create new ideas (Ellis & Calvo, 2004).

Implications for Instructional Designers

First and foremost, before an online class or program is developed, designers should research current literature to incorporate best practices (Gregg, 2015). Well-designed learning activities that are self-directed, reflect real-life experiences, and provide for collaboration and bonding can help support the goal of building learning communities online (Swan, 2002). Only one participant of seven did not think the assignments and discussions reflected real-life experiences or were applicable to her job. However, the participant was able to interact, collaborate, and bond with others in the cohort.

A high level of social presence has been shown to enhance, foster, and increase interaction and participation (Tu, 2000). As other research studies have demonstrated, along with these findings, it is essential that online courses be created in such a way that they enable students to interact not only with the material but also with each other and instructors (Akyol & Garrison, 2008; Roberson & Klotz, 2002). As a result, new ways of understanding the material emerge as a result of the interaction that takes place with others in a learning community.

In addition, open discussion and dialogue with all stakeholders should be held to ensure that all areas of concerns are addressed and ensure proper effectiveness. Next, designers should develop online programs that incorporate the blended hybrid model approach. In this current study, all the participants agreed that they liked the design of the program. The face-to-face sessions made students comfortable. In an online cohort, the classes are scaffolded and each class tends to build on the next. This type of design and structure forces students to learn to know one another on a deeper level by building upon previously established relationships (Maher, 2005; Radencich et al., 1998; Teitel, 1997). Last, designers should implement new and improved technology tools in online learning platforms that are student-friendly and easy to use.

Implications for Administration in Higher Education

Most administrators in higher education struggle with student attrition (Boston et al., 2011). Although more students are enrolling in online education programs, because of looming budget cuts, administrators are not able to retain students. However, seven participants completed the program successfully. The participants in this study, gave great praise to the online cohort program. Participants commented that they were equipped to go out and apply their knowledge in their careers. Some participants even commented that they still connected with other cohort students as form of professional network, in which they shared and exchanged ideas in the field of educational technology. This gives great success to the Educational

Technology, Research and Assessment technology specialist faculty and staff and the university as a whole because it equips these participants with the ability to continue the learning process with new knowledge that can be shared and exchanged with others in the field. Gaytan (2013) suggested that institutions can expand online enrollment when interactions occur more frequently with faculty and students and when administration has a better understanding of the online student experience. However, without the existence of social presence and the behaviors it elicits from students, less satisfaction with online learning may be experienced, and retention rates in the online setting may suffer.

Delimitations

Participation in this study was delimited to students enrolled in the NIU Education Department in the ERTA online program. Thus, the implications that resulted from this study may not be highly generalizable to similar degree programs at institutions that offer online student experiences. I also delimited the study to students who had graduated from the Educational Technology, Research and Assessment technology specialist online cohort in order to ensure that participants had adequate time to develop a sense of social presence.

Another delimitation is the amount of access I had to the participants. Interviews consisted of only one 30-90 minute interview. After the initial analysis of the data, follow-up interviews with additional interview prompts might produce additional factors of social presence in online learning not mentioned in the initial interview.

The various models of online cohorts were not all represented. The inclusion of more types of the cohort model could allow for examination of social presence by online cohort models. Perhaps some online cohort models may find higher or lower perceptions of social presence. Therefore, findings might not apply to fields of instructional design not represented in the study.

Limitations

Limitations are described as potential weaknesses or conditions to a study that may affect the validity of the results. The current study is not intended to determine any theories about students' perceptions of social presence in an online cohort or relate the findings to a general population but, rather, to generate a thoughtful analysis of the perception of social presence by the experience online students. The following is a list of possible limitations to this study.

First, this study is limited because it is a qualitative phenomenological study and not intended to generalize the findings of the data to a specific population. Generalizability perspectives vary on the generalizability of findings in phenomenological research (Gomm, Hammersley, & Foster, 2000). According to Erickson (1986), although qualitative research may provide a picture of a quite specific time, place, and group of people, the picture that emerges can be compared and contrasted to pictures of other groups and contexts, providing deeper understanding of what leads people to behave and interpret the world in the ways they do. Some researchers have argued that with such a small number of subjects, the findings of some phenomenological studies cannot be generalized at all (Mishler, 1979). Lincoln and Guba (1985) asserted that it is not just findings from phenomenological studies that cannot be generalized but rather that all research methodology uses particulars and findings from all studies (including quantitative experiments) that have limited generalization.

The role of a phenomenological study researcher is to present the research so that readers may experience the phenomenon vicariously (Cho & Lee, 2014; Creswell, 2003). Thus, readers are able to develop tacit knowledge and assumptions as if they were actually part of the case (Donmoyer, 1990). A well-written phenomenological study acts as a substitute for readers' life experiences, and thus, readers can make their own generalizations; each reader can have his or her own interpretation (Donmoyer, 1990).

In writing the findings from this study, the perspectives of Dyson and Genishi (2005) were quite helpful. I wrote mindfully about my findings accurately and thoroughly in order to

enhance their transferability. Relatedly, I was influenced by Barker's (1968) notions of behavior settings and standing behavior patterns. Although not detracting from the importance of context, Barker (1968) argued that social norms within a particular social situation are rarely generated at the particular locale; similar understandings can apply to a variety of other contexts as well. I entered the current study believing that the participants studied could recognize and share their perceptions of social presence in an online cohort and that these experiences would be similar to many other online cohort programs. Thus, I assert that at least some of the findings are generalizable to other students and contexts.

This study is also limited by the number of participants. This research included seven previous online cohort students. Although saturation was met at the sixth participant, as Strauss and Corbin (1998) suggested, there is always a possibility for something new to emerge. Therefore, if more graduates or current students had been interviewed, additional factors could have emerged and changed the outcome.

The factors that emerged from the initial interviews were limited to the stories those particular participants shared. If different online cohort students had been interviewed, additional factors could have emerged.

The one-on-one interviews were conducted via telephone. Varying modes of interviews such as face-to-face and video-conference could produce different results. The face-to-face and video-conferencing interviews might allow for more thoughtful responses.

The judgments made by the participants were based on the knowledge, skills, and experiences that each participant possessed, as well as their interpretations of the topic of social presence in online classes. Therefore, results may not be representative of all experienced online students in a cohort program. Also, the experiences and potential biases that the participants brought to the study may have impacted the results.

Finally, the resulting list of factors contributing to students' perceptions of social presence in an online cohort does not exhaust all the possibilities for social presence. This study

is based on the assumption that students have a stronger sense of social presence in an online cohort program than in a regular online class.

Recommendations for Future Research

It should be noted that more research needs to be conducted to determine if the levels of social presence are higher or lower depending on certain types of online cohort models. Therefore, research should focus on determining the best methods for sharing the resulting factors of social presence with an online cohort program's online instructors, administrators, and novice researchers who are interested in studying online learning. Some questions to which I plan to seek answers are (a) will social presence be affected by students who are placed in groups rather than selecting their own group members in an online cohort program?; (b) because social presence may be affected by the differences among models of cohorts, what if there were no face-to-face time and it was strictly online?; (c) what if video-conferencing was added to all synchronized classes?; and (d) what if the program was a traditional two-year cohort instead of an accelerated class?

An extension of this research should focus on post-graduation and how students are maintaining the relationships or professional networks that were established in the cohort. Can students still experience a sense of social presence outside the classroom through social media? How much time has to be devoted to maintaining relationships for students to continue to experience a sense of social presence after graduation?

A more thorough examination can be made of social presence in looking at the new elements of the CoI model, which are learning presence and emotional presence. Emotional presence is the extent to which learners and teachers adapt their behavior to accommodate the overt and covert presence of emotion (Cleveland-Innes & Campbell, 2012). Emotion may constrain learning as a distracter, but if managed, it may serve as an enabler in support of thinking, decision-making, stimulation, and directing (Campbell & Cleveland-Innes, 2005;

Cleveland-Innes & Campbell, 2012). Therefore, emotions expressed in the online experience, as explained by the CoI model (Garrison et al., 1999), indicate that emotional presence exists in social, cognitive, and teaching presence. When the characteristics a learner brings to the learning environment when quality of teaching or the quality of social interaction are low or inadequate, then there is self-regulation from the online learner or the concept labeled “learning presence,” which reflect these important characteristics (Shea & Bidjerano, 2012). Therefore, future research may want to examine social presence in all five presences instead of examining from the first three elements. This may provide a deeper and richer understanding of how students perceive social presence and describe more ways in which it is maintained.

Finally, because all participants agreed that motivation was a determining factor in the perception of social presence, examining social presence through the lens of motivation should be researched, specifically looking at intrinsic versus extrinsic motivation. In addition, examining the effects of social presence depending on group dynamics can be examined, such as, how much of family dynamics plays into selecting and attaching to educational groups? What are the affects or outcomes of social presence when professors strongly advocate that students move around in groups in class or cohort programs in various groups?

Summary

This study adds to the body of knowledge to the field of instructional technology. The knowledge of social presence in an online cohort could be shared with novice researchers who share an interest in online learning, instructional designers who may be designing online classes, online instructors who may want to increase social presence in their learning environments, and administrators who may want to examine the study for attrition and retention rates. However, as online learning continues to expand, so will the need to research social presence and the factors that may contribute in an online learning environment.

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APPENDICES

APPENDIX A
INVITATION TO PARTICIPATE

Notification of Research Interview to NIU Educational Technology, Research and Assessment technology specialist online cohorts

From: Marlo Barnett-Allen, Educational Technology, Research and Assessment Doctoral Candidate

To: Emails of all NIU Educational Technology, Research and Assessment technology specialist online cohorts

Date: Spring 2016

Subject: Research Study on Social Presence in online Cohorts

You are invited to participate in a research study being conducted by Marlo Barnett-Allen, a doctoral candidate in the College of Education Educational Technology, Research and Assessment department at the Northern Illinois University. You must be 18 years or older in order to participate in this research study. If you are selected, you will receive a \$10 gift card upon completion of the interview.

These phone interviews are designed to measure student perceptions of social presence in the Educational Technology, Research and Assessment technology specialist online cohort program. There will be discussion around how you interacted with your peers, instructors, and the interface platform. Your responses may assist in an effort to improve the development of online cohorts that are effective in the promotion of learning. The interviews will take approximately 45 minutes to complete, with one follow-up member check. I would appreciate your reply within two weeks, if you can participate.

Your interview responses will be kept confidential to the extent permitted by law, although absolute confidentiality cannot be guaranteed. The Institutional Review Board (IRB) may inspect the research records for this study. Should the data be published, you will not be identified by name. When this research study has been completed, the results will be analyzed and reported in aggregate form. Your participation is voluntary and you may refuse to answer any questions that you are uncomfortable with or choose to stop participating at any time without losing any benefits to which you are otherwise entitled. As with any research, there is always the possibility of potential risks. Several potential risks are associated with this study. This study poses two confidentiality breaches. First, the researcher's advisor is currently or was previously an instructor in several of the cohorts. Second, the researcher was a former employee of the university. The researcher is also a graduate of the cohort program being studied; therefore, there is a potential threat of being biased. Last, many people experience a certain degree of anxiety during an interview, especially when they may believe their information may be shared.

However, to minimize the potential risk listed above to the participants, the researcher will use certain procedures. Specific measures will be taken to ensure confidentiality, such as (a) the researcher advisor will not have access to the students who are willing to participate, and neither will the advisor have access to view any of the identifiable data from the interviews; (b) the research is by voluntary participation, and the volunteers have the right to withdraw from the study at any time. In addition, the researcher will verbally state and provide in writing to all participants that all recordings and videos will be locked in files and properly maintained. To

avoid potential bias, the researcher will adhere to asking all questions directly and not deviate or digress from the topic of the interview. Subjects will also be asked if they are uncomfortable several times during data acquisition, and if at any time the subject is uncomfortable, he or she can choose to stop. The researcher will also follow up with additional interviews to clarify and eliminate any misinterpretations. Regarding the potential for increased anxiety during interviews, there is a burden of responsibility on the interviewer to ensure that the participants are put at ease and made aware of the precautions being taken to minimize the risk of embarrassment. The researcher will do everything to alleviate any potential risk for increased anxiety associated with interviews.

If you would like to participate in this research study, please respond by email to [email address]. Should you have any questions, you may email or call the researcher at [phone number]. If you have any questions or concerns about your rights as a research subject or complaints about the researcher, you may call the NIU IRB office (815)753-8588.

Thank you for your consideration and time given to my invitation to participate in this study.

Sincerely,
Marlo Barnett-Allen

APPENDIX B
QUESTIONNAIRE INSTRUMENT

Student Demographic Information

Thank you for your assistance! Your responses will remain confidential.

Temporary ID: _____ (initials and last 4 digits of your phone number)

Confirm your ID: _____

Demographic Information Instrument

2 Educational Technology, Research and Assessment Technology Specialist Cohort

3 Did you graduate: yes _____ no _____

4 Gender: Male Female

5 Age: _____

6 Ethnicity: African-American, Asian, Caucasian, Hispanic Native American, Other

7 Occupation _____

Status: Full-time worker, Part-time worker, don't work

8 Do you have an Internet access at home? ___ Yes ___ No.

9 How many online courses have you taken before? _____

APPENDIX C
SOCIAL PRESENCE INTERVIEW QUESTIONS

Social Presence Interview Questions

Adapted from Swan & Shih (2005) survey

Definition: Social presence is the sense of feeling connected to others and the perception of others being aware of one's presence through communication.

Please reflect on your experiences with your online classes as you respond to the following questions.

Interview/ Focus group Prompts

Please keep in mind these questions refer to your overall experiences in the TS online

1. Please describe your relationships with other cohort members.
2. Please describe your feelings about the interactions between you and the instructors.
3. Please describe to me how you felt when participating in group discussions (both asynchronous /synchronized).
4. What do you think you gained by knowing more about your classmates than you might have in a noncohort online class?
5. Do you think you were able to form distinct impressions of members in the cohort? (If yes, then: How were you able to form distinct impressions of members in the cohort? If no, then: Why do you think you were not able to form distinct impressions of members in the cohort?)
6. During the duration of the TS program, how did you feel about the feedback that you received from your peers/instructor about your performance? Please describe a situation in which the feedback you received from a peer was either helpful or nonconstructive?
7. How important were the members in your cohort classes in maintaining your motivation to continue in the program? Please describe any influences they had on you in remaining in the program.
8. Please describe the opportunities you had to discuss with the other students ideas and or issues related to your coursework. These could be during group activities or situations not related to actual group projects.
9. Please describe the opportunities you had to work on class projects with the other students in your cohort. How did these opportunities help increase your understanding of the content? Did these opportunities increase a personal relationship with members in your cohort? If so explain. If not, why didn't you think so?

10. Please describe how you would compare and contrast the Educational Technology, Research and Assessment online cohort experience to a single online class, in regard to interacting with classmates and your instructor.
11. Please describe a situation in which your cohort members handled a disagreement. Were you involved in the disagreement? If so what was your role in solving the disagreement?
12. Please describe how you and your cohort classmates maintained a sense of trust within the cohort.
13. What impact did being in the Educational Technology, Research and Assessment technology specialist cohort have on your overall completion?
14. Please describe any events (if any) that motivated you to complete the program. Were there any times you wanted to quit the program? If yes, what were the events that kept you continuing in the program? Did these events involve your classmates? Can you describe the situation?
15. What types of behavior did your classmates display? For instance, could you tell which students had leadership characteristics or organizational skills, etc.? Did that have an impact on your performance in the program?
16. How did you feel about the instructor's role as it relates to explaining the content or reviewing the content in a way that helped you clarify your understanding?
17. How can you apply the knowledge created in the cohort program to your work or other nonclass related activities?
18. How important is it for you to maintain your relationships with cohort classmates after the program? How will you communicate and how often?

APPENDIX D
CONSENT FORM

CONSENT FORM: Phone Interview

ADULT (18 or older)

I agree to participate in the research project titled *Social Presence in an Online Cohort* being conducted by Marlo Barnett-Allen, a graduate student at Northern Illinois University. I have been informed that the purpose of this phenomenological study is to explore a student's perception of social presence in the Educational Technology, Research and Assessment technology specialist online cohort learning environment. I understand that questions will be related to how I interacted with my peers, instructors, and the interface platform.

I understand that if I agree to participate in this study, I will be asked to do the following: participate in a phone interview at a mutual time, which will last approximately 45 minutes, and in addition, complete a 15-minute survey and participate in a follow-up interview to clear up any misunderstandings. I understand that I will receive a \$10 gift card as an incentive for my participation in this study.

I am aware that my participation is voluntary and may be withdrawn at any time without penalty or prejudice. I also understand that if I am a current student in the cohort program, my grades will not be affected by participation, which may be withdrawn at any time without penalty or prejudice. If I have any additional questions concerning this study, I may contact Marlo Barnett-Allen at [phone number] or Educational Technology, Research and Assessment Department Chair, Dr. Wei-Chen Hung at (815) 753-8175. I understand that if I wish further information regarding my rights as a research subject, I may contact the Office of Research Compliance at Northern Illinois University at (815) 753-8588.

I understand that the intended benefits of this study include enhancing my own knowledge about the topic as well as for all stakeholders involved in the online learning environment. In addition, this study will add to the body of knowledge in general within the educational technology field.

I have been informed of potential risks and/or discomforts I could experience during this study. This study poses two confidentiality breaches. First, the researcher's advisor is currently, or was previously, an instructor in several of the cohorts. Second, the researcher was a former employee of the university. The researcher is also a graduate of the cohort program being studied; therefore, there is a potential threat of being biased. Last, I may experience a certain degree of anxiety during the interview.

However, I understand that to minimize the potential risk listed above, the researcher will use certain procedures. Specific measures will be taken to ensure confidentiality, such as (a) the researcher advisor will not have access to my consent letter, and neither will the advisor have access to view any of the identifiable data from the interview; (b) the research is by voluntary participation, and I have the right to withdraw from the study at any time. In addition, the

researcher will verbally state and provide in writing that all recordings will be locked in files and properly maintained. To avoid potential bias, the researcher will adhere to asking all questions directly, and not deviate or digress from the topic of the interview. I will also be asked if I am uncomfortable several times during data acquisition, and if at any time, I am uncomfortable, I can choose to stop. The researcher will also follow up with additional interviews to clarify and eliminate any misinterpretations. Regarding the potential for increased anxiety during the interview, there is a burden of responsibility on the interviewer to ensure that I am put at ease and comfortable during the interview. In addition, the researcher will adhere to federal regulations by storing the audio and video files and transcriptions up to three years. After the third year, all audio files will be deleted and all transcriptions will be shredded and thrown out appropriately.

I understand that my consent to participate in this project does not constitute a waiver of any legal rights or redress I might have as a result of my participation, and I acknowledge that I have received a copy of this consent form.

Signature of Subject

Date

APPENDIX E
SOCIAL PRESENCE SURVEY

Social Presence Survey

This survey is to understand your overall learning experiences in the previous Educational Technology, Research and Assessment technology specialist cohort. There is no right or wrong answer. Please circle the answer which best reflects your overall thoughts about each statement. Your answers are ANONYMOUS and CONFIDENTIAL. Thank you in advance for your time.

Community of Inquiry Survey

No.	Statement	Agreement 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree				
		1	2	3	4	5
1	The instructor clearly communicated important course topics.	1	2	3	4	5
2	The instructor clearly communicated important course goals.	1	2	3	4	5
3	The instructor provided clear instructions on how to participate in course learning activities.	1	2	3	4	5
4	The instructor clearly communicated important due dates/time frames for learning activities.	1	2	3	4	5
5	The instructor was helpful in identifying areas of agreement and disagreement on course topics that helped me to learn.	1	2	3	4	5
6	The instructor was helpful in guiding the class toward understanding course topics in a way that helped me clarify my thinking.	1	2	3	4	5
7	The instructor helped to keep course participants engaged and participating in productive dialog.	1	2	3	4	5
8	The instructor helped keep course participants on task in a way that helped me to learn.	1	2	3	4	5
9	The instructor encourage course participants to explore new concepts in this course.	1	2	3	4	5
10	Instructor actions reinforced the development of a sense of community among course participants.	1	2	3	4	5
11	The instructor helped to focus discussion on relevant issues in a way that helped me to learn.	1	2	3	4	5
12	The instructor provided feedback that helped me understand my strengths and weaknesses relative to the course's goals and objectives.	1	2	3	4	5
13	The instructor provided feedback in a timely fashion.	1	2	3	4	5
14	Getting to know other course participants gave me a sense of belonging in the course.	1	2	3	4	5
15	I was able to form distinct impressions of some course participants.	1	2	3	4	5
16	Online or web-based communication is an excellent medium for social interaction.	1	2	3	4	5
17	I was comfortable conversing through the online medium.	1	2	3	4	5
18	I was comfortable participating in the course discussions.	1	2	3	4	5