RELATIONSHIP OF STUDENT ONLINE READINESS TO STUDENT PERCEPTION OF TEACHING PRESENCE AND SENSE OF COMMUNITY IN ONLINE COURSES

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Abstract: Various dimensions of online readiness are related to online student success and student engagement in the online class (Hung, Chou, Chen, & Own, 2010) Likewise, teaching presence, an element of the Community of Inquiry theory, is related to online student success (Garrison, Anderson, & Archer, 2000). A relationship has been found with online readiness and sense of community (Shea, Li, & Pickett, 2006). Yet, little is known about the direct relationship of the dimensions of online readiness to student perception of teaching presence and sense of community in the fully-online course.

The purpose of this study was to determine the relationship of student online readiness to student perception of teaching presence and sense of community in fully-online undergraduate courses. Correlation and multiple regression analyses were run in order to examine the relationship between five dimensions of online readiness computer/Internet self-efficacy (CISE), self-directed learning (SDL), learner control (LC), motivation to learn (ML), and online communication self-efficacy (OCSE) to student perception of teaching presence and sense of community in the online classroom. Results indicated a significant negative relationship of CISE and SDL to teaching presence; whereas, there were significant positive relationships with LC, ML, and OCSE to teaching presence. Regression analysis resulted in SDL as the only significant predictor of teaching presence, and it was negative.

Furthermore, the analysis of the relationship of these five dimensions of online readiness to class community resulted in no relationship to CISE, a positive relationship to SDL, and negative relationships to LC, ML, and OCSE.

Conclusions indicate that as learners become more self-directed in learning online, the perception of teaching presence decreases; yet, perception of sense of community increases. Another conclusion is that as the dimensions of LC, ML, and OCSE increase, so do the perceptions about teaching presence; however, sense of community decreases. Negative predictive value to teaching presence needs further study. The relationship of the dimensions of online readiness resulted in a negative relationship between teaching presence and sense of community.

By examining the relationship of student online readiness to perception of teaching presence and sense of community, this study contributes insight for researchers to continue to investigate specific ways instructors can prepare for online courses.

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CHAPTER I

INTRODUCTION TO THE STUDY

Online classes offer the college student independence, freedom, and attendance options not available in attending a schedule of college courses on campus (Perry & Pilati, 2011; Prewitt, 1998). These offerings allow the student to feel in control of the course and learning, making online courses more appropriate or an ideal option for some students. Furthermore, online courses are becoming a mainstay in higher education (Allen & Seaman, 2010; 2015). Several universities, such as the University of Phoenix and Capella Online University, were created for the purpose of delivering a degree entirely online (Li & Irby, 2008; www.phoenix.edu/degrees; www.capella.edu). At the same time, online course offerings are becoming a staple in the schedules of college students who are on traditional campuses (Li & Irby, 2008). In 2010, 6.1 million, approximately 30%, of college students reported taking at least one online course (Allen & Seaman, 2011). In 2014, more than one in four students (5,828,826 or 28%) took a minimum of one online course, an increase of 217,275 from 2013 (Allen & Seaman, 2015).

Background of the Problem

An extension of distance and correspondence education (Caruth & Caruth, 2013),

online courses and degree programs are prevalent in today's academic environment. In the past decade alone, there has been a dramatic rise in online education (Blackmon & Major, 2012; Wang, 2005). For example, Allen and Seaman (2014) indicated that 70.8% of higher education institutions' academic leaders report online learning to be critical to their institution's long-term strategy, a significant increase from 2002 when only 48.8% of leaders viewed online learning as critical.

Platt, Raile, and Yu (2014) promoted online courses as a great offering for universities that face space constraints, and many university presidents predict continued growth of online education. Allen and Seaman (2010) reported in 2009 that 73% of higher education institutions experienced a growth in the demand for online courses. Additionally, 58% of chief academic officers in higher education institutions perceived online instruction growth to be crucial in the long-term instructional strategies of their institutions (Ward, Peters, & Shelly, 2010).

On the other hand, Platt et al. (2014) found that students do not perceive online courses to be equivalent to face-to-face courses. Some students have the idea that an online course will be less intense or more relaxed than the face-to-face course offering (Vonderwell, 2003). Yet, students feel that online offerings are more flexible than face-to-face and offer more control over when and where they will complete their coursework, making online instruction appropriate for non-traditional, time-crunched, or place-bound students (Platt et al., 2014).

Some students value the isolation and anonymity that often accompany online instruction (Reilly, Gallagher-Lepak, & Killion, 2012). Anonymity in the online classroom was perceived to allow greater sharing of information, adding that lacking information about

age, bias, and preconceptions about the author of the online post were of value. Reilly et al. (2012) noted lack of non-verbal communication as another student-appreciated aspect in online courses. Students reported appreciating online coursework, because they had time to think about the reply or initial discussion post before posting to the asynchronous online class discussion. The ability to think before posting was thought to be more formal as compared to the words just coming out as they would in the face-to-face discussion (Ellis, Goodyear, Prosser, & O'Hara, 2006).

Age is thought to be another characteristic for a student enrolling in an online course. Norman (2008) found age as a strong predictor of poor performance on student tasks for online courses. Furthermore, as tasks in the course became more complex, the effect of age on student performance became larger. If older students believe they are too old to take the course but enroll anyway, they may not value success as highly as other younger students might when it comes to course completion (Norman, 2008). Along with age comes experience; experience and educational attainment are typically highly correlated with computer performance (Norman, 2008). Having more experience with the computer and software programs provides students with a higher level of confidence in their overall success of the course. When analyzing age and experience together, an older individual with computer experience will feel more confident about the course than an older or younger individual with no experience (Norman, 2008).

A multitude of factors influence students' decisions to enroll in online courses, including increased workload, family, flexibility, scheduling conflicts, or distance from the university (Armstrong, 2011; Blackmon & Major, 2012). With more students taking online courses, it is essential to adequately prepare students for the online experience, to build and

sustain an online learning community, and to ensure a teaching presence in developing and maintaining a successful online course (Wang, 2005). Emotions play a significant role in learning, both in the face-to-face environment as well as in the online environment (Reilly et al., 2012). Reilly et al. (2012) noted online learning could be associated with anxiety and isolation as well as confidence, mastery, and encouragement.

Online course instruction has its benefits; however, it appears to have disadvantages compared to face-to-face instruction, primarily in interaction. Many students comment that interaction with other students leads to difficulties with online instruction (Armstrong, 2011; Reilly et al., 2012; Vonderwell, 2003). These difficulties include no benefit of face-to-face interaction, body language, spontaneous conversations, or other commonalities that typically occur in face-to-face instruction (Armstrong, 2011; Perez-Prado & Thirunarayanan, 2002; Vonderwell, 2003). Therefore, building and sustaining a purposeful and interactive online learning community is crucial in the development of successful online instruction (Wang, 2005).

Online Readiness

Readiness for online learning was proposed by Warner, Christie, and Choy (1998) as the student's preference for the form of delivery (online as opposed to face-to-face instruction), confidence in using electronic communication for learning, confidence in using the Internet and computer-mediated communication, and the ability to engage in autonomous learning. Scales were created by multiple researchers (Hung et al., 2010; McVay, 2000; Smith, Murphy, & Mahoney, 2003) to establish concepts of online readiness and to create instruments to measure the concept. To adequately measure student online readiness, Hung et al. (2010) determined that additional dimensions were necessary. The dimensions of

learner readiness specifically related to online instruction include computer/Internet self-efficacy, self-directed learning, learner control, motivation for learning, and online communication self-efficacy (Hung et al., 2010). Understanding student readiness for taking an online class can help increase the success of students in the online setting as well as help instructors develop courses to enhance the students' online experience (Comer, Lenaghan, & Sengupta, 2015; Hung et al., 2010).

Teaching Presence

Research conducted over the past decades has consistently compared online success to classroom success for students (Li & Irby, 2008; Shea et al., 2006), including the role of the instructor (Shea et al., 2006; Shea, Li, Swan, & Pickett, 2005). Teaching presence is an element of the Community of Inquiry model created by Garrison et al. (2000). Anderson, Rourke, Garrison, and Archer (2001) state that teaching presence begins before the course when the teacher must design, plan, and prepare the course. This presence continues through the duration of the course with the teacher facilitating and providing direct instruction to students when necessary. In addition to planning and facilitating the course, the teacher must enhance and support social and cognitive presence for educational outcomes. Teaching presence has been broadly researched, but the predictors of individual student characteristics related to dimensions of online readiness and teaching presence have not been established.

Sense of Community

Another aspect of research interest is the presence of the instructors and his or her ability to engage with individual students and the community of learners in online coursework (Shea et al., 2006). Previous research (Shea, 2006; Shea et al., 2006; Shea et al., 2005) has shown teaching presence and sense of community are linked to the success of

students in online courses. The instructor is responsible for setting up the course, ensuring students complete the assigned discussions and assignments, and being available for student questions, comments, and concerns. These roles and responsibilities are vital to a successful online course (Shieh, Gummer, & Niess, 2008). Research on teacher presence and student perception of community put the onus solely on the instructor; yet, one aspect less researched is student readiness for online instruction.

Statement of the Problem

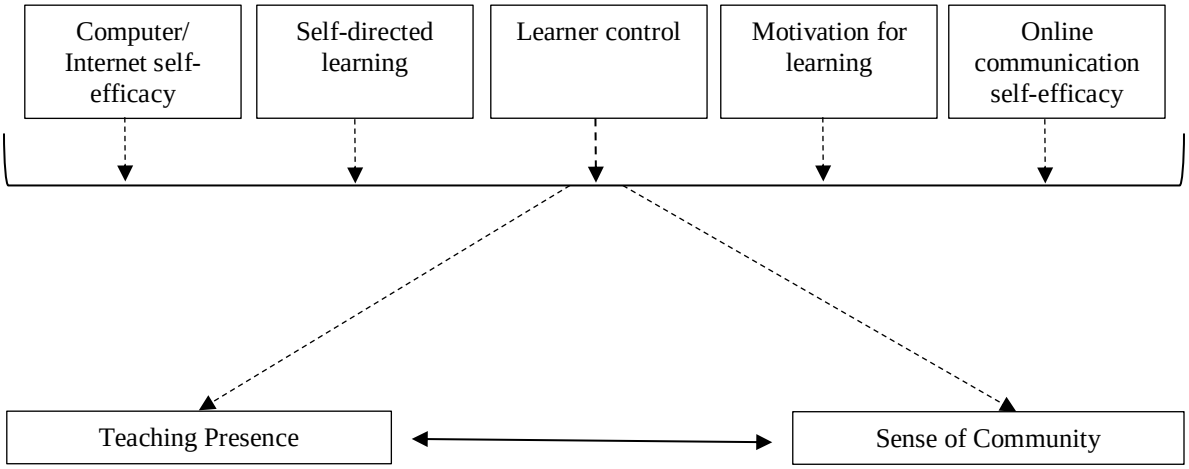
Substantial research has been conducted regarding student readiness and online orientation to online learning (Norman, 2008; Vonderwell, 2003). Additionally, research studies on the relationship of teaching presence and sense of community include qualitative studies from the teacher perspective (Shea et al., 2005; Shea et al., 2006; Shieh et al., 2008). Student characteristics, such as online readiness to learn, have yet to be related to teaching presence and sense of community. Therefore, research on the relationship of student online readiness to perception of teaching presence and sense of community is necessary to assist online course designers and instructors in assuring student success in learning. Examining the relationship will help students and instructors prepare for and formulate courses to provide the best learning experience possible for all parties.

Less is known about how individual student differences, mainly the variables associated with online readiness, play a role in student perception of teaching presence and sense of community. Some students may feel they are not getting the help or attention needed, and others may feel overcrowded with too much attention by the same instructor in the same course. Information about the specific needs of students regarding online readiness

would be helpful as online instructors plan how to ensure a teaching presence in their courses. The relationship of interest for this study is demonstrated in Figure 1.

Figure 1

Research Design



Theoretical Framework

The theories guiding the inquiry in this research include student online readiness (Hung et al., 2010), teaching presence portion of Community of Inquiry (CoI) (Garrison et al., 2000), and sense of community (Rovai, 2002a; 2002b). Student online readiness, as conceptualized by Hung et al. (2010), contains five dimensions: computer/Internet self-efficacy, self-directed learning, learner control, motivation for learning, and online communication self-efficacy. Online courses are highly student-centered and require students to take an active role in their learning (Hung et al., 2010). Additionally, utilizing online readiness dimensions can help faculty and students determine needs of students.

Student Online Readiness

Computer and Internet self-efficacy is the student's ability to utilize technology to accomplish a task required in the online course, not simply operating a computer (Hung et

al., 2010). Self-directed learning is defined by Knowles (1975) as "a process in which individuals take the initiative, with or without the help of others, in diagnosing their learning needs, formulating goals, identifying human and material resources, choosing and implementing appropriate learning strategies, and evaluating learning outcomes" (p. 18). Hung et al. (2010) explained that self-directed learning focuses on learners' abilities to take responsibility for learning to reach their learning objectives. Students must manage time effectively, be responsible for learning, complete work on time, and actively participate in the online course environment (Hung et al., 2010).

Learner control is the concept that allows students to choose the direction of their learning (Hung et al., 2010). Asynchronous learning environments allow for the greatest freedom, giving the students control over choosing their learning. Motivation for learning encompasses learners' impetus for and engagement with their learning activities (Cigdem & Ozturk, 2016). Students' motivational orientation, intrinsic or extrinsic, has a significant influence on student learning performance (Hung et al., 2010). Deci and Ryan (1985) found that intrinsically motivated learners have lower dropout rates, higher-quality learning, greater enjoyment of school as well as better learning strategies. Ryan and Deci (2000b) found that online learning might benefit intrinsically motivated learners because of the freedom that accompanies online learning. Online communication self-efficacy is the student's ability to engage in web-based discussions, comments, questions, and responses (Hung et al., 2010).

Community of Inquiry

The foundation for the CoI model is social constructivist in nature and is consistent with John Dewey's work regarding community and inquiry (Garrison, Anderson, & Archer, 2000; 2010; Swan & Ice, 2010). The CoI theory provides order, understanding, and

methodology for computer-based discussion courses. The pedagogy behind the theory is that students work together in a community and not independently as they may work in traditional distance education (Garrison et al., 2000; 2010; Swan & Ice, 2010).

The CoI model assumes that learning occurs in the community via interaction of the elements of cognitive presence, social presence, and teaching presence (Garrison et al., 2000; 2010). Although cognitive presence is the extent learners are able to construct and confirm meaning through sustained reflection and discourse, many variables of student readiness may be related to cognitive presence, such as efficacy to learn, learner control, self-directed learning, and motivation. Social presence is the degree to which participants in computer-mediated communication feel connected to one another. Teaching presence is the design, direction, and facilitation of cognitive and social processes to support learning (Garrison et al., 2000; 2010; Swan, Garrison, & Richardson, 2009; Swan & Ice, 2010). For this study, student perception of teaching presence is defined as facilitating discourse and organization. Facilitating discourse is the building of student understanding in the online class. The instructor comments on posts in the online classroom as well as other ways to support the online course. Organization of the course includes the structure and set-up of the course by the instructor, prior to the beginning of the course.

Sense of Community

Sense of community is believed to be one of the first components established in an online course and contributes to the community building that continues to occur throughout the course (Aragon, 2003; Rovai, 2002a; 2002b). While sense of community stems from social presence in the CoI framework utilizing socio-emotional interactions, Rovai's (2002a; 2002b) sense of community includes task-driven interactions. These task-driven interactions

such as online group debates, group discussions, and brainstorming, facilitate learning and achievement (Aragon, 2003; Rovai, 2002a; 2002b). Connectedness, the socio-emotional interaction, and learning, the task-driven interaction, are key aspects of community building in the online course. Students must feel they are connected to the other learners in the course and that they are able to satisfy their learning goals (Rovai, 2002a; 2002b). The inclusion of the task-driven interactions is why sense of community is being used in the study and why social presence is not of specific interest.

Purpose of the Study

The purpose of this study was to determine the relationship of student online readiness to student perception of teaching presence and sense of community in fully online undergraduate courses. Student readiness consists of the five dimensions: computer/Internet self-efficacy, self-directed learning, motivation for learning, learner control, and online communication self-efficacy (Hung et al., 2010). Regarding the dimensions, computer/Internet self-efficacy refers to student confidence in using the computer and Internet, self-directed learning is student ability to direct their own learning path, motivation for learning is student desire to enhance their learning, learners having control to set their own learning schedule is learner control, and online communication self-efficacy is student confidence in participating in online discussions (Hung et al., 2010). Teaching presence consists of the two subscales of instructional design and organization and facilitating discourse. Instructional design and organization refers to the planning and design of the course prior to the beginning of the course, whereas facilitating discourse is the instructor's role of directing discussions and providing feedback to students through the duration of the course (Garrison et al., 2000). While sense of community is defined by the two subscales of

connectedness, how connected students feel to one another in the online course setting, and learning, the satisfaction of learning goal in the online course setting (Rovai, 2002a; 2002b).

Research Questions

The research questions used to guide the analyses in this study are as follows:

1) What is the relationship of student online readiness to student perception of teaching presence in online coursework?
2) What is the relationship of student online readiness to student perception of sense of community in online coursework?

Definition of Key Terms

Asynchronous discussions: defined by Rovai (2002b) as a learning environment where students and instructors use computers and the Internet to work and communicate in discussions set up in the learning platform (e.g., Blackboard, Desire2Learn), but have no requirement to be online at the same time.

Online learning: learning that takes place on the Internet via asynchronous discussions in online classrooms via the learning platform (e.g., BlackBoard, Desire2Learn) utilized by the institution.

Teaching presence: begins with teacher preparation, design, and planning of the course prior to the beginning of the course and continues throughout the course with feedback and instruction given to students (Anderson et al., 2001). The psychological presence of the instructor to the student in the online course.

Sense of class community: defined by Rovai (2002b) as what people do together, not where or through what means they perform the tasks.

Student motivational characteristics: energy, direction, and persistence underlying student's desire to learn. Motivation can be classified as intrinsic or extrinsic (Ryan & Deci, 2000a, 2000b; Vansteenkiste, Lens, & Deci, 2006).

Student readiness: five dimensions of computer/Internet self-efficacy, self-directed learning, learner control, motivation for learning, and online computer self-efficacy (Hung et al., 2010). The amount of preparation, motivation, and self-confidence students have in the online course.

Overview

Chapter Two of this research study presents an overview of current literature focusing on the history of online education, benefits and consequences of an online course, student readiness to learn online coursework, the theory of Community of Inquiry, and sense of community. Additionally, Chapter Two ties the research together and provides the rationale for examining these variables. Chapter Three presents the method utilized to collect and analyze data to answer the research questions. Chapter Three also includes information regarding sample size and population, as well as descriptions of each measure. Chapter Four presents the research findings. Chapter Five discusses the conclusions from the study, limitations of the study, and directions for future research.

CHAPTER II

REVIEW OF RELEVANT LITERATURE

The purpose of this study was to determine the relationship of student online readiness to student perception of teaching presence and sense of community in fully-online undergraduate courses. While a number of researchers have explored the ever-growing world of online education, few have examined student characteristics, such as student online readiness and how its dimensions relate to perception of teaching presence and sense of community in the online classroom setting. In this chapter, research is presented that examines these perceptions in more detail in areas such as the history of online education, benefits and challenges of online education, the developments of online readiness, and student online readiness dimensions that may relate to perceptions of teaching presence and sense of community, teaching presence as a component of the Community of Inquiry (CoI) model, and sense of community. Utilizing these areas of literature, evidence is given to support student online readiness and its likely relationship to student perception of teaching presence and sense of community.

History of Online Education in Higher Education

Online coursework is a descendant of distance education (Caruth & Caruth, 2013). Distance education evolved from correspondence courses to online courses. Due to the growth of online learning, many universities were created solely for the purpose of offering online degree programs (Caruth & Caruth, 2013). Distance education via correspondence dates back to the nineteenth century with Isaac Pitman recognized as the pioneer (Braun, 2008). Two forces were behind the growth and success of distance education: the need for increased and democratic access to learning and the availability of new delivery technologies (Prewitt, 1998).

The University of Pennsylvania and University of Chicago each created correspondence courses in the late nineteenth century; however, funding issues caused these programs to be short-lived (Prewitt, 1998). The courses primarily sought to teach skills via the United States Postal Service's free delivery services. Anna Eliot Ticknor is recognized as establishing one of America's first correspondence schools in 1873, the Society to Encourage Studies at Home (Caruth & Caruth, 2013). Ticknor's Society primarily targeted women, and the self-paced learning was seen as a benefit as the women had limited time due to domestic obligations.

During the twentieth century, correspondence courses soon transitioned into courses taught via educational television (Perry & Pilati, 2011). Students attended a regular classroom via interactive television (ITV). Students attending ITV are not in the same classroom as the instructor, and instruction is delivered via broadcasting. ITV then transitioned into online education via the Internet in the mid-90s (Perry & Pilati, 2011).

Online courses have evolved in monumental ways over the past decade. In the fall of 2005, 2.6 million students reported taking Internet courses (Allen & Seaman, 2006). Figlio, Rush, and Yin (2013) attribute this increase to a financial crisis and the increased fiscal restraints placed on higher education institutions. Li and Irby (2008) attribute the increase to information being available any time, at any place, which allows students to work on coursework from any location.

Student Online Readiness

Online readiness is a strong predictor of student success and satisfaction in an online course (Yukselturk & Bulut, 2009) and has been shown to encourage students to be involved in online activities (Cigdem & Ozturk, 2016). Horzum, Kaymak, and Gungoren (2015) found that higher scores on the dimensions of online readiness increased student learning in the online course. With the ever-growing popularity of online courses, it is imperative students and faculty examine student online readiness. Additionally, there is the expectation that students will take a more active role in their learning if the course is not teacher-centered (Hung et al., 2010). With 7.1 million students taking at least one online course in 2013 (Allen & Seaman, 2014), it becomes even more critical for higher education institutes and faculty to understand the value of student readiness in online learning (Cigdem & Yildirim, 2014).

Student online readiness was first identified as student preferences for the form of delivery (online as opposed to face-to-face instruction), student confidence in using electronic communication for learning, and confidence in using the Internet and computer-mediated communication, and the ability to engage in autonomous learning (Warner et al., 1998). McVay (2000) developed a 13-item instrument focused on student

behaviors and attitudes as a way to predict and measure a student's level of online readiness. Hung et al. (2010) later expanded the construct of online readiness to encompass the five dimensions of computer/Internet self-efficacy, self-directed learning, learner control, motivation for learning, and online communication self-efficacy. Hung et al. (2010) expanded the measures for assessing learner readiness due to previous scales not thoroughly examining and covering dimensions—computer skills, Internet navigation, and learner control—deemed necessary for online learning.

Higher education institutions use student readiness for online learning to help faculty and students examine readiness, qualifications, and comfort for online learning (Hung et al., 2010). Understanding student readiness can help teachers develop online courses that will ensure students achieve a better online learning experience (Hung et al., 2010). Most undergraduate students are considered digital natives and are, therefore, thought to be successful in online learning (Comer et al., 2015). However, Comer et al. (2015) discovered that more than technological ability is necessary for success in the online classroom. Adjusting behavior to fit one's new role expectations, being aware of what an online course requires, and exercising self-discipline are a few variables shown to contribute to student success in the online course setting.

Comer et al. (2015) surveyed undergraduate students enrolled in 13 fully asynchronous management courses between 2009 and 2011. Students were given a pre-course survey before the course began and a post-course survey after the course was completed. Sample size for the surveys were pre-course (N = 275) and post-course (N = 248), the lower sample size for post-course respondents was attributed to students who withdrew from courses. While the researchers found that students perceived themselves

as ready to take the online course, being self-sufficient, and eager to engage with classmates, the positivity was attributed to the course being the first online course in which the student enrolled (Comer et al., 2015). However, information is limited to undergraduate business students in their first online course; therefore, online readiness perception may change as students take additional online courses and come from a variety of academic majors.

Student online readiness is critical to student success in the online environment (Hung et al., 2010). Students are offered more opportunities for flexibility and individualization as well as more demands in the online environment (Kirmizi, 2015). These demands require the student to have self-directed learning abilities to be successful in the online setting. Kirmizi (2015) surveyed 84 students (females n = 50, males n = 34) attending Karabuk University in the English Language and Literature department and found that self-direction and goal setting are necessary components for students to fulfill their learning goals. Hung et al. (2010) noted that courses not highly teacher-centered require students to take a more active role in their course learning. Additionally, students must have the necessary technology available and the ability to use the technology to have success in the online environment (Appana, 2008; Hung et al., 2010).

Computer and Internet Self-Efficacy

Self-efficacy is defined as an individual's belief in his or her ability to perform a task (Bandura, 2000). Eastin and LaRose (2000) define Internet self-efficacy as an individual's ability to organize and execute Internet-related activities to achieve the desired results. Self-efficacy has been found to contribute to student online readiness. A study conducted by Chang, Liu, Sung, Lin, Chen, and Cheng (2014) using participants

(*N*=87) enrolled in a culture and mental health course found students with higher Internet self-efficacy were more confident and found more relevance to the course than students with lower levels of Internet self-efficacy.

According to a study by Hung et al. (2010), current college students are confident in computer self-efficacy through their ability to manage software, search for information online, and perform basic functions with software. Eastin and LaRose (2000) found that prior Internet experience was a predictor of Internet self-efficacy levels; therefore, higher self-efficacy led to higher levels of Internet usage. Likewise, Wang, Jackson, Wang, and Gaskin (2015) found that Internet self-efficacy influences social interaction. How this increase in social interaction might relate to perceptions of class community is less known.

In a study by Shen, Cho, Tsai, and Marra (2013), 406 online students (male n = 104, female n = 301) were surveyed regarding their online learning self-efficacy and online learning satisfaction using a researcher created survey. The student sample included both graduate (n = 244) and undergraduate (n = 151) students from two universities in the Midwest with no limitations to student major or being enrolled in a specific course. The results determined that female students had higher levels of Internet self-efficacy than males. Additionally, Shen et al. (2013) found no differences in self-efficacy between academic status. This higher level of self-efficacy in females leads one to believe that females may be more active in the online setting and seek more help than their male classmates. It was found that students who have taken more online courses have higher levels of self-efficacy and were more likely to communicate and collaborate with other classmates (Shen et al., 2013).

Hung et al. (2010) conducted a study to develop and validate the *Online Learner Readiness Scale*. Surveys were sent to undergraduate students enrolled in an online course (N=1051; 462 male, 589 female). Students in the study were recruited from three different universities in Taiwan and were enrolled in one of five specific online courses: life chemistry (n = 658), calculus (n = 169), statistics (n = 80), Taiwan ecology (n=79), and introduction to environmental protections (n = 65). Hung et al. (2010) found no gender differences in readiness for online learning. Additionally, Hung et al. (2010) found there was a difference in academic status, where seniors exhibited greater readiness for self-directed learning, learner control, and online communication self-efficacy than underclassmen. This finding contradicted Shen et al. (2013).

Internet self-efficacy influences confidence and relevance in an online course; students with higher Internet self-efficacy were more confident and found courses to be more relevant (Chang et al., 2014). Chang et al. (2014) recommend that teachers of online courses become more aware of levels of student Internet self-efficacy at the beginning of the course and offer resources to help the students improve.

Self-Directed Learning

An essential component to online readiness is the degree to which students are self-directed learners. Knowles (1975) defines self-directed learning as "a process in which individuals take the initiative, with or without the help of others, in diagnosing their learning needs, formulating goals, identifying human and material resources, choosing and implementing appropriate learning strategies, and evaluating learning outcomes" (p. 18). Self-directed learning involves one's ability to assess learning needs, to effectively plan and manage time, and to evaluate resources (Loyens, Magda, &

Rikers, 2008). With the increase in online learning options, students must be prepared to take an online course with distance educators being proactive in ensuring the success of students (Hung et al., 2010). Comer et al. (2015) found that students must adjust their behavior to succeed in the online course, as online courses require working independently and developing self-discipline to achieve course requirements.

An effective online environment allows learners to have a significant amount of control over their instruction by taking the initiative and responsibility for their learning (Vonderwell & Turner, 2005). There is a relationship between technology and learning, and self-directed learning may help provide more understanding of the dynamics in the relationship (Candy, 2004; Rashid & Asghar, 2016). However, little research has addressed the relationship between technology and learning, such a self-efficacy and self-directed learning.

Self-directed learning includes students' attitudes, abilities, personality, and responses to online learning (Hung et al., 2010). Learning, in fact, does not take place in isolation but in association with others, including teachers and peers (Knowles, 1975). Hung et al. (2010) identified the importance of distance educators being proactive in helping potential learners determine if they are prepared for online courses.

Learner Control

Learner control is another dimension of student readiness (Hung et al., 2010). Online learning differs in many ways from traditional face-to-face learning. One of these ways is the control that learners have over their learning. Hung et al. (2010) stated that with learner control, learners are given control over their instruction and can take a more individualized approach, regardless of how the information is arranged. An effective

online environment allows students to have a significant amount of control over instruction giving them initiative in their learning (Vonderwell & Turner, 2005). Learners are free to use their preferences regarding the sequence of viewing materials, the organization for studying materials in a way best suited for them. Therefore, students feel more empowered, leading them to exhibit better learning performance (Hung et al., 2010). While learner control and self-directed learning may sound similar, learner control focuses more on the flexibility of the learner while self-directed learning focuses on the students' characteristics and responses to online learning.

Pentina and Neely (2007) sampled students (N=278) from three different sections, online (n= 220,) daytime traditional (n= 95), and evening traditional (n = 110), of a foundations of marketing course. Participants were administered a survey containing questions regarding student demographic information and various questions relating to performance, online course experience, and risks associated with online courses. Pentina and Neely (2007) found that students in online courses are better organized and have better time management skills than those who elect not to enroll in online courses. The study supported previous research studies; however, the study was limited to one course and had a small sample size. Additionally, the online class size was significantly larger than the two traditional courses.

Motivation for Learning

Another essential dimension to online readiness is student's motivation to learn. According to Ryan and Deci (2000a), motivation occurs when an individual is moved to do something, feels energized, or is activated toward an end. Ryan and Deci's (2000a) motivational theory of self-determination involves the three psychological needs of

competence, autonomy, and relatedness, which are necessary for social growth and personal well-being. When these needs are satisfied, self-motivation and mental health are enhanced, which play a significant role in education and learning (Ryan & Deci, 2000a). Social contexts create differences both within-persons and between-persons in motivation and personal growth. These differences result in people being more self-motivated, energized, and integrated in some situations and domains than in others (Ryan & Deci, 2000b).

Motivation involves energy, direction, and persistence, has a central idea in the field of psychology, and is valued because of its ability to produce learner control (Niemiec & Ryan, 2009; Ryan & Deci, 2000a, 2000b; Vansteenkiste et al., 2006). Quality of motivation refers to the different types of motivation underlying learning behavior (Vansteenkiste et al., 2006). Two initial qualities were identified as intrinsic, doing an activity or task for the satisfaction of the activity or task itself (reading for fun) and extrinsic, performing the activity or task to attain a separable outcome (grades in a class) (Ryan & Deci, 2000a, 2000b; Vansteenkiste et al., 2006). Deci and Ryan (1985) found that individuals with a high level of intrinsic motivation experience satisfaction of competence and autonomy. Facilitating feedback, providing optimal challenges, and avoiding demeaning evaluations has been found to increase intrinsic motivation (Deci & Ryan, 1985; Ryan & Deci, 2000a, 2000b).

A study conducted by Shroff, Vogel, and Coombes (2008) examined factors that support student motivation in the online course discussion setting. The researchers utilized Deci and Ryan's Self-Determination Theory as a basis for the study. The participants were students enrolled in a management of information systems course. The

course was structured around the researcher's case study (Shroff et al., 2008). Seven students from the course were selected for face-to-face interviews. Results of the interviews found that online student discussions were positively related to higher levels of their perceived competence, which is believed to contribute to an increase in intrinsic motivation (Shroff et al., 2008). While this study had positive findings, it was limited to one course, and the course was structured around the study. Results might be different if the sample were selected from a course not structured specifically for the study.

Online Communication Self-Efficacy

Online courses often require students to participate in online discussion. McVay (2000) stated that it is vital to create communication between students and teachers. Hung et al. (2010) believed that online communication self-efficacy is essential for overcoming limitations of online communication. Roper (2007) surveyed 59 graduate students taking 80% of their courses online. Surveys contained open-ended questions to allow elaboration from participants. Roper (2007) found that successful online students developed and asked thoughtful questions to facilitate discussions between classmates and the instructor of the course. The students noted that they wanted to go deeper into the learning to make the subject more understandable (Roper, 2007). Shen et al. (2013) reported that the number of courses students had taken online was a predictor of their self-efficacy to communicate with others. In the same study, the researchers found gender to be a predictor, with males less likely to interact with classmates for academic purposes than their female classmates.

Community of Inquiry Model

The Community of Inquiry (CoI) Model (Garrison et al., 2000) provides a comprehensive theoretical model of how instructors can enhance the learning experience. The CoI model contains three elements: social presence, teaching presence, and cognitive presence. Cognitive presence is how online learners are able to construct learning through sustained communication in a community (Garrison et al., 2000). Social presence is the ability of individuals to project their personal characteristics into the community, presenting themselves as a real person (Garrison et al., 2000). Teaching presence refers to "the design, facilitation, and direction of cognitive and social processes for the purpose of realizing personally meaningful and educationally worthwhile learning outcomes" (Anderson et al., 2001, p. 5).

The foundation for the CoI model is social constructivist in nature and is consistent with John Dewey's (1933) work regarding community and inquiry (Garrison et al., 2010; Swan & Ice, 2010). The CoI theory provides order, understanding, and methodology for computer-based discussion courses. The pedagogy behind the theory is that students work together in a community and not independently as they may work in traditional distance education courses (Garrison et al., 2000; 2010; Swan & Ice, 2010). In a retrospective, Garrison et al. (2010) found teaching presence to be the most evolved out of the three elements of CoI. It was stated "with regard to teaching presence is the growing importance of this element" (Garrison et al., 2010, p. 7). This growing importance is what lead to teaching presence as a variable for this study.

Cognitive Presence

Cognitive presence defined as "the extent to which the participants in any particular configuration or a community of inquiry are able to construct meaning through sustained communication" (Garrison et al., 2000; p. 18). Cognitive presence can be problematic in the online environment because the medium of communication between participants has changed (Garrison et al., 2000). Individuals must feel comfortable relating to one another in the given setting, as having cognitive presence itself is not enough to sustain a community of learners (Garrison et al., 2000). This area of the CoI Model was noted by Arbaugh, Cleveland-Innes, Diaz, Garrison, Ice, Richardson, and Swan (2008) to be one of the least researched and understood out of all three presences.

Social Presence

Social presence contributes to building a community of learners (Aragon, 2003; Garrison et al., 2000) and is believed by Aragon (2003) to be one of the first components that must be established in online learning. Garrison et al. (2000) stated that social presence is an individual's ability to project as real to people in the online environment. It is believed that communication created via familiarity, skills, motivation, organizational commitment, activities, and length of time using media has a direct influence on the social presence that is developed.

Social presence is created when people make connections with others in social situations. Aragon (2003) states that creating this presence with the instructor and classmates is challenging in the online environment. Rourke, Anderson, Garrison, and Archer (1999) place the responsibility of creating social presence on the learner, reasoning that learners have the ability to project themselves into the community.

The overall goal of creating social presence is to create a level of comfort for the instructor and class participants to feel at ease around one another. This goal applies to online and face-to-face courses (Aragon, 2003). Rourke et al. (1999) believe an additional benefit to social presence is the ability to investigate, sustain, and support learning objectives by making group interactions engaging, rewarding, and appealing.

Teaching Presence

Teaching presence is defined by Anderson et al. (2001) as "the design facilitation and direction of cognitive and social processes of the purpose of realizing personally meaningful and educationally worthwhile learning outcomes" (p. 5). Garrison et al. (2000) indicated that teaching presence consists of two general functions, design and facilitation of the educational experience. The researchers state that these functions are typically the responsibility of the teacher; however, any participant in the CoI can perform them. Teaching presence occurs prior to the beginning of class as the teacher plans and prepares course studies and continues during the course through facilitation and direct instruction when needed (Anderson et al., 2001). In their study concerning computer conferencing in higher education, Garrison et al. (2000) state the establishment of a critical community of inquiry is reliant on appropriate social and cognitive presence, but more importantly, the presence of a teacher. Even in the online environment, the researchers felt that teaching presence can be established and sustained. Teaching presence is defined as having three characteristics: instructional management, building understanding, and direct instruction (Anderson et al., 2001; Garrison et al., 2000). Each is discussed in more depth here.

Instructional management is concerned with the planning issues related to the educational experience. Designing and planning an online course is often more time consuming than planning a regular face-to-face course. Instructors of the online course are forced to think through the process, structure, interactions, and evaluation aspects of the entire course (Anderson et al., 2001). Areas addressed are structural concerns related to setting curriculum, designing methods and assessment, and establishing time parameters for the course (Garrison et al., 2000). Additionally, the online instructor offers guidelines and tips to help students with the organizational aspect as well as modeling the effective use of the medium (Anderson et al., 2001).

Building understanding, also called facilitating discourse, is concerned with the productive and valid way of gaining knowledge. Facilitating discourse is crucial in maintaining the interest, motivation, and engagement of the students enrolled in the online course (Anderson et al., 2001). For the CoI model, this must be challenging and stimulating and is concerned with the academic integrity of the community of learners (Garrison et al., 2000). In helping to build student understanding, the instructor reads and comments on student postings on a regular basis and searches for ways to support the developing community.

Direct instruction includes areas that assess the efficiency of the process to determine where the teaching responsibility becomes prevalent (Garrison et al., 2000). The instructor provides intellectual and scholarly knowledge as well as shares subject matter knowledge with students (Anderson et al., 2001). With direct instruction, the instructor must facilitate reflection and discourse by presenting content, offering questions, and guiding discussion. The instructor must confirm learner understanding

with assessment and feedback on content from the course. Anderson et al. (2001) noted that the instructor must transition from the role of content provider to the role of facilitator.

Direct instruction can be seen in the presentation of content, directing questions to the group, and directing attention to a specific area (Anderson et al., 2001; Garrison et al., 2000). Another form of direct instruction comes from confirming understanding through assessment and explanatory feedback. Informal and timely instructor feedback is useful and found very valuable to the students (Anderson et al., 2001).

A lack of teaching presence is a disadvantage in online instruction. Armstrong (2011) stated that online students commented that online learning meant less direction from the instructor. According to Vonderwell (2003), students felt they lost one of the most viable resources, the instructor, when they enrolled in the online course. Students felt they were missing the traditional emotional connectivity between student and instructor due to not meeting face-to-face. Vonderwell (2003) found that not having immediate instructor communication was hurtful to instruction. Platt et al. (2014) discovered that students perceive face-to-face courses as having faster, easier, more immediate instructor communication than online courses.

Student characteristics and perceptions play a large role in the success or failure of the course in which students are enrolled (Armstrong, 2011; Perez-Prado & Thirunarayanan, 2002). Because of the effect these student perceptions have, it is essential for faculty to be aware and utilize information to their advantage. For example, faculty chairs and department deans can utilize the information regarding student perception of instructor involvement by requiring instructors to meet specific criteria.

Having faculty create a picture Welcome slide or video for the first course meeting would be a way to give students a feeling of teaching presence. As Shieh et al. (2008) found, students posting of pictures reinforces social presence. Therefore, it would only be logical that the instructor doing the same would increase the sense of community and possibly aid in the emotional connectivity that the Vonderwell (2003) study found was lacking.

Sense of Community

Sense of community stems from social presence in the CoI theory (Rovai, 2002a; 2002b). Garrison (2007) stated that social presence must move beyond creating the socio-emotional presence and place the focus on open communication in the online classroom. In line with the elements of social presence, teaching presence, and cognitive presence, building a sense of community is an important component to have in an effective online learning environment (Rovai, 2002a; Shea, 2006; Thompson & MacDonald, 2005). Building a sense of community is often thought to be a challenging task to accomplish in the online course setting.

The CoI model assumes development of a community in order for the online learning to be effective (Rovai, 2002a; Shea, 2006; Thompson & MacDonald, 2005). This community development supports deep learning and meaningful inquiry in the online classroom setting. Rovai (2002a), however, believes that social presence, social quality, small-group activities, community size, and teaching style are all positive correlates to gaining a sense of community. Rovai (2002b) discovered that community is viewed as what people do together, not where or through what means they perform the activities.

Emotions play a large role in learning, both in the face-to-face environment, as well as in the online environment (Reilly et al., 2012). Reilly et al. (2012) stated online learning could be associated with anxiety and isolation as well as confidence, mastery, and encouragement. Having a sense of community involves the interaction and deliberation by individuals joined by shared goals and interests (Reilly et al., 2012; Shroff et al., 2008). Reilly et al. (2012) found that some students felt alone and isolated when taking online courses. These students commented they felt they had no connection to other students, were invisible, and were unable to express or react to nonverbal communication in an online course. Additionally, community can be defined in terms of dimensions: spirit, trust, interaction, and commonality of expectation of goals.

Spirit is the recognition of membership in a community. Spirit encompasses the feelings of cohesion, friendship, and bonding that develop among learners (Rovai, 2002b). Members of the community begin to look forward to the time spent together. Additionally, spirit allows learners to challenge, nurture, and gain a sense of connectedness to the group. Lack of spirit or connectedness can lead to isolation and low motivation, which can lead to low achievement and even dropouts (Rovai, 2002b).

The feeling that members of a community can be trusted and a willingness to rely confidently on other members of the group is known as trust (Rovai, 2002b). Two components make up the trust dimension: credibility and benevolence. Credibility refers to the expectation that the word of other learners within the community can be relied on. Benevolence encompasses how learners are interested in the welfare of other learners in the community and how motivated to assist others in their learning (Rovai, 2002b).

Learner interaction is essential to community development. Interaction involves two categories, task-driven and socio-emotional-driven. Task-driven interaction is under instructor control, takes the form of instructor-generated discussions, and is directed at the completion of assigned tasks. Socio-emotional-driven interaction is self-generated and is directed towards learner relationships (Rovai, 2002b).

Common expectations, regarding learning, is another dimension in classroom community according to Rovai (2002b). Learning is the commitment to the standard educational purpose of community members to value learning and feel that their educational needs are being satisfied by actively participating in the community.

Summary of the Chapter

Online readiness is a strong predictor of student success and satisfaction in an online course (Yukselturk & Bulut, 2009). Readiness is a significant factor encouraging students to be involved in online activities (Cigdem & Ozturk, 2016). Horzum et al. (2015) found that higher online readiness impacts student learning in the online course. A student's readiness in the online course setting may be related to student perceptions of teaching presence and sense of community. This specific examination of the relationship between student readiness to take an online course to student perception of teaching presence and sense of community has not been thoroughly studied.

The aim of this study was to determine the relationship of student online readiness to student perception of teaching presence and sense of community in fully-online undergraduate courses. Recent research on teacher presence and student perceptions of community focus solely on the instructor. One less researched and necessary aspect of student success is how the psychological presence of the course

instructor and sense of community differs by student online readiness. Chapter 3 details the participants, instruments, procedures, and plan of analysis for the study.

CHAPTER III

METHOD

The purpose of this study was to determine the relationship of student online readiness to student perception of teaching presence and sense of community in fully-online undergraduate courses. This chapter presents information on participants, the instrument background used in the measurement of the study variables, and the process of conducting this research study.

Participants

Undergraduate students currently enrolled at a large comprehensive Midwestern university were recruited to participate in the study. There were no limitations on age, race, or gender. Participants were primarily from the College of Education, Health, and Aviation but were from a variety of academic disciplines. The college has approximately 1800 undergraduate students enrolled. Participants for the study included 112 (25 male, 84 female, three no response) undergraduate students. This representation of gender is common in the College of Education, Health, and Aviation.

Instruments

Instruments for the study were selected based on the measurement capabilities for the constructs included in the conceptual framework of student online readiness and the

theoretical framework of teaching presence and sense of community. The *Online Learning Readiness Scale* (Hung et al., 2010) was used to measure student readiness to take an online course. The *Teaching Presence Scale* (Shea et al., 2005) and *Classroom Community Scale* (Rovai, 2002a) were used to measure student perception of teaching presence and sense of community in the online classroom for the course they were currently enrolled in. At the end of the survey, a demographics questionnaire (see Appendix B) was given to allow the researcher to gather information about the students participating in the study.

Online Readiness

Student readiness was measured with the *Online Learning Readiness Scale* (Hung et al., 2010). The scale contains five dimensions: computer/Internet self-efficacy, self-directed learning, learner control, motivation for learning, and online communication self-efficacy. This measure was chosen for its psychometric characteristics demonstrating reliability and validity and its suitability to measure the study variables in student online readiness. In a study of 1051 students, Hung et al. (2010) reported the following Cronbach alpha values for reliability: .74 for computer/Internet self-efficacy, .87 for self-directed learning, .73 for learner control, .84 for motivation for learning, and .87 for online communication self-efficacy. Cronbach alpha levels over .70 are considered acceptable values for a reliable construct in social sciences (Fornel & Larcker, 1981). The *Online Learning Readiness Scale* (Hung et al., 2010) exhibits validity with high construct validity using confirmatory factor analysis (CFA) with evidence of convergent validity of all items loading high on corresponding constructs (Hung et al.,

2010). Discriminant validity for all constructs was greater than 0.50, meaning the validity of the constructs was acceptable (Fornel & Larcker, 1981).

This measure contains 18 items specifically designed to measure student readiness to enroll in an online course. The *Online Learning Readiness Scale* contains five dimensions: computer/Internet self-efficacy containing three items, self-directed learning containing five items, learner control containing three items, motivation for learning containing four items, and online communication self-efficacy containing three items (Hung et al., 2010). The measure is scored on a Likert-type scale from *5 = strongly agree* to *1 = strongly disagree*. The self-directed learning dimension includes items related to the learner taking responsibility for learning context to reach their learning objectives (Hung et al., 2010). Learner control involves learners taking control over their learning and efforts of online learners to direct learning with maximum freedom. Motivation for learning is online learners' attitude on learning; computer/Internet self-efficacy is learners' computer and Internet skills (Hung et al., 2010). Online communication self-efficacy, according to Hung et al. (2010), is "learners' adaptability to the online setting through questioning, responding, commenting, and discussing" (p. 1084). Sample items from the self-directed learning dimension and the motivation for learning dimension include *I carry out my own study plan* and *I have motivation to learn*, respectively. These dimensions have been analyzed separately as scales.

Teaching Presence

The *Teaching Presence Scale* (Shea et al., 2005) was utilized to assess the student perception of teacher presence. This measure contains two subscales, instructional design and organization, and directed facilitation, and was chosen because it has

consistently demonstrated reliability and validity. Shea et al. (2006) report the following Cronbach alpha for reliability: .98 for the full scale, .97 for the instructional design and organization subscale, and .93 for the directed facilitation subscale. Cronbach alpha levels over .70 are considered acceptable in determining reliability (Fornel & Larcker, 1981). The *Teaching Presence Scale* is valid for measuring teaching presence because components of directed facilitation contribute to student connectedness to other course participants. The scores for the combined subscales form an effective measure of teaching presence in the online classroom (Shea et al., 2006).

This measure contains 17 items designed to measure student perception on teaching presence in the online classroom. The *Teaching Presence Scale* contains two subscales: instructional design and organization containing six items and directed facilitation containing 11 items. The instructional design and organization subscale questions reflect the setting of curriculum, effective medium utilization, methods design, establishment of netiquette and time parameters establishment (Shea et al., 2006). The directed facilitation subscale questions reflect direct instruction, setting the climate for learning, drawing in participants to prompt discussion, and confirming understanding (Shea et al., 2006). The measure is scored on a Likert-type scale from *5 = strongly agree* to *1 = strongly disagree*. Sample item for the subscale of instructional design and organization is *Overall, the instructor for this course helped me take advantage of the online environment to assist my learning (for example, provided clear instructions on how to participate in online discussion forums.).* One example in the facilitating discourse subscale is, *Overall, the instructor in this course helped to keep students*

engaged and participating in productive dialogue. The total scale score was used in analyses of the study.

Sense of Community

Sense of community was measured with the *Classroom Community Scale* (Rovai, 2002a). The measure contains two subscales, connectedness and learning, and was chosen because it has consistently demonstrated reliability and validity. Rovai (2002a) reports the following Cronbach alpha values for reliability: .92 for the connectedness subscale, .87 for the learning subscale, and .93 for the full *Classroom Community Scale*. Cronbach alpha levels over .70 are considered acceptable in social sciences (Fornel & Larcker, 1981). The *Classroom Community Scale* (Rovai, 2002a) has validated measures of items describing design and organization, direct instruction and facilitation in the two-factor solution analysis. Additionally, Arbaugh et al. (2008) conducted principal component analysis (PCA) that supported the construct validity of Teaching, Social, and Cognitive Presences; accounting for 61.3% of the total variance in scores.

This measure contains 20 items designed specifically to measure the sense of community in the online learning environment. The *Classroom Community Scale* contains two subscales, connectedness and learning, each containing 10 items. The connectedness subscale represents the student community regarding connectedness, spirit, cohesion, interdependence, and trust (Rovai, 2002a). The learning subscale represents the degree to which members share educational goals and satisfaction of educational expectations via student interaction within the student community (Rovai, 2002a). The measure is scored on a Likert-type scale from *4 = strongly agree* to *0 = strongly disagree*. Items 4, 5, 8, 9, 10, 12, 14, 17, 18, and 20 are negatively worded and

are reverse scored *4 = strongly disagree* to *0 = strongly agree*. A sample item for the connectedness subscale is, *I feel connected to others in this course.* A sample item for the teaching subscale is, *I feel that I am encouraged to ask questions.* The total score for community was used in the analyses of the study.

Demographic Information

The demographic questionnaire requested information regarding participant age, gender, ethnicity, hours worked weekly, enrollment status (e.g., full- or part-time), and distance from campus. Participants were asked to state how many online courses they have previously taken and how many online classes they are currently enrolled in.

Procedure

Participants were recruited via the College of Education, Health, and Aviation Sona system, which has approximately 1800 students registered each semester. Student participation in the studies offered on Sona, the college secure online recruitment system, was offered on a voluntary basis. Students were able to log in and complete the studies of their choice. Students may have been offered incentives, such as extra credit, for their participation in research studies or participation may be a course requirement. These options were left to the instructor's discretion. Data were collected using the Qualtrics online survey system, a secure online data collection system. Students interested in the study confirmed consent at the beginning of the survey. A short demographic survey was completed after the survey of study instruments. Data collection began early-Spring 2017 semester and ended mid-Fall 2017 semester.

Data Analysis

In order to respond appropriately to research questions, data analyses began with calculating the descriptive statistics. In addition to mean and standard deviations for each scale, the reliability of each scale was determined. All scales were correlated to determine the relationship between each scale to another. All online readiness dimensions and the total teaching presence scale and total sense of community scale were correlated to determine the relationship between each dimension to the scales. Appropriate follow-up analyses were conducted based on results. Regression analyses were conducted where appropriate.

Summary of Chapter

This study aimed to determine if there is a relationship of online readiness to student perception of teaching presence and class community in the online classroom. The methods utilized in the study aim to provide information about the relationship the online ready student has regarding sense of community. Chapter 4 details the analyses used to determine relationships between scales and subscales as well as discusses the research findings from the study.

CHAPTER IV

RESULTS

The purpose of this study was to determine the relationship of student online readiness to student perception of teaching presence and sense of community in fully-online undergraduate courses. Specifically, the following research questions guided this inquiry:

1) What is the relationship of student online readiness to student perception of teaching presence in online coursework?
2) What is the relationship of student online readiness to student perception of sense of community in online coursework?

Previous research has shown that teaching presence and student sense of community are pivotal in student learning in the online course setting (Comer et al, 2015; Shieh et al., 2008; Wang 2005). Yet, the important characteristics of the learner, specifically readiness to take an online course, has limited research in relation to student ratings of teaching presence and sense of community in online coursework. Based on previous research investigating online readiness, student perception of teaching presence and sense of community were expected to be related to and likely influenced by online readiness for college coursework. This chapter presents the details of the participant

characteristics and the statistical analyses used to respond to the research questions.

Participant Demographics

Research participants included 112 undergraduate students enrolled at a large comprehensive Midwestern university. Participants were from a variety of academic disciplines within the College of Education, Health, and Aviation. Accordingly, of the 112, there were 25 males (22.3 %), 84 females (75%), and three no response (2.7%). Participants race/ethnicity was reported as 94 white (83.9%), six African American (5.4%), five Hispanic (4.5%), four Asian American (3.6%), eight American Indian or Alaskan Native (7.1%), one Native Hawaiian or other Pacific Islander (.9%), four multi-racial (3.6%), and three no response (2.7%). Note there are 125 category selections for 112 participants because participants had the option to select more than one category. There were seven freshmen (6.3%), 26 sophomores (23.2%), 40 juniors (35.7%), 36 seniors (32.1%), and three no response (2.7%). Of the 112 participants, 92 reported being single (82.1%), 14 as being married (12.5%), two as partnered (1.8%), one as divorced (.9%), and three no response (2.7%). For enrollment status, 97 participants were enrolled full-time (86.6%), 12 part-time (10.7%), and three no response (2.7%). Additionally, 28 participants lived on campus (25%), 81 lived off campus (72.3%), and three no response (2.7%) (see Table 1). Ages of the participants ranged from 18 to 44 years of age ($\bar{X}$ = 22, SD = 4.811). Regarding the number of online courses previously taken, scores ranged from 0 to 25 ($\bar{X}$ = 3.91, SD = 4.60).

Table 1

Demographics for Participants

Variable		Dataset $N = 112$ Frequency (n)	Percent (%)
Gender	Female	84	75
	Male	25	22.3
	No Response	3	2.7
Race/Ethnicity	White	94	83.9
	African American	6	5.4
	Hispanic	5	4.5
	Asian American	4	3.6
	American Indian or Alaskan Native	8	7.1
	Native Hawaiian or Other Pacific Islander	1	.9
	Multi-racial	4	3.6
	No Response	3	2.7
Classification	Freshman	7	6.3
	Sophomore	26	23.2
	Junior	40	35.7
	Senior	36	32.1
	No Response	3	2.7
Enrollment Status	Full-time	97	86.6
	Part-time	12	10.7
	No Response	3	2.7
Living	On Campus	28	25
	Off Campus	81	72.3
	No Response	3	2.7

Descriptive Statistics

Descriptive analyses were conducted for the three scales used in the research, *Online Learning Readiness Scale* (Hung et al., 2010), *Teaching Presence Scale* (Shea et al., 2005), and *Classroom Community Scale* (Rovai, 2002a). The reliability, means, and standard deviations of each scale and corresponding subscales are presented in Tables 2, 3, and 4.

Online Learning Readiness Scale

The *Online Learning Readiness Scale* contains five dimensions: computer/Internet self-efficacy with three items, self-directed learning of five items, learner control of three items, motivation for learning has four items, and online communication self-efficacy with three items. These 18 items in five dimensions are designed to measure student readiness to enroll in an online course. The measure is scored on a Likert-type scale from *5 = strongly agree* to *1 = strongly disagree.* Analyses for the subscales are presented in Table 2. Total score analyses for this study resulted in overall scores for computer/Internet self-efficacy ranging from 9 to 15 (n = 112, $\bar{X}$ = 13.48, SD = 1.58), self-directed learning ranging from 11 to 25 (n = 112, $\bar{X}$ = 19.97, SD = 3.24), learner control ranging from 3 to 12 (n = 112, $\bar{X}$ = 6.92, SD = 2.21), motivation to learn ranging from 4 to 13 (n = 112, $\bar{X}$ = 7.19, SD = 2.29), and online communication self-efficacy ranging from 3 to 11 (n = 112, $\bar{X}$ = 5.41, SD = 1.89). Cronbach alpha for reliability was .73 for computer/Internet self-efficacy scale, .81 for self-directed learning scale, .62 for learner control scale, .77 for motivation for learning scale, and .77 for online communication self-efficacy scale. Reliability is adequate for analysis (Fornel & Larcker, 1981).

Table 2

Descriptive Statistics for Online Readiness Dimensions

	Range	N	Min	Max	Mean	SD	Reliability
C/I Self-Efficacy	3 to 15	112	9	15	13.48	1.58	.732
Self-Directed Learning	5 to 25	112	11	25	19.97	3.24	.807
Learner Control	3 to 15	112	3	12	6.93	2.21	.623
Motivation for Learning	4 to 20	112	4	13	7.19	2.29	.770
Communication Self-Efficacy	3 to 15	112	3	11	5.41	1.89	.774

Teaching Presence Scale

The *Teaching Presence Scale* consists of two subscales with instructional design and organization of six items and directed facilitation with 11 items. These 17 items were designed to measure student perception of teaching presence in the online classroom. The measure is scored on a Likert-type scale from *1 = strongly disagree* to *5 = strongly agree*. Possible scores range from 17 to 85, with 17 being the lowest possible score and 85 being the highest possible score. Analyses of the scale and subscales are summarized in Table 3. The total scores ranged from 17 to 74 (n = 111, $\bar{X}$ = 35.02, SD = 13.57). The scores show to be spread with the mean of the scores being on the lower end of the scale. Mean for the instructional design subscale was 11.16. Mean for the directed facilitation subscale was 23.86. Cronbach alpha for reliability of the overall scale was .96, the instructional design and organization subscale was .90, and the directed facilitation subscale was .95. Reliability is adequate for analysis due to Cronbach's alpha reaching .70 (Fornel & Larcker, 1981).

Table 3

Descriptive Statistics for Teaching Presence Total Score and Subscales

	Range	N	Min	Max	Mean	SD	Reliability
Teaching Presence Total	17 to 85	111	17	74	35.02	13.57	.960
• Instructional Design & Organization	6 to 30	111	6	27	11.16	4.54	.902
• Directed Facilitation	11 to 55	111	11	52	23.86	9.60	.950

Classroom Community Scale

The *Classroom Community Scale* contains two subscales of connectedness and learning, each with 10 items. These 20 items were designed specifically to measure the sense of community in the online learning environment. The measure is scored on a Likert-type scale from *0 = strongly disagree* to *4 = strongly agree*, with items 4, 5, 8, 9, 10, 12, 14, 17, 18, and 20 being reverse scored. The range of possible scores for the overall scale is 0 to 80 with 0 being the lowest possible score and 80 being the highest possible score. As indicated in Table 4, analysis of the scale resulted in scores ranging from 10 to 77 (n = 111, $\bar{X}$ = 45.26, SD = 11.67). The scores show to be spread with the mean of the scores being on the higher end of the scale. The connectedness subscale had a mean of 20.65, and the learning subscale had a mean of 24.61. Cronbach alpha for reliability for the total scale was .90, connectedness subscale was .87, and learning subscale with .83. Reliability is considered adequate to proceed with analysis (Fornel & Larcker, 981).

Table 4

Descriptive Statistics for Sense of Community Total Score and Subscales

	Range	N	Min	Max	Mean	SD	Reliability
Sense of Community Total	0 to 80	111	10	77	45.26	11.67	.899
• Connectedness	0 to 40	111	1	38	20.65	6.65	.873
• Learning	0 to 40	111	7	39	24.61	6.42	.832

Correlation Analyses

Correlation analyses were conducted to examine the relationship between online readiness subscales, teaching presence scales and subscales, and class community scales and subscales (see Table 5). Specifically, these relationships give rise to the responses to the research questions for the examination between online readiness and teaching presence, and online readiness and sense of community.

Online Readiness and Teaching Presence

Pearson correlation analyses were conducted to identify correlations between online readiness and teaching presence. As indicated in Table 5, the two dimensions of teaching presence were highly correlated (r = .960) and, therefore, the total score for teaching presence represents the construct. There were significant correlations between online readiness dimensions of computer/Internet self-efficacy (r = -.327, p = .000), self-directed learning (r = -.431, p = .000), learner control (r = .315, p = .0010, motivation for learning (r = .340, p = .000), and online communication self-efficacy (r = .396, p = .000) to overall teaching presence. The correlations between computer/Internet self-efficacy and self-directed learning dimensions were negatively correlated to teaching presence,

meaning that as the student's computer/Internet self-efficacy and self-directed learning increases, the perception of teaching presence decreases.

Online Readiness and Sense of Community

Pearson correlation analyses were conducted to identify correlations between online readiness and sense of community. As indicated in Table 5, the two dimensions of sense of community were highly correlated (r = .899) and, therefore, the total score of sense of community represents the construct. There were significant relationships between online readiness dimensions of self-directed learning (r = .394, p = .000), learner control (r = -.352, p = .000), motivation for learning (-.389, p = 000), and online communication self-efficacy (r = -.356, p =.000) to overall sense of community scale. With the exception of self-directed learning, all readiness dimensions were negatively correlated, meaning that as student readiness in the four dimensions increases, the perception of sense of community decreases. There was no significant correlation between computer/Internet self-efficacy to the overall community scale.

Table 5

Correlations Matrix of Scales and Subscales of Online Readiness (OR), Teaching Presence (TP), and Sense of Community (SC)

Variable	1	2	3	4	5	6	7	8	9	10	11
1. OR-C/ISE	-										
2. OR-SDL	.447**	-									
3. OR-LC	-.271**	-.614**	-								
4. OR-ML	-.401**	-.677**	.535**	-							
5. OR-OCSE	-.544**	-.558**	.486**	.625**	-						
6. TP-Total	-.327**	-.431**	.315**	.340**	.396**	-					
7. TP-IDO	-.340**	-.410**	.282**	.355**	.463**	.913**	-				
8. TP-DF	-.302**	-.416**	.311**	.312**	.341**	.981**	.817**	-			
9. SC-Total	.186	.394**	-.352**	-.389**	-.356**	-.727**	-.615**	-.737**	-		
10. SC-C	.162	.384**	-.390**	-.309**	-.271**	-.608**	-.464**	-.640**	-.897**	-	
11. SC-L	.170	.319**	-.237**	-.387**	-.367**	-.692**	-.637**	-.676**	.889**	.595**	-

Note. *$p < .05$, **$p < .01$

Surprisingly, teaching presence and sense of community, are negatively correlated with this sample.

Regression Analysis

Given the significance of correlations, regression analyses were conducted to examine the relationship between all dimensions of online readiness (computer/Internet self-efficacy, self-directed learning, learner control, motivation for learning, and online communication self-efficacy) and the total score for teaching presence. The two dimensions of teaching presence were highly correlated ($r = .960$) and, therefore, the total score for teaching presence represents the construct. Then, four of the five dimensions of online readiness (self-directed learning, learner control, motivation for learning, and online communication self-efficacy) were regressed on the criterion of the total score of

sense of community. As indicated in Table 5, the two dimensions of sense of community were highly correlated (r = .899) and, therefore, the total score of sense of community represents the construct. In other words, for the dimensions of online readiness, two regression analyses were conducted, one to respond to the question, what is the relationship of student online readiness to teacher presence? And one to respond to the question, what is the relationship of student online readiness to sense of community? These questions were asked to determine the predictive values for the relationship of the dimensions of online readiness to teaching presence and sense of community.

Online Readiness and Teaching Presence

Linear regression analysis was conducted to examine whether student online readiness dimensions had a relationship with student perceptions of teaching presence. Due to the correlation between all dimensions of online readiness and teaching presence, regression was appropriate to determine the predictive value. The dataset met the assumptions of linearity and allowed for regression analysis to be run. As shown in Table 6, the regression analysis examining the predictor variables of student online readiness dimensions (computer/Internet self-efficacy, self-directed learning, learner control, motivation, and online communication self-efficacy) on teaching presence were tested (R^2 = .233, F(5,105) = 6.38, p = .000). This indicates that the model is significant in predicting that the five online readiness dimensions account for 23.3% (R^2= .233) of the overall variance present on perceived teaching presence.

Interpretation of these analysis (see Table 6) revealed that self-directed learning had the most significant predictive value to teaching presence (β = -1.14, t = - 2.07, p = .04). However, note that the prediction is of a negative value. This means that self-

directed learning is predictive of lower perceptions of teaching presence. Or, in order to achieve higher teaching presence scores, learners would need to have lower scores in self-directed learning. Results did not show significant effects of computer/Internet self-efficacy (β = -1.02, t = -1.12, p = .27), learner control (β = .26, t = .38, p = .71), motivation (β = -.68, t = -.09, p = .93), or online communication self-efficacy (β = -1.3, t = 1.46, p = .15)

Online Readiness and Sense of Community

Linear regression analysis was conducted to examine whether student online readiness dimensions had a predictive relationship with sense of community. The dataset met the assumptions of linearity and allowed for regression analysis to be run. As shown in Table 6, the regression analysis examining predictor variable of four student online readiness dimensions (self-directed learning, learner control, motivation, and online communication self-efficacy) and sense of community were significant (R^2 = .205, F(4,106) = 6.83, p = .00). This indicates that the model is significant in predicting sense of community and the five online readiness dimensions account for 20.5% (R^2= .205) of the overall variance present.

Interpretation of these analyses revealed that no dimensions had significant effects on sense of community with self-directed learning (β = .57, t = 1.22, p = .225), learner control (β = -.63, t = -1.06, p = .292), motivation to learn (β = -.75, t = -1.13, p = .26), or online communication self-efficacy (β = -.79, t = -1.10, p = .272).

Table 6

Regression Analysis Predicting Teaching Presence and Sense of Community

Predictors	Teaching Presence		Sense of Community	
	B	*t*	β	*t*
Computer	-1.02	-1.117	-	-
Self-Directed	-1.14	-2.073*	.57	1.220
Learner Control	.26	.375	-.63	-1.058
Motivation	-.07	-.090	-.75	-1.131
Communication	1.29	-1.461	-.79	-1.103
F	6.378		6.828	
R^2 (Adjusted R^2)	.483(.233)		.453(.205)	

Note. *$p < .05$

Summary

The aim of this study was to determine the relationship of student online readiness to teaching presence and sense of community in fully-online undergraduate courses. Correlation and regression analyses were calculated, and results indicated that online readiness dimensions do affect how the student perceives teaching presence and sense of community in the online classroom as a model. Self-directed learning had the only predictive value to teaching presence, but no predictive online readiness dimensions had predictive value to sense of community. Computer/Internet self-efficacy had no predictive value to sense of community. Chapter 5 details the summary of results, conclusions, and implications of the study.

CHAPTER V

SUMMARY, CONCLUSIONS, AND IMPLICATIONS

The purpose of this study was to determine the relationship of student online readiness to student perception of teaching presence and sense of community in fully-online undergraduate courses. Substantial research has been conducted regarding student readiness and online education (Comer et al., 2015; Hung et al., 2010; Platt et al., 2014; Smith et al., 2003). Additionally, research on the relationship of teaching presence and online readiness include qualitative studies from the teacher perspective (Shea et al., 2005; Shea et al., 2006; Shieh et al., 2008). Therefore, research on the relationship of the various dimensions of student online readiness to student perception of teaching presence and sense of community is needed to assist online course designers and instructors in assuring student success in learning.

This study investigated whether student's online readiness influenced their perceptions of teaching presence and sense of community in the online course. Previously, Hung et al. (2010) found that students must take a more active role in their learning if the course is not teacher-centered. As well, understanding student readiness can help teachers develop online courses that will assure students to achieve a better

online learning experience. The CoI model assumes development of a community in order for the online learning to be effective (Rovai, 2002a; Shea, 2006; Thompson & MacDonald, 2005). This community development supports deep learning and meaningful inquiry in the online classroom setting.

This final chapter is presented in three distinct sections. The first section addresses a summary of the study results, and the second section presents conclusions based on the findings of the study. The final section discusses implications of these results within the context of the online undergraduate student in the online classroom, including practice, theory, and suggestions for future research.

Summary of the Results

In the current study, the researcher examined the relationship of the five dimensions of online readiness to student perception of teaching presence and sense of community in fully-online courses through correlational and regression analysis. For the regression analysis, predictor variables that comprise online readiness (computer/Internet self-efficacy, self-directed learning, learner control, motivation for learning, and online communication self-efficacy) were analyzed for their relationship on the criterion variables of teaching presence. Another regression consisted of the analysis of the dimensions of four (self-directed learning, motivation to learn, learner control, and online communication self-efficacy) of the five dimensions of online readiness to sense of community.

The correlational results indicated that five online readiness dimensions had significant relationships to overall teaching presence. The computer/Internet self-efficacy dimension and self-directed learning dimension were negatively correlated with teaching

presence. This negative correlation means that as student confidence increases in navigating the computer/Internet and directing the process of their own course outcome increases, the perception of the teacher's role in the course decreases. The learner control, motivation to learn, and communication self-efficacy dimensions were all positively correlated to teaching presence. The positive correlation means that when learner perceive they are in control, motivated to learn, and confident in online communication, the perception of the teacher's role in the classroom increases. Only self-directed learning is predictive of perceptions of teaching presence (negatively) and the model of online readiness as five dimensions does not predict perceptions of teaching presence. The negative prediction means that higher scores of self-directed learning would predict lower perceptions of teaching presence.

Correlational results of the study indicated that four online readiness dimensions had significant relationships to the overall sense of community. The self-directed dimension was the only positive correlation, meaning that as student perception of directing the learning process and outcome of the coursework increases, they are likely to perceive a greater sense of community in the online course. The learner control, motivation to learn, and online communication self-efficacy dimensions had negative correlations to sense of community, likely indicating that as the student perceives their capacity in these areas, they are likely to perceive a decreased sense of class community. However, there was no significant relationship between computer/Internet self-efficacy and sense of community.

Conclusions

There are three conclusions related to the results of the study when considering the dimensions of online readiness. First, the relationship of motivation to learn, learner control, and online communication self-efficacy to teaching presence and sense of community is discussed. Next, the relationship of self-directed learning to teaching presence and sense of community is presented. Then, the online computer/Internet self-efficacy dimension is presented and discussed.

As student ratings of motivation to learn, learner control, and online communication self-efficacy in the course increase, the perception of teaching presence increases while the perception of sense of community decreases. These findings may be consistent with Hung et al. (2010) who found student's motivational orientation, intrinsic or extrinsic, had an influence on student learning performance in that students desire to enhance their learning and retention of the information from the course. Additionally, learner control allows students to choose the direction of their learning, use their preferences regarding the sequence of viewing materials, and the organization for studying materials in a way best suited for them. In doing so, students feel more empowered, leading them to exhibit better learning performance (Hung et al., 2010). results of the current study may be consistent with Hung et al. (2010) in that students' perception of community is likely less because they feel more empowered in the direction of the course.

Another conclusion is that as students reported increased self-directed learning, teaching presence decreases while sense of community increases. Furthermore, the dimension of self-directed learning was the only significant, but negative predictor for

teaching presence. The prediction would mean that in order to have high ratings of teacher presence, students would need to be less self-directed. The sensibility of this may be questioned. Roper (2007) found that successful online students developed and asked thoughtful questions to facilitate discussions between classmates and the instructor of the course. The students noted that they wanted to go deeper into the learning to make the subject more understandable (Roper, 2007). In the current study, students had greater perception in the design and facilitation of teaching presence in the course than the community they were a part of. Teacher planning and preparation of the course, teacher led discussions, and teacher feedback were perceived to be greater to the student than the community of learners in the course the student is enrolled. This finding is supported by Garrison's (2007) critique that students are less concerned with community if there is no information acquisition.

Second, students rating as confident in directing their own learning have less perceptions of teaching presence. In line with the research by Hung et al. (2010), self-directed learning focuses on learner's abilities to take responsibility for learning to reach his or her learning objectives. This self-directed learning includes student's attitudes, abilities, personality, and responses to online learning. The confidence to direct learning and perceive community in the online course contradicts the finding by Reilly et al. (2012) who found some students felt alone and isolated when taking online courses, felt they had no connection to other students, were invisible, and were unable to express or react to nonverbal communication in an online course. Because students perceive themselves to be in control of learning, the teacher's presence in the continued course via

facilitation and direct instruction (Anderson et al., 2001) is rated as less in the online learning experience.

The final conclusion is a discussion of findings related to the dimension of computer/Internet self-efficacy. Although computer/Internet self-efficacy was not related to sense of community, it was related to teaching presence, but the relationship was negative. This conclusion is supported in previous research findings by Hung et al. (2010) who indicated college students are confident in their computer self-efficacy, ability to manage software, search for information online, and perform basic functions with software. Wang et al., (2015) found that Internet self-efficacy does have influences on one's social interaction, supporting the idea that one's attitude toward internet usage can lead to more frequent use of the internet. It may be assumed that an individual's self-efficacy relating to the computer and Internet can impact the perception of community and teaching presence one has in the online classroom. Internet self-efficacy influences confidence and relevance in an online course; students with higher Internet self-efficacy were more confident and found courses to be more relevant (Chang et al., 2014). Chang et al. (2014) recommend that teachers of online courses become more aware of levels of student Internet self-efficacy at the beginning of the course and offer resources to help the students improve. Additionally, as time goes on with greater and greater use of technology among children and youth, there may be less differences and variability among learners in online courses as related to Internet familiarity and ease in use.

Implications

Based on the conclusions, implications for practice and theory are presented here.

Practice

The aim of this study was to examine whether student online readiness predicts how the student perceives teaching presence and sense of community. Although the intention of the study was potentially to further the preparation of online instructors to the awareness of online readiness, the failure of the model to predicting the outcomes of teaching presence and sense of class community prevented such a statement. Instead, the attention given to student self-directed learning opportunities is highlighted in these conclusions were correlated with teaching presence. There was a positive correlation with student perception of learner control, motivation to learn, and communication self-efficacy on teaching presence in the classroom. The student who perceives having higher control, motivation, and confidence will likely have higher perception of the instructor presence. Whereas a negative relationship was found in the student perceptions of computer/Internet self-efficacy and self-directed learning. Students' perceptions of teaching presence were perceived to be less if they perceived to be confident and motivated in the classroom.

Perhaps a recognition of the autonomy of the learner assists in instructor preparation for online instruction. This might be indicated by the relationship of learner control and motivation to learn. Instead the attention to self-directed learning is positively related to teaching presence, but it has a negative relationship to class community. This suggests online learners need to connect with the instructor but less contention to other classmates.

Theory

CoI posits that teaching presence and social presence are needed for successful learning (Garrison et al., 2000). Although sense of class community is a small subset of social presence (Rovai, 2002a; 2002b), the surprising negative relationship of teaching presence to class community in this study lends to greater study about the relationship of dimensions of online readiness to student perceptions. However, with a sample as small as this study, no conclusions can be readily made.

Additionally, the dimensions of online readiness are likely necessary to consider in a student's readiness to take the online course and the perception he or she has regarding teaching presence and class community. Although this study explores the relationships to sense of community with other classmates, the umbrella construct of social presence might lead to other results supporting the model. Students entering with high online readiness likely do not perceive the instructor or sense of community with other online classmates to be of great significance in the online course setting.

Future Research

This study has weak support in prediction value to the variables of teaching presence and sense of community. Therefore, to gain a better understanding, research further exploring the relationship of online learning to student perception of teaching presence and sense of community is necessary. Deeper research on self-directed learning is also necessary to explore the conclusion of self-directed learning likely predicting teaching presence. Future research should explore whether the increase in self-directed learning sacrifices teaching presence. Online coursework is an ever-growing aspect of

higher education. Helping educators understand how to increase student online readiness is essential for the student success in the online setting.

Ideas for increasing the opportunities for students to succeed would be to have instructor training on course design, as this has proved to be the aspect of teaching presence students are most concerned with. Training in course design will provide the instructor with resources necessary to create an organized and student-friendly course page to guide the student throughout the course. By creating and implementing workshops and orientations regarding the learning platform utilized by the institution, institutions are providing students with resources for success in the online environment. Student orientations and workshops will allow the students to explore the learning platform layout and demonstrate how to access various areas required for the course before the course begins. Additionally, the learning orientation or workshop would decrease the stress of navigating an education platform or course page they are unfamiliar with. Orientations and workshops for both instructor and student will help increase the student success in the online classroom. In addition to student readiness, future research should further examine relationship of teaching presence and class community

One limitation of the study was a small sample size of only undergraduate students enrolled at a large Midwestern university. The majority of participants were female, which did not lend to comparing or finding significant results between male and female participants during the analyses. Additionally, seventy percent of the participants in the study were junior and seniors, limiting the generalizability to all classification levels. However, the demographics gathered posed limitations for the current study, they provide evidence to support additional research in the area of online readiness and how

the students perceive teaching presence and class community. Another important suggestions for future research is the stability of the instruments. The instrument used for online readiness scales was restricted in the number of items for each scale. Future research needs to use valid and reliable scales for each variable.

Concluding Comments

The aim of this study was to determine the relationship of student online readiness to teaching presence and sense of community in fully-online undergraduate courses. While the study had weak support, it was indicated that as students' perception of directing their own learning and the outcome of their coursework increases, there is a greater perception of sense of community. The study also indicated the decrease in teaching presence was perceived to be lower if students had a greater perception of directing their own learning and the outcome of their coursework. Further research is needed to explore any relationship between online readiness, teaching presence, or sense of community in greater depth to expand and contribute to the ever-growing academic area of online education.

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APPENDICIES

APPENDIX A

IRB Approval Letter

Oklahoma State University Institutional Review Board

Date: Wednesday, April 12, 2017

IRB Application No ED1737

Proposal Title: Relationship of student online readiness to teaching presence and sense of community for undergraduate online courses

Reviewed and Processed as: Exempt

Status Recommended by Reviewer(s): Approved Protocol Expires: 4/11/2020

Principal Investigator(s):

Stephanie Widick
2808 Indian Dr
Enid, OK 73703

Diane Montgomery
424 Willard
Stillwater, OK 74078

The IRB application referenced above has been approved. It is the judgment of the reviewers that the rights and welfare of individuals who may be asked to participate in this study will be respected, and that the research will be conducted in a manner consistent with the IRB requirements as outlined in section 45 CFR 46.

☒ The final versions of any printed recruitment, consent and assent documents bearing the IRB approval stamp are attached to this letter. These are the versions that must be used during the study.

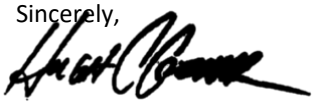
As Principal Investigator, it is your responsibility to do the following:

1. Conduct this study exactly as it has been approved. Any modifications to the research protocol must be submitted with the appropriate signatures for IRB approval. Protocol modifications requiring approval may include changes to the title, PI advisor, funding status or sponsor, subject population composition or size, recruitment, inclusion/exclusion criteria, research site, research procedures and consent/assent process or forms.
2. Submit a request for continuation if the study extends beyond the approval period. This continuation must receive IRB review and approval before the research can continue.

3. Report any adverse events to the IRB Chair promptly. Adverse events are those which are unanticipated and impact the subjects during the course of the research; and
4. Notify the IRB office in writing when your research project is complete.

Please note that approved protocols are subject to monitoring by the IRB and that the IRB office has the authority to inspect research records associated with this protocol at any time. If you have questions about the IRB procedures or need any assistance from the Board, please contact Dawnett Watkins 219 Scott Hall (phone: 405-744-5700, dawnett.watkins@okstate.edu).

Sincerely,



Hugh Crethar, Chair
Institutional Review Board

APPENDIX B

Demographic Information

1. What is your gender? _____ Male _____ Female

2. What is your current age? _____ years

3. What is your current grade level?
   _____ College Freshman _____ College Sophomore
   _____ College Junior _____ College Senior

4. What is your race? Select all that apply.
   _____Black or African American
   _____Asian
   _____American Indian or Alaskan Native
   _____White
   _____Native Hawaiian or Other Pacific Islander
   _____Multi-Racial

5. What is your ethnicity?
   _____Hispanic or Latino
   _____Not Hispanic or Latino

6. What is your current marital status?
   _____ Single _____ Married _____ Partnered
   _____ Divorced _____ Widowed

7. What is your enrollment status?
   _____ Full-time _____ Part-time

8. Do you live on campus? ____ yes _____no

9. If you live off campus, how far do you live from campus? _____ miles

10. How many online courses have you taken? _____

VITA

Stephanie R. Widick

Candidate for the Degree of

Doctor of Philosophy

Thesis: RELATIONSHIP OF STUDENT ONLINE READINESS TO STUDENT PERCEPTION OF TEACHING PRESENCE AND SENSE OF COMMUNITY IN ONLINE COURSES

Major Field: Educational Psychology

Biographical:

Education:

Completed the requirements for the Doctor of Philosophy in Educational Psychology at Oklahoma State University, Stillwater, Oklahoma in July, 2018.

Completed the requirements for the Master of Science in Counseling Psychology at Northwestern Oklahoma State University, Alva, Oklahoma in 2012.

Completed the requirements for the Bachelor of Science in Psychology at Northwestern Oklahoma State University, Alva, Oklahoma in 2008.

Experience: Instructor of Psychology (2015 to Present). Registration Assistant (2011-2015). Fiscal Assistant (2010-2011), Northwestern Oklahoma State University, Alva, Oklahoma.

Professional Memberships: American Psychological Association, American Educational Research Association, Oklahoma Psychological Association.