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Content Analysis of RN to BSN Instructor Postings in Community College Online Discussion Boards

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Walden University
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Abstract

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Dissertation Submitted in Partial Fulfillment

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Abstract

Online community college instructors' failure to effectively utilize asynchronous discussion boards negatively impacts student course outcomes. However, it is unclear exactly what practices instructors use in their discussion boards. The purpose of this qualitative content analysis study was to investigate community college instructors' practices on their discussion boards. The community of inquiry's (CoI) constructs framed the research questions of the social, cognitive, and teaching presences observed in online instructor comments. Data were the discussion boards posts of four online associate to baccalaureate degree nursing instructors from a southeastern United States community college. Data were inductively analyzed using open and a priori coding and categorized according to patterns. The inductive subcategories and categories were then compared to the CoI constructs to form themes. The findings indicated most instructors displayed the social presence subcategories of self-disclosure, showing emotions, complimenting, and using vocatives. The teaching presence CoI subcategories observed were establishing time parameters, effective use of the medium, reinforcing student contributions, and confirming understanding. Three of the four instructors showed little or no evidence of cognitive subcategories in their discussion postings. Recommendations include using the CoI subcategories for guiding instructor practices and administrators' professional development decisions. The results of this study may support positive social change possibilities by providing instructors and administrators with guidelines for strengthening asynchronous online discussion practices.

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Dedication

I dedicate this paper to my wonderful son, Jonathan, who assisted in this process and has too many positive qualities to list. And, of course, to Joshie.

Acknowledgments

My sincerest thanks to Dr. Julie Frese, my faculty mentor who served as my dissertation committee chair. Her professionalism, knowledge, and patience in my learning growth were unwavering. As important was her sense of compassion and understanding with the personal life struggles I encountered during this process. I also thank Dr. Tianyi Zhang Ulyshen, my methodologist, for her expertise, timeliness, and patience. Lastly, I am grateful to the nursing director and participants, who shared part of their work selves during a challenging pandemic.

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Chapter 1: Introduction to the Study

Online course enrollment has increased significantly. Over 6.3 million students in 2016 took at least one course online as compared to 1.9 million students in 2004 (Allen & Seaman, 2004; Seaman et al., 2018). According to the American Association of Colleges of Nursing (AACN), the number of schools offering associate to baccalaureate degree nursing (RN to BSN) programs increased from 59% in 2015 to 80% in 2017; however, this growth comes with certain issues (AACN, 2017). For example, instructors, also known as teachers or educators, often with limited online training or experience, are challenged by which effective instructional approaches to use within their limited time (Martins & Nunes, 2016; Salley & Shaw, 2015). With the increase of online courses and an influx of new online instructors, attention to instructional facilitation is necessary, as their comments can assist students in meeting content learning outcomes and increasing retention (Perfetto, 2019; Rockinson-Szapkiw et al., 2016).

As of 2018, 12-million students enrolled in 1,100 community colleges in the United States (Bumphus, 2018). Community colleges offer a wide range of courses and programs: transfer credits for universities, certifications, associates degrees, and bachelor's degrees (Johnson & Berge, 2012). Being leaders in online education, 97% of public 2-year institutions in 2014 offered online courses, more than any other type of post-secondary institution (Seaman et al., 2018). In 2016, community colleges had 32% of their students taking at least one online course (Seaman et al., 2018). The effect of community college instruction could influence a large population.

Within online courses, much of the course content learning occurs via asynchronous online discussion boards where instructor facilitation occurs (Beckmann & Weber, 2016; Ringler et al., 2015). With instructor scaffolding, students post and collaborate to create an environment for acquiring new knowledge. Written communication replaces oral communication in conversing about complex subject matter for higher-level learning (Champion & Gunnlaugson, 2017; Perfetto, 2019). This learning process requires instructors to take a different approach to facilitation than in face-to-face classrooms (Kennette & Redd, 2015; Martins & Nunes, 2016). For example, establishing an online learning community in asynchronous discussion boards requires well-orchestrated instructor communication, as students face problems often unseen in a traditional classroom (Martins & Nunes, 2016). Students may experience interpersonal isolation, lack of teaching presence, and unclear directions, which becomes a greater problem for community college students (Forbes & Gedera, 2019; Jaggars & Xu, 2016). Without instructors' thoughtful deliberation in creating an online learning community within asynchronous discussion boards, student performance could decline more than when taking the same course face-to-face (Gregory & Lampley, 2016). Therefore, it is necessary to further examine and understand online instructor facilitation to create and sustain a learning community for students to reach course content outcomes.

My intent in this study was to investigate online nursing instructor comments in asynchronous discussion boards at the community college setting. I chose this group due to the recent growth in recruiting nursing instructors necessary to meet society's demands. To support 20% of the United States' population between the ages of 54 to 71,

the US Department of Labor (2018) estimated a need for one million new and replacement nurses by 2026. Board members of the Institute of Medicine (2018) recommended the percentage of nurses with baccalaureate degrees or above increase from the 2016 rate of 54% to 80% by 2020. Within the United States, the RN to BSN offered by community colleges has the second-lowest graduation rate of nursing programs at 83% (Perfetto, 2019). Therefore, further examination of online discussion board practice for this population of community college instructors is needed. Specifically, I focused on instructor interactions with social, cognitive, and teaching elements, as they influence student learning outcomes at other levels of post-secondary (after high school) education (Broadbent & Poon, 2015; Eom & Ashill, 2016; Kennette & Redd, 2015; Khoule et al., 2015). To better assist students in meeting content outcomes, research has shown instructors should use online comments to instruct, create a social environment, and facilitate higher-level thinking (Gregory & Lampley, 2016; Richardson et al., 2016). Analysis of instructor comments could provide understandings into improving the discussion board environment.

Chapter 2 includes a brief background of asynchronous discussion boards, the instructors' role in discussions, and the literature gap. I address the problem statement, the purpose of the study, the research question, the theoretical framework, and the study's nature. This chapter includes necessary definitions, assumptions, scope, delimitations, limitations, and the study's significance.

Background

As noted, one major feature of online courses distinguishing them from traditional courses is the use of asynchronous online discussion boards. In the online learning environment, instructors often require students to post within a determined timeframe on a topic or discussion question found within a learning management system (LMS), such as Blackboard or Schoology (Gregory & Lampley, 2016; Hancock, 2016). Online asynchronous discussion boards, comparable to face-to-face discussions in traditional classrooms, are essential to student achievement and satisfaction (Covelli, 2017; Gregory & Lampley, 2016).

Many factors contribute to student success at the post-secondary level. Some influences include self-efficacy, time management, technology efficacy, persistence, and motivation (Gregory & Lampley, 2016; Jaggars & Xu, 2016). Although some influences may be outside the control of post-secondary institutions, instructor management and facilitation in asynchronous online discussions help improve student learning outcomes (Kennette & Redd, 2015; Khoule et al., 2015; Ringler et al., 2015). The lack of instructor facilitation can impact learner self-efficacy, persistence, and motivation (Chakraborty & Nafukho, 2015). Consequently, instructors can positively or negatively influence student outcomes in online courses.

Online students face unique problems, such as lack of instant responses to questions and remoteness; face-to-face students do not have these same challenges (Claywell et al., 2016; Kennette & Redd, 2015). Although online courses are convenient because students have the flexibility to work at their discretion, persistence is an issue

confronting online students (Huntington-Klein et al., 2017). Students become frustrated at not communicating synchronously and can lose confidence (Huss et al., 2015; Phirangee & Malec, 2017). This social feedback shortage can negatively affect students' academic self-efficacy, affecting their grades (Smits & Voogt, 2017). Accordingly, the complexity of these cognitive and social intricacies requires instructors to pay greater attention to creating a dynamic learning atmosphere to improve students' learning outcomes.

Instructor facilitation can escalate needed online socialization and enhance cognitive learning that impacts student outcomes (Brierton et al., 2016; Hong, 2015; Jaggars & Xu, 2016). Knowing this, Garrison et al. (2000) created the community of inquiry (CoI) process consisting of established behaviors (subcategories) for online learning. The CoI framework consists of three overlapping presences within discussion boards to support increased student learning outcomes (Garrison et al., 2000). The CoI constructs, or categories, include social, cognitive, and teaching presences. Ideally, the instructor actively engages students in the learning process by encouraging online interaction, which is part of the social presence (Garrison & Akyol, 2015). Through instructor-facilitated communications, students who initially perceive online posts as impersonal can become actively involved in their learning process, raising student satisfaction and leading to higher student persistence (Chakraborty & Nafukho, 2015; Smits & Voogt, 2017). Teaching presence is enacted by instructor facilitation with socialization and cognitive attributes in the discussion board, leading to higher cognitive activity among students, or cognitive presence, demonstrated with higher grades (Kozan,

2016; Rockinson-Szapkiw et al., 2016; Saadatmand et al., 2017). The complex instructor facilitation process has learning ramifications if not implemented appropriately, specifically lower student outcomes or reduced retention.

The presences' interrelationship becomes even more imperative and challenging on the community college level with a higher at-risk population. Many students have persistence problems, time-management issues, and less refined higher-level thinking skills (Huntington-Klein et al., 2017; Jaggars & Xu, 2016). The higher at-risk population in community college versus other post-secondary schools may exist due to lower entry requirements, full-time employment, lower self-efficacy, and family obligations (Jaggars & Xu, 2016; Moschetti & Hudley, 2015). As a result, many online community college instructors are uncertain about assisting those with learning challenges (Jaggars & Xu, 2016; Kennette & Redd, 2015). Therefore, instructors could benefit from the knowledge of effective online facilitation and research-based investigations. Using the constructs of the CoI framework of social, cognitive, and teaching presences to further the research of nursing instructor comments in asynchronous discussion boards could improve instructional facilitation at community colleges by identifying possible weaknesses in teaching methods and provide suggestions for improvement (Farmer et al., 2017; Kennette & Redd, 2015; Perfetto, 2019).

The knowledge of instructional facilitation practices is necessary as the current literature demonstrates online instructors are not adequately facilitating asynchronous discussion boards leading to lower online student outcomes than face-to-face classrooms (Covelli, 2017; Hart et al., 2018; Jaggars & Xu, 2016; Kennette & Redd, 2015; Salley &

Shaw, 2015). Although examination of instructor posts are available at the graduate level, insufficient literature is available of instructor comments at the community college level, especially in nursing programs (Chaffin & Jacobson, 2017; Covelli, 2017; DellAntonio, 2017; Farmer et al., 2017; Jaggars & Xu, 2016; Perfetto, 2019; Salley & Shaw, 2015). Additionally, existing research focuses on student or instructor perspectives through interviews and quantitative survey studies. Scant literature is presented on qualitative content analysis using community college transcripts. This lack of literature extends to investigating social, cognitive, and teaching elements of online instructor facilitation to enhance student learning in the discussion board environment (Garrison & Akyol, 2015), further discussed in the framework section.

The increased growth of online nursing programs in community colleges requires additional research to investigate instruction quality (Farmer et al., 2017; Perfetto, 2019). As mentioned before, the examination of online instructor practice is vital as the RN to BSN has the second-lowest graduation rate of nursing programs (Perfetto, 2019). Therefore, analyzing nursing instructor comments in asynchronous online discussion boards could address the gap in understanding their practices and provide additional knowledge for further research (DellAntonio, 2017; Farmer et al., 2017; Perfetto, 2019; Voutilainen et al., 2017). Instructors will have increased knowledge to reflect on their practices. As nursing student enrollment increases, studying current practices could help find instructor facilitation requiring improvement, professional development content, needed course design, and new instructor evaluation processes.

Problem Statement

A key component of the higher education learning environment is asynchronous online discussion boards necessitating a variety of instructional practices (Covelli, 2017; Garrison, 2017; Gregory & Lampley, 2016; Hong, 2015). Online instructors require content knowledge but should also possess unique instructional skills to create an environment of trust and encourage higher-level cognitive competence, such as analyzing, evaluating, and creating (Kozan, 2016; Richardson et al., 2016; Rockinson-Szapkiw et al., 2016; Saadatmand et al., 2017). Researchers created the CoI process to help instructors create an online environment conducive to learning (Garrison & Akyol, 2015). According to this validated framework, online instructors are encouraged to use social, cognitive, and teaching comments to question, encourage, praise, and motivate students to work together on online discussion boards, which occurs more organically in face-to-face courses with discussions and interactive activities (Garrison, 2017; Jaggars & Xu, 2016; Richardson et al., 2015). However, for various reasons, such as time restraints or lack of professional development, many online instructions are not using the principles of the CoI to enhance the learning environment (Khoule et al., 2015; Salley & Shaw, 2015).

Online instructors at various post-secondary education levels who use the three CoI presences practices of social, cognitive, and teaching have increased student learning outcomes (Mills et al., 2016; Padilla & Kreider, 2018; Saadatmand et al., 2017). Conversely, other study results showed student outcomes decline when instructors fail to use practices found to enhance the discussion board learning environment (Chakraborty

& Nafukho, 2015). The problem is that community college online instructors' lack of CoI behaviors in discussion boards contributes to lower student learning outcomes than face-to-face course outcomes (Covelli, 2017; Jaggars & Xu, 2016; Kennette & Redd, 2015; Salley & Shaw, 2015). The discussion postings of community college online course instructors lack investigation regarding the three CoI presences of social, cognitive, and teaching presences, which increase online learning outcomes (Perfetto, 2019). This gap of the lack of investigation of instructor discussion board comments includes instructors in community college nursing programs. Thus, examining nursing instructor posts could provide knowledge into their strategic use of comments and any possible instruction gaps.

The literature shows the importance of online instructor facilitation at many educational levels; however, in the community college setting, understanding instructor postings to students is often an ignored area of research (Arbaugh, 2010; Gregory & Lampley, 2016). Although previous researchers have explored instructor comments at the graduate level, it is limited at the community college level and rarely studied through qualitatively examining transcripts (Eom & Ashill, 2016; Lee, 2014; Ouyang & Scharber, 2017; Richardson et al., 2016; Rockinson-Szapkiw et al., 2016). At the community college level, the few quantitative and qualitative studies results indicate lower online student outcomes, unsatisfactory online instruction from student perspectives, and the need for further research examining instructor practices (Gregory & Lampley, 2016; Jaggars & Xu, 2016; Khoule et al., 2015; Salley & Shaw, 2015; Wladis et al., 2015). Using student perspectives to assess online instructor presence can be problematic as

results can be biased (Boring et al., 2016)). Such student biases include the gender of the student, the gender of the instructor, timely grading, and grade expectations, all variables that are difficult to control (Boring et al., 2016). As an outsider to the environment, I examined the written instructor comments using the CoI lens, requiring no student or instructor perspectives.

Online nursing education researchers cite the need for further examination of courses as the growth of community college nursing programs continues, and students experience online learning issues, such as lower persistence, isolation, and less critical-thinking skills (DellAntonio, 2017; Farmer et al., 2017; Perfetto, 2019; Voutilainen et al., 2017). Obtaining the knowledge of instructors use of discussion posts is relevant as it could reveal possible gaps in instructional practices, which are necessary to plan and execute approaches to meet online student outcomes (Chaffin & Jacobson, 2017; DellAntonio, 2017; Farmer et al., 2017; Perfetto, 2019; Voutilainen et al., 2017). Therefore, analyzing the content of community college nursing instructor posts in asynchronous online discussion boards is paramount.

Purpose

Online instruction requires specialized techniques and processes to overcome possible problems, such as lack of immediate feedback or remoteness, created by the asynchronous online environment to deliver a quality learning experience (Phirangee & Malec, 2017). In most online courses, instructor-student communications are purely digital, with instructor comments playing a vital role in increasing student motivation and engagement (Chakraborty & Nafukho, 2015; Jan, 2018; Mills et al., 2016; Smits &

Voogt, 2017). Effective instructor comments can also increase student self-efficacy, leading to improvements in higher-level thinking skills, especially in the community college setting where these skills may be less refined (Jaggars & Xu, 2016; Richardson et al., 2016). With the growing numbers of online nursing students and changes in online education, understanding current instructional practices is essential to student learning, which assists in leading the way to further research, especially in asynchronous discussion boards where a major part of learning takes place (Gregory & Lampley, 2016; Kennette & Redd, 2015).

The purpose of this study was to describe nursing instructor comments in asynchronous online discussion boards in a community college setting to determine if their comments are social, cognitive, or teaching-based. It is my hope that this investigation will increase online student learning outcomes to the same level as face-to-face program outcomes. In this qualitative content analysis study, I used a CoI framework to focus on community college instructor comments in courses required for the nursing program, as students in this environment struggle with online discussion boards more than students at other post-secondary institutions (Hart et al., 2018; Jaggars & Xu, 2016; Richardson et al., 2016). The target population included nursing instructors facilitating online RN to BSN program courses at a community college. This study may advance the knowledge base of instructional practices at the community college level leading to possible improvements in online instruction, professional development, course design and curriculum, and instructor evaluations.

Research Questions

Asynchronous discussions allow students to share and expand their knowledge with their peers while skilled instructors facilitate the learning process (Garrison, 2017). However, instructors do not always apply optimal strategies. This qualitative content analysis study using instructor transcripts from asynchronous online discussion boards addressed the following research questions:

Research Question 1: What types of social presence are demonstrated in asynchronous online discussion posts by nursing instructors in a community college?

Research Question 2: What types of cognitive presence are demonstrated in asynchronous online discussion posts by nursing instructors in a community college?

Research Question 3: What types of teaching presence are demonstrated in asynchronous online discussion posts by nursing instructors in a community college?

Conceptual Framework

Asynchronous discussion boards in online courses shift the learning experience from face-to-face interaction to an online learning environment. The discussion boards' concept is that students form a group who collectively constructs knowledge or creates a collaborative learning event (Garrison & Akyol, 2015). The instructor strives to increase cognitive-thought processes, such as critical thinking and problem-solving, through specific online comments raising the group's social interaction creating a learning climate (Garrison, 2017).

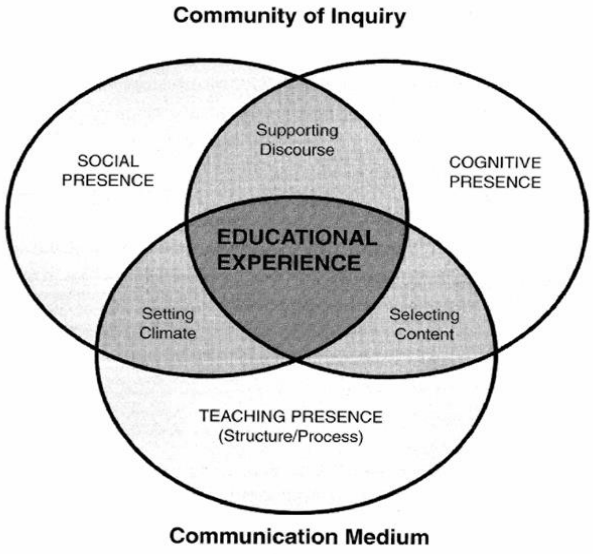
The framework for understanding the instructor-student, student-student, and student-content interactions in the discussion boards is the CoI. Garrison et al. (2000)

established this framework from the social sciences of Lipman (1991), who noted community is necessary for higher-order thinking, and Dewey (2012), who observed learning evolves from psychological and sociological collaboration. I grounded and viewed this study through the CoI. The framework is used explicitly for online teaching and learning in higher education and for studying online discussion appropriate for reviewing transcripts (Garrison & Akyol, 2015).

The CoI visual model is a Venn diagram of three overlapping groups consisting of a social presence, cognitive presence, and teaching presence interacting to create a meaningful learning environment (see Figure 1). Research has revealed social presence is a forerunner and the backbone to collaboration, critical discourse, and reflection properties of cognitive presence (Garrison, 2017; Saadatmand et al., 2017; Tirado-Morueta et al., 2016). Cognitive presence will increase if social presence remains (Garrison, 2017). Teaching presence using conscious course design and facilitation with learning members is formative to sustain and progress the social and cognitive presences. Ideally, all discussion board members should participate in all three presences' behaviors, forming an online learning community (Garrison, 2017). Thus, student learning relies on the instructors' thoughtful actions in building a constructive learning process that assists students in collaboration to reach learning outcomes (Garrison et al., 2000).

Figure 1

The Interrelationship of the Community of Inquiry



Note. From "Critical Inquiry in a Text-based Environment: Computer Conferencing in Higher Education," by D. R. Garrison et al., 2000, *The Internet and Higher Education, 2*(2-3), p. 88.

The CoI framework's basis is constructed on the attributes, or subcategories, of the three presences to create a community working towards acquiring knowledge. Teaching presence is defined as designing, organizing, and facilitating the cognitive and social processes to create a learning environment so students may reach their learning outcomes (Pollard et al., 2014). The types, or categories, of teaching presence consist of *direct instruction, facilitating discourse*, and *instructional design and organization* (Shea et al., 2010). Social presence within the framework is the ability to be thought of as a person in an online environment through social and affective communication, often related to student satisfaction and perceived learning (Pollard et al., 2014). Social

presence types include *affective expression, open communication,* and *cohesive group* comments (Tirado-Morueta et al., 2016). Lastly, cognitive presence consists of the problem-solving tasks of *triggering, exploration, integration,* and *solution* (Tirado-Morueta et al., 2016). The instructor use of presence tasks, known as subcategories in this study, is beneficial in supporting student needs in the discussion board.

I focused on nursing instructor comments in asynchronous online discussion boards. Teaching presence includes the pedagogical strategies that facilitate and maintain the social and cognitive presences (Garrison & Akyol, 2015), requiring skillful instructor conveyance. Due to community college students' characteristics, often with less-defined self-regulating learning skills than graduate-level students, the instructors frequently need to devote more attention to the social and cognitive presence (Jaggars & Xu, 2016). I used the constructs of the CoI for the conceptual framework, or lens, for this study's content analysis to address each of the research questions.

Nature of the Study

I used a qualitative content analysis research design to understand the types of nursing instructor comments demonstrated in the setting of asynchronous discussion boards in a community college. Qualitative content analysis is useful in analyzing text and construing a phenomenon's meaning, specifically online transcripts of nursing instructor comments (Elo et al., 2014). The advantage of using transcripts (archival data) is that the participants do not know they are observed and will not change their instructional approach to satisfy study results (Wienclaw, 2013). Using an inductive approach to qualitative content analysis, I used open coding, subcategorization, and

categorization (Elo & Kyngas, 2008; Hsieh & Shannon, 2005; Saldaña, 2016). The coding to categories was data-driven or emerged from the data without preconceived outcomes (Patton, 2015). My subcategories and categories were then compared to the CoI social, cognitive, and teaching presences subcategories and categories to answer the research questions. I noted codes outside the CoI.

I collected data from asynchronous online discussion board transcripts from seven online nursing courses from four instructors in a United States community college. The use of the transcripts did not involve any student data. All students had prior online experience. In this qualitative content analysis study, I analyzed nursing instructor comments from online discussion board transcripts. I then described the results according to the CoI with three dimensions of social, cognitive, and teaching presences.

Definitions

Asynchronous discussion boards: Asynchronous discussion boards are a part of online courses where students post discussion threads in response to a topic, other comments, and questions at a time of their choosing (Brierton et al., 2016).

Cognitive presence: Cognitive presence is the extent to which online students can validate and construct knowledge based on communication and thinking (Garrison, 2017).

Instructional scaffolding: Instructional scaffolding is the strategy instructors employ to advance students to higher-level thinking or raise cognitive learning levels (Gašević et al., 2015).

Online courses / Online education: Online courses or online education are also known as distance education courses. Instructors complete all communication and learning electronically with no face-to-face meetings (Seaman et al., 2018).

Perceived learning: Perceived learning is a student's self-evaluation of their knowledge and understanding gained from a learning experience (Rockinson-Szapkiw et al., 2016).

Social presence: Social presence is the ability to be thought of as a person in an online environment using social and affective communication to create purposeful relationships (Garrison, 2017).

Student learning outcomes: In this study, student learning outcomes refer to the students' expected course content outcomes (Eom & Ashill, 2016).

Student motivation: Student motivation is the psychological aspect that compels a student to do an activity for inherent satisfaction (internal motivation) or to reach a particular outcome (external motivation) (Ryan & Deci, 2000).

Student persistence: Student persistence is a self-measurement of students' progress towards their goals or the course outcomes (Haydarov et al., 2013).

Student satisfaction: Student satisfaction, also known as student self-satisfaction, is how positively students feel about their learning experiences and is often related to educational support, teaching quality, and perceived course value (Saif, 2014).

Student self-efficacy: Student self-efficacy is the students' belief in their success in the learning environment and is associated with student satisfaction (Kuo et al., 2014).

Subcategories: In this study, CoI subcategories are interchangeable with CoI behaviors.

Teaching presence: Teaching presence is defined as designing, organizing, and facilitating the cognitive and social presences to create a learning environment so students may reach their learning goals (Garrison, 2017).

Assumptions

I made several assumptions made in this study. The first assumption was the discussion board transcripts I obtained are a good representation of nursing instructor comments made at the selected community college. To meet this assumption, I received all four nursing instructor postings from the seven of eight online nursing courses required for the RN to BSN program in 2020 at this community college. I also assumed the data received was a complete list of all the selected course discussion boards' transcripts. Clear communications with the nursing director ensured that I obtained accurate data. These assumptions were necessary for the context of this study as a different conceptual lens may produce other outcomes.

Scope and Delimitations

In this study, I focused on asynchronous nursing instructor comments in online courses offered at a community college. Researchers have investigated discussion boards at the graduate-level to a greater extent (Martin et al., 2018; Rockinson-Szapkiw et al., 2016). Graduate-level students have more educational experience than community college students, who tend to have lower self-efficacy and persistence rates (Jaggars & Xu, 2016). Four-year nursing programs are predominately on-campus or blended, not

exclusively online (Fowler et al., 2018). Community college online RN to BSN courses was the selected data source as the literature is limited in this area, and the online programs are expanding (Farmer et al., 2017). I used only one community college for ease of sampling, limiting transferability to other community colleges. I did not choose massive open online courses (MOOC) as the dynamics differ significantly, such as participant level is high at the start of the course but quickly drops with little to no personal instructor feedback (Margaryan et al., 2015). I selected the nursing instructor population as the courses required in nursing programs at community colleges have been shown to have the most significant learning outcome gaps among online settings versus face-to-face settings, possibly due to the high level of instructor-student interaction needed (Jaggars & Xu, 2016). Additionally, community college nursing programs are increasing as the need for quality nurses grows, and content knowledge and higher-level thinking skills are necessary for their profession (Osborne et al., 2018).

Previous researchers have used qualitative and quantitative methods to study instructor comments in discussion boards from my literature review. Most researchers studying online instructor facilitation used student surveys; however, the researchers who did study online transcripts do so quantitatively or as a mixed-methods approach and few at the community college level (Jaggars & Xu, 2016; Kennette & Redd, 2015; Kozan & Richardson, 2014; Mills et al., 2016; Smits & Voogt, 2017). I chose a qualitative approach that individually examined instructor comments rather than student perspectives, as students may not be qualified to identify quality instructor practices.

The CoI is a commonly used framework for studying instructor comments (Garrison & Akyol, 2015). This framework was selected for its exclusiveness to online education and is a validated process dealing with all aspects of discussion boards (Garrison, 2017). Other possible frameworks considered included the transactional distance theory by Moore (1989) and Bloom's taxonomy (Adams, 2015). The transactional distance theory has less defined constructivist-led cognitive presence constructs, focusing more on online learning's social element (Paul et al., 2015). On the other hand, Bloom's taxonomy tends toward cognitive domains with no social standards (Adams, 2015). I chose the CoI as the conceptual framework for its social, cognitive, and teaching elements, which is the most comprehensive online learning approach (Garrison, 2017).

Limitations

There were limitations to this qualitative content analysis study. I did not consider instructor facilitation that might occur through emails, announcements, or other LMS areas. The results are within one community college setting, the courses studied, and an urban environment. Using more community colleges with a variety of instructor styles may produce different results.

Patton (2015) maintains that objectively analyzing data gives studies credibility. Therefore, I based my results on instructor comments and not my own biases or past experiences. I established a well-documented audit trail that narrated and justified the systematic organization of data, the coding and categorization process, and the final data

analysis process. The audit trail included a comprehension explanation of my approach, decision-making, and outcomes.

Significance

As online education continues to develop and technology advances, it is critical to examine instructor practices to improve student success, especially in nursing programs. Many students at community colleges struggle with online courses due to a lack of social, cognitive, or teaching presence (Covelli, 2017; Hart et al., 2018; Jaggars & Xu, 2016; Kennette & Redd, 2015; Salley & Shaw, 2015). However, instructor practices can help students reach their goals (Chakraborty & Nafukho, 2015; Mills et al., 2016; Smits & Voogt, 2017). The results of this study contribute to the body of literature by adding a deeper understanding of community college nursing instructor comments in asynchronous online discussion boards, where much student socialization and learning takes place (Brierton et al., 2016; Kennette & Redd, 2015; Kozan & Caskurlu, 2018).

Positive social change may result in community college instructors reflecting on their instruction and applying improved skills in asynchronous online discussion boards. Instructors could then address any unproductive practices and share effective methods. However, without examining current practices, it is difficult to know what to change and how to change them effectively (Lee & Martin, 2017; Martin et al., 2018). This study could assist instructors in understanding how to facilitate learning for students in online discussion boards.

This study's results could help nursing administrators support community college instructors by providing direction in decisions to strengthen instruction. Professional

development designers and evaluators may use the results of the study to support changing online instructional practices. With this study's results, course designers could become more conscious of the importance of the cognitive and social presences and design discussion board tasks to increase both presences. With the higher demand for online courses needing nursing community college instructors, training is a valuable necessity to provide students with favorable opportunities. The CoI framework and methods could improve professional development opportunities for instructors to assess their online practices. Furthermore, the study's framework and categorization could be a useful evaluation tool for supervisors to strengthen instructor skills by seeking teaching behaviors conducive to learning in discussion boards.

Summary

Community college nursing students are struggling to reach learning goals on asynchronous online discussion boards. Research has shown that teaching presence can help increase student learning outcomes for this problem (Martin & Bolliger, 2018; McKinney, 2018; Osborne et al., 2018; Richardson et al., 2015). However, a gap exists in online instructor facilitation practices in discussion boards at the community college level of education (DellAntonio, 2017; Farmer et al., 2017; Perfetto, 2019; Voutilainen et al., 2017). The literature is plentiful in graduate or doctoral programs online instructors but lacking in two-year programs where students' characteristics differ, and instructor facilitation may vary. This study includes additional information on nursing instructor comments and practices in community college courses. The results of the study could assist instructors in reflecting on or improving their online instructional practices.

The study of instructor comments to create and facilitate a learning environment is paramount to online community college nursing education. Thus, I conducted a qualitative content analysis study with a CoI foundation using data consisting of instructor postings transcripts for required RN to BSN program courses. In Chapter 2, my focus was the CoI framework and the examination of instructor postings in asynchronous online discussion board studies.

Chapter 2: Literature Review

With the number of rapidly increasing technology changes and the necessity of further education for employment, community colleges are now offering more online courses (Travers, 2016). One such program is the advancement of an associate to a baccalaureate degree for registered nurses called the RN to BSN program (DellAntonio, 2017). This addition of courses requires more instructors with effective online teaching strategies to meet learner needs (Farmer et al., 2017; Perfetto, 2019). Although nursing instructors are competent in their content area, they may need additional support in online educational strategies (Farmer et al., 2017; Kennette & Redd, 2015; Perfetto, 2019). Therefore, the need to research community college education should continue.

In online courses, learning occurs in asynchronous discussion boards by sharing and building knowledge (Huss et al., 2015). Students respond to a prompt and others' posts within an agreed time frame in many online community college degree courses and graded on it (Jan, 2018; Osborne et al., 2018). The discussion board is student-centered and based on the assumption of peer-learning through collaboration to acquire content knowledge, increase understanding, and improve critical thinking skills by responding to others' comments (Garrison & Akyol, 2015; McKinney, 2018). Students' initial posts and responses create an expression of ideas, enhance critical thinking ideas, allow exploratory learning, and improve reflection (Osborne et al., 2018). In an exploratory mixed-methods study, results showed nursing students found the use of online discussion boards assisted in creating a sense of student community, allowed students to apply critical thinking skills, and supported course content interactions with instructor scaffolding and feedback

(Osborne et al., 2018). Well facilitated discussion boards contain instructor comments that engage students in course topics for higher-level discussion to enhance learning.

As the classroom environment changes, the instructor must make adaptations. Instructional practices that were effective in face-to-face classrooms need modifications for the online environment to increase student motivation, satisfaction, persistence, and higher-level thinking to help students achieve learning outcomes (Chakraborty & Nafukho, 2015; Forbes & Gedera, 2019). Instructors become mentors, facilitators, and coordinators to engage students in the online discussion (Martin & Bolliger, 2018). Without instructional engagement comments, such as encouraging, scaffolding, and clarifying information, students will limit their participation in the discussion board, reducing their learning opportunities (Martin & Bolliger, 2018; McKinney, 2018). As a result, instructors should set the norms and establish relationships for discourse within the discussion board (Richardson et al., 2015). Instructors should create a *presence*, a sense of being there for the student for support and guidance, because when students feel socially secure, it creates an environment conducive to learning (Micari & Pazos, 2016; Richardson et al., 2015). Accordingly, the chief role of instructors in discussion boards is to create a meaningful learning setting.

If instructors do not support creating a learning environment through their teaching presence, student performance can decline in the online environment. A problem in the community college setting is that many instructor's asynchronous online discussion practices lead to lower student learning outcomes than do face-to-face classrooms due to the lack of instructor implementation of the behaviors of social, cognitive, and teaching

presences (Covelli, 2017; Hart et al., 2018; Jaggars & Xu, 2016; Kennette & Redd, 2015; Salley & Shaw, 2015). However, these outcomes are based primarily on quantitative survey studies, not through a qualitative examination of transcripts. Thus, online discussion facilitation posts of nursing instructors at community colleges need further investigation through the lens of the CoI, a practicing online framework shown to increase student learning outcomes.

Instructor comments that increase the social environment create respectful communications and a level of trust, often improving student participation and satisfaction, which can lead to higher student learning outcomes through cognitive discourse on discussion boards (Champion & Gunnlaugson, 2017; Garrison & Akyol, 2015). On the other hand, students who experienced little social interaction and a lack of instructor comments felt isolated and as if they were teaching themselves, which can contribute to lower student outcomes (Forbes & Gedera, 2019; Salley & Shaw, 2015). Additionally, if scaffolding does not occur, students may never progress to achieve learning outcomes (Jan, 2018). Conversely, the increase of quality instructor comments positively affects student satisfaction and learning outcomes (Garrison & Akyol, 2015; Kennette & Redd, 2015; Ringler et al., 2015; Smits & Voogt, 2017). Instructor comments can affect student success in asynchronous discussion boards on a social and cognitive level.

With the increasing enrollment in online nursing programs in community colleges, additional research is necessary to maintain quality instruction (Farmer et al., 2017; Perfetto, 2019). Investigating instructional practices can lead to plans for

improvements that may assist in improving student learning outcomes. Some concerns have emerged with more online course offerings, including lower student learning outcomes than those in the traditional setting (Gregory & Lampley, 2016; Huntington-Klein et al., 2017). Many factors, such as student learning styles, may contribute to these problems; nevertheless, the teaching methods of online instructors are one of the major factors influencing the atmosphere and effectiveness of online courses (DellAntonio, 2017; Jan, 2018; Rockinson-Szapkiw et al., 2016; Smits & Voogt, 2017). Community college students taking face-to-face courses perceive higher social presence than online students due to the course environment's nature requiring online students to need more support and encouragement from instructors (DellAntonio, 2017; Gregory & Lampley, 2016). Therefore, with the current differences in outcomes between face-to-face and online courses, instructors need to use different skills in discussion boards to assist in improving community college students' course outcomes.

The purpose of this study was to describe nursing instructor comments in asynchronous online discussion boards in a community college setting to determine if their comments are social, cognitive, or teaching-based. This investigation should assist in increasing online student learning outcomes to the same level as face-to-face program outcomes. Without an understanding of instructor posting content, improvements to their instruction are difficult to target.

Contained in the literature review is my literature search strategy, an analysis of the role instructor comments have in discussion boards, the conceptual framework of the

study, and its application in similar studies. I also examined past research on teaching presence and dialogue to increase students' cognitive and social presences.

Literature Search Strategy

The literature review included empirical studies from peer-reviewed journals to investigate the instructor roles and posts in asynchronous online discussion boards. Electronic databases that I used to collect the information for this literature review included ERIC, Thoreau, Education Source, Science Direct, SAGE, ProQuest Central, Merlot, and Google Scholar. Additionally, the journals I searched included the *Journal of Interactive Online Learning, Community College Enterprise,* and the *Journal of Asynchronous Learning Networks.* The keywords or phrases that I used in searches encompassed *asynchronous discussion boards*, *RN to BSN education, online nursing education, teaching presence, social presence, cognitive presence, online learning, nursing online, community college, outcomes, instructor-learner interactions, CoI,* and *teacher roles*.

The empirical studies I reviewed were qualitative, quantitative, and mixed methods in nature. Studies without an entire online learning component, such as blended learning, or a K–12 population, I did not consider. Additionally, I excluded MOOC studies in my search as their discussion boards' dynamics are different because of their size and non-payment component. Due to limited nursing research studies regarding instructor postings at the community college level, I included some undergraduate- and graduate-level studies in other subject areas for the effects of social, cognitive, and teaching presences as many students have similar needs.

Community of Inquiry

I selected the CoI framework to guide this study, because it is used explicitly for online teaching and learning in higher education asynchronous discussion boards (Garrison & Akyol, 2015; Garrison et al., 2000). Since 2000, researchers of the CoI have offered meaning to interpersonal behaviors often occurring in discussion boards and approaches to improve student learning (Garrison et al., 2000; Miller et al., 2014). Philosopher John Dewey's (2012) belief was students acquired knowledge through practicing communication and inquiry. Garrison et al. (2010) used this stance as part of the CoI foundation. This belief of learning closely follows the philosophy of online instruction that strives to create a learning environment through a "community of inquiry," a phrase used by Lipman (1991, p. 20), a follower of Dewey (2012). Moore's (1989) theory of transactional distance that focuses on student-instructor, student-content, and student-student interactions in online education is also part of the CoI framework. The CoI model is used for studying online dialogue, rather than oral dialogue, and states that students construct knowledge through interactions via postings on discussion boards (Garrison et al., 2001). Thus, the CoI framework is the soundest framework to study instructor comments in asynchronous discussion boards.

The CoI framework consists of three elements: social presence, cognitive presence, and teaching presence (Garrison et al., 2000). Asynchronous online discussions demonstrate the complexity of teaching, social, and cognitive interactions, emphasizing reflection and collaboration as the basis of learning (Garrison et al., 2000; Garrison et al., 2010). Social, cognitive, and teaching presences of the CoI are interdependent and

overlapping to form a collaborative learning environment. Garrison and Arbaugh (2007) described the dynamics of the three types of presences in distinct ways. Instructors who enacted social presence provide a safe environment for higher-level communication, which affects the students' desire to learn and interact with others (Garrison & Arbaugh, 2007). Teaching presence is useful to support the course's structure, organization, and leadership (Garrison & Arbaugh, 2007). Finally, social and teaching presences provide the ideal environment for an engaging cognitive presence (Garrison et al., 2010). Garrison and Arbaugh (2007) further defined the significance of teaching presence as the instructor actions that build a constructivist and collaborative discussion board environment to enhance learning. Researchers worked to validate the CoI process and continue to improve the framework.

Notably, others have suggested additional types of presences for the framework due to the complex dynamics of the CoI. Lam (2015) found students become instructors by deviating into their own discussions, suggesting an autonomy presence. Several studies have resulted in the notion of a learning presence, where self-regulatory and co-regulatory (helping others) skills influenced cognitive presence (Garrison & Akyol, 2015; Hayes et al., 2015; Lee & Martin, 2017). Other researchers suggested that some presences should merge or expand on the original three leading to an emotional presence (Cleveland-Innes & Campbell, 2012; Majeski et al., 2018), instructor social presence (Borup et al., 2012; Pollard et al., 2014), distributed teaching presence (Engel et al., 2013), and instructor presence (Richardson et al., 2015). Throughout the literature, the

original components of teaching, social, and cognitive presence are still considered essential behaviors for discussion board learning.

Researchers have found that student-instructor interactions alone are not enough to create a learning environment. Students new to the learning experience required more support and examples to enrich the online community through social and cognitive conversation (Majeski et al., 2018). To supplement the learning community and assist educators in applying the CoI framework, Shea et al. (2003) validated types of behaviors, or subcategories, in each of the presences that will strengthen the educational process, and researchers continue to provide examples of each presence.

Social Presence

According to Garrison et al. (2000) and Richardson et al. (2012), social presence is useful for developing a purposeful relationship among discussion board members. Social presence is the participants' capability to express themselves both socially and emotionally (Garrison et al., 2010; Richardson et al., 2012). In other words, it is the ability to sense the person behind the discussion posts and the ability to express one's personality in writing. Social presence is useful to create a safe, risk-free environment for students to share their knowledge and questions with few insecurities or anxieties (Richardson et al., 2012). Effective social presence leads to creating relationships of trust and respect for sharing knowledge necessary for online discussions (Garrison et al., 2010; Richardson et al., 2012). Likewise, social presence is the feeling of being part of a group of learners in a virtual world; however, discussion boards without social dynamics may give students a sense of isolation and detachment (Forbes & Gedera, 2019). The types or

categories of social presence are affective expression, open communication, and group cohesion (Garrison et al., 2004)

Affective Expression

To connect with students, the CoI developers suggest instructors not only facilitate but communicate their personality and humanity. Shea et al. (2010) described affective expression as the students' or instructor's ability to express emotion, show humor, and share personal information relevant to the educational experience. Students develop an emotional connection to the course leading to greater persistence (Majeski et al., 2018). The dialogue could include disclosing personal details and opinions to express their belief or value system to expand their thought process (Shea et al., 2010). Writing with capitalization or expressive punctuation to show emotion, such as a series of exclamation points, are affective expressions in discussion boards.

Open Communication

According to Shea et al. (2010), the actions of open communications are to create an environment where students have the confidence to sharing without feeling judgment or intimidation (Shea et al., 2010). Open communication encourages interactions by such acts as quoting others, complimenting, answering other student threads, or expressing agreement. Instructors may advise the group or a specific student to keep the conversation going or offering assistance in the learning process. By creating this risk-free environment, students are more apt to participate and contribute to learning content.

Group Cohesiveness

The importance of establishing an educational group is the foundation of the CoI. According to Garrison et al. (2004), group cohesiveness is the act of using language that refers to the group as a learning unit. An example of this is instructors addressing the group solely to greet or close an activity for social purposes or sharing personal information not related to the course (Garrison et al., 2004). Even the act of using a person's name makes the conversation more personal and intimate. Lastly, creating group cohesiveness could be the instructor reflecting on actions in the course or discussion.

Social Presence Studies

The influence social presence can have in developing informative discussion boards is shown in many studies. In an experimental case study, Jan (2018) examined the social interaction in online discussion boards to discover the effect of teaching presence on social presence. The course with little to no instructor comments found a significant decrease in social interaction (Jan, 2018). In contrast, the course with greater teaching presence had substantial student interaction with both the instructor and other students (Jan, 2018). Significantly, the more students detect presences, the greater their perceived learning, which correlates with higher student learning outcomes (Rockinson-Szapkiw et al., 2016; Roulston et al., 2018). Hence, social presence impacts both actual and perceived learning (Joksimovic et al., 2015). Instructor roles include encouraging, setting examples, and explaining social interaction rules (Garrison, 2017). Instructors' importance becomes even more necessary at the community college level, where learning communities are often new experiences for students (Jaggars & Xu, 2016).

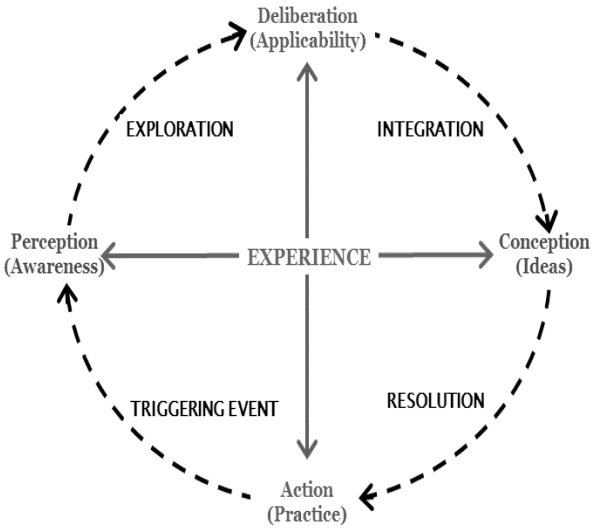
Initially, social presence was student-student interactions, but as research has advanced, the instructor's role in social presence has expanded (Richardson et al., 2015). For instance, Martin et al. (2018) surveyed 180 graduate students finding they felt connected with their instructors through personal introductions, timely feedback, and providing reflective thoughts leading to greater student engagement. Hence, the need for social presence is to increase the comfort level for more communication and its association with student cognitive gains by adding quality communication.

Cognitive Presence

The goal of discussion boards is to develop students' cognitive level to apply their knowledge in the real world. The CoI framework has instructional and student subcategories that can create a cognitive presence (Garrison, 2007). Instructors' cognitive presence engages students with the instructor or their peers in seeking, constructing, and confirming shared understanding through collaboration and self-reflection in the discussion boards (Garrison, 2007). The online community of learning is useful in improving students' critical thinking skills to achieve content learning outcomes (Covelli, 2017; Garrison et al., 2004). Garrison et al. (2001) developed the practical inquiry model to explain the online cognitive thought process (See Figure 2). The model has two axes in which the vertical axis indicates thought (reflection) and action (posting), and the horizontal axis depicts analysis (insights) and synthesis (understanding) (Garrison et al., 2001). The four phases of inquiry, also known as the types of cognitive presence, are pictured (See Figure 2.). Students should attain a learning environment if actively involved in the process.

Figure 2

The Practical Inquiry Model



Note. From "Critical Inquiry in a Text-based Environment: Computer Conferencing in Higher Education," by D. R. Garrison et al., 2000, *The Internet and Higher Education, 2*(2-3), p. 99.

Triggering Event

Asynchronous discussion boards start with course content tasks to discuss as a group. Ideally, online students should seek to solve problems and apply solutions to authentic situations in discussion boards for higher-level thinking of content knowledge (Kozan & Richardson, 2014). The cognitive process categories begin with triggering, where a problem is realized and needs addressing, which could be the posted task in the discussion board or a topic or question posed by the instructor (Garrison et al., 2001). Another instance of a triggering event is creating messages that turn the discussion into a new direction to develop a sense of puzzlement for further investigation (Shea et al.,

2010). Students will become intrigued or interested in addressing the problem or task with course content with instructor facilitation.

Exploration

The next stage in the cognitive process is exploration, where students and instructors share various ideas for consideration from peers and content explored (Garrison et al., 2001). Students should recognize the problem and seek relevant information. Exploration takes place by reflecting discourse, sharing their knowledge, seeking new information through questions, or inputting further information (Garrison et al., 2001). This phase begins the critical thinking process and acquisition of knowledge through the divergence of ideas.

Integration

Integration is the third stage of the cognitive process, where students synthesized ideas to create solutions (Garrison et al., 2001). As with the exploration phase, discourse and reflection are active. Students connect their knowledge and ideas to assess the suitability and bearing it has on the problem. To obtain this phase in discussion boards requires active instructor participation to continue higher-level cognitive skills through questioning, modeling, and applying additional information (Garrison et al., 2001). Many studies show that this stage in online discussion boards is lacking and requires more instructor facilitation (Kennette & Redd, 2015).

Resolution

Students should apply their new knowledge to other tasks or problems for real-world learning for maximum higher-level thinking. Lastly, the resolution stage is students

applying ideas or solutions to authentic situations (Garrison et al., 2001). Students use the new knowledge to a different problem or real situation for practical application in this difficult to achieve phase. Additionally, this phase can trigger a new problem to start the critical thinking, discourse, and reflection cycle again (Garrison et al., 2001). Again, students rarely reach this stage, especially without instructor facilitation at the community college level (Kennette & Redd, 2015).

Cognitive Presence Studies

Instructors play a crucial role in scaffolding higher-level thinking (Richardson et al., 2015). Raising cognitive presence is usually not linear but a lateral process where social and teaching presences play an essential role (Garrison, 2017). Not all discussion board tasks are expected to come to the integration stage but moving students into a higher-level thinking stage will advance their knowledge base (Garrison, 2017). Notably, researchers have found that many student discussion posts lack critical thinking skills and do not progress to higher-level thinking, staying in the exploration stage. In Jan's (2018) case study, discussion boards with little to no instructor facilitation rarely reached past the exploration stage of cognitive thinking. Williams et al. (2015) performed a mixed-methods study by examining the depth of responses to questions in discussion boards. Students with more extended responses expressed higher-level critical thinking skills; conversely, students with shorter responses did not progress in their thinking (Williams et al., 2015). Instructors who explained expectations of discussion responses and elicited questions requiring extended answers facilitated extended student responses (Williams et

al., 2015). The effects of instructor-student interactions assisted in increasing student learning levels.

Teaching Presence

Teaching presence aids the student in the learning process and is a major instructor role in online learning. Anderson et al. (2001) described teaching presence as the instructor support of the social and cognitive presences and the course's design and organization. They divided instructor support, or teaching presence, into three categories: instructional design and organization, facilitating discourse, and direct instruction (Anderson et al., 2001).

Instructional Design and Organization

Many of the subcategories (behaviors) in the instructional design and organization section of teaching presence occur before discussion board communications. Anderson et al. (2001) describe the activities within instructional design and organization to include setting up the curriculum and design methods, such as group activities, communicating course outcomes, or instructions on classroom requirements. Instructors may reinforce other subcategories in discussion boards, including time parameters, using the discussion board effectively, and establishing netiquette rules (Shea et al., 2010). For example, instructors may reinforce due dates for activities or discussions, recommend LMS applications for problems, and aid students in practicing suitable online interactions (Shea et al., 2010). Many of the subcategories are standard for face-to-face discussions, but instructors often overlook them in online courses.

Facilitating Discourse

Part of the instructor role in asynchronous discussion boards in the CoI is facilitating discourse, which has characteristics in common with social presence (Anderson et al., 2001). Shea et al. (2010) state facilitating discourse is useful to motivate and engage students in actively participating and learning in discussion boards. Instructors seek and point out areas of agreement or disagreement, consensus, and encourage or reinforce student participation to create a climate for learning. Instructors also lead students into learning areas when digression may occur (Shea et al., 2010). Without discourse, the online environment could fail to create a learning community.

Direct Instruction

Direct instruction is the last category of teaching presence and is often highly valued by students (Lee, 2014). Instructors seek to provide subject knowledge and leadership to the students. This section overlaps with cognitive presence, as instructors strive to improve student higher-level thinking skills and achieve student content outcomes (Shea et al., 2010). Direct instruction may occur through instructor questioning, presenting sources or content, summarizing, and giving feedback (Shea et al., 2010). Instructors may interpret possible misconceptions or confirm understandings (Shea et al., 2010). As the CoI research has evolved, social, cognitive, and teaching categories have all integrated into the instructor responsibilities of facilitating students to higher outcomes. Thus, I examined instructor comments using all three categories of the CoI theory.

Community College Nursing Programs

As the need for RNs increases, so does the need for quality education for qualified nurses. Many of these RN to BSN students, primarily female, returning to school to further their degrees have families, full-time employment, and work non-traditional hours (DellAntonio, 2017). On average, nurses with more advanced degrees have improved problem-solving skills and lower mortality rates, leading hospital administrators to encourage nurses to obtain a higher degree (Aiken et al., 2018). To make the endeavor cost-effective, nurses are upgrading degrees at community colleges, often at the hospital's expense (Farmer et al., 2017). As community college administrators observe the trend of re-educating nurses, many are starting programs at their institutions (Farmer et al., 2017). The rise in demand for more qualified nurses has led to expansions in online nursing programs and instructors needing technology and online teaching skills (Perfetto, 2019). As RN to BSN programs expand to community colleges, the need to examine online instructional practices becomes critical for maintaining quality educational standards.

Online Learning Differences

Conditions of online learning differ from the face-to-face classroom. The separation between students and the instructor is a primary distinction (Kennette & Redd, 2015). The instructor is not always readily available for assistance, and there can be little connection to classmates to provide a sense of belonging (Forbes & Gedera, 2019). Huntington-Klein et al. (2017) found classroom communications of immediacy, gestures, facial expressions, and tone of voice are elements that influence communications in the

classroom but lacking in online discussion boards. Due to this change of environment, instructional modifications are necessary.

Because of this shift to an online environment, the instructor and student roles in the community college classroom change from the traditional expectations they are familiar with in high school or face-to-face community college courses (Jaggars & Xu, 2016). Instructors often convert their face-to-face classroom materials and expectations to their online courses (Jaggars & Xu, 2016). Students expect the instructor to be attentive and available for feedback (Forbes & Gedera, 2019). For instance, in comparing two studies, students and instructors interpreted online discussion behaviors differently (Forbes & Gedera, 2019). When instructors withheld comments to allow students to interact more among their peers, students perceived the instructor's lack of comments as absent from the discussion board, having less teaching presence, and leading students to post less (Forbes & Gedera, 2019).

Additionally, the students expected some feedback and scaffolding to find the justification of a discussion board; however, instructors struggled to personally comment to all (Forbes & Gedera, 2019). Huntington-Klein et al. (2017) conducted a narrative inquiry with seven online instructors. Students' dissatisfaction with little instructor presence in discussion boards caused frustration with instructors lacking online practices such as feedback and direction (Huntington-Klein et al., 2017). Other instructors understood the importance of social interaction for cognitive gains and increased teaching presence to improve collaboration (Huntington-Klein et al., 2017). Thus, the instructor's

traditional role as a lecturer in the classroom shifts to an online facilitator supporting students to take a more active role in their learning.

Community College Outcomes

On average, community college students have different characteristics than 4-year students. Students at community college are often non-traditional (over 24 years old), have not attended school for years, are employed, and had lower grade-point averages (GPA) in high school than students attending 4-year post-secondary schools (Travers, 2016). Additionally, as the community college policy is more apt to admit all students, many are not prepared for the technical skills needed to succeed, requiring more instructor assistance (Travers, 2016). Understandably, as student motivation and persistence levels decrease with the online challenges students face, retention levels decrease. (Travers, 2016).

The online course setting has led to problems with motivation, persistence, and lower online student learning outcomes at the community college level. Wladis et al. (2017), using logistic regression, studied student outcomes (n=2,330) of face-to-face and online courses at a community college. The successful completion rates were 58.6% for online courses and 65.3% for face-to-face courses (Wladis et al., 2017). Comparable, Huntington-Klein et al. (2017) examined Washington state community colleges' outcomes and found differences in persistence levels and outcomes between face-to-face and online courses. Overall, online courses had a 0.03-grade point level (GPA) below face-to-face of the same courses and a 21% dropout rate verse 16% for the face-to-face courses (Huntington-Klein et al., 2017). Other researchers have searched for the reason

for the gap between online and face-to-face community college outcomes. Jaggars and Xu (2016) conducted a mix-method study consisting of instructor (n=24) and student (n=47) interviews and a student survey (n=678) from two community colleges to assess what factors of online learning were most influential. The study's most significant outcome was that student-instructor interpersonal connections were vital for student motivation, learning outcomes, and engagement. Equally, students needed instructor facilitation in independent learning and time management skills for online success (Jaggars & Xu, 2016).

Instructors who taught the same courses in face-to-face and online settings showed similar differences between the two environments. In a community college setting, Gregory and Lampley (2016) found a significant difference in students' success rates with online courses faring worse than face-to-face with the same instructor. In Kennette and Redd's (2015) action study, instructors increased their online discussion presence to boost student outcomes on par with face-to-face courses. Face-to-face courses may demonstrate better outcomes for students; however, improving instructors' facilitation, such as incorporating CoI categories, can help students have the same learning outcome levels.

On average, community college students showed a declined performance in fully online courses, with some groups showed steeper drops than others. Male students, students with low GPAs, African Americans, and Hispanics showed more significant performance gaps after completing online courses than expected in face-to-face courses (Jaggars & Xu, 2016). Students, especially women taking science, technology,

engineering, and mathematics (STEM) courses performed worse in online courses and the social sciences (Wladis et al., 2015). Instructor awareness of their student population may assist in planning discussion board practices.

The research indicates that instructor facilitation helps students commit to the course and achieve higher academic levels regardless of the content area. For instance, Khoule et al. (2015) studied 100 community college developmental math and English courses and found increases in student grades (full-time faculty over 9% and adjunct over 15%) from instructional strategies changes. Some subject areas may be more difficult to conduct online than others. In an extensive examination of 500,000 courses and 40,000 community colleges, Jaggars and Xu (2016) discovered the social sciences and applied professions (including nursing) courses had the widest performance gaps, possibly due to the increased need for online interactions. Nursing programs with a high female population require STEM courses and the social sciences; students may require higher online instructional communications for greater success. However, much of the literature I studied were interviews, surveys, and secondary datasets, with most transcript investigations using quantitative analysis. Due to the gap in the lack of community college-based studies, further research of online instructor postings at this level using a qualitative content analysis approach is necessary.

Nursing Course Outcomes

The same camaraderie that nurses experience at work is useful for the online nursing course environment for positive persistence, satisfaction, and learning outcomes (Smith & Crowe, 2017). Students valued praise, encouragement, and feedback with

examples (DellAntonio, 2017). In a qualitative survey study, Chaffin and Jacobson (2017) found online RN to BSN students (n=36) valued online discussion where the discourse of sensitive topics transpired, creating a sense of belonging. Students also believed online instructor facilitation helped create a safe, collaborative environment (Chaffin & Jacobson, 2017). Similarly, in a survey study using 158 nursing student replies, Osborne et al. (2018) found significant positive effects on student online participation and outcomes when instructors motivated them through positive feedback and scaffolding. DellAntonio (2017) conducted a survey study with 128 RN to BSN online students finding instructor discussion posts and other online communications associated with the students' retention and learning outcomes.

Additionally, Claywell et al. (2016) conducted an exploratory, descriptive study to examine online nursing student satisfaction and perceived student learning with the number of faculty postings. The study results showed students had higher perceived learning and satisfaction levels with medium to high levels of instructor comments and opposite results with lower instructor comments (Claywell et al., 2016). In Smith and Crowe's (2017) interview qualitative descriptive study, 10 experienced online nursing instructors commented on their attempts to facilitate students meeting their learning outcomes. The three most prevalent themes were student engagement and learning, getting to know their students, and meeting student needs (Smith & Crowe, 2017). Research on RN to BSN online practices and results were similar to non-RN to BSN studies' findings. The results showed that active instructor facilitation practices affect positive satisfaction, perceived learning, and content learning outcomes (Claywell et al.,

2016; DellAntonio, 2017; Rockinson-Szapkiw et al., 2016). Overall, successful nursing courses share similar social and teaching behaviors as non-nursing courses for positive cognitive gain.

Importance of Teaching Presence

Online discussion boards' success depends on instructors creating a teaching presence for student engagement to achieve content learning outcomes (Garrison, 2017; Smits & Voogt, 2017). The intended effect of online instructional strategies, as stated in the CoI, is to increase instructor and student satisfaction and improve the discussion board's perception and quality (Garrison, 2017). According to the CoI framework developers, the instructor's role in discussion boards is to facilitate discourse for peer-to-peer learning in an environment with no visible, immediate reaction (Garrison, 2017). However, due to the separation between the students and the instructor, interactions are a technological representation of an actual person (Kennette & Redd, 2015). As humans are social by nature and require socialization, online communications need to portray a human element that takes the place of a face-to-face classroom instructor (Kennette & Redd, 2015). Positive online interactors between students and the instructor help reduce the anxiety of the unexpected and decreasing social isolation (Phirangee & Malec, 2017); hence, interactions that naturally occur in a classroom often need instructor assistance online.

Student affective responses, or the attitudes students develop about the instructor and discussion board interaction, can involve their intellectual involvement with course content (Garrison, 2017). Becoming emotionally involved in the classroom can increase

motivation, positively affecting self-efficacy, open-mindedness, and self-awareness (Majeski et al., 2018). Gray and DiLoreto (2016) conducted a quantitative student survey (n=187) to determine the effects online asynchronous student interactions had on their satisfaction and perceived learning. They found student-instructor interactions had a statistically significant influence on students' perceived learning and satisfaction (Gray & DiLoreto, 2016). Interestingly, student-student interactions did not significantly affect course satisfaction (Gray & DiLoreto, 2016). Thus, instructors can play a vital role in student outcomes in the online discussion board learning process.

Student Perceived Learning

When assessing the collaborative nature of asynchronous discussion boards, the measure of student knowledge is often considered the achievement of content learning outcomes. Part of the learning process is the students' belief that they acquire knowledge, called student perceived learning, which influences their achievement (Rockinson-Szapkiw et al., 2016). Rockinson-Szapkiw et al. (2016) used hierarchical multiple regression to examine the strength of the presences among discussion boards with 131 technology graduate students and their instructor. Students who perceived higher levels of social, cognitive, and teaching presences had higher perceived learning, associated with increased student learning outcomes; however, the highest indicator of student success was teaching presence (Rockinson-Szapkiw et al., 2016). Roulston et al. (2018) conducted a case study of online students' perceptions of the online learning process. Results indicated students wanted instructors to encourage discussion board interactions. The students could then appreciate the authentic communications among their peers. The

increased interactions led students to believe their reflecting and synthesizing skills had improved (Roulston et al., 2018). Instructor comments increasing the three presences may raise student perceived learning associated with improved content learning outcomes.

Student Satisfaction

Another characteristic of the learning process is students' affective reactions to discussion boards, also known as student satisfaction. Through teaching strategies, online instructors can (both positive and negative) affect the psychological process, influencing the students' affective response to learning, or their satisfaction (Covelli, 2017). Instructor facilitation in discussion boards can affect satisfaction levels in asynchronous discussion boards. In a Netherlands master's program using 256 messages from 11 instructors, Smits and Voogt (2017) conducted a mixed-methods study to analyze and compare student satisfaction ratings. The students highly satisfied with teaching presence appreciated longer, informative messages that addressed content knowledge, showed personality, and social presence elements (Smits & Voogt, 2017). In contrast, instructors who received lower satisfaction ratings did not have fewer comments but did not use many CoI subcategories, choosing to answer students in simple, brief statements (Smits & Voogt, 2017). The importance of quality facilitation influences students' interactions, satisfaction levels, and content knowledge acquisition.

Motivation

Student motivation, often linked to emotions, causes a student to perform an activity for a given outcome and is seen as critical to student success in the discussion board, because it can influence content outcomes and persistence (Majeski et al., 2018).

In a quantitative study of 229 online mathematics students, Cho and Heron (2015) found emotion played a vital role in student satisfaction. Student boredom or frustration predicted student learning (Cho & Heron, 2015). As in past studies, possible actions to improve student self-efficacy were through student-instructor social interactions (Cho & Heron, 2015). If the students feel a loss of control over external influences, it could lessen their intrinsic motivation (Lee & Martin, 2017).

Examining the CoI approach to discussion boards on both types of motivations, Lee and Martin (2017) completed a cross-sectional study with 86 students taking online graduate courses. Extrinsic motivation (e.g., grades, course completion) was the highest at over 97%, while intrinsic motivation (e.g., increasing content knowledge) was 87% (Lee & Martin, 2017). In a quantitative survey study using data from 382 students, Eom and Ashill (2016) found intrinsic motivation not significantly related to student satisfaction but positively associated with learning outcomes (Eom & Ashill, 2016). Accordingly, instructors could provide metacognitive feedback and support students' self-regulating subprocesses of forethought, seeking assistance, and goal setting (Eom & Ashill, 2016). Many community college students have family and employment responsibilities, so time is often a factor in their educational pursuits, causing less participation in discussion boards (Lee & Martin, 2017). Irrespectively, courses will contain diverse students with varying degrees of both types of motivations that need addressing to encourage reaching student outcomes.

Instructor comments can be critical in motivating students to participate in online discussion boards to improve cognitive levels. Instructors using open-ended questions

and guiding students, especially those with no online learning experience, are often necessary to student motivation (Garrison, 2017). To reach students on their emotional, affective level, Majeski et al. (2018) suggest online discussion board instructors determine and meet student needs, guide interaction, monitor and manage communications and reflections, facilitate learning, and provide direct instruction. Given the results of these studies, a variety of instructor comments are necessary for student motivation.

Instructor Comment Outcomes

Significant research through surveys or questionnaires is available on instructor comments at the graduate-level schools; however, less is available at community colleges on qualitative examination of instructor posts' transcripts based on the CoI framework. Asking students about instructor effectiveness could produce questionable results due to student bias (Boring et al., 2016). Such student biases include the gender of the student, the gender of the instructor, timely grading, and grade expectations, all variables difficult to control (Boring et al., 2016). To assess the strategies instructor comment use, direct interpretation of discussion board transcripts should yield additional results.

Various outcomes of transcript analysis indicated instructor discussion input affects student outcomes. Richardson et al. (2015) conducted a case study analyzing discussion board transcripts of a technology master’s program to find many instructors used a balance of teaching and social traits while others focused on only a few elements, possibly indicating a weakness in their teaching presence. Joksimovic et al. (2015) took it further in a controlled, content analysis study investigating the effect teaching presence

had on social presence to predict learning outcomes. One result of the 1,747 messages analyzed revealed instructor scaffolding increased student participation (Joksimovic et al., 2015). The most significant predictors associated with students' grades were the CoI traits of *continuing a thread*, *complimenting*, and *expressing appreciation* (Joksimovic et al., 2015). Additionally, social presence influenced student motivation, perceived learning, and satisfaction (Joksimovic et al., 2015). Courses without instructors using teaching presence to facilitate cognitive and social scaffolding exhibited a lessening of the social environment decreasing learning outcomes (Joksimovic et al., 2015). Students sent agreement posts but did not demonstrate meaningful learning built on existing knowledge (Joksimovic et al., 2015). The balance among social, cognitive, and teaching presences is a complexity instructors face.

Summary

The literature review indicated that instructor facilitation is a necessary part of online education and needs further investigation (Joksimovic et al., 2015; Kennette & Redd, 2015; Smits & Voogt, 2017). Significantly, the community college learning environment relies on instructor facilitation to foster caring, trust, and a sense of belonging for higher student interaction (Jaggars & Xu, 2016; Kennette & Redd, 2015). Once students are comfortable in the asynchronous online discussion board environment, they become more motivated to learn (Majeski et al., 2018; Martin et al., 2018). With a supportive teaching presence, instructor scaffolding can raise students' cognitive presence, increasing student self-efficacy and satisfaction to improve student learning outcomes (Martin & Bolliger, 2018; McKinney, 2018; Osborne et al., 2018). However,

without constructivist facilitation from instructors, online discussions can become ineffective in improving students' higher-level thinking skills (Covelli, 2017).

The CoI framework contains behaviors in the social, cognitive, and teaching presences that community college instructors can incorporate into discussion boards to facilitate student success (Garrison, 2017). However, lack of these instructor practices can create weaknesses in the discussion leading to student anxiety, lack of motivation, or decreased student performance (Jaggars & Xu, 2016; Joksimovic et al., 2015). In this study, the focus is on online nursing instructors' comments in asynchronous discussion boards in a community college as further examinations of current practices are necessary (Farmer et al., 2017; Perfetto, 2019). More exploration is needed on nursing instructor comments using a qualitative content analysis approach. The literature lacks current instructional practices, which is necessary to know to implement changes for improving student learning outcomes. Next, I explained the study's methodology as it aligns with the research questions.

Chapter 3: Research Method

The study's purpose was to examine online instructor discussion comments at a community college regarding the three CoI presences; social, cognitive, and teaching, that assist in increasing online learning outcomes in nursing programs. In Chapter 3, I focus on four sections of the study's research process. The first section consists of the research design, research questions, and the rationale for the type of study. The next section includes my role as the researcher and how to treat potential biases that might occur. The study's methodology is the third section, and I describe the data collection procedure, participant selection, and data analysis design. The data analysis plan included coding, categorizing, and theme methods. In the last section, I incorporated trustworthiness issues associated with credibility, transferability, dependability, confirmability, and ethical procedures.

Research Design and Rationale

I designed the research questions to gain an understanding of online instructor practices in nursing program courses' asynchronous discussion boards by categorizing instructor postings. The questions I used to guide my qualitative content analysis study and support my research procedures and data analysis were:

Research Question 1: What types of social presence are demonstrated in asynchronous online discussion posts by nursing instructors in a community college?

Research Question 2: What types of cognitive presence are demonstrated in asynchronous online discussion posts by nursing instructors in a community college?

Research Question 3: What types of teaching presence are demonstrated in asynchronous online discussion posts by nursing instructors in a community college?

Qualitative research has diverse approaches to address social issues, and I considered several. Researchers using quantitative or mixed-methods approaches seek verification of a hypothesis or validation of theory (Patton, 2015). I did not seek to confirm a hypothesis, so neither method was appropriate. A case study inquiry aims to examine the relationships between the factors acted within a bounded system (Patton, 2015). As I investigated only one factor (instructor comments), it was not an appropriate research method for this study. Phenomenology is the study of people's lived experiences as they perceive the world based on participants' consciousness (Giorgi, 2012). I did not consider this method, as this study did not involve participants' perceptions. Researchers using qualitative content analysis categorize and describe a phenomenon with few a priori codes (Elo & Kyngas, 2008; Hsieh & Shannon, 2005). A qualitative content analysis inquiry to describe online instructor comments in discussion boards was the most concise method to best answer the research questions.

Around the time of the second world war, researchers established qualitative content analysis from quantitative content analysis (Schreier, 2014). Researchers began to understand the "complex, holistic, context-dependent" aspects of interpreting data, and it became more accepted with the increase of text communications (Schreier, 2014. p. 5). Researchers used a qualitative content analysis inquiry for a subjective explanation of data through a systematic classifying process to identify patterns or a detailed description within the phenomenon (Cho & Lee, 2014; Schreier, 2014). Qualitative content analysis

inquiry focuses on the research questions' specifics to derive meaning into more abstract thought (Schreier, 2014). Researchers using qualitative content analysis search for meaning and interpretations (Schreier, 2014). Thus, qualitative content analysis is appropriate for data requiring some understanding within a specific context (Cho & Lee, 2014). This context was community college online instructor comments, where I coded text communications, reduced them to behavioral subcategories and categories, then allotted them within the three presences of the CoI.

Role of the Researcher

Two major components in qualitative research are the researcher's positionality and social location (Ravitch & Carl, 2016). I had no professional or social relationship with the community college, where I obtained my data. Therefore, as an outside researcher, no concern about social location bias in this study was relevant. As an educator for over 15 years and an online student for more than 7, my positionality did have bias concerns, which I addressed through reflective journaling. Reflective journaling is informally writing thoughts throughout the research process of questions, ideas, and experiences for self-reflection, developing ideas, questioning outcomes, examining possible biases, and building a rationale (Barrett et al., 2020; Ravitch & Carl, 2016). Overall, I strived to maintain an unbiased approach while analyzing and reporting data.

As a native English speaker, no problems existed in reading and understanding comments, as the discussion boards were in English. My role was to answer the research questions by designing a method, recruiting participants, collecting data, analyzing data, and reporting findings while maintaining rigor for trustworthiness. For credibility, I

revealed my doctoral student status when obtaining data from the community college. When questions arose on the interpretation of data, there was support from my committee members, who are experts in research, online teaching, and the definition of the constructs of the CoI.

Methodology

Separated into four sections, the methodology of the study included: participant selection logic, instrumentation, data collection, and the data analysis plan. I describe the process of theme development that answers my research questions.

Participant Selection Logic

To answer the research questions, I chose the target population of community college nursing instructors teaching courses required in online RN to BSN programs. A community college is a post-secondary school closely connected to the community that offers mainly 2-year degrees and certifications (American Association of Community Colleges [AACC], 2020). Many community college administrators expanded courses to include a few 4-year degrees, such as RN to BSN programs, to meet the growing nursing population (AACC, 2020; Farmer et al., 2017). On-campus housing is often not provided, so students often stay off-campus or travel from home (Envisage International, 2020). To ensure the college met a community college's criteria, I located the participating institution from the AACC (2020) member website.

I used purposeful sampling for this study, specifically homogenous sampling in which all participants have similar characteristics, notably teaching RN to BSN online nursing courses in a community college. I made no distinction among the participants

regarding their standing as adjunct or full-time staff. The chosen population's site fits the criteria of a community college with an expanded RN to BSN online program. Students do not live on campus but travel from near-by living arrangements.

I obtained approval from Walden University's and the community college's Institutional Review Boards (IRB). According to the identified criteria of courses and year, the nursing director assisted by gathering the online instructor discussion board transcripts. I obtained no student postings, giving students complete privacy and protection.

In this study's qualitative sampling, I focused on instructors and their online posts to understand the instructor comments used in discussion boards. In qualitative research, there are no set rules to sample size; instead, the goal is to obtain credible outcomes within a set time to rigorously answer the research questions (Ravitch & Carl, 2016). Generalization is not necessarily the primary goal, but qualitative research is employed to make practical suggestions or decisions to a larger population (Ravitch & Carl, 2016).

Often the process of qualitative research requires the researcher to obtain data until saturation, the continuing of data collection and analysis until no more new information is available (Saldaña, 2016). Thus, to gain thorough and in-depth descriptions, I procured instructor discussion board transcripts from all four instructors and seven out of eight nursing courses offered by the selected community college nursing program for one 8-week semester of 2020. The number of transcripts I used equaled or surpassed most other qualitative studies using an equivalent framework to evaluate instructor comments, such as studies by Richardson et al. (2015) and Tirado-Morueta et

al. (2016). The courses taught by the participants were all nursing courses required for graduation. All instructors taught the entire semester.

Instrumentation

To answer the research questions, I obtained instructor comments of online discussion boards of RN to BSN nursing courses at a community college at the end of a semester. Thus, this study used archival data. I collected no student comments for this study. To obtain data, I provided a template to assist instructors in cutting and pasting their discussion comments from their LMS into Microsoft Word documents (See Appendix B). The use of the template granted consistency and ease of task completion. Rather than obtaining the complete discussion board and extracting the instructor comments, the template eliminated my observing student comments that might bias the analysis process. Bias could occur by considering student responses with instructor comments, which is not the focus of this study. I sent eight files to the nursing director and received seven back.

Procedure for Data Collection

To locate community colleges with online RN to BSN programs, I searched the AACC (2020) website for their members. I then explored the AACC members' websites for community colleges that offered an online RN to BSN program. I found many institutions and contacted the nursing director of one AACC member community college via email. The email included an offer of monetary reimbursement to the instructors and my willingness to share study results with program recommendations. After obtaining IRB approval from the participating community college and Walden University, I sent

the nursing director template files for the instructors to cut and paste their instructor comments from the Spring 2020 semester. When instructors completed their templates, they sent the files back to the nursing director, who forwarded them to me.

Data Analysis Plan

According to Patton (2015), qualitative data analysis is a complex process. Researchers use qualitative content analysis inquiry to find meaning by identifying, organizing, and using patterns or categories (Patton, 2015). The researcher uses a bottom-up inductive approach to find patterns and describe the meaning behind the written text (Patton, 2015). I transferred the instructor discussion board files to MAXQDA, a computer research software designed for qualitative content analysis inquiry, to help organize data.

Coding

Researchers use the coding process to capture the essence or meaning of data assigned to a symbol, phrases, and sentences (Saldaña, 2016). During the coding process, I analyzed instructor comments one sentence at a time within a posting. If a sentence contained only one underlying meaning, I assigned it a code. If the meaning continued into the following sentence, I grouped it within the first sentence's code. For sentences with two unrelated topics, I segmented the topic's words and assigned them each a code. I assigned a separate code for words or symbols that expressed emotions and group language, for example, exclamation points or the use of *we,* each time it occurred. Using this method, I segmented and coded all instructor comments, line by line. I coded all data with one exception. One instructor repeated content knowledge by sending postings of

the same lengthy information to most students. The repeated postings totaled 171 times, with only 12 coded, because the instructor did not include any new knowledge to the discussion board after their first posting. Had I coded the repeated segments separately, it would skew the results by displaying a more substantial cognitive presence than was present.

Additionally, I did not apply the same code to one posting with the exceptions of short phrases and symbols. For instance, if the instructor said, "Great job," at the beginning and, "Good job," at the end of the posting, it only received one code of *complimenting without specifics* for the two quotes, so I would not overrepresent social presence. The code *complimenting without specifics* and *complimenting specifics* were not in the same post. It was either one or the other to avoid describing a stronger social presence when the overall posting was teaching presence. For example, the segment, "Good narrative. Excellent comment that more study is needed. Good comments," I grouped and coded *complimenting specifics,* although there were some non-specific statements.

I segmented data according to my interpretation of the meaning during my first coding. My segments, or the group of words to code, included symbols, certain words (e.g., as nurses), phrases, and sentences. With a few exceptions, such as symbols, I did not use simultaneous coding, codes embedded in parts of other coded segments, but individually coded each segment. I also kept a journal of my thoughts of instructor practices, such as coding instances of instructor modeling. An example of my coding was, "Look at the vocabulary chart that I posted to help with terms (*adding outside*

information). Thank you for introducing ICU liberation Bundle to the class (*expressing specific appreciation*) ! (*use of exclamation point*)."

Maintaining an inductive approach, I allowed codes to emerge from the data based on my interpretation of the segments. I coded concrete tasks or the use of words that express specific meanings. I began with an initial coding, followed by a second and third coding. During my second and third coding, I checked for consistency, reconfigured some codes by refined definitions, included more notes to avoid biases, and journaled on possible discussion post meanings.

Subcategories

I then consolidated codes into subcategories according to shared characteristics. I grouped codes by specific traits such as questions, feedback, emotional expressions, and knowledge. For instance, the codes: *use of we*, *referring to nurses*, and *referring to the group*, I placed in the subcategory group wording.

Categories

Subcategories with similar ideas, meaning, and tasks I grouped to form broader conceptual categories. I created categories from abstract ideas such as broad instructional tasks, social connections, and inputting content. For instance, the subcategories using student names and group wording, I categorized as acknowledging participants.

Comparison to the Community of Inquiry

I compared my subcategories and categories to the CoI's subcategories and categories to address the research questions of the types of social, cognitive, and teaching presence demonstrated in instructor comments. Subcategories and categories of the CoI

with similar characteristics as mine indicated the instructor comments showed instructors using that presence. For instance, the CoI subcategories of group cohesiveness related closely to the subcategories in my acknowledging participants category. Not all my subcategories fit into the CoI categories, which I noted.

After comparing my categories with the CoI categories, I evaluated the CoI cognitive level of the discussion board topics. The discussion board topic is the subject matter that student initially responds to that start the discussion conversations. I received all but one instructor's discussion board topics. With the available topic discussions, I compared the cognitive level needed for student topic responses to the instructors' cognitive presence results.

Themes

In qualitative content analysis studies, researchers often use frequencies or percentages to support the study's outcomes (Saldana, 2016). The most frequently observed CoI subcategories and categories of instructor comments became the themes of the study. The criteria for a theme were two or more instructors having a higher count in specific subcategories within a presence. For example, three instructors posted a total of 105 comments reminding students of posting times and using the discussion board correctly. The other subcategories in the instructional design and organization category had a total of eight comments. Therefore, the CoI subcategory of establishing time parameters/utilizing the medium effectively was an emerging theme. I was then able to answer the research questions on the types of social, cognitive, and teaching presences in instructor comments by the CoI subcategories frequency of instructor discussion board

comments. After data analysis, I reviewed my research methods to ensure I met the criteria for a trustworthy study.

Issues of Trustworthiness

Qualitative studies' trustworthiness depends on their creditability, transferability, dependability, and confirmability (Ravitch & Carl, 2016). Trustworthiness refers to the study's rigor that maintains the researcher measured and effectively analyzed data to answer the research questions (Ravitch & Carl, 2016). The purpose of trustworthiness is to obtain study results valuable to the literature (Patton, 2015). Additionally, ethical concerns may arise on the researcher's interpretation of data, so I evaluated the study for each of the four criteria during the preparation, data collection, and reporting phases.

Credibility

Credibility refers to the accuracy of linking the participants' reality with the study's findings (Ravitch & Carl, 2016). To ensure no biases during data analysis, I maintained a reflective journal to record my thought process in coding and categorizing data. After developing initial codes, I reconfirmed my coding methods to ensure the data's meaning was accurate. Additionally, after forming subcategories and categories from my initial coding, I returned to my data to evaluate if they accurately represented the instructor comments.

Transferability

Qualitative research's transferability is not necessarily used to make generalized statements but provides knowledge into specific content areas that could be useful in

comparisons with other settings or contexts (Ravitch & Carl, 2016). For greater transferability, I reported the qualitative data and results with detailed (thick) descriptions for the study's trustworthiness for other educators' consideration. The readers of this study can then decide the degree of result's transferability for themselves.

Dependability

Dependability adds to the study's trustworthiness as it establishes that the findings are consistent and stable over time (Patton, 2015). Other researchers should understand my interpretations of results, come to similar conclusions if using the same setting, manage to repeat the study with closely related participants, and come to comparable findings. Additionally, my use of recategorizing enhanced the stability of the data analysis process. A study's dependability includes thoroughly describing and justifying the data collection and the content analysis process to ensure reliable results (Patton, 2015). I completed a well-documented audit trail and maintained a reflective journal that accurately categorized and identified potential biases. With in-depth descriptions of the study's procedures, other scholars may use this study's methods or improve them for further research.

Confirmability

Qualitative researchers strive for confirmability by expressing their positionality and structured reflexivity (Ravitch & Carl, 2016). I understood my role as a researcher and position as an instructor and student and examined any possible biases to ensure objective results. I candidly demonstrated the analysis process through my use of an audit trail. For reliable results, I coded, sorted, and categorized data consistently.

Ethical Procedures

I procured the data from a community college with support from Walden University's IRB, the supporting college IRB, and a committee member. The final Walden University document approval number is 10-14-19-0029841. I also completed the National Institute of Health's Protection of Human Research Participant course as required by Walden University.

Although the study's data does not require interaction with people, transcript information raises ethical concerns. I protected the data's confidentiality and sources throughout the study by locking all physical evidence, including my reflective journal. I used no identifiable instructor or school data and used a passcode on all electronic files accessible only to myself. The data will remain stored for 5 years after the dissertation publication date before being destroyed. As an outsider to the community college, there were no ethical power relationships.

Summary

I used a qualitative content analysis research approach to interpret and categorize community college nursing instructor comments in online discussion boards. Designed and validated for online settings, I decided the CoI was the appropriate framework to identify social, cognitive, and teaching instructor posts. Data consisted of a semester of online instructor transcripts from required nursing courses in the RN to BSN program. Using a qualitative content analysis approach, I identified instructor behaviors (subcategories) within the social, cognitive, and teaching presences.

Trustworthiness and ethical considerations were essential to the study. I established procedures to validate the research, protect all participants, and safeguard data. These procedures included the use of reflective journaling and an audit trail to reduce any potential bias. Issues of trustworthiness included credibility, transferability, dependability, and confirmability, which I addressed to maintain rigor. In Chapter 4, I describe the setting, demographics, data collection, data analysis, evidence of trustworthiness, and the results.

Chapter 4: Results

The purpose of this qualitative content analysis study was to examine nursing instructor comments in asynchronous online discussion boards in a community college setting to determine if their postings were social-, cognitive-, or teaching-based. In this chapter, I explain my data analysis process and results to answer the research questions:

Research Question 1: What types of social presence are demonstrated in asynchronous online discussion posts by nursing instructors in a community college?

Research Question 2: What types of cognitive presence are demonstrated in asynchronous online discussion posts by nursing instructors in a community college?

Research Question 3: What types of teaching presence are demonstrated in asynchronous online discussion posts by nursing instructors in a community college?

This chapter contains the setting, demographics, data collection, data analysis, and the results of the study. Additionally, I reviewed the trustworthiness of the study by examining issues recognized in Chapter 3.

Setting

The participating institution is in the southwestern region of the United States and a member of the AACC. Like many public community colleges, they receive funding from their state. Additionally, they have high school dual enrollment for students to achieve both high school and college credits and a transfer agreement with a university for graduates pursuing baccalaureate degrees. The student population is under 30,000 students, with approximately 60% receiving degrees and 40% short-term training or certifications. Of the certification and degree programs, less than 10% are baccalaureate

degree programs. The RN to BSN program is exclusively online and requires eight higher-level nursing courses to complete the program.

Demographics

All four participating instructors met the criterion of teaching an online RN to BSN nursing course for the entire semester. Each instructor taught two separate higher-level nursing courses; however, I examined seven courses for this study, as one instructor volunteered to submit a transcript for only one course. I renamed instructors A, B, C, and D for confidentiality. All instructors were female, with Instructors A, B, and C possessing doctoral degrees and Instructor D, a master's degree. The instructors provided discussion board transcripts encompassing nursing courses from the 8 weeks-long Spring 2020 semester. Class sizes ranged from 18 to 22 students. Some discussion boards were open for more than one week, and the number of postings per week varied (See Table 1).

Table 1

Number of Instructor Comments per Week

Week	A	B1	B2	C1	C2	D1	D2
Week 1	29	18	16	28	40		6*
Week 2		19	20	16	41	23	
Week 3	10	18	17	27	32		4*
Week 4		19	19	30	30	14	
Week 5	18		18	14	27		8
Week 6				26		7	
Week 7	17	18	16				
Totals	74	92	106	141	170	44	18

Note. Some discussions lasted more than one week. *Instructor D addressed more than one student at a time.

Data Collection

To locate a community college willing to share their nursing instructor comments, I searched the AACC (2020) website for their members that offered online RN to BSN programs. I sent emails to five different community college administrators requesting permission to obtain instructor discussion board transcripts for a research study. The email included an offer of monetary reimbursement to the instructors and my willingness to share study results with program recommendations. One community college's nursing director responded that they would offer their online nursing staff the opportunity, and all four of the nursing instructors agreed to participate.

After obtaining IRB permission from the participating college, I acquired final IRB approval from Walden University to gather data. I emailed eight instructor Microsoft Word templates to the director of nursing to forward to the online nursing instructors at the commencement of the Spring 2020 semester (See Appendix B). The template included instructions for easy cutting and pasting of instructor comments from their learning management system (LMS) and separating the comments into the template discussion weeks. The pilcrow (return symbol) showed where one instructor’s post to students started and ended. The template included examples to aid instructors. I added an optional request for the discussion board topics. Three of the four instructors included their discussion topics.

To maintain instructor confidentiality, I used numbers for template file names rather than the instructor names. I instructed the nursing director to request that instructors copy and paste their discussion comments, excluding student comments,

without changing the discussion board transcripts. Instructors then sent the completed templates to the nursing director, who forwarded the files to me. Participation in the study was voluntary. All instructors in the online RN to BSN program agreed to participate and received $50 for each instructor discussion board transcript. Over 28 days, I obtained the instructor discussion board transcripts from seven out of the eight online nursing courses taught by four instructors, including most of the discussion board topics for student responses. I examined a total of 32 discussion boards.

I received seven Microsoft Word files named Instructor 1 to Instructor 7, one file from one instructor, and two from three instructors. I identified the instructors with their files and renamed them as Instructor A, B1, B2, C1, C2, D1, and D2. This process allowed me to group courses by instructors. According to the course requirements, students must post a response to a discussion topic and reply to two colleagues. Instructor A's course had one discussion board every 2 weeks, totaling four discussion boards. Instructors B and C each had one course with six topic discussions and another course with five topic discussions during the semester. Both of Instructor D's courses consisted of three topic discussion boards.

Data Analysis

Without changes to the transcripts, I copied and pasted the instructor comments and discussion topics to MAXQDA. I reviewed the comments before the coding process started to observe the instructor's style. On average, two instructors had paragraph-length responses, while two posted one or two sentences per response. During my initial coding, I strived to capture behaviors in the postings. Additionally, as an outside researcher with

educational experience, I used my professional perspective and knowledge of the CoI without bias to maintain an inductive approach.

Coding

My coding process was inductive with open coding and seven a priori codes (See Appendix D, E, & F). In total, I coded 1,644 segments with 43 various codes. My coding process entailed analyzing each sentence in an instructor posting to interpret its meaning. I assigned codes to each part of the sentence with one intention, and most sentences had only one code. However, if observing two unrelated ideas in a sentence, I separated them into two segments and coded accordingly. Sentences within one instructor posting with the same code I grouped as one code. Thus, I did not repeat the same code in one instructor posting, excluding group wording or expressing emotion. For example, the expressions “as nurses” and “wow,” I coded each time they occurred.

I observed a high variation of code frequency. Some codes had only a couple of occurrences, and others had over 200 based on the type of code (e.g., exclamation points) or the repetitiveness of the instructor comments (e.g., Good job). I applied codes to symbols, phrases, and sentences. While coding, I defined codes for consistency (See Table 2).

Table 2

Examples of Codes

Codes	Definitions	Examples
Complimenting specifics	When complimenting a student on specifics	"Great thoughts about mutual benefit from spiritual care."
Closing class comments	End of class remarks	"Keep going with your courses."
Asking for nursing practices	Questioning a student on nursing practices	"What kind of questions could be asked about the tachycardia, specifically?"
Sharing professional life	Mentioning work-related situations	"Years ago, when I was a baby nurse, a new mom stayed in the hospital 3 days after a vaginal delivery."

Through the multiple rounds of coding, I refined and recoded instructor comments considering aspects that separated them. Some codes were easily recognizable, such as *using interjections* like "Wow" or "Yeah." Other codes needed more refinement and interpretation. I coded the common phrase, "great job," *complimenting without specifics*. If the instructor included additional information, such as, "Great job without quotes," I coded it *complimenting specifics*. Additionally, instructor comments sharing information about their life, I coded according to their nursing experiences or their feelings and encounters. Instructor comments that contained knowledge I coded as *educated opinion*, *adding new information*, and *adding medical knowledge.*

When coding questions, I considered the types of information the instructor was seeking, whether the questions were opened or closed, and if they required higher or lower-level student thought processes to answer. Lower-level questions in the exploration

stage of the CoI required students to search for information to answer the question. Higher-level questions were in the CoI third and fourth stages of integration and resolution, requiring students to analyze and problem-solve. For instance, “What are your thoughts on nursing advocacy in the case of drug-resistant strains of STI’s?” was considered a higher-level, open-ended question, as the student must synthesize information. These types of statements I coded as *questions promoting advocacy*.

Subcategories

After completing the coding process, patterns emerged among the codes, which I grouped into subcategories. To create subcategories, I reflected on the similar and contrasting qualities of the codes. I grouped codes indicating an emotional group dynamic and content-based codes or questions into subcategories according to their traits (See Table 3). When instructors elaborated on student postings or provided APA feedback, I created a subcategory called *feedback.* Similar types of question codes I grouped on the level of thought process required to answer them. I formed 24 subcategories from my codes.

Table 3

Examples of Grouping Codes into Subcategories

Codes	Subcategories
Showing emphasis in speech Use of exclamation point Using interjections	Exhibiting emotions
Mentioning student life Small talk Closing class comments	Social small talk
Complimenting specifics Acknowledging specifics Expressing appreciation of specific input	Productive praise
Complimenting without specifics Thanking without specifics	Motivation comments

Categories

I then formed broader categories using a similar approach as creating subcategories but on a more abstract level. I based codes and subcategories on concrete actions, whereas I created categories that described the instructors' overall responses to the student or broader instructional topics, including encouragement, responsibilities, facilitation, knowledge, social connection, and emotions (See Table 4). After comparing and contrasting the subcategories' meaning and traits, I formed a total of 12 categories. Five of the 22 subcategories did not have attributes with other subcategories and became separate categories. For instance, the subcategory of work solution questions did not

contain a related subcategory, so I categorized them as promoting problem-solving at work.

Table 4

Examples of Grouping Subcategories into Categories

Subcategories	Categories
Exhibiting emotions Social small talk Self-sharing	Establishing an emotional connection
Reminders Addressing others Summarizing course	General course procedures
Providing specific feedback Sharing outside sources Presenting small facts	Instructor facilitation
Sharing knowledge Sharing perspectives	Increasing knowledge base

Comparison to the Community of Inquiry

After forming inductive categories, I compared them to CoI subcategories and categories (See Table 5). I completed this process by examining my open subcategories in a category with the CoI subcategories to compare and contrast the instructor behaviors. If they were similar, I matched my open category with the CoI category (See Appendix D, E, & F). I found many of the CoI categories closely related to similar online instructional tasks as my own but observed some inductive subcategories varied from CoI subcategories. For instance, I returned to the instructor comments to reflect on my coding in my category of making an emotional connection with the subcategory of social small

talk. Shea et al. (2010) placed the subcategory small talk or phatic phrases in the group cohesiveness category considering phatic phrases as communication that binds the group together. Comments as, “I hope your sister is doing well” and “I know it has been a stressful week,” I interpreted as emotional connections and personal sharing. After deliberation, I chose to utilize the CoI interpretation as the nature of social talk is part of classroom dynamics for group bonding (Shea et al., 2010). Thus, phatic phrases remained in the group cohesiveness category.

Table 5

Comparison of Open-Coded Categories to CoI Categories

Open-coded category (24 total)	CoI category (22 total)	Presence
Acknowledging participants	Group cohesiveness	Social
Establishing an emotional connection	Affective	Social
Motivating communications	Open communication	Social
Advocacy questions/High-level	Resolution	Cognitive
Promoting problem-solving at work	Integration	Cognitive
Increasing knowledgebase	Exploration	Cognitive
Lower-level question Starting a new topic	Triggering	Cognitive
Encouraging discourse Encouraging quality practices	Facilitating discourse	Teaching
General course procedures	Instructional design and organization	Teaching
Instructor facilitation	Direct instruction	Teaching

The CoI includes two categories with similar subcategories, open communication in social presence and facilitating discourse in teaching presence (Shea et al., 2010). The open communication subcategory (social presence) is complimenting to make students

feel positive about their work. The facilitating discourse subcategory in teaching presence includes encouraging, acknowledging, or reinforcing student contributions. Instructor comments that acknowledged a specific point in the student postings I placed in teaching presence, specifically the category of facilitating discourse, such as “Good job on not using quotes.” If the instructor posting included praise or a compliment was generic, such as “Good job,” I placed in the social presence category of open communication. My subcategory called reminders matched with the two CoI subcategories of establishing time parameters and utilizing medium effectively; therefore, my emerging theme consisted of two CoI subcategories.

For knowledge-gathering categories, I took Shea et al.’s (2010) approach of comparing them with the CoI cognitive presence categories, unlike Richardson et al. (2015), which placed knowledge-based categories in teaching presence. To assess the cognitive level of the necessary student thought process to answer the discussion topic question, I utilized the CoI levels to code the topic discussion boards. I then compared the coded topics with the instructors’ cognitive presence results. Lastly, my subcategories of flexibility and modeling were not part of the CoI constructs.

Themes

From my data analysis, seven themes emerged from the most frequently demonstrated CoI categories and the corresponding subcategories of instructor comments in the three presences. If at least two of the four instructors had higher occurrences of the subcategories in the presences, I considered them a theme. I also compared instructors’ overall profiles of social, cognitive, and teaching presences of their comments.

Social presence themes were:

- expressing emotion/self-disclosure,
- complimenting, and
- using vocatives.

The cognitive presence theme was the exchanging of ideas.

Teaching presence themes were:

- establishing time parameters and utilizing the medium effectively,
- encouraging, acknowledging, or reinforcing student contributions, and
- confirming understanding through assessment and feedback.

Thus, using an inductive approach, I open-coded and formed subcategories and categories. I compared my findings to the CoI categories and subcategories to form themes.

Evidence of Trustworthiness

Throughout the study, I sought to maintain rigor to ensure that I coded and interpreted data accurately to produce trustworthy results. The four criteria examined to assess the study's trustworthiness included credibility, transferability, dependability, and confirmability. These four criteria are essential to qualitative inquiry studies, from the preparation stage to reporting the results (Elo et al., 2014).

Credibility

To achieve credibility throughout the data analysis process, I maintained a written reflexive journal, MAXQDA, Microsoft Excel, and Word notes to ensure the data analysis process was accurate by reflecting upon and justifying decisions. My journal and

notes included coding labels, reflections of the meaning of certain concepts, possible biases, and structural diagrams to link my ideas with the CoI categories. Additionally, I did not allow any personal motivation or interests to interfere with my data analysis. To avoid possible misinterpretations of instructor comments, I reread postings several times, reflecting on passages independently and in context to the conversation before coding. The coding process was non-linear, in which I returned to the initial coding to confirm accurate interpretations of instructor comments. During the grouping and categorization of codes, I reviewed my results several times for accuracy.

Transferability

The purpose of the study was to categorize instructor comments to assist educational staff in positive social change decision-making. My presentation of clear and detailed descriptions of the setting, the participants, and the data analysis process of discussion boards allow the reader to compare their setting and population to determine if the results are transferable. Readers should use caution when comparing this study's findings to all online instructors, given its smaller sample size and limitation to online RN to BSN instructor comments, as courses of different content areas or larger sample sizes may produce different results.

Dependability

To preserve dependability, I provided a clear representation of the participants and their shared data. I obtained data using a template for consistency. When coding data, I referred to coding definitions to aid with the stability of results. I then categorized my codes systemically based on shared characteristics. Lastly, I included detailed results.

Thus, to establish dependability, I presented transparency and accountability of the data analysis using detailed descriptions of my process to answer the research questions.

Confirmability

I established the confirmability of the study by expressing my positionality and structured reflexivity. As an outside researcher with an educational background, I am familiar with online courses and instructor responsibilities. Additionally, I have extensive experience as a student in online courses. This positionality required reflexivity, an understanding of my perceptions as an instructor and student, to ensure objectivity. Journaling, note-taking, and conversations with my mentor helped me avoid and eliminate possible biases, form objective observations of instructor comments, and make informed decisions. Understanding my role as a researcher, I presented the analysis process through rich, thick descriptions and verbatim quotes. I thoroughly examined and reflected on instructor comments to ensure unbiased and accurate findings. An example of my thought-based note on an emerging pattern was, “Instructor appears to want to create a trusting environment,” and using notes to help refine coding was, such as “instructor is using the words ‘thank you’ to praise student.” Lastly, I maintained strict record-keeping and safe data protection procedures.

Results

The data analysis consisted of 1,644 coded segments of discussion board comments from four nursing instructors who facilitated seven online RN to BSN courses. During my second and third codings, identifying subcategories and categories, and their comparison to the CoI, seven themes emerged based on the frequency of responses. The

seven themes included the knowledge to answer the research questions regarding social, cognitive, and teaching presence found in nursing instructor discussion board comments. The results also indicated that some instructors used limited CoI subcategories, such as injecting knowledge from diverse sources and quoting others (See Appendix C & D). I also recorded and explained occurrences of other behaviors outside of the CoI categories.

The number of discussion boards varied among the instructors, and I obtained no student comments from the instructor transcripts. Instructor A facilitated four discussion boards from one course. Teaching two courses apiece, Instructors B and C each had a total of 11 discussion boards, while Instructor D had a total of six. In the results section, I discussed the themes and holistically compared instructor comments to determine the strength of presences. Using this approach, I answered the research questions about the types of CoI subcategories instructors used in discussion boards. Additionally, I ascertained omitted CoI behaviors in instructor comments to discover possible instructional shortcomings.

Research Question 1: Social Presence

I addressed the first research question: What types of social presence are demonstrated in asynchronous online discussion posts by nursing instructors in a community college? The CoI categories of social presence include affective, open communication/interactive, and group cohesiveness. Four instructors exhibited behaviors in the three categories, with some more prevalent than others (See Table 5 & Table C1). Three themes emerged pertaining to social presence subcategories: expressing emotion/self-disclosure, complimenting, and using vocatives.

Table 5

Social Presence Theme Occurrences

Categories	Subcategories	A	B	C	D
Affective	Expressing emotion	61	3	120	60
	Self-disclosure	6	5	23	17
	Humor	–	–	–	–
Open Communication/ Interactive	Continuing a thread	–	4	1	–
	Quoting others	–	–	–	1
	Complimenting	5	101	32	12
Group Cohesiveness	Vocatives	3	5	310	15
	Referring to the group	–	3	9	14
	Phatic	14	1	6	1

Note. Instructor A taught one course with four discussion boards. Instructors B, C, and D taught two courses, totaling 11, 11, and six discussion boards, respectively. A dash represents no evidence found.

Theme 1: Expressing Emotion/Self-disclosure

A theme observed in the instructor comments was expressing emotion in the CoI social presence affective category. Affective expressions can be useful in discussion boards by humanizing instructors to lessening the remoteness of computer communications that face-to-face students do not experience. Instructors expressed emotions through a high frequency of exclamation points, but interjections, such as "Wow," or "Awesome," were also used. Instructor B used few exclamation points or interjections but stated, "Love the comment." Instructors A, C, and D revealed their feelings to show excitement or emphasize praise throughout their discussion posts, which can positively affect student-instructor relationships and increase student motivation.

Another CoI affective subcategory exhibited by all instructors at various frequencies was self-disclosure, in which instructors share personal information about themselves. The dialogue could include disclosing personal details and opinions to express their belief or value system to expand student thought processes. The types of instructor self-disclosures varied. For example, Instructor A and B utilized self-disclosure sociable when commenting, “I also come from 4 generations of nurses.” However, Instructor B’s infrequent use of social self-disclosure and showing emotions gave students fewer personal insights into their instructor. This instructor’s lack of CoI affective expressions in their postings could lead to less student emotional attachment and discussion board participation.

Instructor C exhibited self-disclosure by offering advice in such statements as, “I use Elderberry syrup (Sambucal) when I feel like I am coming down with something.” Instructor C related their opinions in a loaded comment that included,

> I also have the same beliefs about the liberal policies that are creeping into our society. When we tell people they are victims and deserve handouts it makes them dependent on the government and potentiates feelings of helplessness and being a victim. We are robbing them of feelings of accomplishment and being rewarded for hard work.

This instructor’s affective self-disclosure also corresponds with the open communication CoI subcategory in social presence. According to the CoI guidelines, instructors contribute to social presence by setting the tone for a safe environment by maintaining a neutral position for student sharing without feeling intimidated. However, Instructor C

may have inhibited open communication by oversharing views. Their comments could create an atmosphere where students hesitate to share diverse perspectives or create divisive feelings and discussions.

Instructor D displayed self-disclosure with shared work-related experiences to reinforce content. One of the 17 disclosure comments by Instructor D included,

> In my case, several nurses before me had tried to obtain a Mandarin interpreter for a Cantonese-speaking patient, and it was not working well at all. The dialect that this patient spoke came from a specific region, and on the day that I called the translation line they just so happened to have someone versed in that dialect available.

Instructor D's professional self-disclosure lends credibility to their nursing instructor role by sharing work experience.

The CoI affective behavior of humor was not evident in the data. Instructor humor may be challenging to project online but can increase engagement and content recall. Additionally, a sense of humor is often an appreciated attribute that can reduce stress and assist in instructor-student connections.

Theme 2: Complimenting

The instructor motivational statements of thanking and praising students were the second theme of complimenting, a subcategory of the CoI open communication category. Instructor comments consisted of nonspecific praise to acknowledge and encourage further postings. Representations of complimenting were, "Good job," "Excellent post," and "Great posts! You bring up some great points."

The characteristics among the presences are not distinct and often overlap with other categories. Within teaching presence, the trait of complimenting specifics is in the encouraging, acknowledging, or reinforcing student contributions subcategory, while nonspecific, short-worded complimenting is in social presence. Instructor B complimented students more often in a social presence capacity than the other three instructors who complimented in the teaching presence domain. Thus, Instructors A, C, and D provided additional information to reinforce and extend their compliments.

The open communication/interactive category's expected result is establishing a motivational, comfortable discussion board that can lead to further discourse. The instructors seldom used the subcategories related to quoting other students and continuing a thread. Using comments from both subcategories can promote and continue discussions.

Theme 3: Use of Vocatives

The social CoI subcategories in the group cohesiveness category include using vocatives, referring to the group, and expressing phatic statements. These behaviors involve acknowledging individuals and the group. Establishing an educational group is the foundation of CoI by recognizing students require inclusiveness to combat isolation, common in online learning.

The emerging theme was the use of vocatives, which in this study was referring to students by name. Instructor C always addressed students by name and asked students to do likewise. Encouraging this practice can increase feelings of closeness in instructor-student and student-student relationships. Conversely, Instructors A and B utilized

student names once and 4 times, respectively, possibly causing feelings of isolation. While Instructor D used student names in only one course, they addressed more than one student at a time, emphasizing group cohesiveness.

Behaviors seen less often were referring to the group and using phatic phrases. Terminology to denote group inclusion by Instructors C and D included "we," "as nurses," and "Anyone is welcome to reply." Using group language reminds the participants of the collaborative learning experience, a component of discussion boards. Instructors A and B used little or no group language, possibly reducing group cohesiveness.

Utilizing phatic phrases may communicate feelings of caring, a critical emotional need. Instructors A and C connected socially, writing "Enjoy your trip" and "Enjoy your little one," respectively. However, half of Instructor A's phatic phrases were course closing statements, which might be more effective if shared in earlier discussion weeks, for example, "You will enjoy EBP with Dr. [name]!"

To answer the research question, all instructors displayed various types of social presence in their comments; however, this also led to examining subcategories less frequently used. The emerging themes consisted of expressing emotion/self-disclosure, using vocatives, and complimenting. Other social subcategories seldom or never used were humor, continuing a thread, and quoting others, possibly reducing student motivation and persistence.

Research Question 2: Cognitive Presence

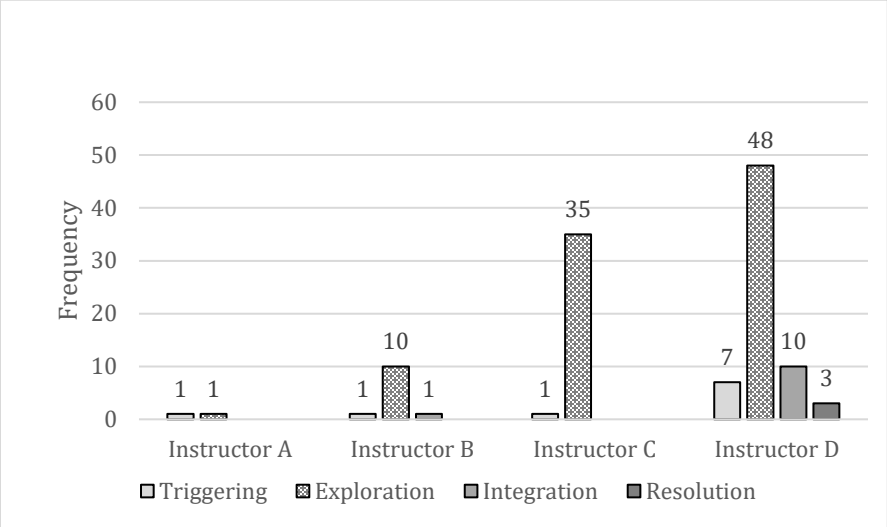
The second research question I addressed was: What types of cognitive presence are demonstrated in asynchronous online discussion posts by nursing instructors in a community college? I grouped questions and comments that pertained to the gathering of or providing content information together into categories. I then compared the categories against the CoI scale of cognitive presence from triggering, exploration, integration, to the highest resolution level. One of the four instructors showed higher cognitive presence and included comments in all the subcategories (See Table C2). The other instructors showed little evidence of creating a sense of puzzlement, making suggestions, sharing divergent ideas, or asking questions to have students create solutions or apply their new knowledge.

Theme 4: Exchanging ideas

The emerging theme revealed in cognitive presence was exchanging ideas in the second CoI exploration stage. The goal of discussion boards is to raise students' cognitive levels to meet course outcomes. In this stage, instructors provided more information on a topic, introduced content on a new subject, and asked questions to gather more information. Because Instructor C often delivered similar cognitive knowledge to each student, I did not classify it as a separate exchange of ideas or questions for students' consideration, but as one post (See Figure 3).

Figure 3

Cognitive Presence Occurrences.



Note. Instructor A taught one course with four discussion boards. Instructors B, C, and D taught two courses, totaling 11, 11, and six discussion boards, respectively.

I analyzed my instructor questions and input of knowledge against the CoI cognitive levels and discovered instructor variations. Instructor D posed the most questions that required students to answer at the integration level of thought-processing, where students integrate ideas to create solutions, an attribute of the CoI. An example of Instructor D's cognitive post included, "Tachycardia can be an interesting diagnosis, especially if the patient is stable and it is a new onset. What kind of questions could be asked about the tachycardia, specifically?" An example of Instructor D providing additional content to the discussion board was,

> The scary thing about the development of drug-resistant strains of STIs is that some of these diseases are very difficult to treat to begin with. Spirochete-based

> infections, like Syphilis, have a tendency to ‘spiral’ away from antibiotics and like to burrow, causing widespread havoc throughout the body.

Additionally, for each discussion board in one course, Instructor D introduced new topic questions (triggering) to students. For example, one week’s question was,

> Here's the question of the day: What do you do about the elaborate historians, the comedians, the storytellers, the "trying to fool you" patients? We've all had them. The one patient that that makes you think, "Just answer the question!" or "Ok, some details would be nice! "How do you approach these patients? Why do you think some patients are like this?

Instructor D’s questioning could lead to more student higher-level thought responses.

Instructor A showed fewer contributions to cognitive presence using two lower-level cognitive subcategories. One example of their cognitive presence included, “A spiritual assessment upon admission is great but what about reassessment during the hospital stay?” Although the question did not enlist an extensive thoughtful response, Instructor A indicated students consider addressing an issue more than once during the patient’s stay.

Instructor B posed three open-ended questions and some content, but with 11 discussion boards, the lack of questioning showed a weaker cognitive presence. One example of Instructor B adding to content was the statement, “Some are suggesting that the current exam become a technical practice license and another professional exam be set for 5 years post-graduation. The model is the engineering profession.” A higher-level question posed by Instructor B was, “What can you do to help make improvements?” Not

only will this question evoke discourse, but it requires students to use current content and apply it to seek solutions.

Instructor C supplied additional information on the current topic or new content to enhance student learning, more often than Instructor A and B, but offered few open-ended questions, as recommended by the CoI founders. An example of Instructor C's adding new content to the discussion board was, "Hepatitis A is a vaccine-preventable, communicable disease of the liver caused by the hepatitis A virus. It's usually transmitted person-to-person through the fecal-oral route or consumption of contaminated food or water." Conversely, in the general topic discussion of the right or privilege of health care, Instructor C revealed the faulty argument of false cause (establishing a cause/effect relationship that does not exist) when comparing driving without a seatbelt to people that may abuse the health system. Instructor C also supported a student's use of false cause of comparing the Veterans' Administration system to universal health care. The instructor's failure to recognize the faulty argument could lead students to model the behavior. Additionally, Instructor C included an opinion statement rather than an open-ended question. Instructor C's post contained,

> I also want to add that there are some people who are irresponsible and prefer to drive without a seatbelt, ride a motorcycle without a helmet, or who are irresponsible and prefer other risky behaviors such as texting while driving. Many responsible taxpayers ask if they should pay for the consequences of another person's irresponsible behavior? Thank you for bringing up the Veterans

Administration (VA) system as a prime example of why universal, nationally funded and managed health care will not fix the problem.

In this study, I gathered instructor discussion board comments but did not request student responses; therefore, I also rated discussion board topics on the CoI cognitive levels. Discussion board topics are the initial assignment for all students to post responses starting the discussion conversation. By determining the topics' cognitive level, I could assess if additional instructor comments might be necessary to facilitate students to higher-level thought processing. All instructors, except Instructor B, provided the discussion board topics of their courses. Students could respond to most topics at the CoI second exploration stage. Instructor C's courses had two topic questions that I rated at the third integration stage and one at the fourth resolution stage, requiring students to apply solutions to real-world situations in their responses. Generally, most discussion topics did not require students to respond at the third or fourth CoI cognitive levels. This outcome reinforces the CoI theory that instructor facilitation is necessary to assist in increasing students' higher-level thought processes.

In conclusion, one instructor exhibited cognitive presence by including comments in the four CoI subcategories. Another instructor provided additional knowledge on nursing-related concepts; however, some comments contained faulty reasoning. Three of the four instructors posed few questions. Thus, Instructor D created a stronger cognitive presence than the other instructions by adding more higher-level questioning and additional content. Instructor A, B, and C did not contribute to the recommended CoI cognitive subcategories to encourage higher-level thought processes for their students.

Research Question 3: Teaching Presence

The third research question was: What types of teaching presence are demonstrated in asynchronous online discussion posts by nursing instructors in a community college? Numerous instructor comments displayed teaching presence under instructional design and organization, facilitating discourse, and direct instruction categories (See Table C3). Three themes emerged with most comments in the facilitating discourse category (See Table 6).

Table 6

Instructors Occurrences of Teaching Presence Categories

Teaching Categories	Instructor A	Instructor B	Instructor C	Instructor D
Instructional Design & Organization	16	27	66	0
Facilitating Discourse	52	85	276	32
Direct Instruction	25	15	62	29

Note: Instructor A taught one course with four discussion boards. Instructors B, C, and D taught two courses, totaling 11, 11, and six discussion boards, respectively.

Theme 5: Establishing time parameters and utilizing medium effectively.

The instructor comments in the instructional design and organization category included reinforcing due dates and online practices. The prevalent CoI subcategories in the instructional design and organization category were establishing time parameters and using the medium effectively. The two subcategories had similar characteristics to my emerging subcategory of reminders to students; therefore, the theme consisted of two CoI subcategories. Instructors A, B, and C posted time and grading comments and general discussion board practice reminders to students in similar ways. The instructors used

short, direct comments as kind reminders rather than longer explanations that students could interpret as personal reprimands. Such phases of setting time parameters included Instructor C posting, “I will give you a grade once you have made both response posts,” repeated to numerous students. Instructor B wrote, “Please do not do all posts on the same day.” Other behaviors in the instructional design categories under using the discussion board effectively included Instructor A’s comment, “would have been nice to lengthen the reply post.” Instructor D did not post comments coded in the instructional design and organization category, indicating the students were following posting guidelines, or the instructor was not displaying teaching presence in the instructional design and organization category.

Finally, three of the four instructors provided reminders of dates and grading policies. In the instructional design and organization category, two less observed behaviors were netiquette and making macro-level comments about the course content. An example of a macro-level comment was Instructor B’s comment, “This course is designed to introduce you to basic key concepts in professional nursing, significant literature. and resources.” Not seen in instructor comments were the CoI subcategories of setting the curriculum and designing methods, such as reviewing course goals and directing students to break into groups, respectively. This is an expected omission if the course design is established or posted outside the discussion board.

Theme 6: Encouraging, Acknowledging, or Reinforcing Student Contributions

Instructors provided the most teaching presence comments in the subcategory of encouraging, acknowledging, or reinforcing student contributions. Instructor comments

that encouraged students with specifics on why the post was well-constructed I placed in this category. Instructors C and D often had long, detailed posts complimenting several detailed aspects of students' responses, providing more insights. On the other hand, Instructors A and B tended to use shorter, direct comments with some exceptions from Instructor A. Examples of Instructor D's student acknowledgment included,

> This is an excellent post detailing the questions asked when a stroke alert rolls through the doors and what they mean. You have some excellent observations.
>
> Great job on your discussion. I like how you focused specifically on newer nurses and teaching them to take breaks.

Instructor C often responded to students' proper form of netiquette and discussion board formatting that encouraged social behavior within a teaching presence comment. An example of Instructor C's student acknowledgment was, "Great response posts. You demonstrate respect for your peers by addressing them by name and then in the opening statement of your response posts." In a similar manner using positive reinforcement, Instructor C commented, "You acknowledge the value of your peer's contribution to the discussion. You also introduce new information supported by a new reference. That is perfect." Instructor C also included comments that acknowledged student content, such as, "Thank you for your insight into Electronic charting and its impact on accuracy, safety. And privacy issues. Many errors have been prevented. Your example of the medication error in the ED is excellent." This post was an example of providing the nursing importance of the student posting, reinforcing their contribution, and encouraging continued discourse.

Instructors A and B recognized student comments in a straightforward, direct manner containing less information than Instructor C and D. An example of Instructor A's facilitation discussions included, "Great job of not quoting." Instructor B's student acknowledgment had the comment, "Inadequate staffing is a serious issue in nursing. Good post." Encouraging, acknowledging, or reinforcing had the highest occurrences of all the instructor comment themes.

The theme of encouraging, acknowledging, or reinforcing student contribution was the most observed CoI teaching presence behavior. All instructors supported students with specific comments regarding their well-constructed postings. In the facilitating discourse category, the subcategories less displayed were seeking consensus among students, drawing in participants, and setting the climate for learning. Utilizing behaviors in other subcategories may increase student-to-student interactions.

Theme 7: Confirming Understanding through Assessment and Feedback

The direct instruction category provides leadership and additional subject knowledge to students by sharing resources, summarizing, confirming understanding, and providing feedback. Within the scope of teaching presence's category of direct instruction, the dominant theme was confirming understanding through assessment and feedback. All instructors displayed comments that provided feedback, verified understanding, and reinforced content importance.

The postings in this theme varied among the instructors. Instructors A and B posted shorter replies containing feedback on grading requirements and reinforced the importance of an issue in students' posts but were less specific than Instructor C.

Instructor B expressed the importance of a topic when they stated, “Value based reimbursement is an issue of great importance to leaders. Good point/post.” Instructor B’s comment reinforces the student’s thought-processing and encourages further higher-level thinking skills.

An example of Instructor A’s longer feedback statement was, “I have a couple of suggestions for writing: APA hint: 1. Page numbers are only used with direct “quotes” with quotation marks see APA manual. 2. Name and date (Masters, 2018, p.218). 3. No contractions in formal writing.” Instructor A’s comment assists the student in APA formatting in a direct and non-judgmental way by providing specific examples.

Instructor C’s feedback was longer and addressed posting requirements when they stated, “We are also looking for an article that supports the practices you cite. CAUTIs and preventing pressure ulcers are definitely in the literature with numerous evidence-based suggestions to prevent them. So please include references to support your best practices.” Instructor C explained how to apply references to their comments.

Instructor D's content differed from the others. They focused on providing longer content feedback and additional information on the subject matter with little focus on discussion board requirements. One example of Instructor D’s post of providing additional information, confirming student knowledge, and the importance of a topic was,

> The questions you mention in your post not only elicited information to take care of the patient right away, but also identified areas where more education is needed. This is a great example of how we unconsciously develop a sense of what

> to ask to effect clinical judgement and begin to problem solve, all while caring for the patient. Great job!

Instructor D's comment not only reinforces the student's thought-processing skills but adds to the discussion content, following CoI recommendations.

All four instructors posted comments that confirmed understanding through assessment and feedback. The instructor comments included APA feedback, the relevance of a topic, and reinforcing new knowledge. Instructor behaviors less evident in the direct instruction category were diagnosing misconceptions and injecting knowledge from diverse sources.

Direct Instruction of Injecting Knowledge

Some instructors demonstrated direct instruction of injecting knowledge from diverse sources by providing references to posts or additional students' sources. However, the instructor comments in this subcategory were not prevalent enough to classify them as a theme. Instructor A supplied a chart for students when stating, "Look at the vocabulary chart that I posted to help with terms," and cited APA texts. Instructor C did cite but did not reference most comments as observed in their post, "…Remember, 'People may not remember what you said or did, but they will always remember how you made them feel.' Maya Angelou." Instructor C also supplied one hyperlink. However, Instructor C made factual-type statements without citing their sources or providing additional details, such as "President Trump has made some headway on lowering the price of drugs." As student expectations were to cite their postings, Instructor C did not support the information with references which could discredit her remark.

Instructor D delivered the most references to students by citing and referencing their remarks and providing additional resources to their students. For example, Instructor D posted, “Large population-based studies are now starting to refute this claim: https://nutritionj... Interestingly, fish oil supplements did lower triglycerides, but had no effect on atherosclerotic risk or mitigating effect!” Providing links and additional content can increase interest in course content and cognitive discourse. Instructor B supplied no formal citations or references, which could negatively affect cognitive discourse.

Three of the four instructors provided few additional outside literature sources to increase student knowledge base and course content interest according to the CoI guidelines. The frequencies of injecting knowledge from diverse sources ranged from zero to eight (See Table C3). Examples I observed included citations, references, hyperlinks, and a chart.

Additional Subcategories Outside of the CoI

Data analysis of instructor comments resulted in subcategories found outside the CoI. The two codes that emerged from the data were flexibility and modeling. An example of showing flexibility was Instructor A’s comment, “No point deduction for 3 mins.” Instructor B gave students a second chance in grading requirements in the first week of one class indicated with their quote, “I will not deduct this time, but will in the future.” These flexible comments can reduce anxiety and create a feeling of instructors’ understanding of their students’ busy lives. Alternatively, Instructor D gave students the option to answer “the question of the week” in lieu of a response when they stated, “…You may reply to this post to get credit for one of your responses, reference

requirements still apply." Instructor D's comment gives adult students the option to discuss a different topic of interest, providing choices in the discussion board while increasing student motivation and knowledge.

Instructors often employ modeling behaviors to provide examples for students. This method was apparent in Instructor D's discussion boards. In one class, all posts addressed the student with "Hi [Name], and ended with "Kind regards, [Instructor name] maintaining proper APA style throughout their posts in both courses. Instructor D's comment gives students a visual representation to model without written instructions. Instructor C expressed student netiquette as stated, "When you respond to your classmates please address him or her by name and add a supportive comment or an affirmative statement about his or her contribution to the discussion." Instructor C modeled their expected netiquette and commended those who followed it.

Modeling and flexibility were two non-CoI behaviors I observed from two of the four instructors. Examples of instructor modeling included social netiquette and APA application. Forms of instructor flexibility were additional student posting time and affording choices on posting topics.

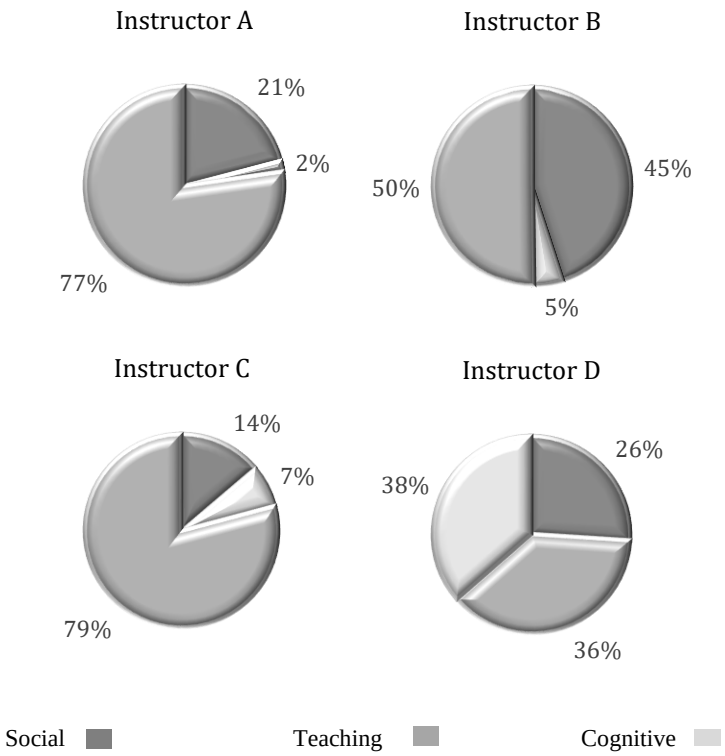
Overall Instructor Presences

Each instructor facilitated their discussion boards in different ways but also shared common traits. All instructors exhibited warm, inviting language even while providing corrections to students' postings. The percentage of presences used by the individual instructors remained consistent throughout their courses (See Figure 4). Three

out of the four instructors used limited CoI subcategories rather than various recommend CoI approaches (See Appendix C).

Figure 4

Percentages of CoI Presences Among Instructors.



Note. Instructor A is based on one course. Instructor B, C, and D are based on two courses. Excluded subcategories are showing emotion and vocatives in social presence to avoid misrepresenting overall data.

Instructor A and B responded to most students each week with short, one to two-line posts. While this approach provided student acknowledgment each week, the instructor comments lacked multiple CoI behaviors that encouraged more discourse, including added knowledge and instructor questions. Instructor A and B differed in the

percentages of social and teaching presences. Instructor A incorporated her social presence within teaching presence as seen in her comment, “Every time you are with the patient is an opportunity to care. Caring will humanize your care and feel less like a task. Thank you for not quoting.” A typical example of Instructor B's comments was, “Good reflection and advice. Thanks for sharing.” Their patterns of instructor postings remained consistent throughout the discussion weeks. Both instructors lacked CoI recommended cognitive presence behaviors that could lead to lower course content outcomes.

Instructor C employed a different approach in their discussion board comments from the other three instructors. During the first week of discussions, Instructor C complimented good netiquette and proper APA postings, as recommended by the CoI researchers. Instructor C addressed most or all students each week, and responses were often long (up to 371 words) with reoccurring teaching and social presence content with little variety in CoI subcategories. The similar postings to student made the instructor comment transcript for one course over 20 pages in Microsoft Word one course and over 50 pages in the other course. Instructor C’s posting style indicated they were having a personal conversation with each student, contrary to the group cohesiveness CoI recommendation. The amount of time it would take a student to read all a week’s discussion could possibly reduce the number of postings read. According to the CoI, one instructor group message is more effective and efficient. Instructor C showed social and teaching presences but did not use a variety of CoI subcategories. Although they had more cognitive presence than Instructor A and B, Instructor C lacked student questioning. An example of Instructor C’s posting was,

> Hi [Name]: [Social presence]You describe the problems with charting very well. I know that it is hard to connect with your patients on a caring level when you feel rushed and pressured. You also address the vulnerability that patient data suffers. Very good posts. [Teaching presence with social elements]

Instructor C maintained the same style in both courses.

Instructor D exhibited a different approach than the other instructors. Instructor D did not respond to every student each week. However, they adapted their posts to the subject matter, were often a paragraph long, contained content relevant to all, and showed all three presences, unlike the other three instructors who focused on two presences. Although Instructor D did not use all subcategories, their comments closely followed the CoI recommendations of establishing the three presences. An example of a group posting was,

> This is a very important point to discuss. Thank you for sharing! [Teaching presence with social elements] As nurses, [Social presence] being mindful of our own cognitive constructs and beliefs about a patient's condition can enhance our awareness of any bias that we may interject into the patient's care. Mental Health issues are harder to relate to - we can relate to physical symptoms like fatigue or palpitations very easily, but it is much harder to relate to someone who is prone to hearing voices or who may have specific routines that need to be kept. If a person is able to answer, asking them about their perception of their illness can provide a lot of insight as to how the nurse can best care for that patient. [Cognitive presence]

Instructor D maintained this posting pattern apart from a week that responses were less detailed and contained more social and teaching presence behaviors.

The four instructors varied on the length, number, and presence percentages of their postings. Two instructors showed lower rates of social presence. However, I found instructor social presence behaviors, such as complimenting in teaching presence subcategories. Therefore, a lower social presence percentage does not indicate it was lacking. The length of the postings varied from one or two sentences to lengthy paragraphs. Three instructors acknowledged most students each week; however, CoI guidelines do not specify how often to post but advise against over-dominating or under-facilitating the discussion board. The CoI theory involves creating a constructive, collaborative learning environment; therefore, an instructor's role is to encourage student involvement and higher-level thinking as a group. So, the number of instructor comments each week is not necessarily an indicator of presences, or the behaviors exhibited to promote student learning. While all instructors showed signs of teaching and social subcategories, one instructor also demonstrated cognitive presence.

Summary

Using a qualitative content analysis approach, I described and provided examples of the data collection and analysis process to answer three research questions. My examination of the data enabled me to discover seven significant themes of CoI behaviors found in nursing instructor comments in asynchronous online discussion boards. The study results indicated that all instructors displayed social and teaching presence. The instructor comments establishing social and teaching presence concentrated on specific

subcategories while omitting others. Only one instructor exhibited all cognitive subcategories. The behaviors of modeling and flexibility, found outside of the CoI constructs, emerged. Additionally, I reviewed the credibility, transferability, dependability, and confirmation of the study for trustworthy results.

In Chapter 5, I interpret my findings in context to the study's framework. Additionally, I compare my results to other studies to confirm, refute, or broaden instructor comments' knowledge. Chapter 5 also includes examining study limitations, recommendations for further research, and positive social change implications.

Chapter 5: Discussions, Conclusions, and Recommendations

I used a qualitative content analysis approach to describe community college nursing instructor comments in online discussion boards. The results of the study can help make social change decisions to increase student learning outcomes. I obtained data from four instructors who taught seven online RN to BSN nursing courses. The research results that I acquired included various types of social, cognitive, and teaching presences demonstrated in asynchronous online discussion posts. In this chapter, I explain my findings in the context of peer-reviewed literature and the CoI. I also include the study's limitations, recommendations for future research, and positive social change implications.

After analyzing the data, I identified seven themes among the online instructor comments. The three themes that I found in social presence were expressing emotion/self-disclosure, complimenting, and using vocatives. The cognitive presence theme that I observed at the exploration level was the exchanging of ideas. Last, within teaching presence, I found the three themes of (a) establishing time parameters/utilizing the medium effectively; (b) encouraging, acknowledging, or reinforcing student contributions; and (c) confirming understanding through assessment and feedback.

Instructors had a higher occurrence of social and teaching presence subcategories. However, most instructors exhibited little to no evidence of cognitive subcategories that could improve student learning. In other words, I found that most instructors displayed a higher amount of social and teaching presence comments but less cognitive presence comments in their postings.

Interpretations of the Findings

When interpreting my findings, I compared my literature review with my results. I confirm and disconfirm the literature results on the types of subcategories that appeared in instructor comments and extend the literature on CoI subcategories omitted and could assist in student learning. Thus, this study includes additional information about nursing instructor comments and practices in community college courses. The results of the study are helpful to instructors to reflect and improve their online instructional methods.

Interpretation of Themes Regarding Social Presence

I addressed the types of social presence demonstrated in asynchronous online discussion posts by nursing instructors in a community college. Instructors creating social presence provide a safe, risk-free environment to conduct higher-level communication where students will aspire to interact with others (Garrison, 2017). I observed three themes among the four instructors' online comments: expressing emotion/self-disclosure, complimenting, and using vocatives in the social presence categories.

My findings confirmed four social presence subcategories present in the discussion boards. The instructors followed most of the CoI recommendations of Garrison et al. (2000) to create a social presence that is beneficial for student inclusion and motivation. For instance, this study's CoI's social subcategories closely mirrored Richardson et al.'s (2015) results that revealed the three most frequent instructor behaviors: showing emotions, approval of student postings, and using student names. The sharing of personal experiences, or self-disclosure, was not a common trait that appeared in many studies. Yet, my conclusion of the instructors' use of self-disclosure confirmed

Clarke and Bartholomew (2014), who found it the second most common social behavior after complimenting. My study conforms with DellAntonio's (2017) results that instructors use praise in discussion boards, which they found increased student learning outcomes. Instructors' nonuse of humor in this study was consistent with McGuire's (2016) findings that online instructors are reluctant to use humor students could misinterpret.

According to CoI guidelines, instructors that utilize vocatives and group language create student inclusiveness and group cohesiveness (Shea et al., 2010). Only two of the four instructors addressed students by name, contrasting Joksimovic et al.(2015) finding that instructors commonly use vocatives. However, my results revealed the same findings as Joksimovic et al. (2015), that instructors used group language less often in discussion boards. Overall, most instructors used numerous CoI social subcategories used to provide a foundation for the learning process (Garrison et al., 2001)

Interpretation of Theme Regarding Cognitive Presence

The second research question I addressed was the types of cognitive presence demonstrated in asynchronous online discussion posts by nursing instructors in a community college. My study's results showed the lack of cognitive instructor comments was consistent with Clarke and Bartholomew (2014), who found that cognitive presence was lacking in online discussion boards and required more instructor questioning. Only one of the four instructors posted numerous open-ended questions, including new topic questions. The lack of instructor questioning by three of the four instructors was consistent with Aloni and Harrington's (2018) findings, suggesting that some instructors

find it challenging to create questions leading to complex student responses. One of the four instructors followed the CoI recommendations of posting many higher-level questions. The instructor's approach was consistent with the CoI guidelines and Lee and Martin's (2017) findings that students appreciated instructors posing questions on applying knowledge to the real world. However, contrasting the conclusions of Smits and Voogt (2017) and Joksimovic et al. (2015), who found instructors asked questions focusing on content, most of this study's instructors did not ask questions to elaborate on the subject matter.

Three of the four instructors supplied additional content similar to study results by Osborne et al. (2018) and Smits and Voogt (2017), who found elaborating content had significant positive effects on student satisfaction and learning outcomes. The results of this study confirmed the literature that discussion boards often lacked cognitive presence. Most instructors supplied additional content information but showed few questioning comments.

Interpretation of Themes Regarding Teaching Presence

I addressed the types of teaching presence demonstrated in asynchronous online discussion posts by nursing instructors in a community college. Teaching presence has three categories: instructional design and organization, facilitating discourse, and direct instruction (Anderson et al., 2001).

Instructional design has six subcategories, but as Shea et al. (2010) stated and consistent with this study, I only observed three subcategories. The subcategories of setting the curriculum, designing methods, and making macro-level comments about the

course are often tasks completed before the course starts (Shea et al., 2010). The subcategories that appeared more often in the instructor comments were establishing time parameters and effectively utilizing the medium. Conforming with this study's results, Broadbent (2015) and Kennette and Redd (2015) discovered instructors provided reminders to assist in management skills for success.

The most common behavior used by three of the four instructors was encouraging, acknowledging, and reinforcing student contributions in the facilitating discourse category. My findings confirmed the outcomes of many studies that added that instructor comments of encouragement and acknowledgment led students to believe their participation was valued, motivating them to continue learning (Claywell et al., 2016; Gray & DiLoreto, 2016; Shea et al., 2010; Wisneski et al., 2015). Like Smits and Voogt (2017), I discovered three instructors pointed out specifics in student posts to praise more often than making a generic praise statement, such as "Good job." However, in contrast, this study's instructors rarely displayed additional facilitating discourse subcategories found by Mills et al. (2016) and in the CoI guidelines that could increase student-to-student interactions. These subcategories included instructors pointing out areas of agreement or disagreement among students, seeking consensus, and drawing in students who infrequently participate in the discussions.

A dominant theme in direct instruction was confirming understanding through assessment and explanatory feedback. My outcome concurred with other studies of instructors' use of feedback to correct students' posts (DellAntonio, 2017; Eom & Ashill, 2016; Martin et al., 2018; Osborne et al., 2018). Instructors providing additional peer-

reviewed articles to increase student learning were less common in my study but detected by Martin et al. (2018) and Clarke and Bartholomew (2014) in their results.

My findings revealed instructor styles varied both in the length of the postings and the percentages of presences. This result corroborates the diversity among instructors found in other studies (Clarke & Bartholomew, 2014; Claywell et al., 2016; Jaggars & Xu, 2016; Parks-Stamm et al., 2016; Richardson et al., 2015; Smits & Voogt, 2017). One instructor's posting style who provided a moderate number of paragraph-long, informative posts with all three presences appearing was closely related to studies by Rockinson-Szapkiw et al. (2016) and Roulston et al. (2018). They found students who experienced social, teaching, and cognitive instructor behaviors had more significant perceived learning correlating to higher student outcomes (Rockinson-Szapkiw et al., 2016; Roulston et al., 2018).

This study supported the need to further examine community college discussion boards to improve instructor cognitive behaviors absent in many discussion boards. Although instructors showed some social and teaching presence, they tended to use specific CoI subcategories while excluding others. Additionally, this study shows the discrepancy in presences among instructors. Garrison (2017) stated that implementing the CoI constructs could create a constructive, collaborative learning environment to improve student learning outcomes, a necessary need in online learning.

Limitations of the Study

After considering the results of this study, limitations exist in this qualitative content analysis. The study sample size was limited to four instructors from one

institution due to my time restraints. Results may differ with a larger population from more than one community college. Additionally, I limited the study's population to RN to BSN instructors and nursing courses. Instructors of other content areas may produce different results in their facilitation methods. Three of the four instructors shared two courses, while one instructor provided a single course. If the instructor had shared the second course they taught, their results could differ from the additional data if they facilitated the second course differently. I did not include personal instructor emails to students or instructor postings outside of the discussion board that may have impacted online student participation.

Recommendations

I chose to focus solely on instructor comments found in discussion boards from one community college's RN to BSN online program. Expanding the population to several RN to BSN instructors from several institutions, including universities, could provide a greater perspective of online nursing instruction practices. Similar studies that include other content courses may also add to the literature on the types of instructor comments exhibited in discussion boards. Additionally, researchers could analyze other data sources within the course, such as instructor emails or outside postings relating to the discussion board. Researchers could expand on my study by obtaining instructor perspectives of their practices, providing insight into their postings.

Online instructors need content knowledge and online instructional skills to create an environment of trust and encourage higher-level cognitive competence (Kozan, 2016; Richardson et al., 2016; Rockinson-Szapkiw et al., 2016; Saadatmand et al., 2017). This

study's results displayed diverse instructor styles and a lack of cognitive presence in their comments. Researchers could examine online instructor training programs and professional development to reveal possible instructor practice variations and provide suggestions for improvement.

Implications

From the results of this study, positive social change could take place on many levels. Community college instructors could utilize the CoI subcategories to reflect on their instruction, improve communication skills, and share positive outcomes regarding their asynchronous online discussions. This study's results could help post-secondary administrators support their instructors with informed decisions in strengthening online instruction at the organizational level. Administrator support could include professional development and training instructors who design their courses to utilize the social, cognitive, and teaching presences in designing discussion boards. Additionally, my study's framework could guide instructor professional development to improve instructional practices, such as creating questions that assist students with their higher-level thinking.

For positive social change, online instructor evaluations could include online discussion board instructor comments at the institutional or state level. Administrators could consider asking instructors their methods to enhancing the learning process in discussion boards during the hiring process. Additionally, the designers of training and certification of online instructor programs should use research results of instructional practices to assist in strengthening their curricula. As discussion boards are an integral

part of online learning, implementing social change would benefit students' learning outcomes.

Conclusions

With the growth of online instruction, researching the characteristics of online learning becomes imperative. By examining current practices, educators and administrators can seek methods to improve the process. Community college instructors have a crucial and challenging role in creating a constructive, collaborative learning environment in discussion boards. The study revealed that instructors used social and teaching comments but fewer comments to assist higher-level student thinking. As a result, instructors should realize the influence their postings have in discussion board discourse. The study's framework included instructional guidelines that could help instructors facilitate student achievement in meeting online course outcomes. Improving online learning systems has long-lasting effects that enhance students' careers and life decisions.

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Appendix A: Community of Inquiry Framework Examples from Other Studies

Teaching Presence Categories	**Subcategories**	**Examples**
Instructional Design and Organization	Setting Curriculum	"In this course, we will be discussing…"
	Designing methods	"I am going to divide you into groups, and you will debate…"
	Establishing time parameters	"Please post by Saturday…"
	Utilizing medium effectively	"Try to address issues that others have raised when you post."
	Establishing netiquette	"Keep your messages short."
	Making macro-level comments about course content	"This discussion will help decide how to use different research methods."
Facilitating Discourse	Identifying areas of agreement/disagreement	"Susan's comment provides a counterargument to yours. Would you care to respond?"
	Seeking consensus	"I this you and Joe seem to agree on the issue."
	Encouraging, acknowledging, or reinforcing student contribution	"Nice job on your insightful post."
	Setting the climate for learning	"Feel free to post self-reflections on your ideas."
	Drawing in participants, prompting discussion, questioning	"What do you think about Susan's comment?"
	Assess the efficacy of the process	"We might be getting off topic."
Direct Instruction	Present content/question	"Why do you think…"
	Focus the discussion on specific issues	"I would ask you to consider…"
	Summarize the discussion	"Joe mentioned… Sue mentioned… We have not addressed…"
	Confirm understanding through assessment and explanatory feedback	"This is important because…"
	Diagnose misconceptions	"He is speaking from an administrative perspective, so be careful…"
	Inject knowledge from diverse sources	"You can find more information at http://www..."
	Responding to technical concerns	"Contact student support at…"
Social Presence Categories	**Subcategories**	**Examples**
Affective	Expressing emotion	"This can be difficult at first…"
	Humor	"It's a great day when there is no homework"
	Self-disclosure	"I have come across this before…"
Open Communication /Interactive	Continuing a thread	"I would add…"
	Quoting others	"As Susan stated…"
	Referring to others	"In your post you spoke about…"
Group Cohesiveness	Vocatives	"Jonathan, …"
	Referring to the group	"Hello, all."
	Phatics	"Sorry about your loss."
	Complimenting	"Good job"
Cognitive Presence Categories	**Subcategories**	**Examples**
Triggering	Recognizing the problem	"How would you deal…"
	Sense of puzzlement (new topic question)	"What would happen if…"
Exploration	Divergence of ideas	"I would disagree with…"
	Exchanging ideas	"You could think in terms…"
	Suggestion for consideration	"What do you think about…"
	Convergence among members	"I would agree…"
Integration	Synthesis	"What would that be beneficial…"
	Creating solutions	"How does that help…"
Resolution	Connecting to the real world	"So, applying that information to…"
Residual		

(Lee, 2014; Richardson et al., 2016; Shea et al., 2010).

Appendix B: Template of Instructor Comment

File Name: InstructorComments1
Semester or Quarter: (Ex. Spring 2019): _____
Approximate No. of Students: _____
Please copy and paste all instructor (no student) comments under the appropriate weeks. If the quarter or semester is less than 12 weeks, please leave those weeks blank.
After entering a week's discussion board in (name of LMS), please copy and paste the discussion topic post. Then, type the professor's name into the search bar just under the introductory topic post. This process should eliminate all other comments except the professor's posts. The comments can be copied and pasted into this Microsoft Word document. If necessary, separate each instructor post to indicate where one ends and the next one begins by hitting "Enter" to separate them by paragraphs. If two discussion topics are present, copy and paste in the appropriate section.

Example Week:
TOPIC POST:
What is the best practice for _____? Does the guideline used at my healthcare facility follow best practice founded by evidence in the literature?

INSTRUCTOR RESPONSE:
With the holiday weekend, it has somewhat made the first week a bit more challenging. Normally day four would be Thursday, but if you cannot get your initial post in by Friday, that is fine.
Thank you for your thoughtful answer, Greg. You addressed the first part of the prompt well, but could you please expand on Part B?
Class, try to address issues that others have raised.

TOPIC POST 2:

INSTRUCTOR RESPONSE:

Week 1.
TOPIC POST:

INSTRUCTOR COMMENTS:

TOPIC POST 2:

INSTRUCTOR COMMENTS:

Week 2.
(Note: This format was continued for each semester week.)

Appendix C: Tables of Results

Table CI

Community of Inquiry Social Presence: Instructor Frequency and Percentages

Categories	Subcategories	A	B	C	D
Affective	Expressing emotion	61	3	120	60
	Self-disclosure	6 (5.0%)	5 (2.0%)	23 (4.5%)	17 (9.8%)
Open Communication/ Interactive	Continuing a thread	–	4 (1.6%)	1 (0.2%)	–
	Quoting others	–	–	–	1 (0.6%)
	Complimenting	5 (4.2%)	101 (39.9%)	32 (6.2%)	12 (6.9%)
Group Cohesiveness	Vocatives	3	5	310	15
	Referring to the group	–	3 (1.2%)	9 (1.7%)	14 (8.1%)
	Phatic	14 (11.7%)	1 (0.4%)	6 (1.2%)	1 (0.6%)

Note. Instructor A taught one course with four discussion boards. Instructors B, C, and D taught two courses, totaling 11, 11, and six discussion boards, respectively.

Percentages from the instructor's total codes, excluding vocatives and showing emotions.

A dash represents no evidence found. Add rationale for percentages.

Table C2

Community of Inquiry Cognitive Presence: Instructor Frequency and Percentages

Categories	Subcategories	A	B	C	D
Triggering	Sense of puzzlement	1 (0.8%)	1 (0.4%)	1 (0.2%)	6 (3.5%)
Exploration	Exchanging idea	1 (0.8%)	7 (2.8%)	34 (6.6%)	42 (24.3%)
	Suggestion for consideration	–	3 (1.2%)	1 (0.2%)	6 (3.5%)
	Divergence of ideas	–	–	–	1 (0.6%)
Integration	Creating solutions	–	1 (0.4%)	–	7 (4.0%)
Resolution	Resolution	–	–	–	3 (1.7%)

Note. Instructor A taught one course with four discussion boards. Instructors B, C, and D taught two courses, totaling 11, 11, and six discussion boards, respectively.

Percentages from the instructor's total codes, excluding vocatives and showing emotions.

A dash represents no evidence found.

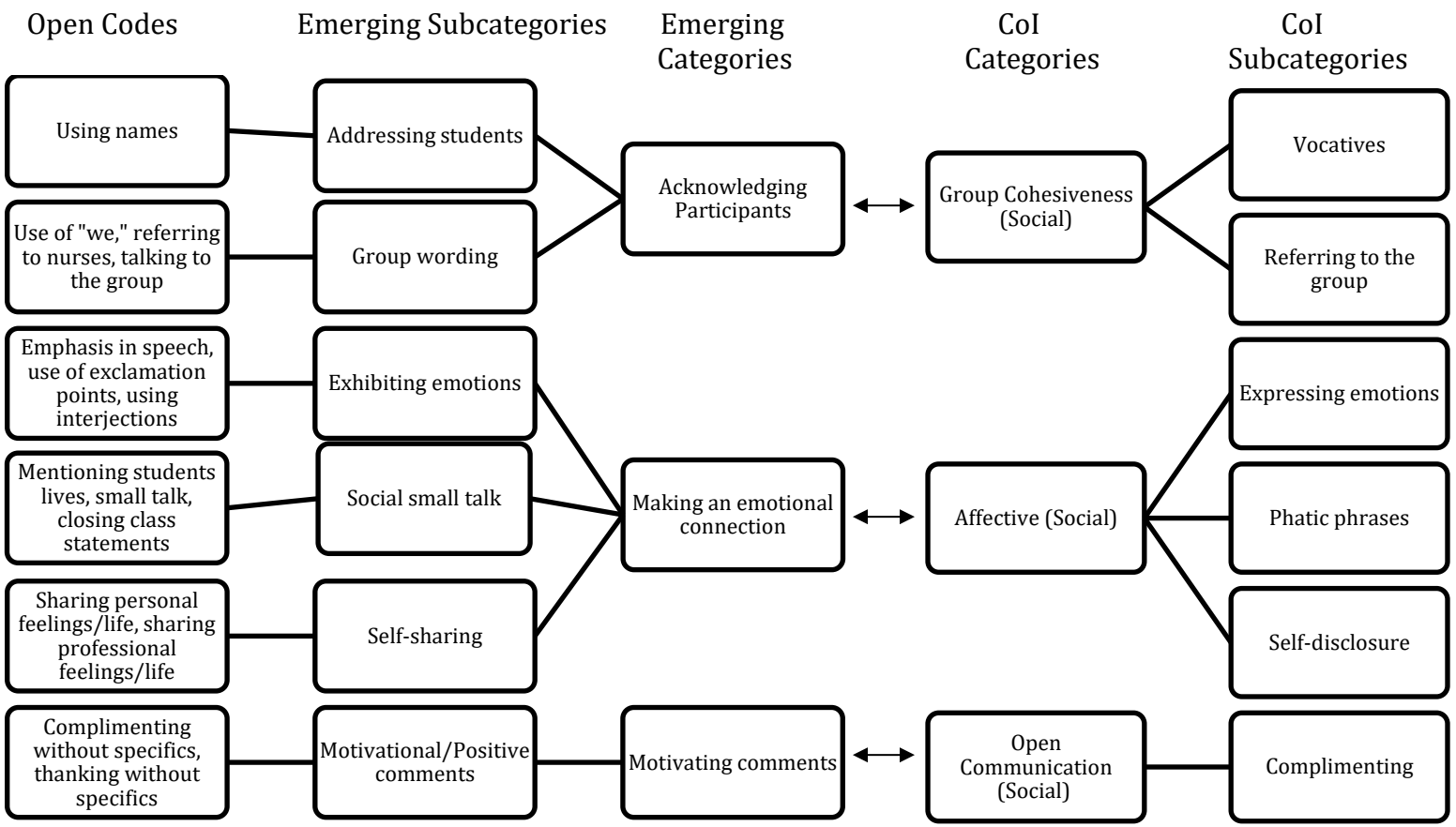
Table C3

Community of Inquiry Teaching Presence: Instructor Frequency and Percentages

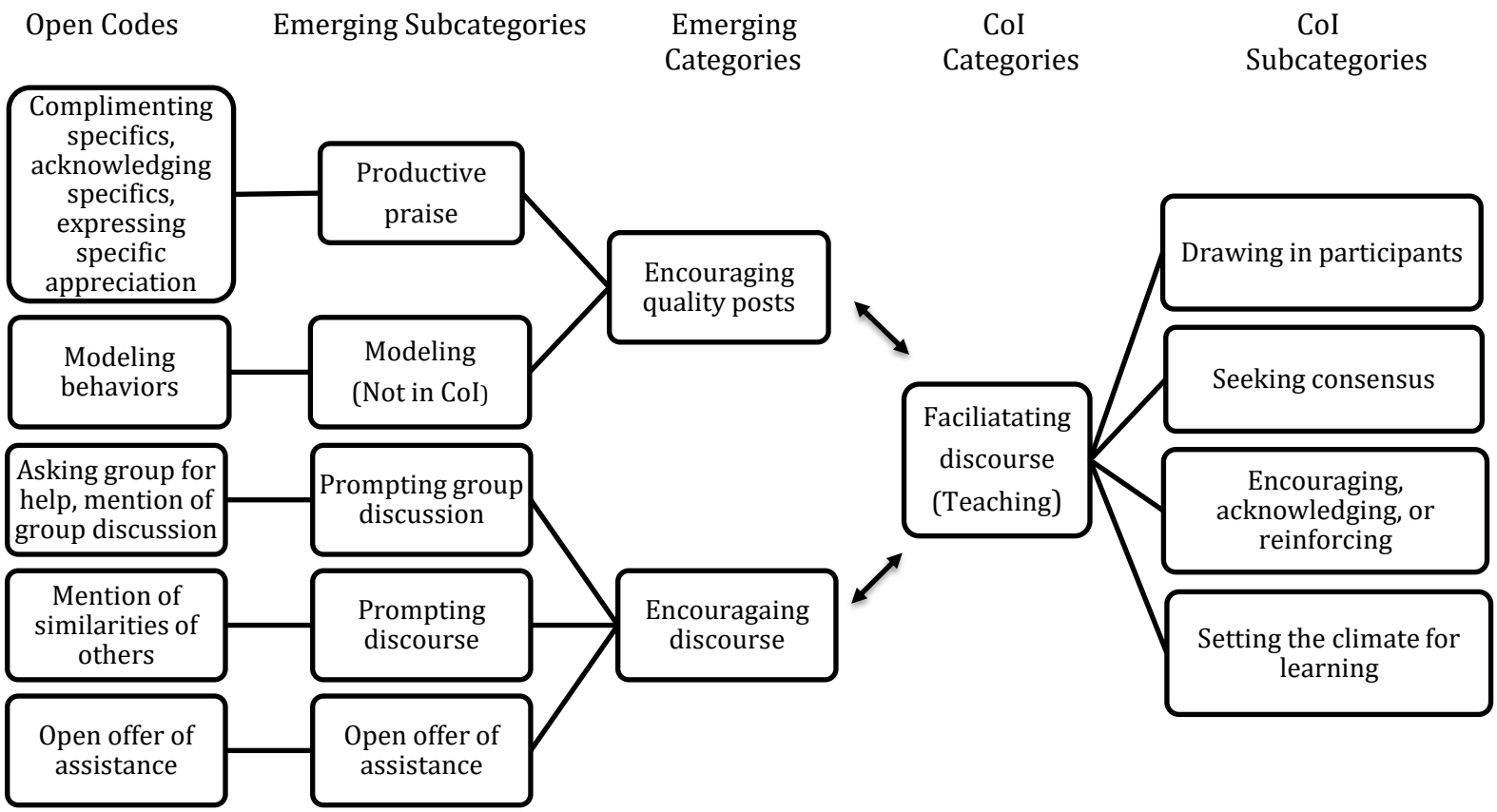
Categories	Subcategories	A	B	C	D
Instructional Design and Organization	Establishing time parameters/utilizing medium effectively	15 (12.5%)	26 (10.3%)	64 (12.4%)	–
	Making macro-level comments	1 (0.8%)	1 (0.4%)	–	–
	Establishing netiquette	–	–	2 (0.4%)	–
Facilitating Discourse	Seeking consensus	–	–	2 (0.4%)	2 (1.2%)
	Encouraging, acknowledging, or reinforcing student contributions	51 (42.5%)	83 (32.8%)	276 (53.6%)	29 (16.8%)
	Setting the climate for learning	1 (0.8%)	1 (0.4%)	–	–
	Drawing in participants, prompting discussion, questions	–	1 (0.4%)	–	1 (0.6%)
Direct Instruction	Present content (more minor inclusions)	–	–	–	2 (1.2%)
	Diagnosing misconceptions	1 (0.8%)	–	–	–
	Confirming understanding through assessment and explanatory feedback	22 (18.3%)	15 (5.9%)	57 (11.1%)	21 (12.1%)
	Injecting knowledge from diverse sources	2 (1.7%)	–	5 (1.4%)	8 (4.6%)

Note. Instructor A taught one course with four discussion boards. Instructors B, C, and D taught two courses, totaling 11, 11, and six discussion boards, respectively. Percentages from the instructor's total codes, excluding vocatives and showing emotions. A dash represents no evidence found.

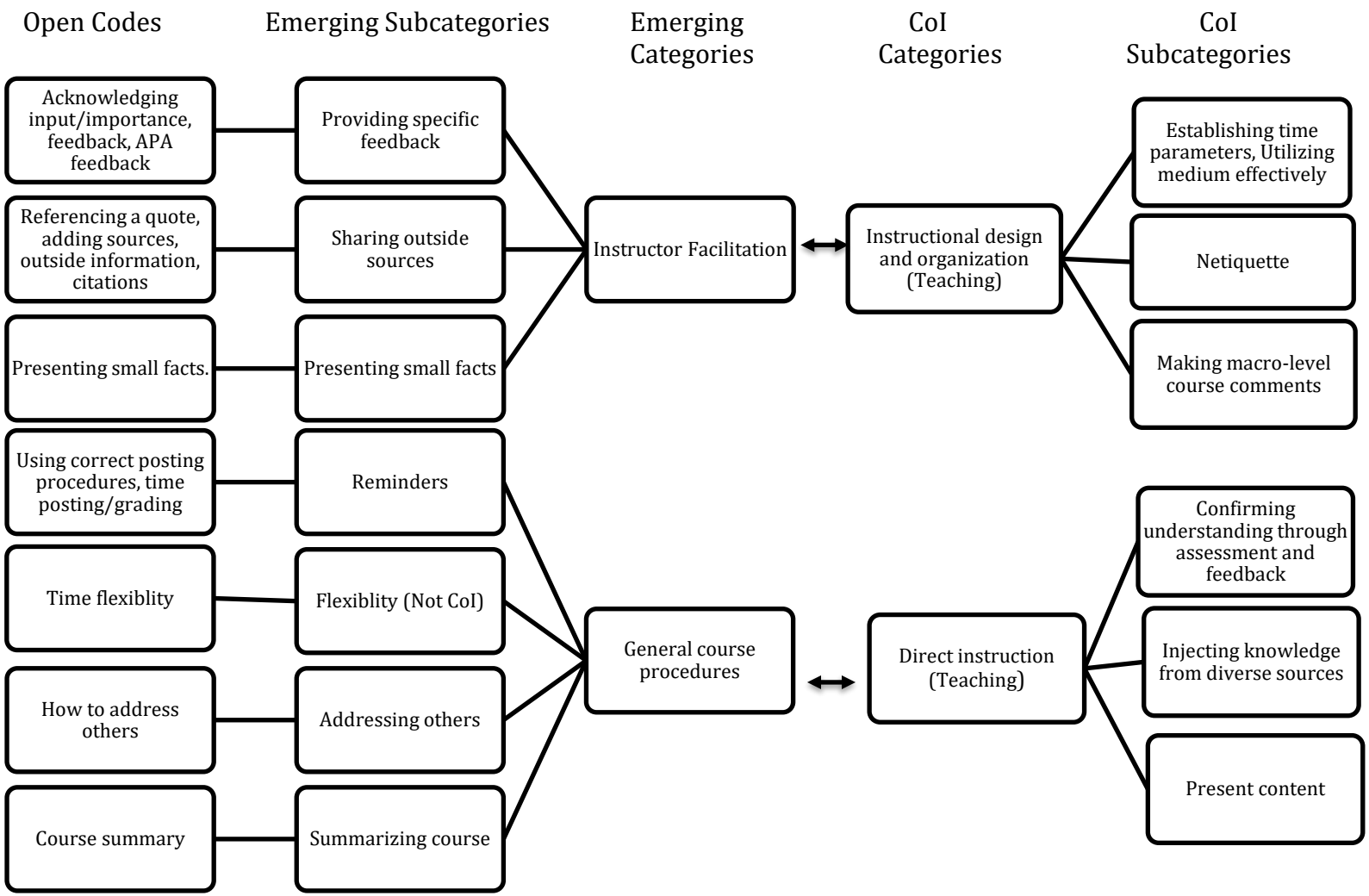
Appendix D: Open Coding Process and Comparison to CoI Social Presence



Appendix E: Open Coding Process and Comparison to CoI Teaching Presence



Appendix E: Continued



Appendix F: Open Coding Process and Comparison to CoI Cognitive Presence