

A CASE STUDY OF ONLINE DISCUSSION BOARDS FOR FIRST YEAR COLLEGE
STUDENTS: A QUALITATIVE CASE STUDY

by

Eric Edward Cummings

Liberty University

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

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APPROVED BY:

Janet Deck, EdD, Committee Chair

Susan K. Stanley, EdD, Committee Member

Abstract

The purpose of this case study was to understand first-year college students' perspectives on online discussion boards in the context of learning, via the community of inquiry framework. The theory guiding this study is Lev Vygotsky's sociocultural theory, which identifies how learners create their own learning experiences in the classroom. The theory's value comes from it being used to understand student thought in discussion boards, which is the study's focus. A case study was the design, and the goal was to gather empirical data from discussion board experiences from students. The central research question was What are the experiences of a group of first-year nontraditional students engaged in a discussion board for a virtual English composition course? Fourteen students, 13 females and one male, made up the sample. Their discussion board responses, individual interviews, and group study recordings represent the qualitative data. All data were collected in a virtual setting via the online classroom, as well as Zoom. Interpretational phenomenological analysis was employed to analyze student interview responses, the group study, and discussion board responses to uncover themes in the data. The study found four significant themes during the analysis phase. First, the participants took little satisfaction in the social presence in the discussion board due to a lack of social opportunities. However, the participants did enjoy instructor presence, thanks to quick, encouraging, and critical responses. In addition, the participants did not exhibit a sense of critical thinking and seemed to participate with mostly the minimum requirement. It is hoped this research will act as a foundation for additional exploration into the community of inquiry's relationship with online learning by providing starting points for answers to the issue of online student engagement.

Keywords: first-year students, online learning, higher education, sociocultural theory, community of inquiry

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Dedication

I dedicate this dissertation to Yave, the one who kept me focused.

I dedicate this to my Aunt Shirley, who helped me continue forward.

To my mom, who pushed me to continue my education despite adversity.

To my other aunts who helped raise me.

To Brenda, the wonderful mother of my children, who I will in turn support.

To my children, Masimo and Minerva, I hope you persevere and grow continuously
through difficult times.

Acknowledgments

This page is to acknowledge Drs. Deck and Stanley for helping me get to the end. When I was assigned to them, I did not think my dissertation would ever be complete because they would be my third set of committee members. They proved themselves to be more than capable of inspiring me to push on, and I would not have made it if not for them.

Table of Contents

Abstract	3
Copyright Page.....	4
Dedication	5
Acknowledgments.....	6
List of Tables	13
List of Abbreviations	14
CHAPTER ONE: INTRODUCTION.....	15
Overview	15
Background	16
Historical Context	16
Social Context.....	24
Theoretical Context.....	26
Problem Statement.....	27
Purpose Statement.....	29
Significance of the Study	29
Theoretical Significance	29
Empirical Significance.....	30
Practical Significance.....	30
Research Questions	31
Central Research Question.....	31
Subquestion One	31

Subquestion Two 32

Subquestion Three 32

Definitions..... 33

Summary 34

CHAPTER TWO: LITERATURE REVIEW 35

Overview 35

Theoretical Framework 35

 Zone of Proximal Development..... 36

 Reciprocal Teaching and Peer Collaboration 36

 Internal Language 37

 Social Constructivism 38

 Community of Inquiry 39

 Student Engagement 39

Related Literature..... 40

 History of Distance Learning..... 40

 Discussion Board as a Tool to Develop Leadership 43

 Discussion Board Use Over Case Studies 44

 Using Generative Conversational Models for Discussion Board Analysis 45

 Discussion Board Group Sizes..... 48

 Connecting Discussion Boards with Social Media 51

 Positive Support for Discussion Boards 53

 Negative Aspects of Discussion Boards 59

Summary 65

CHAPTER THREE: METHODS	67
Overview	67
Research Design.....	67
Research Questions	69
Central Research Question.....	69
Subquestion One	69
Subquestion Two	69
Subquestion Three	69
Setting and Participants.....	69
Setting	69
Participants.....	70
Researcher's Positionality.....	70
Interpretive Framework	71
Philosophical Assumptions.....	71
Ontological Assumption	71
Epistemological Assumption	71
Axiological Assumption	72
Researcher's Role	73
Procedures.....	73
Data Collection Plan	75
Individual Interviews	75
Focus Group.....	77
Analyzing Student Responses in the Discussion Board	78

	10
Data Analysis	78
Segmenting the Database	79
Developing Categories	79
Coding Segments	79
Constant Comparison	80
Data Synthesis	80
Trustworthiness	80
Credibility	81
Transferability	81
Dependability	81
Confirmability	82
Ethical Considerations	83
Summary	83
CHAPTER FOUR: FINDINGS	85
Overview	85
Participants	85
Lauren S.	86
Bristee N.	86
Brandy W.	86
Erica B.	87
Felicity M.	87
Julius T.	87
Kim S.	87

Katey K.	88
Lauren T.	88
Chamomile C.	88
Rhianna N.	88
Shirley R.	89
Julia P.	89
Amy W.	89
Results.....	92
Social Presence – Dissatisfaction with Socialization.....	94
Teaching Presence – Satisfaction with Instructor Responses and Engaging Guidance....	97
Cognitive Presence – Dissatisfaction with Cognitive Presence.....	102
Engagement – Most Students do the Bare Minimum	105
Research Question Responses.....	107
Central Research Question.....	107
Subquestion One	108
Subquestion Two	109
Subquestion Three	109
Summary	110
CHAPTER FIVE: CONCLUSION.....	111
Overview	111
Discussion	111
Summary of Thematic Findings.....	111
Interpretation of Findings	112

Theme 1 - Student Collaboration May Not Be Enough for a Satisfactory Learning Experience.....	112
Theme 2 - Instructor Engagement Benefits the Online Learning Environment .	112
Theme 3 - Discussion Questions May Not Foster Critical Thinking.....	113
Theme 4 - Engagement May Not Dictate Participation.....	114
Implications for Policy or Practice	115
Implications for Policy.....	115
Implications for Practice	117
Empirical and Theoretical Implications.....	118
Limitations and Delimitations.....	121
Recommendations for Future Research	123
Conclusion	124
References.....	126
Appendix A.....	148
Appendix B	149
Appendix C	150

List of Tables

Table 1. Individual Interview Questions.....	76
Table 2. Focus Group Questions.....	77
Table 3. Student Participants	90
Table 4. Theme Relative Frequency	93

List of Abbreviations

Community of Inquiry (CoI)

National Center for Education Statistics (NCES)

The National Center for Higher Education (NCHE)

CHAPTER ONE: INTRODUCTION

Overview

According to the National Center for Education Statistics (NCES; 2021), 60 % of all students in the United States seeking an undergraduate degree enrolled in an online course. Convenient access for students and fewer costs to schools make online learning an attractive option (Lowenthal & Moore, 2020). Due to a competitive marketplace and the need to enroll more students, 99% of higher education institutions offer online learning (Ghapanchi et al., 2020; Hoekman, 2017). The rise of online learning also has increased student withdrawals and incompletes in the first and second years (Burke, 2019). Low retention limits the growth of online learning and college reputation (Haverila et al., 2020). Laws and rewards are some solutions for combating low student retention (Elkington, 2020). Some paths, such as the community of inquiry (CoI) framework, are used to promote satisfactory learning experiences (Dickinson et al., 2021). However, retention levels are still low, which is why student experiences in the online classroom, specifically in the discussion board, need to be studied.

This study focuses on the experiences of online students interacting with discussion boards after the CoI implementation. The history of online learning and retention strategies is summarized. From there, the positives and negatives of combating the retention issue are explained. The problem statement, purpose, and significance follow, along with research questions and a summary. Constructivism and sociocultural theory are the basis of this study regarding student experiences with discussion boards, which allow them to create personalized learning experiences (Rahiem, 2021). Discussion boards can enable student interactions across distances, but they can be difficult to understand or even access (Lim et al., 2021). Even with the CoI, students may still face engagement challenges. This problem is worthy of exploring, for it

has not been looked at in previous studies (Mejia, 2020). The data can be used by administrators and faculty to promote better learning experiences.

Background

Retention of online students is a new area of exploration for higher education administrators and educators because the concept of retention in general is only as old as the 1930s (Burke, 2019). Retention affects a school's finances, rankings, accreditation processes, and perceptions (Maldonado et al., 2021). As a result, the higher education sector has implemented several strategies to combat retention, such as the CoI framework, which is based on social learning (Fitzgerald et al., 2021). The social learning construct is added to discussion boards, which already complement Vygotsky's sociocultural theory and constructivism. The hope is to use CoI to improve student experiences (Goh & Wen, 2021; Vygotsky, 1978). However, for-profit college/university retention is at 43% (Musu-Gillette, 2015); the Department of Education has not released new data on online for-profit institution retention. The most recent report in 2010 showed full-time students at fully online for-profit colleges had a 55% chance of being retained, while 39% was the number for part-time students (Burnsed, 2010).

Historical Context

One definition of retention is "on-time graduation" levels for students, as well as "progressive enrollment in college" (Elkington, 2020, p.14). The battle between higher education and retention is centuries old (Burke, 2019); when colleges such as Harvard, William and Mary, and Yale began in the early 17th century, the concept of retention had not been coined or thought of because college degrees were not required to be successful (Balke et al., 2021). The idea of retaining students did not begin to catch the attention of college administrators and educators until 1930 when the first study examining retention as student mortality was published.

However, from the publication of studies in the 1960s, researchers such as Feldman and Newcome, William Spady, and Tinto, in the 1970s, and Alexander Astin, as well as Bean in the 1980s, created the foundation of retention (Burke, 2019). These researchers explored concepts such as the relationship between students and their campuses, learner involvement, the dropout process, and persistence, which put a spotlight on the idea of retention (Balke et al., 2021).

The research into retention deepened as more researchers created theories, such as the CoI theory, that push for student socialization to enhance the online learning experience via student socialization and were made to improve the online learning process (Garrison et al., 2000). However, the problem has become more complex with the rising popularity of distance education (Glazier & Harris, 2020).

Online learning in higher education has grown over the past years (Muljana & Luo, 2019). The fall of 2012 showed 26.4% of all higher education students taking distance education courses, and 2013 presented the number as 27.1% (Musu-Gillette, 2015). In 2014, the number rose to 28.5%, and again in 2015 to 29.8%. This number represents almost a third of all students enrolled in some undergraduate or graduate program. In 2016, enrollment rose to 31.7%, and 33.7% in 2017. The number grew to 35.3% in 2018 and 37.2% in 2019 (Musu-Gillette, 2015). As of 2019, 70% of students in for-profit colleges are enrolled in distance education courses, while public and private are at 32 % and 47 % (NCES, 2019). The data trend suggests current and future college students will most likely come into contact with an online classroom (Parmigiani et al., 2021).

Online learning continues to progress faster than higher education can assess and react to problems (Parkay et al., 2014). The NCES (2020) presents part-time retention is at 43.5. % and the for-profit university retention percentage is 46.2%. Online learning traditionally has a higher

rate of dropouts when compared to that of on-campus students (Muljana & Luo, 2019). One argument is the emergence and growth of nontraditional students; these learners are usually older working adults with several outside obligations (Leo et al., 2021). These adults make up more than half of part-time enrollments and have lower persistence rates when compared to traditional full-time students (Ortagus et al., 2021). Contrastingly, a combination of factors ranging from student backgrounds to services provided by the school are causes for retention drops (Haverila et al., 2020). The issue of retention can affect a school's reputation, so enrolling students is of utmost importance (Farrell & Brunton, 2020; McDaniel & Vaughn, 2021). To combat the issue, schools have employed strategies, including dropout identification, college admissions standards, and increasing social integration (Chametzky, 2021; Maldonado et al., 2021). However, the strategies used by higher education administrators have had little success (Gay & Betts, 2020).

Currently, low retention rates in higher education in the United States are an issue. The years between 2006 and 2020 saw an overall retention rise from 71% to 76% for full-time students in higher education, but part-time numbers only went from 41% to 45% (NCES, 2020). A closer look revealed interesting developments: The published data showed that American Public University's full-time students had an 87% retention rate, whereas part-time students were 91% (College Navigator, n.d., American Public University System). However, the NCES (2019) presents that a small percentage of the student population was full-time or entering college for the first time.

Retention data belonging to other higher education institutions from the fall of 2019 through the fall of 2020 proved not as positive as American Public University. Walden University, a four-year degree-granting institution, retained 33% of its full-time students and 29% of its part-time freshman retention rate of 29% (College Navigator, n.d., Walden

University). Retention rates for Liberty University showed 81% retention for full-time students as opposed to only 33% for part-time learners in the 2019-2020 fall start and fall return (College Navigator, n.d., Liberty University). Purdue Global University, an online component of Purdue University, showed a 100% retention rate for full-time undergraduate degree-seeking freshmen, but only 30% for part-time students (College Navigator, n.d., Purdue Global University). Strayer University's retention rates were closer to one another, with full-time students being retained at 38% and part-time at 33% (College Navigator, n.d., Strayer University). Capella University showed 40% retention of full-time students and 41% for part-time (College Navigator, n.d., Capella University). The University of Phoenix only had 38% retention for full-time students and 12% graduates (College Navigator, n.d., University of Phoenix). The above data show retention among part-time students may be challenging.

Schools have employed strategies to deal with retention, such as the early identification of students in danger of dropping out (Jüttler, 2020; Maldonado et al., 2021). Schools analyze satisfaction and performance to predict when a student may drop a course. These tactics are important because students can withdraw at any time from a program without warning (Garris & Fleck, 2022).

Another strategy paired with dropout prediction is the use of placement tests. Entry exams test the knowledge of first-year students to assess where they should be placed regarding classes (Larroucau & Rios, 2020). The colleges use this information to place students into classes. Students with high scores are admitted to college-level courses, whereas those students who get low results are placed in remedial courses designed to prepare them for college (Simamora et al., 2020). Summer programs are another tactic used to target at-risk students;

underperforming learners are paired with faculty in smaller groups. Decreased student loads allow the instructor to provide more attention to struggling learners.

Higher education administrators have also pushed for better connections between faculty and student advisors about student progress (Seery et al., 2021). This strategy includes having email communications about student assignment submissions, grades, and other pertinent information (Fraenza & Rye, 2021). Colleges and universities increased tutoring services, in-course reminders, and other intervention strategies at the administration level designed to offer underperforming learners more assistance outside of the classroom (Seery et al., 2021). The increase in academic support can make students feel more confident in their courses (Stewart & Lowenthal, 2022). Introductory college courses and remedial courses are other options schools use to help students prepare. Rasmitadila et al. (2020) argued that students need to become digitally literate, meaning knowing how to work with technology strategically to become successful.

Courses designed to enhance digital literacy force students to explore otherwise unknown platforms and sharpen skills to create and share information. Colleges have been pushing to increase social integration (Chametzky, 2021). Social integration deals with helping students feel connected in class, which can increase their chances of academic success (Snow & Coker, 2020). Students benefiting from this strategy can self-regulate and produce a better quality of work (Fraenza & Rye, 2021). One strategy designed to assist specifically online nontraditional students is called accelerated learning programs (Alsharari & Alshurideh, 2020). Students taking courses online while working at the same time are nontraditional learners and are at high risk of dropping out (Watts, 2019). The programs enable adults to complete programs faster as opposed to taking the traditional route. Schools also construct alternative learning materials to maintain

student engagement (Baldwin & Ching., 2021). These materials can include recorded lectures and interactive assignments that push students to step outside of their comfort zones with technology.

The CoI model is a strategy developed to improve the online student experience and is based on social constructivism (Dickinson et al., 2021). The model itself takes inspiration from John Dewey's progressivism (Beckett, 2021). Dewey believed the learning experience needs to be guided by the student, which is a large part of what Garrison's (1997) CoI focuses on in the online environment (Swan et al., 2020). The CoI model supports notions of a strong sense of community, which can offer better self-regulation, feedback, support, self-responsibility, and more (Padayachee & Campbell, 2022).

Three subareas make up the CoI model: cognitive, social, and teaching presence; each of the three elements overlapping with the others (Thornbury, 2020). Teaching presence contains three subareas: instructional design/organization, facilitation, and direct instruction (Evans et al., 2020). Social presence also has three expressions: affective, open communication, and group cohesion (Lim et al., 2021). Cognitive presence has a four-phase process: triggering event, exploration, meaning construction, and application of knowledge (Restall & Clark, 2021). This section of the model in particular takes much inspiration from John Dewey's practical inquiry because its four sections are direct reflections from Dewey (Dickinson et al., 2021).

Instructors using the CoI model receive positive results. The model requires instructors to have discussions with students and give encouragement to learners (Barlovits et al., 2022). The model can also be used to explain and evaluate the student learning experiences (Tiedt et al., 2021). CoI can also be argued as an integral part of a satisfactory online experience because CoI creates inquiry and collaborative classrooms (Dickinson et al., 2021). In a study, researchers

used a CoI survey to see if the model could be linked to retention, and the results showed social presence could predict retention (Lim et al., 2021).

Some deficiencies with CoI exist, such as a lack of self-regulation, which can detract from student outcomes (Restall & Clark, 2021). Furthermore, not many guides explaining how teachers can implement presence in the online classroom are available (Thornbury, 2020). Some researchers argue that the model by itself is not enough to make a meaningful impact and needs additional components to have successful outcomes (Padayachee & Campbell, 2022). The lack of self-regulation in the model is another drawback because it creates an incomplete picture of the learning process (Restall & Clark, 2021). Another problem is teaching presence failing to be a predictor of satisfaction (Choo et al., 2020).

One of the ways CoI manifests online is through the discussion forum. Discussion boards are common in the online classroom because they are not restricted by time and setting (Evans et al., 2020). They are often used in online classrooms to facilitate interaction with students, especially those focusing on writing (Svokos, 2019). CoI can advance discussions through exploration and collaboration (Dickinson et al., 2021). Instructors and students interact with one another via questions and responses that invoke critical thinking and reflection, which aligns with CoI (Goh & Wen, 2021).

More distance education courses have led to the passing of attendance policies in each school (United States Department of Education, 2021). Colleges and universities must show indicators of student retention. In the case of online learning, completing assignments, such as the discussion board, is how some schools measure student activity in a course (Hoekman, 2017). If a student takes an online course at a higher education institution, participation in a discussion board will most likely be mandatory (Clinton & Kelly, 2020). The interaction a

student has in the online classroom dictates their attendance: Completing an activity, such as submitting an assignment, taking a quiz, or posting a discussion, leads to being actively present, but failing to partake in these activities can result in negative retention (College of Healthcare Professions, 2020; Fortis College, 2021). Colorado Technical University (2021) allows students 15 days to participate before getting withdrawn. This situation only highlights the requirements of one course, meaning taking more courses would increase the obligation. The pressure to consistently sign in to complete the tasks can be too much for students and cause them to post shallow discussions or not contribute to meaningful discourse (Grau-Valldosera et al., 2019). Not knowing how to interact in a discussion forum is a factor in students failing to complete a course. A student who cannot post or fails to understand the requirements is in danger of failing (Stewart & Lowenthal, 2022).

Discussion board use affects retention levels. Students who participate in discussion boards seem to have a better chance of course completion than students who do not participate (Cohen et al., 2019). Furthermore, the more a student participates in a forum, the greater their chance of completing the course (Galikyan et al., 2021). The postings of an instructor in forums also affect the retention levels of students (Page et al., 2020). Instructor facilitation used correctly can promote a sense of community, leading to higher retention levels (Calderon & Sood, 2020). However, a lack of instructor feedback can reduce the chances of a student participating. Lack of feedback from instructors and peers can lower retention as well (Martin & Bolliger, 2018; McKinney, 2018). Students not getting discussion forum feedback fast enough from professors and peers is another way retention levels decrease (Koch, 2021). Sometimes, not knowing what to say can keep a student from participating in the discussion (Aloni &

Harrington, 2018). Despite strategies, retention levels continue to drop (Glazier & Harris, 2020; Larroucau & Rios, 2020).

Several quantitative studies focusing on what students are learning through CoI, the relationships between satisfaction and retention, retention's critical nature in higher education, and instructional strategies exist (Coffey, 2021; Fitzgerald et al., 2021). However, an absence of qualitative studies examining the experiences of students engaging in the discussion board utilizing the CoI model is an issue. This study focuses on examining the experiences of first-year students taking part in online discussion boards. Very little research on undergraduate student experiences with discussion boards exists (Hoekman, 2017). Several studies have examined the concepts of retention's importance to higher education (Alsharari & Alshurideh, 2020; Haverila et al., 2020; Kahu & Lodge, 2018). Researchers have also explored online learning and its connection to student dropouts (Banks & Dohy, 2019; Glazier & Harris, 2020; Seery et al., 2021). However, not much research on undergraduate student perspectives can be found (Hoekman, 2017). Filling said research gap is the main focus of this study.

Social Context

The focus on monitoring and improving student retention is a priority for colleges and universities (Burke, 2022). Student retention is an issue extending across the world and not just the United States (Jüttler, 2020). Retention can be unpredictable, meaning a student can drop out of a course without giving any notification before withdrawing (Garris & Fleck, 2022; Haverila et al., 2021). Therefore, a constant need for higher education to implement retention strategies is mandatory (Shurance, 2018). Successfully combating low student retention provides benefits to colleges and students, but a failure to address the problem has the opposite effect (Farrell & Brunton, 2020).

Improving retention numbers translates to positive benefits for students. Many students enrolled in school are looking to gain skills employers want from new graduates (Lockman & Schirmer, 2020; Shah et al., 2021). As a result, students who stay in school can improve their chances of becoming employable (Farrell & Brunton, 2020). When students persist, they can also gain skills to improve their self-confidence so that one day they can pursue graduate degrees (Weuffen et al., 2018). These potential outcomes for persisting can leave students with a sense of satisfaction they would not have gained otherwise (Haverila et al., 2020)

Dropping from a course has consequences for students. Failing to complete a course or return to a course can negatively impact a learner's growth (Luckett & Shay, 2020). Students suffer because they have to retake courses, which can lead to paying for the same courses and fees (Haverila et al., 2020). In addition, a large number of students have to take out loans to fund their higher education experience. The student incurs costs without an equal return. The average debt for a student in the United States is between \$18,000 and \$39,000 (Schak et al., 2021). Students who fail to persist are left to pay off the loans without a degree (Hurt, 2019).

Colleges and universities pay attention to retention levels for several reasons. Retaining current students is cheaper than enrolling new ones (Haverila et al., 2020). As a result, schools face significantly fewer financial losses by retaining students (Maldonado et al., 2021). Retention is also a presentation of a school's experience from the position of students (Banks & Dohy, 2019). The higher a school's retention, the better the institution looks regarding quality (Gabriel, 2018). In turn, a school's improved reputation can improve retention figures (Farrell & Brunton, 2020). Higher retention levels lead to more students paying into the school's income and academic achievements, which can raise its rankings (Burke, 2019). Lastly, retention is a factor

in a school's accreditation process, meaning schools looking to retain accreditation must have excellent retention numbers (Maldonado et al., 2021).

When students fail to persist, schools face several consequences. Should students take out loans for their first and not re-enroll, schools can be accountable for the loss (Stogner, 2022). Additionally, low retention also negatively impacts an institution's reputation because it seems as if the school is not focusing on student needs (Haverila et al., 2020). Low retention levels mean students may be facing poor experiences at the college or university causing them to leave (Burke, 2019). Poor retention figures also bring down a school's reputation, causing prospective students to turn away (Aledo-Ruiz et al., 2022). One of the biggest issues is the loss of income due to students not re-enrolling in a program (Maldonado et al., 2021).

Currently, higher education is still invested in retention levels because they are continuing to drop despite strategic efforts (Sheen et al., 2019). Researchers have published literature on the history of retention and strategies to combat it (Burke, 2019; Seery et al., 2021; Stogner, 2022). Additionally, studies examining the benefit discussion boards have on student learning through the CoI are plentiful (Goh & Wen, 2021; Payne, 2021). However, student perceptions regarding their experiences in the online classroom using discussion boards that implement the CoI deserve exploration because they are the consumers higher education depends on, and their feedback can help schools get a better idea regarding the effectiveness of the strategies implemented to combat low retention (Haverila et al., 2020; McDaniel & Vaughn, 2021).

Theoretical Context

Discussion boards enable students to share their ideas and answers to discussion prompts with fellow peers and instructors. The forums are platforms for student engagement representing

a constructivist approach to teaching because students need to gain a concrete understanding of discussion topics by answering questions and responding to the posts of other learners (Rahiem, 2021). The heart of constructivism is for students to create their learning experiences, which is why this theory fits the discussion board structure. Constructivists emphasize the importance of social interaction to facilitate learning through compositional learning. However, the learning process goes beyond the initial post on a discussion board. Students engage with peers and professors, and this situation is where constructivism evolves into sociocultural theory.

Sociocultural theory reflects interactions with other students during the learning process. Lev Vygotsky (1978) is the founder of this theory, which has strong ties to constructivism. This theory stresses social learning (Cherry, 2019). Jacobson and Bach (2022) argued that the sociocultural theory investigates the learning process as a product of culture and social experiences. Humans interacting with each other create learning experiences (Cherry, 2019). Sociocultural theory could explain the process students go through when engaged in online discussion boards. A student may use previous experiences interacting in discussion boards to make better postings in the future. Furthermore, follow-up posts may cause more growth in the learning process. Discussion boards are strong forces in the classroom. They emerged from a need for remote learning and grew into a presence in the online classroom. These methods of communication are based on constructivism, as well as sociocultural theory.

Problem Statement

With the continued growth of online learning and decreases in student retention, student perceptions of the CoI framework in the online classroom are needed to see how it affects their engagement (Swan et al., 2020; Tight, 2020). Examining nontraditional student responses reveals themes, such as their virtual learning experiences, views, and wants, other studies missed with

the CoI Framework (Choo et al., 2020; Restall & Clark, 2021). The specific problem is students not engaging in discussion boards despite the presence of CoI. Discussion boards can assist students in becoming successful in online courses (Goh & Wen, 2021). However, students may refuse to participate if they have to post to stay in the course (Grau-Valldosera et al., 2019). If a student does not participate in the discussion board, they may be withdrawn from a course as quickly as the first or fourth week (College of Healthcare Professions, 2020; Colorado Technical University, 2021; Fortis College, 2021). An abundance of research on the learning aspect of discussion board use is readily accessible, but data exploring student experiences, specifically nontraditional learners, are underdeveloped (Yu & Liu, 2021). The goal of this study is to gain insight into student perceptions of discussion boards.

Through CoI theory, educators view student experiences online and how they need to become socially intensive for a strong chance of completion (Dickinson et al., 2021). This strong push for socialization is because the online classroom puts much strain on students because they must do more work, and yet they can feel isolated (Delaney et al., 2019; Muljana & Luo, 2019). Learners who fail to become invested socially have a lower chance of completing a course. For full-time traditional students with a focus on education, the requirements may be fair. However, nontraditional students with full-time jobs and children to raise may find difficulty in accomplishing this goal (Watts, 2019). As a result, these learners may not participate, causing them to fail or withdraw from a course, as well as fail to re-enroll (Grau-Valldosera et al., 2019; Ortagus et al., 2021). With a percentage of over 50% of part-time students in colleges, their presence is important. As a result, obtaining their perspectives on the online experience through CoI is necessary.

Purpose Statement

The purpose of this case study is to understand first-year undergraduate nontraditional student perspectives of online discussion boards within the CoI framework. The theory guiding this study is Vygotsky's (1978) sociocultural theory, which identifies how learners create their responses to content posted in discussion forums in the online classroom (Rahiem, 2021). The goal is for the results to effectively explain a case of discussion board use, point out challenges, and analyze the data using interpersonal analysis. Results taken from the findings may better discussion boards to improve student learning.

The CoI framework pushes online learning into a social experience (Barlovits et al., 2022). The CoI uses social, learning, and teacher presence to create a learning community (Padayachee & Campbell, 2022). All three constructs are necessary for helping students create a community and boost their chances of completing a course (Thornbury, 2020). However, examining nontraditional students is necessary to see their experiences with CoI in the online classroom. Examining student perspectives of social, teaching, and learning presence can potentially explain why their drive to continue through a course may still be low.

Significance of the Study

This study is guided by Vygotsky's (1978) sociocultural theory, which can potentially open up perspectives of student experiences in the classroom with the CoI framework. Through their experiences, the reasoning behind persistence and issues faced may become clear. Discussing student experience with CoI offers theoretical, empirical, and practical significance toward bettering retention rates in higher education.

Theoretical Significance

The results of this study may provide insight into the CoI's effect on nontraditional part-

time students. The research may cause the researcher to investigate the impact of full-time versus part-time and nontraditional versus traditional. Currently, the CoI applies to all students taking online courses. However, current research on CoI does not explore differences as far as experience. Furthermore, CoI does not consider students who are unable to fully commit to the classroom.

Empirical Significance

By completing this study, literature gaps concerning online student retention about discussion boards may be closed. A qualitative study could provide insight into how students view discussion boards and why some interact with them (Delaney et al., 2019). The findings can potentially answer questions researchers may have regarding student attitudes. However, this study cannot be the only one of its kind because each investigation has limitations (Ortagus, 2018). As a result, the findings may encourage future researchers to add additional research to this area.

Practical Significance

When creating discussion board questions, curriculum developers use pedagogy and passing rates rather than student perspectives. Student thoughts and impressions are just as important, for they can dictate if the discussion description is read (Clinton & Kelly, 2020). With that in mind, this case study examines student perceptions. By gaining student insight, course developers can review the research in committees to consider if the prompts are in-depth enough for students to engage properly. Should college administrators find the current structure of discussion boards in need of alteration, they can adjust them. New online classes can be studied and compared with previous ones to see if the changes had an effect. These results may also prompt higher education administrators to explore student retention through similar studies.

Research Questions

Examining the problems students encounter in the discussion board despite CoI theory and tactics to improve their experience are valuable goals. Though there has been research completed on discussion boards and CoI framework separately, little to no qualitative studies exist looking at the experiences of online first-year nontraditional students. Three research questions guide this case study to understand the perspectives of first-year online college students on their experiences with discussion boards with the CoI framework, and the purpose is to answer questions concerning student experiences with discussion boards.

Central Research Question

How do online first-year nontraditional students describe their experiences with the CoI in relation to social, teaching, and cognitive presence?

Several studies examined quantitative and qualitative data on online student learning with CoI, changes in grade point averages, and social status (Dickinson et al., 2021; Evans et al., 2020; Padayachee & Campbell, 2022; Swan et al., 2020). Analyzing student perceptions of CoI in the discussion and classroom experience may reveal strategies to reduce retention declines.

Subquestion One

How do first-year online nontraditional students perceive the discussion board experience in relation to social presence?

The CoI framework has three overlapping subareas: social, teaching, and cognitive presence (Barlovits et al., 2022). All three of these components are necessary for a successful online learning experience (Swan et al., 2020). The social presence section contains three areas: affective expression, group cohesion, and open communication (Choo et al., 2020). The CoI directly ties to student satisfaction and can reduce feelings of isolation (Padayachee & Campbell,

2022; Restall & Clark, 2021; Swan et al., 2020). Isolation is one of the factors behind online student retention declines because feeling alone can create more of a challenge with virtual learning than face-to-face learning (Banks & Dohy, 2019). Investigating social presence with nontraditional learners may open doors to answers on the framework's effect on a student's decision to stay enrolled in a course.

Subquestion Two

How do first-year online nontraditional students perceive the discussion board experience in relation to teaching presence?

The CoI framework makes use of social, teaching, and learning presence in the classroom to create a social network in the classroom (Fitzgerald et al., 2021). Teaching presence reflects how teachers instruct in the online classroom (Dickinson et al., 2021) and contains three subareas: design/organization, facilitating discourse, and direct instruction (Evans et al., 2020). Teaching presence influences social presence in the learning community, making it a vital aspect of CoI (Fiock et al., 2021). Students engaged in the online classroom require quality instruction, which is what teaching presence fills. A lack of teaching presence can make students feel as if the instructor is not present and or the student is isolated (Padayachee & Campbell, 2022). However, retention levels are still an issue in the online learning context (Secules et al., 2021). Examining student perspectives of the three subareas in teaching presence may help with understanding CoI's influence on retention.

Subquestion Three

How do first-year online nontraditional students perceive the discussion board experience in relation to cognitive presence?

The CoI framework argues a quality online educational experience should follow its

subareas: social, teaching, and cognitive presence (Dickinson et al., 2021). Cognitive presence explores what students learn and has three layers: interaction, collaboration, and mood (Restall & Clark, 2021). CoI stems from practical inquiry and is made to account for online learning (Secules et al., 2021). Like the other components, cognitive presence is necessary for a quality learning experience (Padayachee & Campbell, 2022). However, online student retention is still low despite the CoI (Muljana & Luo, 2019). Exploring student perspectives of the online classroom through CoI's implementation may provide answers as to how cognitive presence in the classroom affects withdrawal.

Definitions

Below are definitions of important terms present in the study.

1. *Asynchronous Course* - An online course removing students from having to be present in a course at a specific time and place while also allowing them to share their ideas without those same constraints (Raes et al., 2020).
2. *Attitudes* - An individual's internal philosophy controlling his/her behaviors and characteristics (Clinton & Kelly, 2020).
3. *Constructivism* - A learning philosophy viewing a person's learning process as something constructed (Rahiem, 2021).
4. *Discussion Board* - An online course feature that allows students to communicate with one another and instructors via the online classroom about course-related topics (Champion & Gunnlaugson, 2018).
5. *Distance Education* - The act of using technology to transmit a virtual classroom across areas to help teachers and students interact (Hoekman, 2017).
6. *Nontraditional Learner* - A student taking courses online while working one or more jobs

(Watts, 2019).

7. *Sociocultural Theory* - A social learning theory arguing the learning process is a collected experience (Cherry, 2019; Vygotsky, 1978).

Summary

Low online student retention, which is the result of many factors, continues to plague higher education (Balke et al., 2021). Students can withdraw from a course due to numerous factors, like income, low self-efficacy, isolation, confusion with assignments, and lack of access (Banks & Dohy, 2019; Haverila et al., 2020). Almost half of the part-time students enrolled are not retained (Musu-Gillette, 2015). This study examines the reasons behind online student retention drops through the CoI framework to provide additional data on how to improve discussion boards and the virtual classroom experience. The problem is student retention is low despite the implementation of Garrison's (2000) CoI theory and other retention strategies (Jüttler, 2020; Maldonado et al., 2021). The purpose of this case study is to uncover themes in first-year student experiences that explain the effect of CoI on the online learning experience, and how CoI influences their decisions to stay or withdraw from a course. This chapter gave an overview of the historical, social, and theoretical conditions connected to low student retention in the online higher education realm. Proceeding the history is the problem, purpose, significance of the study, research questions, and definitions of terms. The next chapter explores previous research done on the topic.

CHAPTER TWO: LITERATURE REVIEW

Overview

This chapter is the review of literature regarding first-year college student experiences with discussion boards in an online writing course. The guiding theoretical framework is the sociocultural theory by Vygotsky (1978). First, the chapter explains the zone of proximal development (ZPD), reciprocal teaching, peer collaboration, and internal language. Additionally, this chapter presents a review of social constructivism, community of learning, and student engagement, followed by a review of literature on the definition of discussion boards, positive and negative aspects of discussion boards, leadership, and other studies related to the topic. The literature provides a basis for the methodology and research design.

Theoretical Framework

Vygotsky's (1978) sociocultural theory stresses the relationship between human consciences and the environment. This theory first became public in 1924 when Vygotsky gave a speech in Russia arguing against previous theorists who believed humans and animals had little to no distinctions in learning (Rahiem, 2021). Piaget's theory of constructivism is influential on sociocultural theory because it asserts that humans create their own learning experiences, but Vygotsky's ideas differed; Vygotsky's theory reflected the influence of social environments on learning (McLeod, 2018). Vygotsky argued humans differ from animals because they can alter the world around them (Vygotsky, 1978). He asserted speech is a bond between intelligence and sign, and refuted the idea that adult intelligence can be the sole product of maturation. Vygotsky focused on children more than adults (Davin & Kushki, 2022). Vygotsky believed consciences could be predicted in children while adults might refuse to cooperate. However, the theory is present in online classroom discussion board interactions because students exchange information

and create a collective learning experience (Tibi, 2018).

Zone of Proximal Development

The ZPD concept explains how social development might work in the online classroom. Vygotsky (1978) defined ZPD as the proximity between actual development versus potential development through assistance from a teacher or peers. To be clear, ZPD is the middle ground between what a student can learn alone versus what they would need a mentor's help to understand. The pupil does not take knowledge passively but develops an original view of the events (O'Shea, 2019). Furthermore, the same student develops meaning that shapes future learning experiences. For example, a student named Rodger and his instructor, Patricia, are engaged in an online discussion on meeting etiquette. Patricia has experience with the subject of meeting etiquette. She prompts Rodger and his classmates to explain what it means to follow the concept of being courteous to others in a meeting. Rodger responds with an initial post related to what he read in the weekly tasks to the discussion prompt. Upon reviewing the response, Patricia gives Roger a follow-up answer to adjust his posting to meeting etiquette. Patricia references her previous experience to help Roger reach comprehension. Roger sees the feedback and adds another layer of thought through a subsequent post. In this example, Roger is not necessarily learning and applying the passive knowledge given by Patricia. Roger takes the information and modifies his beliefs. In the example, ZPD started when Patricia intervened with Rodger's learning experience; she gave a question designed to help him pull from her experience, which helped him progress.

Reciprocal Teaching and Peer Collaboration

Interactions between teachers and students are a primary part of the sociocultural theory (Rahiem, 2021). A teacher provides an initial idea that models the task (e.g., a sample paper,

discussion post, or project). Then, students get a chance to create a model themselves (Vygotsky, 1978). Social interaction is one of the keys to success because students work with one another to figure out how the ideas should look. This collaboration forces a student to ingrain themselves deeper into the concept by asking questions. Responses can be from a face-to-face discussion to a piece of reading assigned for the week. To contribute, the group of students discusses concepts and shares their insights. Each learner takes ideas posted by peers and applies the ideas to the original knowledge base creating a social learning experience (Rahiem, 2021).

Internal Language

Vygotsky (1986) argued that critical thinking develops to overcome challenges and believed that critical thinking needs words to exist. These problems stir verbal speech in children that is egocentric (Vygotsky, 1978). Verbal utterances help the child process what is happening in the environment. Upon finding a solution, the event is stored and helps with overcoming future challenges. Adults have a voice that exists as logical or cognitive thinking. Unlike the one used externally by children, this voice remains inside. This voice is the final stage of speech development because it uses a nonverbal voice to confront issues.

Sociocultural Theory's Connection to Discussion Boards

The concept of language plays an integral part in sociocultural theory because it acts as a tool to help students learn and manifest itself in discussion board interactions. In this process, learning through social interaction emerges. In the online classroom, culture and diversity provide various opportunities for collaboration between students (Ferris & Hedgcock, 2023). Though videos and recordings are available, students must rely mainly on what they read from textbook chapters, articles, discussion prompts, and forum postings from their instructors and peers. Students create and use language as a tool to learn from one another (Davin & Kushki,

2022). Not only do they see prompts and instructor responses to their posts, but students also get to view their postings.

This study connects to sociocultural theory because discussion board responses focus on writing in a group to deepen the learning process. Vygotsky (1978) argued human beings are complex because they use practical intelligence through language to solve problems, like answering discussion board prompts and responding to classmates. Additionally, the development of critical thinking is not a process separate from instruction, meaning the two work together. The possibility for a student to know a concept and not express it in words exists. This study's goal is to apply sociocultural theory to discussion boards to discover themes about participation and social interaction within the discussion forum. Exploring connections between Vygotsky's theory and student learning can generate answers to questions. Sociocultural theory is not normally found in studies based on discussion boards. Instead, constructivism and social constructivism are used though they have limitations.

Social Constructivism

Social constructivists investigate the role of a teacher with students in the learning process. Basic constructivism is an outcome of a learner's mental process designed to create learning experiences (Rahiem, 2021). Unlike basic constructivism, which deals with individual learning, social constructivism looks at external factors (Spencer, 2022). Outside interactions with others, such as students and teachers, are keys to learning (Vygotsky, 1978). Guillén-Gámez and Mayorga-Fernández (2020) said social constructivism theory sees learning as a chance for learners to create an experience from a collective experience. When it comes to distance education, social constructivism and sociocultural theory have differences.

These theories have similar structures, but the sociocultural theory is selected for its specific focus. Both theories base social interactions as a requirement for learning. Social constructivists look at any interaction students have with the outside world (Rahiem, 2021). Sociocultural is the relationship between a student and teacher. This study uses discussion boards as a method of communication, and sociocultural theory emphasizes artifact and tool usage (Vygotsky, 1978). Therefore, using just social constructivism would limit the focus.

Community of Inquiry

CoI examines critical thinking as a social phenomenon rather than an individualized one (Garrison, 1997). This theory emerged in the late 1990s as a means for colleagues to communicate during a research project. Individual students learn through social, cognitive, and teaching presence. Social presence happens when students project their personalities to establish communication and relationships in their groups (Garrison et al., 2000). Cognitive presence is how students create and confirm meaning through reflective thought and discussion. Classroom design, instruction facilitation, and the direction of cognitive and social processes represent teaching presence to reach learning outcomes. All three of these components tie into the world of virtual learning. Garrison (1997) said virtual learning gives students an opportunity to contemplate topics together instead of alone. Students get to share and have their ideas challenged to promote a deeper level of thinking (Dickinson et al., 2021).

Student Engagement

The degree of attention, curiosity, interest, optimism, and passion are signs students show called *engagement* (Glossary of Education Reform, 2016). Another way of defining this term is the bridge between students and their schools (Tight, 2020). Students who are highly engaged show high levels of participation during discussions, submit assignments on time, and perform

well academically. Learners with low engagement may not partake in discussions or complete assignments (Bond, 2020). Some students participate and behave with little interest. Those learners can shift into high or low engagement.

In an online discussion board, engagement is a priority, but productive groups are not made in isolation (Delaney et al., 2019). Students participating in the online classroom via discussion boards usually interact in a forum by posting responses. Instead of focusing on engagement, students focus on high scores. Examining engagement plays into how students use the discussion board and their feelings about connecting with peers. One could argue this idea connects to sociocultural theory, so it plays a role in this study.

Related Literature

The following section of the literature review synthesizes previous studies related to sociocultural theory. Each portion begins with a summary, followed by an analysis exploring Vygotsky's (1978) ideas in addition to criticism. The history and definition of discussion boards are presented first. Further, an examination of the discussion board's potential for leadership development and use as a replacement for case studies is shared. Generative conversational models, augmentation of group sizes for performance results, and online engagement follow. To conclude, an exploration of social media's influence on discussion boards is delivered followed by positive and negative supports.

History of Distance Learning

The online discussion board would not be possible without distance learning. Learning management systems, such as Canvas, Moodle, and Blackboard, house discussion boards. No learning management system would leave students without a way to interact with not just online

discourse but also quizzes, readings, and other assignments. None of these features would be possible without distance education's emergence and growth over the past two centuries.

Distance education started long before the internet's entry and includes three waves: written, radio, and television. In the 18th century, a college instructor named Caleb Philips offered lessons to people interested in learning how to write shorthand outside of college (Shurance, 2018). Due to distance challenges, Philips would interact with those interested by having the class exchange letters. More instructors began adopting this strategy, which brought about written distance education in the 20th century (Willis, 2022). After some time, the radio emerged in the higher education world. Though it is common to think of the radio as just a means of entertainment and news, the higher education realm initially controlled it to provide educational programming (Stark, 2009). Radio became a part of distance education centered on a few steps: Professors would broadcast a lecture, students would listen in to complete assignments, and the assignments would then get mailed to the instructor for a grade. This setup for education kept going until television emerged close to 30 years later (Clinton & Kelly, 2020). Like the radio, students would hear instructions from a professor, but they could also see a visual. After observing the information, the students would complete the assignments and turn them in for credit. Computers with internet access replaced television as the main medium for distance education in the. Around this time, students could take part in degree programs without having to leave their workstations. Higher education administrations, like the University of Phoenix and Jones International University, created fully online programs students could access around the world. Much of distance education now relies on student interaction, which is partly where discussion boards come into play.

Distance education continues to grow in higher education despite shrinkage in overall online learning. The fall of 2012 presented 26.4% of all higher education students taking distance education courses, and 2013 was 27.1% (Musu-Gillette, 2015). In 2014, the number of students enrolling online rose to 28.5% and again in 2015 to 29.8% representing almost a third of all students enrolled in some undergraduate or graduate program. Each year, the numbers have continued to climb, with the year 2016 hitting 31.7%, 33.7% in 2017, 35.3% in 2018, and 37.2% in 2019. The fall of 2020 showed that 75% of all students took at least one distance education course, which is doubled from the previous year. From the data shared, distance education growth is on the rise, and students are likely to interact on an online discussion board.

While enrolled in distance education courses, many students encounter an online discussion board/forum. Septiani and Putra (2020) said that discussion forums have enabled students to communicate for decades for collaborative learning. An online discussion forum represents communication between people that can occur synchronously or asynchronously (Wang et al., 2023). Students can respond to posts regardless of the time of day or online status. In addition, discussion boards are organized by threads that provide users with an accessible and simple-to-use experience (Da Silva et al., 2019). The initial post appears at the top, and the peer responses are displayed below in chronological order. Online educators use it to prompt students to reflect on reading material and gain insight from their peers. When reflecting on their application of this process, Calderon and Sood (2020) said,

For the start of each week, I create my own “instructor” post. The post contains information on distinguishing primary and secondary sources and gives tips for finding them online. I also post a sample source from the era we [a]re studying, with a citation.

Each student replies to my initial post with their primary source, citation, and a remark about how it connects to other class material. (p. 4)

The post referenced by Calderon and Sood (2020) gives students an overview of what the instructor may be looking for in their publications on the online forum (e.g. word count, outside sources.). Pinto and Leite (2020) believe discussion forum interactions can cause students to think about perspectives not readily available in in-person conversations. This outcome is because the use of an online discussion forum can encourage deeper analysis, critical thinking, and reflection than a student is likely to achieve working alone or in a face-to-face situation with other students. Online educators can observe student growth through the discussion board and give constructive feedback to their pupils before bestowing grades.

Discussion Board as a Tool to Develop Leadership

Bleich's (2020) nonresearch article pointed out the importance of using discussion forums for leadership training. Educators can use them to prompt questions for students to examine themselves. The discussion board helps learners stay on the topic, and that is a prime characteristic of good leaders. Instead of relying on postings that do not further the discussion, instructors should promote student responses. Instructors should allow students to run some discussion forums. One or more students take on an evaluation role with a rubric to foster quality responses in all the students enrolled in the course. Instead of facilitating, the instructor would provide coaching. The use of discussion boards for more than just instruction shows their versatility (Holec et al., 2022). The discussion itself is a chance for two or more individuals to talk about a particular issue. The leader and subordinate can make exchanges designed to deepen the discussion. The leader can also focus on keeping students discussing the topic while also trying to promote critical thought.

Bleich's (2020) idea shows signs of sociocultural theory and reciprocal teaching working together in a learning context. Though the initial theme is using discussion boards for leadership purposes, the author points to the idea of having students take on leadership roles to facilitate a deep discussion. The student would trade off with the instructor to probe classmates to produce more complex responses (Vygotsky, 1978). The instructor models what to complete before giving students a chance to imitate it. This example of modeling links to Vygotsky's idea of reciprocal teaching because students lead the classroom.

Student reflections on the experience do not get much attention in Bleich's (2020) study. The study presents the potential application of leadership theory with the hopes of getting instructors to test it out. However, the researcher does not take into account student responses. Researchers interested in testing out the theory would not know how effective it has been in the past with building leaders. Connecting Vygotsky's theories to Bleich's findings about leadership by discussion boards through a potential study set on gathering student response data could be an area of focus.

Discussion Board Use Over Case Studies

Sheen et al. (2019) examined student interaction within a discussion board for mood disorder connections. Students interacted with case studies for psychopathology courses, but schools were exploring new strategies. For example, instructors were using discussion boards to talk about anxiety disorders. From the original study, students favored discussion boards over case studies. The discussion boards allowed students to bypass the language barrier because case studies used a speech other than what that student knew. As a result, the student had to translate information that could be difficult. A discussion board allows students to talk with the instructor and each other because the material is in their mother tongue (Ye & Pennisi, 2022). The new

study included 28 female students who used a Likert scale to rate their understanding of mood disorders before being assigned to a case study or discussion board. Additionally, the researchers examined how the students performed on the midterms and learned that those partaking in a discussion board scored higher.

The studies performed by Sheen et al. (2019) may not directly state connections to Vygotsky's theory, but its concepts are reflected. Sheen believed students may perform better with discussion boards because they can feel more empathy for those suffering and be free of jargon and formal language that can increase the difficulty of understanding cases. These students are imagining what those suffering from mood disorders go through, which connects to sociocultural theory because they cannot reach the state of mind without interacting with the ideas of others (Vygotsky, 1978). The students could potentially be altering their comprehension through the tools of the language. Language enables them to read discussion board postings to apply lessons learned internally (Rahiem, 2021; Vygotsky, 1986). These patterns in how students perform on discussion boards are what they perceive from other posts and ideas.

Using Generative Conversational Models for Discussion Board Analysis

The goal of this study is to investigate the generative conversational model to encourage more construction and transformative learning experiences within the online course (Champion & Gunnlaugson, 2018). Due to their asynchronous nature, discussion boards can be a substitute for face-to-face communication (Park & Shea, 2020). The discussion board allows developmental pathways to connect and spring forward new knowledge. This result is a selling point for faculty, administrators, and learners. However, a lack of relevant responses that indicate a student reads the posts of their peers is a problem because it paints discussion boards as a potential instance of simply posting a message. The discussion board is an actual dialogue set up

to foster a constructive learning experience (St. John, 2020). Higher education continues to be a focus for academic leadership regarding developing strategic planning. This focus drives Champion and Gunnlaugson's (2018) study using generative conversation models. The technique presents scaffolding organization techniques designed to engage instructors, facilitators, and students. Those using scaffolding techniques connect lessons taught throughout the course to create a rich learning environment.

The asynchronous learning networks cognitive discourse model (ALNCDM) is a model set up to evaluate discussion boards and relies heavily on Vygotsky's (1978) contribution of scaffolding to social learning theory. ALNCDM asserts students learn more when an instructor highlights the learning content, and these outcomes have been vital in making predictions about learning content and self-efficacy. The ALNCDM, paired with Stahl's computer-supported collaborative learning uses technology to create collaborative learning, content, and sentiment analysis (Champion & Gunnlaugson, 2018). The system makes generative conversational models (GCM) designed to comprehend and assess a discussion. Using GCM in the classroom pushes students to connect their personal experiences with the course material. Discussions, units of inquiry designed to form conversation among readers, can be categorized into eight models broken into four players and four fields (Markey et al., 2022).

Champion and Gunnlaugson (2018) used the theory of room reading to explain student behaviors. The four players group students into behaviors that include initial responses of personal thought (move), taking guidance from another viewpoint (follow), arguing against another idea (oppose), or not picking a side and reflecting on what has passed (bystander) (Markey et al., 2022). The first field shares ideas in a summative format designed to keep the discussion from entering a debate. Participating by disagreeing with evidence is the second field.

Moving into a state of reflective thought about the process represents the learning section in field three. Pushing the discussion further by synthesizing information gathered and including new resources is field four (Champion & Gunnlaugson, 2018). The player concept explains student thoughts about the discussion interaction.

Champion and Gunnlaugson (2018) examined previous investigations of discussion boards. They found that several students in a course lead to the possibility of a field three learning experience. A 30-person class could provide little engagement, but a 500-person course showed signs of deep discussion (Ye & Pennisi, 2022). A massive online course (MOOC) brought students into the realm of making personal connections through field three and even pushed them into field four of collaboration.

Investigations from Hassan et al. (2022) revealed that those who utilize unwavering facilitation of talking and providing probing questions fostered increased constructive experiences with students in the learning environment. Another study showed an instructor's statements get more focus than a student's postings, meaning bystander behavior based on player theory is important to observe (Champion & Gunnlaugson, 2018). Another study pointed out the contrasting nature of student responses to instructor feedback. Those students complained about missing instructor interaction though responding to every student would make the instructor a primary focus rather than on other students (Kilinc & Buyuk, 2022; Lin & Wu, 2021). These findings conflict with another study that argued a lack of instructor presence leads to a lack of deep learning experiences (Lu et al., 2022).

Vygotsky's (1978) contribution to constructivism via scaffolding mentions a part of the discussion board analysis. Scaffolding appears in Champion and Gunnlaugson's (2018) study suggesting two things: Vygotsky's technique helped shape the study. In addition, the generative

conversational model pushed students to apply their lived experiences to course content, which is the heart of Vygotsky's argument about ZPD. Students use the experience to apply in a learning situation and alter that memory to help them face new challenges (Rahiem, 2021). Scharmer's (2009) theory about mirroring, deep listening, and self-assessment connect to sociocultural theory because of reciprocal teaching, an exchange between the instructor and students. One issue with Champion and Gunnlaugson's (2018) argument about using student self-facilitation places strains on pupils without teaching backgrounds. Students who have just come out of high school as first-year students may not facilitate themselves, let alone other students.

Discussion Board Group Sizes

Krisnamurti et al. (2022) investigated how student and instructor performances varied based on class sizes. Students interested in becoming speech-language pathologists needed to be familiar with assistive technology designed to help address the 23.5 million Americans struggling with deficiencies in speech. The range of those suffering from speech deficiency begins with children and ends with adults. Those suffering from speech deficiencies can benefit from communication strategies involving gestures and signs. Discussion boards, among other distance learning technology types, are helpful in this situation. Students in speech-language studies claimed to enjoy interactive group activities. However, a shortage of interest in learning about augmentative alternative communication strategies exists (Jia et al., 2022). Though information about preferred learning styles can be found, researchers interested in further exploring using discussions to supplement face-to-face interactions will find a deficit (Fajriyah, 2022). Discussion boards have advantages such as copies of postings accessible by instructors and students, increased participation opportunities, better relationships than in person, and higher grades (Bui, 2022). Disadvantages to discussion boards include too many postings for students

and instructors to read. This issue can increase stress and foster low levels of thinking because of deficient in-depth synthesis. However, the problem might be solved by instructors taking on small to medium class sizes. Evaluations of student postings require alterations to the quality because the content of what those students say could be lacking depth, but instructors would need to spend more time grading. Interaction based on discussion board sizes needs to be considered by instructors in light of studies showing smaller discussion groups having more manageable messages for students that can also mean less stress (Garry, 2021).

The discussion group allows the instructor to push the conversation to a higher level and provide the student with an opportunity to construct knowledge (Gasell et al., 2022). Student feedback is vital for helping faculty learn about their feelings regarding the course. Ferris and Hedgcock's (2023) study split the students into two groups: one large group consisting of 19 females and a section of smaller groups with 20 females plus one male. All students involved in the study were between the ages of 19 and 32. They engaged in Blackboard as the learning management system and employed discussion boards. The study's results present the number of posts and the quality of content posted. Results showed students in the smaller groups did not feel a sense of having anything to contribute. The larger groups faced issues putting together new messages; they feared being repetitious. The entire group received increased student interaction, but smaller group had greater chances of responding to their peers; both groups lacked depth most of the time. Both groups also agreed more technology training is needed.

Researchers conducted a study to identify student learning styles, needs in higher education, and expectations (Garivaldis et al., 2022). Garivaldis used 131 undergraduate students enrolled in several online courses. Each student took part in an informal Myers-Briggs cognitive style inventory personality test for self-reporting, specifically on classroom expectations. After

Garivaldis administered the personality test, the student responses were totaled and ranked. Communication with the professor, instructor feedback, and challenging online courses were the most important to student expectations. The results showed students selected introversion as their style of learning and quick communication with the instructor as the highest expectation. The outcome contrasts with Ferris and Hedgcock's (2023) study's results, which show a large classroom that asserts a greater need for technology training is necessary. The point made by Ferris and Hedgcock (2023) about instructors being able to handle small or medium class loads is a point for debate because higher institutions use student numbers for income. Those large sizes account for dropouts, and course sizes vary in difficulty when teacher assistants are put into the mix (Watts, 2019). The literature also does not address the issue of retention, which is a factor in online classrooms. When students drop out of courses, retention levels decline (Seery et al., 2021).

An opportunity exists for instructors to take Vygotsky's (1978) theory and apply it within classroom teaching practices. However, the exact way to apply sociocultural theory in the online classroom is not clear. For example, a literature course's discussion may require different components than one on behavioral health nursing. Additional grading time may get negative reviews from an adjunct who is not full-time. Some are employed at other institutions and or hold full-time jobs. Therefore, trying to balance new requirements would cause much stress. Most institutions do not allow the adjunct instructor to dictate how many students are in a class. This idea of deciding the level of involvement is usually not up to the instructor because the school policy dictates class enrollment. For example, an instructor may have to respond to all student posts regardless of whether they give responses back. The argument about instructors inhibiting the student learning process is interesting because it conflicts with the study asserting

faculty need to engage more in the online classroom (Lu et al., 2022). Vygotsky's theory that students learn from interacting with the world around them demands more attention. More research is necessary on student feedback for courses beyond just an end-of-course survey. A course that lasts 12 weeks may not solicit much student feedback once it is over.

Connecting Discussion Boards with Social Media

One study tested the influence of Facebook on student interaction with discussion boards via Blackboard (Salas-Rueda, 2021). The study is a continuation of a study completed from 2011 to 2012 by the same author to deepen the information learned. The author noted eLearning as a growing field and argued Facebook should be used in and outside the classroom. Facebook is a way to promote online learning by creating bonds between instructors and students. Students are usually more familiar with Facebook as opposed to learning management systems. However, trying to merge Facebook and higher education can cause challenges such as an invasion of privacy for students, stalking, and cyberbullying (Salas-Rueda, 2021). Students also spend more time on Facebook than on learning management systems (Rouphael, 2022). Many instructors enjoy Facebook's features, such as liking posts, communicating quickly, and creating groups for discussion outside of the classroom on unit topics. Facebook allows students to log in and view everything on one screen while learning management systems require different pages. A previous study using Facebook as a forum for learning resulted in a 400% increase in student engagement (Jacobsen, 2021). However, much of the data taken from research into Facebook's relation to higher education is self-reporting from students, so Jacobsen (2021) examined post frequency, size, and content from Blackboard's use of Facebook in the discussion forum. Most of the students involved in the study were in Australia. The study included 55 students and revealed student participation in the Blackboard-Facebook combination dropped participation

levels in Week 3. However, the activity seemed higher in the Facebook and Blackboard classes as opposed to the one with just Blackboard. The 2016 study differed from the 2012/2013, 2012, and 2011/12 studies, because it showed more posts per student. Blackboard for 2012 and 2013 generated longer posts overall, and the number of off-topic posts increased as a result of the Facebook posts only.

Parts of Vygotsky's (1978) internal language theory appear in Jacobsen's (2021) study. Facebook allows users to share virtually anything, making it enticing to users (Salas-Rueda, 2021). Much of the content is postings, and the videos have captions around them, meaning the use of language as a tool is necessary to communicate and learn via Facebook. Vygotsky (1978) pointed out how visual perception is important to the concept of speech. When students see posts on Facebook, they use previous learning through their internal voices to comprehend (Vygotsky, 1986). If desired, those same students can respond using that internal voice to shape a written response.

The article presented by Salas-Rueda (2021) brought the idea of Facebook to the big picture of online learning, but there are limitations. For example, the author did not go into detail regarding what problems students face with online learning at the moment. Retention, employment issues, and other factors that paint a negative outlook on online learning were not addressed (Pettus-Wakefield, 2021). Salas-Rueda (2021) did not explain the reasons behind social media's attractive, quality entertainment without restrictions. A user can find uploads every few seconds from photographs, comics, and videos. These elements make it hard for users to pull away from Facebook content, unlike the online classroom's discussion board. Colleges and university classrooms are restricted to topics such as report writing and are more formal. The prompts can challenge student thinking and seem restrictive, making interacting with them scary.

Some learning management systems, like Blackboard, require students to log on to separate email accounts, but they have messaging systems. The messenger in the learning management system and email give students a variety of ways to communicate with instructors. The email portion usually includes messages from staff and supervisors, whereas the messenger is strictly for students. The separate messenger accounts can help disperse what instructors receive. Salas-Rueda (2021) also does not point out a limitation with the study taken from Jacobsen (2021) and did not examine course progress concerning grades or retention levels. The study mainly focused on student interaction and not the solution to issues faced. In addition, many off-topic postings could play a role in understanding the retention and failure issues taking place in courses. The responses included words that had been three words in length. The researchers confessed to not analyzing the actual content of the posts for the information generated.

Positive Support for Discussion Boards

Numerous positive examples of support exist for online discussion boards in regard to student learning. Lin and Gao (2020) conducted a mixed-method study to see if relationships existed between discussion boards and online teaching methods. Participants came from an online undergraduate population. The researchers collected data from students using the SOLO taxonomy to measure the course objective comprehension model and taxonomy of critical thinking. Then, the researchers analyzed student discussion postings and responses collected from surveys using Statistical Package for Social Science software. The results showed that students who used the discussion boards believed it enabled a link between their peers and the instructor. The connections could potentially alleviate the feelings of isolation in an online course.

The study only examined the relationship between course outcomes and the online discussion board (Lin & Gau, 2020). The researchers wanted to see the impact of discussion

boards on learning by emphasizing the grade point averages. Seeing the connection between the discussions and grades is valuable in assessing if the discussion board is worth keeping.

However, grade point averages do not tell researchers what students think about the experience of using discussion forums. A narrative told through a qualitative framework can explain a process. The Lin and Gau study features survey responses, which are the only qualitative measures used. Also, the Lin & Gau only collected five survey responses. Having more surveys may have overburdened the Lin & Gau. Though the researchers briefly explored the data, a larger survey response rate could produce a clearer picture of what more students in that class believed. Some of the survey responses said statements like, “I gained a sense of who other learners were through their writing and it opened up my mind to new ideas for my own work” and “I enhanced my own thoughts and learned new perspectives about other people’s views,” which suggests a study able to get more responses could achieve a display of student experiences (Lin & Gau, 2020, p. 35).

Lin and Gau (2020) opted for a mixed-methods approach, arguing for combining qualitative and quantitative features. This idea came from Creswell and Poth (2018), who also vouch for the validity of mixed-method approaches but said, “We see mixed methods as a distinct methodology from qualitative inquiry and one that bridges qualitative and quantitative research” (p.32). Part of this answer rests with mixed-methods research being more time-consuming and requiring more advanced data collection, as well as analysis methods. With a quantitative or qualitative study, the researcher already has to research, design, collect, and analyze in one form. A study using both would ask for double or more time. The value of this kind of methodology is high, so another study might seek to fill in the research gaps this one leaves (Gall et al., 2007).

Morley (2018) conducted a study to determine if nine high school students with learning disabilities might benefit from social interaction via a discussion board. The study used four phases to collect data. Those sources came from daily surveys, critical thinking, oral participation, and discussions. Analyzing the data required comparing surveys and scores from Phases 1 and 2 with Phases 3 and 4. The outcome of the study suggested that some students facing challenges can improve their outcomes. To be specific, one of the student's scores rose by over 20% while another's scores increased by 25% (Morley, 2018). Moreover, the researcher noted the increase dropped once the discussion boards disappeared from the learning plans. In both studies, the implementation of discussion boards enhanced the student experience via a collaborative effort.

Morley's (2018) study is geared toward quantitative results and examines high schoolers. The researcher evaluated oral participation, online discussion participation, critical thinking, and a survey. All these measurement devices were graded with a rubric or Likert scale. Like Clark's (2015) study, Morley (2018) revealed connections between discussion board implementation and student performance but did not explore the written responses. It is difficult to capture people coming into contact interacting, as well as seeing important factors in the experience, like gender, economic status, race, and individual differences. Quantitative studies pursue numerical data and cannot tell a story about them. Examining high school students is another limitation of Morely's (2018) study because its results can only be used to help administrators and teachers at that level. Students at the community college and four-year university area need a separate study because Morely's results are restricted to high schoolers. These limitations open doors for the current qualitative study because the study focuses on students' experiences at the college level.

Other researchers found encouraging results for discussion board use. One researcher performed a qualitative and quantitative study examining three facilitation methods in a teaching theory course for students seeking certifications (Lee et al., 2022). The research split 56 students into three groups of 18, 18, and 20 to observe their performance via the discussion boards. The first group required the instructor to give responses to all students and required two peer responses from them. The second group stayed similar to the first, except that it took away the peer response requirement. The third group required peer responses but no instructor responses. The study used a mixture of survey responses and discussion board content analysis to offer insight into student behaviors. After reviewing the results, Lee et al. noted no significance with students posting initial responses based on the quantitative data. However, responses excelled for Group 1 with an average of 19.35 postings over Group 2's average of 2.06 postings and Group 3's average of 9 postings (Lee et al., 2022). The data presents that if an instructor required responses and minimized social presence, students responded more frequently. The group with more instructor presence showed more reliance on the instructor, but the group with little instructor presence showed more student interaction.

The study's limitations revealed literature gaps in need of filling (Lee et al., 2022). The researchers confessed one drawback was not having a designated experimental design method. To help other researchers recreate or explore a study, it is recommended to have a design method because it influences a large part of the researcher's choice of methods (Gall et al., 2007). A missing design can leave future researchers unsure of how the original authors conducted the study. An example of this issue comes from the unknown content analysis method. Though the discussion postings received examination, no indication of the method used is shown leaving questions, such as how the researchers came to their conclusions. For example, the results

section revealed explanations of student responses, but the researchers did not note how many times they were reviewed. Where a quantitative study has numbers totaling at the end, responses from students may reveal various themes because they can be examined at multiple points during the study (Gall et al., 2007). The analysis itself points to themes, but their importance does not appear, leaving room for a future study to explore. Another study could employ an established content analysis methodology and uncover themes that other studies have missed.

Beck et al. (2022) analyzed student interactions through a 16-week online asynchronous course via a grounded study. The study featured 16 student participants with a background in teaching students below the college level. The students were split into two discussion groups with one group leader. Data used for analysis came from student discussion postings and course materials. Analyzation methods I used were two approaches to examine online interaction and the quality of student interactions (Beck et al., 2022). The researchers employed a naturalistic inquiry framework to identify, code, categorize, and identify relationships in the categories as naturally as possible. The results were similar to another study's results with more interaction taking place with less instructor presence results (Lee et al., 2022). Limitations of the study included little explanation as to why its chosen grounded research design was selected, as well as the framework switching from grounded to a multi-case. The researchers found that student-facilitated discussions created high amounts of participation. The naturalistic inquiry analysis uncovered these themes, but an answer as to why is unclear.

Goh and Wen (2021) created a qualitative study on hospitality student interactions within discussion boards. The researchers used a sample of 32 participants through a cross-sectional design examining hospitality student interactions with their discussion board. The student responses in the discussion board and interview results held themes that may answer research

questions. The researchers needed to use content analysis to check the students' postings for themes. Most students reported self-reflection, peer validation, real-time feedback, flexibility, multi-tasking, post review, and a sense of belonging to be important, in that order. When it came to perceived ease of use, good interaction received the most responses, and creative ways to learn scored second with excitement about the comments from others at third place, discussion boards at fourth place, and negative attitude at fifth place (Goh & Wen, 2021). The outcomes displayed positive support from students through ease of use, reflection, and learning from peers. Additionally, the researchers asserted discussion boards can be useful to foreign students because they can reflect and strategize before posting.

A missing explanation of the content analysis method and participant experience with discussion boards before the study were limitations of Goh and Wen's (2021) study. The authors shared that the reasoning behind their study was to understand student perception of discussion boards. Though they explored this portion thoroughly, the strategy used to identify themes was not shared. A thorough description of the analysis method needs to be given. Not including this information can create difficulties with analysis (Gall et al., 2007). Additionally, the reasoning behind sampling and participant backgrounds are not given enough detail. The researcher identifies them as students in a hospitality course, but their previous interactions with discussion boards and their academic years are unknown. Any applied research project needs a logical sampling strategy with an explanation behind its selection (Kaberia & Muathe, 2021). Without one, the researchers may have a hard time explaining the results. For instance, the backgrounds of participants are not given. Readers do not know these students' experiences with college. These details may alter the results because self-efficacy is a factor in how a person views challenges (Rahiem, 2021). The students in this study may have more confidence based on

previous experience, but this answer cannot be known. Future research could focus on these factors to create a follow-up study.

Negative Aspects of Discussion Boards

Shurance (2018) set out to uncover if student engagement, social presence, and achievement rose with media-rich discussion boards versus the traditional type. He used a posttest-only equivalent group design to ensure the validity of his findings. Graduate-level students enrolled in either a Master of Arts in Counseling or Organizational Leadership program made up the sample. The researcher split the students into three groups based on the courses they initially took. To avoid student knowledge about the study, careful efforts were made to ensure students believed they had been enrolled in a regular course. The researcher used a 25-question Likert scale survey to collect answers from students designed to learn about technology background, student engagement, social presence, and demographic data. The survey also consisted of three open-ended questions designed to get qualitative feedback from students. The Cronbach alpha analysis and analysis of variance were used to analyze the data. Results for student engagement showed polarized views from students with most either liking or disliking media-rich discussion boards. The researchers believe there may be a connection between this outcome and how helpful the instructors were. Results of social presence showed no significant findings from the survey, but the qualitative responses seemed to elicit more positive views for media-rich discussion boards. No significant findings emerged from student achievement.

The findings in Shurance's (2018) study did not take into account undergraduate-level students. The student population consisted only of those in a fully online course who completed an undergraduate degree. Though this study's results aid with understanding graduate student perceptions of discussion boards, the results do not further literature concerning those at the

freshman level. From the research gathered earlier, the freshmen group is at a high risk of lacking engagement. The current study's focus is to understand the perspectives of undergraduate students engaged in discussion boards, for their responses may be different than learners pursuing graduate degrees.

In another study conducted by Schiffellbein (2018), the researcher hypothesized that intrigue in social studies material would be boosted through the implementation of discussion boards among students with learning disabilities. The participants included seven students in 10th grade with disabilities ranging from attention deficit disorder to communication impaired. The researcher used a mixed-methods approach to collect data. Likert scale surveys, course grades, test scores, participation rubrics, assessment rubrics, and verbal and open-ended questionnaire testimony represent the data gathered.

Despite successfully analyzing the student survey responses, Schiffellbein (2018) concluded with only one of the students completing the discussion requirements. The final revelation is that none of the students enjoyed working with the discussion boards for the study. Outcomes from this study directly contrast with those found in Clark's (2015) study that displays a divide in potential results. To be fair, the researcher did admit the lack of student participation in the study could be an anomaly. In addition, the one student who did complete 100% showed significant improvements in academic progress. Because of the split, the conflict between discussion boards being worthwhile e-learning tools continues.

In a quantitative and qualitative study, Muir (2022) examined 61 student-teachers' interactions in asynchronous professional development courses via discussion. The data collected involved phone interview transcripts and discussion board posts. Using the content analysis method, the researcher categorized the data from the 3,600 discussion board postings. The

researcher also used the constant comparative method and open coding to analyze interview data taken from 10 teachers. The researcher examined the codes for similarities and themes. The analysis revealed students would respond with less relevance to the topic as postings increased. One study's findings show the teaching theory scared students away from participating (Muir, 2022).

Limitations of Muir's (2022) study involved the participants already having experience with discussion boards and their backgrounds as teachers. All 61 participants in the study had experience with teaching, so they were well past the level of first-year students. Like Beck et al.'s (2022) study, the results can work well for teacher preparation programs. However, these data might not be as useful for higher education administrators exploring first-year student experiences. Interactions with discussion boards separate students with no record of success from students who do have a record of success. A point to consider is the lack of triangulation. According to Creswell and Poth (2018), a good qualitative study triangulates data to uncover themes. This study only used phone interviews and discussion board postings. Part of the decision to use just phone interviews and postings related to looking at quantitative data, but this choice may have taken some focus away from the story these students had to tell.

To understand the way that students use discussion boards in a nonmandatory classroom, another researcher performed a study examining one course with 55 graduate-level students (Echols et al., 2021). The students were divided into groups of 12 and needed to complete a project. Students could voluntarily use group discussions, file sharing, and chat rooms. Responses gathered from self-reported surveys and interviews were data to be analyzed along with discussion board postings. The researchers used the content analysis schematic method to identify, separate, and look for themes in the data. Results showed most students preferred using

email to the discussion and chat options. When used, students looked to emails for feedback, and researchers learned students did not engage in the forums because the discussion did not happen in real-time. Another reason for a lack of student engagement is students being scared of saying the wrong thing and opting out. Students also said phone calls and emails seemed easier. The researchers suggested students opted for the communication method that worked out on the first try despite previous experience.

Limitations of the study include users who already had experience with discussion boards, their graduate-level status, and the voluntary use of communicative tools (Echols et al., 2021). All the participants possessed a background in interacting with discussion boards. As a result, participants already knew how to work with discussion boards, which differs from first-year college students with no previous interactions. The self-efficacy of this group is present, which can make them more inclined to take on challenges despite the lack of discussion board use (Rahiem, 2021). Additionally, the participants were enrolled in graduate-level courses. Students who are pursuing a master's or doctorate already have a record of success and most likely possess the confidence to face challenges related to technology. Another point about the study is the voluntary discussion board interaction. Most freshman-level courses make discussion boards mandatory, so a study looking at graduate students or teachers would not offer much to higher education administration interested in understanding freshman student engagement.

Wang et al. (2023) performed an exploratory case study to understand student interaction with the discussion board. The study's participants included 16 preservice teachers enrolled in an education majors course. Each student facilitated the discussion at a point during the course. Four data sources were collected: reflection logs, questionnaires, interview data, and online postings (Wang et al., 2023). The objectives included gathering the data from students as the

course progressed and analyzing them using the constant-comparative approach. After categorizing and classifying the data, researchers examined them closely for themes. One theme was how emotional capital contributed to 93% of the students participating. Another result was the role knowledge plays in posting: Students admitted to only publishing thoughts if they possessed knowledge on the subject. Students also failed to post if someone else shared their ideas first. Interest was another deciding factor behind student participation. Half of the participants admitted they needed to feel invested in the subject to say anything. Eighty-seven percent of the students did not have time to post meaning too many postings can hurt the chances of future posts (Wang et al., 2023). Most students did not post to achieve rewards.

A different study by Wang et al. (2023) focused on seasoned teachers and did not explore the reasoning behind the analytical strategy. The researchers examined teachers who had experience and knowledge. Because of their background, participating in the discussion board may be easier when compared to the first-year student. The current research suggests undergraduates enrolled part-time suffer from engagement issues, so these data may not be of much use to higher education administrators looking to understand why students at the freshman level fail to engage.

A phenomenological study was conducted to examine student perceptions of discussion group sizes (Versales et al., 2022). Six preservice teachers played the role of participants, and the setting of the study was a single educational technology course. The course mandated students participate in an online discussion. The researchers purposely selected three students with satisfactory performance and three with unsatisfactory ratings to see if the responses would vary between the groups. Students took part in interviews that were transcribed and analyzed using the phenomenological data analysis method. This choice enabled the researchers to code the data

and identify potential themes. Results of the interviews revealed that some of the students believed forced to use the discussion board and believed small discussion group sizes would lead to better quality postings. A student confessed to not liking discussion reading groups whether big or small. In addition, a few interviewees claimed to take part in social loafing, which is when a student uses the responses of classmates to make a post instead of reading and making an original idea. Additionally, students reflected on failing to read posts in a discussion, and timing proved critical for discussion interaction because students had other obligations. Lengthy posts mostly were skipped because they were too difficult for students to go through, though those very postings show student interest and passion in a subject. Students also feared the absence of clarification a face-to-face conversation could bring. From the results, the participants did not favor large discussion boards or lengthy posts. Instead, small discussions seemed to be preferable. Like the other studies, this study had drawbacks.

The Versales (et al., 2022) study only presents interviews for data collection, and the participants had previous experience with discussion boards, which created limitations. Though the participants shared relevant content about their feelings regarding the discussion board, the participant number was small. Creswell and Poth (2018) assert the requirement for participant numbers can range from one to 325. Furthermore, researchers creating phenomenological studies should look at interviews. Written testimony and observations could have created triangulation that might have revealed developments that may have enhanced the results. The participants with discussion boards meant the students may have developed confidence in interacting within a discussion board. Though the participants were preservice teachers, the progression of their education experience is unclear. A future study would need to categorize the data for the appropriate level of higher education administration.

In the studies explored, drawbacks of discussion board use create openings for further research. Hesitation because of misinterpretation, decrease in relevance, preference for emails and chats, and lack of interest are reasons to create another study. The limitations, such as previous experience with discussion boards, teaching backgrounds, missing triangulation, and missing explanation of analysis method, bring up questions. Some questions are how would the results of a future study be altered with first-year college students with no background in discussion boards? What if multiple courses were explored instead of just one? What would the results show? Questions like these are the focus of the current study.

Summary

Vygotsky's (1978) sociocultural theory is the study's guiding theoretical framework. The ZPD, which is a subarea of sociocultural theory, references the line dividing what a student can learn alone and what can only be gained by assistance from others. Reciprocal teaching and peer collaboration explain how instructors use models: They give students the objective, so collaboration can be started. Internal language helps find solutions to overcoming a problem. The components of sociocultural theory are found in discussion boards making it an excellent theory to use as a foundation for this study.

Positive and negative results for discussion board use exist. The positives include students feeling connectedness throughout the course. Discussion boards may increase the overall scores of high school students with learning disabilities. These studies show limitations, such as having small sample sizes and researcher-created courses. Some drawbacks found in other studies included students and teachers being afraid to post because of the potential of being misunderstood, not posting at all because of confusion, too much content, and lack of enjoyment.

Like the positive discussion board results, the negative discussion boards have limitations, such as not having enough student participation and missing survey responses.

Several researchers have argued for various discussion board uses, but they did not explore student perception of online learning devices (Beck et al., 2022; Echols et al., 2021; Muir, 2022; Shurance, 2018; Wang et al., 2023). A leadership training feature is one of the uses that could be employed on discussion boards. Discussion boards can allow students a chance to facilitate learning as leaders of discussions. The discussion board also could be used as a supplement for case studies for conversations about psychological experiences. A different study showed the potential to create deep learning while another explored the effect that group sizes can have on discussion board conversations (Krisnamurti et al., 2022; Lu et al., 2022). The final study examined how online learning could improve with social media (Salas-Rueda, 2021). However, none of the researchers examined student experiences. This gap in the literature is the focus of the current study.

CHAPTER THREE: METHODS

Overview

The purpose of Chapter 3 is to describe the design of this study. The qualitative approach for this study is a single instrumental case study. Research questions and information about the demographics of the setting and participants follow. In addition, the procedures, the researcher's role, data collection, analysis, credibility, and trustworthiness are listed.

Research Design

This study of student experiences in online discussion boards is qualitative because the study focuses on student responses via the CoI framework. According to Thomas et al. (2022), qualitative researchers examine the natural world to understand it better. Researchers can use various pieces of evidence to accomplish this task. Some of these examples include field notes, interviews, conversations, photographs, recordings, and memos (Creswell & Poth, 2018). This study needs to be qualitative, for the objective is to examine actual student responses to understand their collective experiences. A quantitative approach would not be the best fit for this study because the focus of this study is to examine the collected lived experiences of humans (Gall et al., 2007).

The research method needed for this study required an in-depth examination of student and instructor responses in the online discussion board. Study groups and interviews were used to create a triangulated source of data. Analyzing the meaning behind the answers to open-ended questions is the purpose of this qualitative framework (Creswell & Poth, 2018). Quantitative analysis software such as the Statistical Package for Social Science cannot evaluate written reflections: This task is for a researcher to conduct.

The approach chosen for this research is a case study because the intent is to explore a bounded system in an online discussion board. The case study, founded by Sigmund Freud, explores a problem (Crabtree & Miller, 2022). Creswell and Poth (2018) said that researchers investigate a problem through the confines of a case or cases. The research can involve more than one case but has a concrete objective. The objective is to showcase the reality of the topic in its pure nature without biases. Moreover, researchers set out to find a solution or solutions to the issue in the case. Like the other qualitative approaches, the case study has multiple parts.

Choosing the case type, limiting the scope, specifying an objective, collecting data using various methods, analyzing the data, and finding themes are the procedures for conducting a case study. Identifying a problem is done before collecting any data or planning out the structure of the study. Ellet (2018) argued that researchers need to perform a problem diagnosis not only to locate an issue but also to learn what could potentially be causing the issue. An example of this process could be a high school literature course in which every student failed. This problem would require looking at the reasons behind the event.

Creating boundaries for the research comes after choosing the problem (Yin, 2018). Establishing restrictions prevents the researcher from going too far into the endless fathoms of data and theories (Creswell & Poth, 2018). Because the researcher wants to create a well-supported qualitative study, interviews, group studies, and document analysis are necessary (Gall et al., 2007). Having several data collection methods strengthens the research results because the results do not rest on a single source (Crabtree & Miller, 2022). A researcher must also analyze the various data using a predetermined method, such as open coding. Using the open coding method requires a researcher to search for overlapping themes. A coding tree identifies a potential solution for the designated problem of capturing student experience in an online

discussion board (O'Guin, 2019). Finally, the researcher composes the information into a comprehensible document.

Research Questions

Central Research Question

What are the experiences of a group of first-year nontraditional college students engaged in online discussion boards in the virtual classroom?

Subquestion One

How do first-year online nontraditional students perceive the discussion board experience in relation to social presence?

Subquestion Two

How do first-year online nontraditional students perceive the discussion board experience in relation to teaching presence?

Subquestion Three

How do first-year online nontraditional students perceive the discussion board experience in relation to cognitive presence?

Setting and Participants

Setting

The setting for the study was UHCP in South Carolina (UHCP is a pseudonym for the actual higher education institution). For over 40 years, UHCP has given local and distant students a chance to learn. The online programs have a total of 7,053 students: 4,053 females and 3,000 males. The UHCP demographic information for the student population is as follows: 85% Caucasian, 10% Black, 3% Hispanic, 1% Pacific Islander or Asian, and 1% Native American. Only the online learning management system, Canvas, was in use. All the students were enrolled

in an entry-level course called English Composition I.

Two reasons behind the selection of this university are its willingness to participate in the study and the easy-to-access student population. The sections of the chosen course were taught by the researcher previously, making the recruitment process easier. However, there is no connection between the participants and researcher. The researcher requested phone numbers and email addresses from the school administration after institutional review board (IRB) approval was granted from Liberty University. UHCP also allowed the use of its live chat system that could produce real-time results.

Participants

Participants from UHCP's online education programs took part in this study. The student sample came from one online program: the Associates of Science in Nursing. The program is offered to students via the Internet with the main campus in South Carolina. Its main offices are in Texas, Idaho, California, New York, and Alabama. Participants come from the early winter term in the 2022 academic year. The course from which student samples emerged was English Composition I. There were 14 participants: one male and 13 females.

Researcher's Positionality

This study was performed because of my background in teaching online with discussion boards. Over the past 7 years, I have taught for over 20 higher education institutions that each used discussion boards. From my experience teaching many online courses utilizing discussion boards, a study on their influence on students seemed necessary because student feedback about their experiences indicated a desire for more critical thought. Though all the colleges and universities required students to complete surveys and review tech support cases, I have yet to attend a faculty in-service where the responses to students were examined outside of a

quantitative framework. Therefore, I investigated this missing component so I could present it to my colleagues.

Interpretive Framework

Social constructivism was the research paradigm that I used for the description of the case. This theory represents a component of learning created by the student's experiences (Schunk, 2016). Part-time students enrolled in a virtual writing course for first-year freshmen are the participants. The objective of this case was to examine as well as create a description of their realities. According to Bigham (2019), the intelligence of humans produces a recognition of reality through the interaction of experience in the world in which they live. I am aware of my perspectives influencing the results but made every effort to focus as much on the participants' views as possible. Additionally, the study was guided by philosophical assumptions.

Philosophical Assumptions

Ontological Assumption

My plan was to look at the perspectives of students, which happened outside of my perspective. According to Creswell and Poth (2018), an ontological assumption should examine the subject from more than one viewpoint. As an instructor, I do not believe the students have identical experiences. From my time teaching, I learned students all have individual experiences with the online learning world. One of my goals was to look at each of their reflections from interacting with CoI on the discussion board.

Epistemological Assumption

I also took an epistemological viewpoint through study groups. To do epistemology correctly, I had to get as close to the participants as possible (Creswell & Poth, 2018). Everything was conducted virtually: Group interviews took place via group chat. By having a

live chat, students got a chance to tell their stories in real time. Face-to-face communication would have taken up too much time seeing as how students were located all over the country. It was also possible for me to gain information from a group through a joint phone call. This portion allowed me to be close to the participants because I could speak to the participants in real time.

Axiological Assumption

From an axiological standpoint, I needed to admit my role and bias with the study. Some of the students I interviewed may have interacted with me in the past through the online classroom. As far as bias, I believe discussion boards have a lot of value. They encourage students and instructors to engage in conversations at different times and places. However, the static nature of their presentation can be troublesome. As an instructor online for the past 7 years, I noticed discussion boards as potentially being unchanged. For example, a discussion board question can stay within a course shell and be copied for publication through several semesters that can turn into years. If these questions are not written correctly, they can limit the learning process of students. A student can simply summarize a reading or answer superficially, which does not require much in-depth thinking. The world around the classroom constantly changes, meaning queries used in discussion forums should also change. A question created 2 or 3 years ago for a report writing class may not be relevant after too much time has passed.

I am aware of interference from my experiences and biases, so I opted to use epoché. The epoché concept is a part of transcendental phenomenology (Moustakas, 1994, Chapter 2). Through epoché, researchers remove their biases, prejudgments, and preconceived ideas to understand the experiences of those in the study. Without it, I risked potentially blending my feelings and reflections with those of my participants. By following epoché, I remained focused

on the experiences of the students I was studying.

Researcher's Role

In this study, my role as a qualitative researcher was to serve as a tool for data collection. Creswell and Poth (2018) said that multiple characteristics of qualitative research exist: gathering data close to the event, employing both deductive and inductive logic, and examining a subject through perspectives. I was alone and in proximity to the online classroom when retrieving responses from students. The sources of data were interviews, group studies, and interviews. The reasoning process included deductive and inductive reasoning. Instead of just gathering data from one participant, the entire sample consisted of participants with various views with an individual outlook.

Procedures

Receiving approval from the IRB through Liberty University was the first step toward completion. After receiving approval, I requested permission to do the study from the board of directors for UHCP, the online program chair for nursing, and the students involved. UHCP does not have an IRB, so the board of directors was the next place to ask for permission. Data collection could not happen without permission. Accomplishing this task took several virtual sessions using Microsoft Teams. Each session required me to present a strong case for the study and how the information would benefit the higher education community. The students I used came from two courses that were completed. 14 students were selected from various courses. The students completed the informed consent application for the study, and I then emailed an informed consent letter. I also distributed a description of the study with a more in-depth explanation of how it would work. All participants of the study signed the informed consent.

Upon getting consent from all involved parties, I interviewed the participants. To start, I scheduled times through Zoom meeting software, which provided the platform for the meetings. The purpose of the interviews related to learning about the student experiences with discussion boards. The device used to record the meeting was a cell phone with a microphone attached to ensure a quality copy. After the interviews, I transcribed each recording. When transcription was complete, I sent the transcripts to the interviewees to verify for accuracy.

I used one focus group for data collection variety purposes. A focus group allows people who experienced a particular phenomenon to share reflections (Thomas et al., 2022). Being in a group discussing the discussion board may have given the participants a chance to speak their minds without fear of repercussion. A focus group can help participants feel safe and supported (Creswell & Poth, 2018). A focus group can make a study richer because researchers can compare the data for overlaps and inconsistencies. The focus group consisted of five students already engaged in the study. All students involved were given a chance to participate in the focus group.

The third part of the data collection process revolved around analyzing the discussion posts made by students. Creswell and Poth (2018) argued that case studies should include some examination of the documentation involved. In this case, the online discussion boards written by students were used as evidence. I needed consent from the students before reviewing them. Once permission was given, I used a laptop to access the discussions for review. I copied the data to a separate Microsoft Word file verbatim.

While collecting data, I also used my methodologist to help me look over the data. This particular person played the role of peer reviewer and was set in place to keep the researcher honest (Thomas et al., 2022). This individual accomplished the mission by asking hard questions

about my research decisions. For example, the individual questioned my interviewing methods and suggested I try an approach that reflects less bias. This kind of advice kept me from dishonestly slanting the research (Creswell & Poth, 2018). My committee kept records of the process and compared notes at the end of the study. Without this input, I might have corrupted the research with too many personal perspectives.

Data Collection Plan

A single instrumental case study was the approach for this research. My objective in selecting this approach was to define student experiences with discussion boards to understand the effects of peer responses. A description of the perceptions students have of online discussion boards was done with multiple data collection methods. With a qualitative study, I had more than one way of gathering information in case one method proved to be erroneous (Creswell & Poth, 2018). Therefore, data come from discussion boards, focus groups, and online interviews.

Individual Interviews

All the students involved had recent experiences with online discussion boards and were selected based on this criterion (Gall et al., 2007). The questions presented during the study reflect the purpose statement and research questions. The interviewer can give six question types: experience and behavior, opinion and value, feeling, knowledge, sensory, and background/demographic questions (Thomas et al., 2022). Experience and behavior questions describe the event. Opinions and values clarify what a person thinks as opposed to what happened. Questions about feelings look at emotions, and knowledge questions display facts and truth. Describing the five senses used in an event is the role of sensory questions. Background queries help the interviewer understand where a relationship with other people happened (Thomas et al., 2022). The interviewees had the option of choosing a time to conduct the

questioning session. After recording the interview data, the interviewer and methodologist checked the transcripts for accuracy. Below are the questions used during the interview:

Table 1

Individual Interview Questions

1. Tell me about experiences on the discussion board in _____ class.
2. What social presence do you have on the discussion board in _____ class?
 - a. Friends/cohort/colleague presence?
 - b. Discussions outside of class?
 - c. Conversations as friends?
3. Tell me about the teaching presence on the discussion board in _____ class.
4. What are your experiences regarding instructor responses?
 - a. How often?
 - b. Type of responses?
 - c. Outside of the discussion board?
5. How does the discussion board stimulate your critical thinking?
 - a. How does the discussion board contribute to your learning?
 - b. To your knowledge for assignments?
6. Describe your level of engagement on the discussion board each week.
7. How does your learning on the discussion board connect to your other classes?
8. How has your experience on the discussion board connected to your past experiences with learning?
9. What do you believe are positive aspects of online discussion boards?
10. What do you think are the negative aspects of online discussion boards?

11. What experience with training have you had about using online discussion boards?
12. How do you think the online discussion boards contribute to online education?
13. What advice would you give to school administrators and faculty with regard to the online discussion boards?

Focus Group

A focus group took place as a second method of data collection. According to Creswell and Poth (2018), qualitative research should draw from more than one source if the objective is to get many perspectives on a particular event. By adding multiple methods of data collection, the topic became richer and deeper (Thomas et al., 2022). The focus group provided students with a chance to answer questions together. This process could have helped those members hesitant toward sharing information give their thoughts with the testimony of fellow students about the discussion board phenomenon. In addition, many of the students might never have met, so giving them a chance to see one another and have a conversation may have helped them create lasting connections outside of the virtual classroom.

Five participants who took part in the in-person interviews contributed to the focus group, and the setting for the group was online. The focus group discussion was digitally recorded through Zoom. After the focus group ended, the recording was transcribed by the researcher. The focus group transcript was provided to the participants to review for accuracy. Table 2 presents the focus group questions.

Table 2

Focus Group Questions

1. How would you describe interacting via the discussion board with peers?
2. In what ways do you think peers influence engagement through the discussion boards?

3. How do peer responses stimulate your critical thinking?
4. From your perspective, how has the discussion board connected you to other students?
5. What do you believe are positive aspects of peer responses?
6. What do you believe are negative aspects of peer responses?
7. How do you view instructor presence in the discussion board?
8. How would you describe an instructor's influence on discussion board postings?

Analyzing Student Responses in the Discussion Board

Though the focus group and individual interviews provided quality data, the researcher took an in-depth look at the postings delivered in the online classroom. Case studies focus on one particular phenomenon (Gall et al., 2007). The discussion board is the phenomenon and can be accessed online at any time. Forgoing these data would be detrimental to the study, for an unclear piece of evidence showcases problems for reviewing in the asynchronous world (Delaney et al., 2019). Postings from Weeks 1 through 8 were reviewed. By looking at postings and comparing them with the interviews and focus group data, themes emerged.

Data Analysis

The analysis procedure used to examine the data was interpretational phenomenological analysis. This process scrutinizes the data to find constructs, themes, and patterns (Gall et al., 2007). Whatever findings come from this process can pinpoint meanings behind the phenomenon (Ellet, 2018). Though answers can be created and displayed, there is no set answer when it comes to this process. The steps to interpretational phenomenological analysis are as follows: segmenting the database, developing categories, coding segments, constant comparison, and concluding.

Segmenting the Database

Transferring all the data onto a computer and creating segments was the first step. Placing the information on a computer can make analysis easier (Gall et al., 2007). Also, segmenting the data allows a researcher to observe each answer and question (Borden, 2022). I followed the guidelines by using Microsoft Word and Excel to record all the questions and responses gathered from the interviews and the focus group. The responses students gave to one another in the discussion board were also included. After putting all the data into separate Microsoft Word files, the task of segmenting started with giving each question and answer a separation via line numbers. This strategy makes the information understandable if taken out and observed by itself.

Developing Categories

After I segmented the data, categories were created. This stage is when researchers need to decide what parts belong to one another (Thomas et al., 2022). Through categorization, researchers give category titles and define the phenomenon in the case into subsections (Gall et al., 2007). Otherwise, the process of finding themes may prove difficult because searching for those categories that overlap would be a confusing process. For this study, the main category titles for the categories were created after the categorization of responses. I added additional titles separate the information and to see if the claims about student responses to one another had merit (Clinton & Kelly, 2020).

Coding Segments

After I used the categories, the next stage of analysis involved coding the segments. The style of coding I used, called open coding, relates to the researcher placing the segmented data into respective categories (Creswell & Poth, 2018). The act of transferring the segments is not

limited to just movement: It can potentially be a part of multiple categories (Gall et al., 2007). I planned to break up and code the interview, group study, and discussion board documentation. By using codes, I keep myself from having preconceived ideas and notions (Moustakas, 1994, Chapter 2).

Constant Comparison

Analyzing all the segments in each category was the goal of this next stage. Constant comparison helps researchers pull meaning out of the data and clarify it (Gall et al., 2007; Thomas et al., 2022). The student responses were compared side-by-side with their respective questions. While this action took place, I took notes about the connections and used them to answer my research questions (Creswell & Poth, 2018).

Data Synthesis

The final stage of the analysis was looking for any relevant themes to construct meaning. The researcher must search for features within the case to build an answer to the research questions (Gall et al., 2007). These characteristics are usually reoccurring and cannot be separated from the phenomenon (Thomas et al., 2022). However, generalizability cannot appear in multiple case studies, meaning this situation may not apply to every online classroom. Still, the results can prompt administrators to take action in regard to learning more about the issue. Any themes I found may reveal how student responses connect.

Trustworthiness

All research worthy of being used by higher education administrators to help with decision-making needs credibility. This path requires the inclusion of outside methods such as triangulation and member checking. Keeping participant information protected is also a necessary step. Employing pseudonyms and storing sensitive data are two ways this task was

completed.

Credibility

Establishing a trusted study requires credibility through triangulation and member checking. Without credibility, a researcher may not be believable. Triangulation avoids this issue through multiple methods to collect data about a phenomenon (Gall et al., 2007). This strategy uses more than one way of gathering information to increase reader belief in the findings. In this case, participant interviews, a focus group, and discussion board archival data were the means of data collection (Creswell & Poth, 2018). To add another layer of credibility, participants reviewed the information collected from the interviews and the focus group. If they found an inconsistent factor, such as an erroneous recording, it was corrected.

Transferability

The methods of transferability can be compared with other studies done on distance education. Transferability relates to research outcomes similar to those discovered in other cases (Thomas et al., 2022). This study can provide the basis for more research into the perspectives of discussion boards for students, and instructor perceptions can be the area for consideration. However, the small participant size limits transferability, so the findings would be best looked at as a way to start other studies. The Canvas learning management system was the medium used. Other researchers could use the results of this study to explore other research avenues. Though the class is English Composition I, using a different course may lead to different results. What is found in this study would relate specifically to a Canvas English course. By collecting student reflections on the discussion board experiences, their ideas can help higher education institutions evaluate the effectiveness of discussion boards.

Dependability

Dependability shows that the findings are consistent and could be repeated (Terrell, 2022), which can be demonstrated through an effective description of the procedures undertaken for the study. Dependability is accomplished through an inquiry audit, which at Liberty University occurs with a thorough review of the process and the products of the research by the dissertation committee and the qualitative research director. In regard to this case-bound study, the researcher collected data via interviews, group studies, and a discussion board analysis for triangulation. Approval from IRB was mandatory before data collection took place. The researcher also used five data analytical methods: segmenting the database, coding segments, synthesis, constant comparison, and developing categories. The use of all five analytical strategies helped with uncovering themes to explain the discussion board experience. Any themes and or answers developed by the researcher were scrutinized by the committee. They investigated the findings to ensure dependability.

Confirmability

Confirmability is a degree of neutrality or the extent to which the findings of a study are shaped by the respondents and not researcher bias, motivation, or interest (Terrell, 2022). Techniques for establishing confirmability include (a) confirmability audits, (b) audit trails, (c) triangulation, and (d) reflexivity. To keep my biases from infiltrating the findings, data triangulation is necessary. I used a combination of interviews, a focus study group, and a discussion board analysis. The presence of epoché helped to keep biases in check because it helped me focus on the students' perceptions. Additionally, there were five analytical strategies used to help me avoid coming to preconceived conclusions. For example, I started the analytical process by giving codes to the data to avoid biases. While going through all of these steps, I kept practicing epoché to separate my experiences and judgments from those of the participants.

Before starting the process of interviewing, I wrote down all of my experiences and beliefs and set them aside. By doing so, I helped myself stay neutral in the process.

Ethical Considerations

Maintaining ethics is a priority in the research process to protect everyone. The task of keeping the identities of participants protected required the use of pseudonyms (Creswell & Poth, 2018). From the start, each participant received a false name. Pseudonyms were required because the school's administration requested this step. Furthermore, using pseudonyms keeps the school from receiving good or bad reviews based on the outcomes. Lastly, I placed all the data into a combination safe in my home when not in use. All laptops, notebooks, tablets, and recorders that included data were stored in a locked safe. Passwords were used to protect the computers as a second level of security. There are no physical data.

Summary

This chapter gave an overview of the methods used to structure the case study set on understanding the experiences of first-year undergraduate nontraditional student perspectives of online discussion boards within the CoI framework. The researcher decided to do a qualitative case study because it examines the lived experiences of students. The setting for the study is one online classroom version with 14 students as participants. The researcher performed the study because of his background teaching online for several years. In the 10 years I have taught online, I have not encountered a study focused on student experiences with the CoI framework. Social constructivism is the philosophical paradigm for this study because social constructivism reflects the collective learning experience of the online classroom. Student perspectives represent the ontological assumptions, having live chats is the epistemological assumption, admitting my view of current discussion boards represents the axiological assumption, and my role is to serve as a

tool for research collection. The first step for data collection was to receive approval from Liberty University's IRB, the UHCP board of directors, the online program chair for nursing, and the students involved in the two classes. After I gained approval, all participants signed an informed consent form before the interviews started. The interviews took place via Zoom and five of the interview participants were called back for a focus group. I also analyzed the discussion postings made by students to create a strong triangulation of data. Once the data were collected, the data analysis progressed to segmenting the database, developing categories, coding segments, doing constant comparisons, and data synthesis.

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CHAPTER FOUR: FINDINGS

Overview

The purpose of this qualitative, single instrumental case study is to describe the experiences of first-year nontraditional students interacting with discussion boards implementing the CoI for their online courses. I wanted to understand how the participants individually viewed social, teaching, and learning presence. Additionally, I needed to see their collective responses to better understand how they view the discussion board experience together. I also wanted to see their discussions, so I could find overlapping themes. Therefore, this investigation examined perceptions of nontraditional students at the first-year level and how the CoI framework shapes their online learning environment, which may or may not affect engagement.

Participants

After administering a screening, 14 students were selected using purposeful sampling. The school provided permission to complete the study, and I used my administrative access as an instructor advocate to go through the system of students. From there, I sent out requests to students in several English composition courses. Due to a low response rate, almost all of the students came from different English composition courses. Almost 500 students had been contacted, and 30 agreed to be a part of the study. However, students in the number of 16 backed out after completing the consent form. To protect the identities of the 14 that were selected, pseudonyms have been used. The fact that none of them shared a class helps the study because they did not know one another before the study. In addition, the courses took place at different times, so each student has a unique perspective. Lastly, some of the English composition courses featured a new design with an introduction discussion outside of the main weeks. Seven of the 14

participants got a chance to experience this new version, and their input has been recorded.

Lauren S.

Lauren is a certified medical assistant and a single mother of three boys. Recently, she completed a medical assistant program, which enabled her to work as a certified medical assistant. Her three children inspire her to stay in school and are the reasons she enrolled in the program. Through additional education, she hopes to better provide for them. Like any nontraditional student with numerous obligations, she confessed to feeling frustrated but showed gratitude for all that she was given. Lauren is very social with classmates and confesses to making friends online.

Bristee N.

Like Lauren, Bristee is a mother and a recent graduate from a certification program. She is a mother to a boy and a girl. Her certification is in billing and coding. She is currently looking to join healthcare management

Brandy W.

Brandy is a married mother of three daughters with a passion for the medical field. She began her career as a medical assistant but ran into issues finding employment. Brandy found a job as a patient care technician. However, she was diagnosed with a condition that makes standing for long periods difficult. She decided to pursue a career in administrative services with the encouragement of her family. After some time, she selected the UHCP Health and Medical Administrative program to get a job at a doctor's office. Her children inspire her to continue with school.

Erica B.

Erica attended college six times and is on her second time enrolling in UHCP. She is a single mother and works as a medical office specialist in a mental healthcare office. Erica holds additional positions as a notary and ordained minister. Erica has been diagnosed with fibromyalgia and degenerative arthritis, which makes working hard, but she does not let these challenges stop her from working with patients. Many people in her family are in the medical field, and her son has plans to join it as well. She takes inspiration from her children.

Felicity M.

A native of Memphis, Tennessee, Felicity moved to Dallas after spending time in Denver, Colorado. She is a veteran of the United States military and went to school for medical assisting and then into a pharmacy technician program. After the pandemic, she had her daughter and decided to focus on working for an online pharmacy. Her inspiration comes from patients.

Julius T.

A father of two boys, Julius is from Fredericksburg, Texas. His children are what inspires him to continue through the radio technician program. Julius wants to make a better life for them. Being a father helps him understand the need to succeed with goals. Julius knows his children are watching, so he must do the best possible job in school.

Kim S.

Kim is the mother of six children: four boys and two girls. She has worked in the field of nursing for 10 years and loves it very much. Kim is a care nurse for a federal detention facility, but there is no advancement for her current degree. To get ahead, Kim is moving into health and medical administration services and wants to become a health service administrator. Her inspiration comes from Jesus Christ.

Katey K.

Katey is a conscientious administrative assistant with 20 years of experience in the role. Like her classmates, Katey is a parent, and this role has inspired her to push on in higher education. In addition, Katey credits her patients as being an inspiration to push on in life. She confesses to being a perfectionist to find success in her career. She plans to use the Medical Billing and Insurance Coding program to start a new career. Kate confesses that she could not make it without them.

Lauren T.

Lauren is a positive person looking for new opportunities to pursue happiness. She holds a certification in healthcare office administration and wants to further her education. Currently, she works in the auto insurance industry but plans on making a change to the healthcare sector after graduating. Lauren's inspiration for continuing through college comes from family. Lauren confesses that she could not make it without her family.

Chamomile C.

Chamomile is the mother of five children and a wife. Her career in healthcare has already started as a nurse, but she confesses it is time to move forward. She has healthcare office administration certification, which was obtained in 2011. For the past 6 years, she has been a nurse working with special education students in the middle and high school areas. Though she has enjoyed her experience serving students, Chamomile is ready to obtain a bachelor's degree and a teaching certification. She takes inspiration from the challenges of others.

Rhianna N.

Rhianna works as the compliance director for an emergency medical service revenue cycle billing company. She is also the mother of two teenage boys and is engaged. Rihanna has

faced many failed attempts to complete an associate degree and views this as her final time. Her motivations include having her oldest son graduate high school and move on to college. From her standpoint, it is only fair for her to finish. She is inspired by her sons.

Shirley R.

Shirley is the mother to three girls and a boy of various ages. She loves helping others and is a recent graduate of UHCP with a degree in healthcare office administration at the associate's level. Her focus is the health and medical administration services program. Like many of her classmates, she is inspired by her children to continue educating herself. However, she also credits the willpower to succeed and create a favorable future for her family as another inspirational point.

Julia P.

Julia originally worked a job she loved but did not see advancement in it; therefore, she decided to pursue a career in healthcare. She plans to complete the radiology program and then start the computer tomography program. Her inspiration is music.

Amy W.

Amy completed a medical assistant degree and works as a medical assistant instructor. She went into the healthcare medical administration program as a personal goal for herself. Amy is very excited to work with fellow students. The biggest inspiration in her life is her mother.

All of the participants present a different range of experiences. Though most have little experience related to writing at the college level, most have various amounts of experience in the healthcare field and nine students are currently employed in the healthcare field. The information presented in Table 3 comes from their discussion posts and student data from the school's records.

Table 3*Student Participants*

Participant	Program	Position	Parental Status
Lauren S.	HMASA Health and Medical Administrative	Certified medical assistant	Single mother
Bristee N.	HMASA Health and Medical Administrative	Not stated	Single mother
Brandy W.	HMASA Health and Medical Administrative	Patient care technician	Married with children
Erica B.	HCMCB Health Care Management Completion BS	Medical office specialist	Parent
Felicity M.	RTCA Radiologic Technology Completion	Pharmacy technician	Parent
Julius T.	RTCA Radiologic Technology Completion	Not stated	Parent
Kim S.	HMASA Health and Medical Administrative	Nurse	Parent
Katey K.	CRCMA Coding & Revenue Cycle Management	Administrative assistant	Parent
Lauren T.	HMASA Health and Medical Administrative	Auto insurance representative	Not stated
Chamomile C.	HCMCB Health Care Management Completion BS	Nurse	Married with children
Rhianna N.	CRCMA Coding and Revenue Cycle Management AAS	Compliance director	Parent (soon to be married)
Shirley R.	HMASA Health and Medical Administrative Services AAS	Not stated	Single mother
Julia P.	RTCA Radiologic Technology Completion	Not stated	None
Amy W.	HMASA Health and Medical Administrative Services AAS	Medical assistant instructor	Not stated

Results

Each participant answered 13 open-interview questions. Also, five participants participated in a focus group related to their discussion board experiences. Lastly, the discussion boards of each participant, from the first to last week, were analyzed. The data collection focused on the primary and three subresearch questions:

- How do online first-year nontraditional students describe their experiences with the CoI in relation to social, teaching, and cognitive presence?
- How do first-year online nontraditional students perceive the discussion board experience in relation to social presence?
- How do first-year online nontraditional students perceive the discussion board experience in relation to teaching presence?
- How do first-year online nontraditional students perceive the discussion board experience in relation to cognitive presence?

The interpretational phenomenological analysis was used to look for patterns and themes. The researcher started by examining the individual interviews, the focus group responses, and discussion board postings. While reading, the researcher began segmenting the data into Excel spreadsheets. According to Gall et al. (2007), data have to be segmented before any categorization can occur. The researcher also used Excel to break the data apart into individual segments. Four Excel spreadsheets were used, and each contained four to five tabs of sheets. Each sheet contained data related to the students. Upon segmenting the data, codes were created based on the data. The individual interview and focus group responses were coded using the question, answer, and Excel row/column number. A similar process was used for the discussion

boards with a small difference: The discussion board week number and student name were used in conjunction with the Excel row and column number.

In the beginning, 40 categories were generated with many codes composed. However, many codes did not appear more than once or proved irrelevant to the study. Several codes could connect, so it made sense to combine them to make a more meaningful idea. For example, personal philosophy, validation, and personal challenge became the category of personal information. Ultimately, the goal was to consolidate all the codes into the CoI framework as well as one for discussion board views overall.

Once the stages of collapsing and evaluating the final categories were completed, several common themes were exposed about student perspectives regarding the CoI framework and its impact on the classroom. The themes that emerged from the data were (a) socialization (students feel discussions lack social presence despite mostly affective responses), (b) teacher presence (students feel instructor responses are quick and engaging guidance), (c) cognitive presence (students feel discussions encourage outside-the-box, reflective, collaborative thinking, but actual posts show a lack of cognitive presence), and (d) discussions overall (bare minimum posts and little to no change through the 8 weeks). Table 4 presents the relative frequency of each of the themes that appear in the data. Each theme is discussed in the order presented in Table 4.

Table 4*Theme Relative Frequency*

Theme	Frequency of appearance
Students feel discussions lack social presence despite mostly affective responses	88
Students feel quick instructor responses with engaging guidance	10
Students feel discussions encourage outside-the-box, reflective, collaborative thinking, but actual posts show a lack of cognitive presence	99
Discussions remain mostly the same with bare minimum posts that may seem robotic	93

Social Presence – Dissatisfaction with Socialization

According to the one-on-one interviews, 11 of the 14 participants expressed a lack of social presence in the classroom. Several of them expressed little to no socializing, a lack of interest, or unfamiliarity with fellow learners as a reason to not feel connected. Similar feelings were echoed in the focus group, with students admitting that a sense of socializing was not present in the discussion boards. However, the discussion boards show effective responses throughout the 8 weeks. Most of the postings, if not all, encouraged empathetic responses from readers.

In her one-on-one interview, Lauren S. expressed discussion boards as being “a good opportunity to get to know each other, give the feedback, and basically really just be able to respond back to each other.” However, she went on to say, “As far as like building that actual interaction, [like] in person[,] we don’t get that even with the professor.” Lauren S. also said, “I would like it if we were able to maybe even do a video with the professor or something to actually meet one-on-one.”

Amy said the discussions were,

going fine. I mean when I actually remember to do them because I think that my problem is I forget when I am doing the discussion, I am not the instructor and have to go back and change it to be a student.

She admits to only posting an initial and two peer responses. Outside of posting, she confesses to not knowing any of the other students and having no interaction outside of class or conversations as friends.

Brandy said, “I didn’t have a lot [of] social interactions save for replying to two other people’s post[s].”

Erica said she was not a huge fan of the discussion boards and only did them because they were requirements. After doing the requirements, she did not invest much time. To her, the discussion boards lacked interest. Erica said her level of engagement each week was 50%.

Julius said he did not know anyone personally. He would read from the phone and did not consider friendships. Never seeing or meeting students took away the possibility of friends. Also, there were no discussions outside of class or conversations with his friends.

Kim said, “I don’t really know anyone personally on there or never spoken to anyone outside of the discussion board [in] our class. I’ve never directly emailed anyone or anything so it’s just total I got strangers.” She never had a reason to reach out to the students because the professor was always available. Furthermore, she had no familiarity with the students before UHCP. Once the class ended, she made no attempts to contact any of the students.

Katey responded to other students, but she did not have discussions outside of class. She believed that being older is one of the reasons she has not pursued friendships. Lauren T. said, “I only do my initial discussion and two peer responses. I don’t know any of them, so there are just a few people that I respond to.” Julia did her minimum amount of discussion board posts, but she

did not read the responses. Once done, she does not return to the discussion board. Though Julia sees familiar faces and names, she does not interact with those people. She said, “I see familiar faces and names. They are not people I know or spoke to. It doesn’t really build a connection to me.”

However, some students experienced social presence on the discussion board. Felicity was able to engage with a classmate through the courses, and they “bounce off” each other. The two students took things a step further by engaging with Facetime to talk about class. Felicity thought the experience was enjoyable and cool. Shirley liked to respond to her classmates’ requests for assistance. She sees herself in her classmates and makes friendly conversations.

As far as the focus group, similar feelings about socialization were echoed despite the group only containing five students. Rhianna said the presence in the classroom is a bare minimum and that students struggled to get things done last minute. She followed up by saying she would ask questions, but noticed “no one really responded.” Katey said that most of the responses were, “I agree” or “Great post.” Katey also said there is not a lot of social presence because the discussions are locked until the students post. She noticed there were very few posts on Monday and a lot of posts on Wednesday. She also mentioned the instructions asked students to make the discussion more personal, but the posts still did not show a sense of personality. Kim noticed most of the responses looked “kind of the same” when she looked through the postings. There was no socializing or getting to know the other person. Instead, “you post the three-sentence response as far as what you think is wrong, and everyone does that.” Both Kim and Katey stated that the discussion boards remained relatively the same throughout the 8 weeks, with a noticeable lack of personality and socialization.

The observation of the discussion boards showed a lot of personal initial postings and responses. Of the 111 responses, 81 responses contained an affective response. These affective responses contained some sort of personal information the student was sharing with the class. Out of the 93 first peer responses, 73 showed personal information. Out of 102 secondary peer responses, 76 were personal. Despite personal information shared in the responses, students still believed socialization was minimal or completely absent.

Teaching Presence – Satisfaction with Instructor Responses and Engaging Guidance.

Ten of the 14 students had satisfied comments about instructor presence. In the individual interviews, common codes were “good teacher presence,” “lots of feedback,” “fast responses,” and “easy access” with engagement. The same feelings were echoed in the focus group. However, the discussion boards could not reveal any instructive presence outside of the introductory posts. All of these factors suggest students are mostly satisfied with instructor presence.

Amy said, “[The] teacher gives good responses with personal experiences.” She also said that the instructor gave specific responses to the initial and peer responses. Lastly, the instructor communicated with her outside of the discussion through assignment comments.

Lauren S. had mixed feelings. In her opinion, “Some will come on the discussion board and interact with you. A lot of them do not, so I would more interaction with the professors.” When teachers did respond, Lauren S. said that they were really good and gave her whatever she needed. The instructors answered the questions and provided extra assistance. However, she did not contact the instructors outside of the discussion board.

Brandy said that the instructors provided a lot of positive feedback in the discussions. The feedback was designed to help her improve constructively. She got feedback from every

discussion post and made contact with the instructors through assignment feedback. She also noted, “Some instructors made videos to explain what they wanted from students.”

Erica confessed to not having a good experience with the teaching presence when she first took English Composition I. However, she credits that issue with personal problems she was having outside of class. When given a second chance to take the course, she said the instructor responded in a timely manner and was supportive. Erica said that she did not talk to the instructor very much, but the instructor gave her professional answers, as well as encouragement. She also mentioned having an exchange with an instructor outside of the discussion board to ask for an extension.

Felicity believed that access to the instructor was great, thanks to email and phone numbers. She said, “You can easily get a hold of the instructor right away.” For her, the teaching presence was excellent. However, the quality of responses depends on the instructor. She believes the instructors were passionate about the course, which was reflected in their interactions with students. The instructor will continue interacting beyond the student’s initial post by giving “engaging and encouraging feedback.” She felt the instructors are friendly outside of the discussion board and will respond. The instructors are “good at giving feedback in a way that makes students feel as if they’re learning.”

Julius said teachers responded to the discussion questions. However, the classroom felt self-guided in a way that makes a student feel as if it is self-taught. When asked about the rate of discussions with instructors, Julius said it was pretty low. Furthermore, he believed that instructor presence was low overall, regarding the type of responses and outside of the discussion board feedback.

Kim believed the instructors gave critiques and suggestions to help students understand the content. In addition, she said, “The professor would reach out if I needed anything.” The reason for the outreach was to see if the students needed extra help or time. For her, there were no issues with the instructor as far as the response rate. Like some of her classmates, Kim believed the instructor’s response was weekly with back-and-forth contact through the discussions. Most of the responses focused on critiques, suggestions, or positive reinforcements to get her to talk more and share ideas. However, there were no outside social discussions. Everything was kept in class and in a professional manner.

Katey said, “There’s a lot of feedback and [the] instructor shared personal experiences.” Both aspects helped make the course enjoyable. She believed the instructor provided a lot of positive feedback because she got her discussion responses done early. Katey was also able to get a lot of responses from the instructors. There were some instances when she had to reach the instructor outside of class, and the instructor gave a quick response, which she appreciated. The instructor’s responses would give her something new to think about.

Lauren S. believed the instructor was good in the beginning. However, the instructor got sick, and the quality dipped. The instructor did respond every week with feedback to explain what was going on with course concepts. Also, she had some outside communication with the instructor. However, that communication is about grades or something related to the course.

Chamomile said, “Got feedback encouraging her to improve.” However, she expressed the type of responses were not beneficial, despite having weekly emails with the instructor. Rhianna’s instructor would ask for elaboration or pose a question to get students to improve their discussion board postings. This contact happened if a student did not give all the information or did not answer the instructions. Rhianna said the instructor would respond in “less than 24

hours” most of the time to any question via email or chat. There were also Zoom meetings that happened twice or once a week for the students to talk to the instructor. She expressed a great deal of enjoyment with the Zoom meeting. The instructor did ask other students questions and gave responses weekly. The instructor’s responses were positive or elaborated on the information presented in the personal discussion. Rhianna said that the instructor “gave additional detail to help understand what students went wrong with and how to move forward.” She was able to get immediate assistance from the instructor via email.

Shirley said, “You know the instructor is there.” The instructor does not take long to answer back. She feels that it is because things are structured the same, so all the responses are composed. The instructors always responded to feedback no matter how often students asked questions. The responses showed a sense of empathy and made students feel as if the instructors knew them.

Julia said, “Instructors made students feel involved via their responses.” All of the instructor responses sent to her showed time and effort. The instructors read what students suggest. Sometimes, the instructors will “say something to you outside of the discussion.” She said the instructors are usually available whenever except for one. Most responses came in less than 2 hours. However, the response type seemed very similar. Regardless, the instructor is quick to respond and clarify confusing points.

Amy believes the instructors give good responses with personal experiences. The instructor has reached out to her three times on the discussion board. The responses are usually personal. However, the instructor will respond to personal comments.

During the focus group, students had similar views when compared to the one-on-one interviews. Rhianna believed teacher engagement was present. Kim and Katey had the most

input to give. Kim believed instructors in English and all the other courses have a good presence in the discussions. They respond to every student's post even though they may not get an answer in return. Katey agreed with Kim and said that all the instructors commented on every student's post and even the responses to their posts. Felicity agreed with Kim and Katey, saying her class had many responses as well. However, she mentioned a student may not get a response from an instructor if a posting is given too late. Kim followed up by saying the instructors gave good comments designed to help students improve. In the comments, the instructor would point out specific things done well and areas of improvement and share what could be done better. Rhianna mentioned that students in the discussion would engage more with instructor posts that seemed engaging.

When asked about how teacher presence is represented in peer responses, Kim said, "It feels more comfortable to respond when the instructor posts first" because "the discussion seems to become one-on-one if an instructor gives a response to a student post." Felicity shared she may not respond to instructors if they respond too late to her post. As a result, the teaching presence portion may be lost. She gave further insight by saying it seems easier to have another student respond to the instructor's post before putting her own. Otherwise, she will "avoid the instructor[']s post." Rhianna said the perspective depends greatly on the student. She engages in the nighttime and usually does not go back to the discussion board as a result. Felicity agreed with her by saying work schedules can limit the amount of time spent in the classroom, especially the discussion boards. When questioned about teaching presence in the discussion board over the 8 weeks of the course, there was only one response from Felicity. She believed the teaching presence seemed to increase toward the end of the course to help students get coursework in.

Students were then asked about the strengths and weaknesses of teaching presence. Kim expressed her newfound knowledge about students not responding to the instructor. For her, the instructor's post was something to respond to, and she was unaware students declined to give a response. Felicity followed up by saying she did not respond because the instructor did not respond to her response to the original post. Right after, Katey said she did not respond to the instructor's post either, but she said that the instructor's presence was there. However, instructors were good about giving students corrections despite students not responding to their postings. Rhianna agreed with this point and said instructors were good when it came to giving feedback. She did respond to the instructor's post when the material seemed interesting. However, she does not go back to respond to everything posted

Observation of the discussion board posts could only show the introductory postings of all the students and the instructor for Week 0.4 Discussion. Attempting to access anything beyond Week 1 was denied. In addition, English courses with the Week 0.4 introduction discussion are the only ones with a viewable forum featuring the instructor and student posts. From the observations of those specific courses, instructor presence is observable through responses to the students to their introductory posts. Most if not all instructor's responses show a sense of gratitude and encouragement and reflect some personal information about the instructor designed to make students feel comfortable. This observation can be seen in the English composition introductory discussion forum of Lauren S., Julius, Bristee, Shirley, Chamomile, and Lauren T.

Cognitive Presence – Dissatisfaction with Cognitive Presence

During the one-on-one interview stage, students were asked about the critical thinking aspect regarding the discussion board. Most students expressed that the discussion board aids in

critical thinking. Some common responses were having multiple views of topics, research, and outside-of-the-box thinking. Those same students had their discussion boards explored.

When asked about critical thinking in the discussion board, Amy said, “I mean, it doesn’t. I think I get annoyed by the questions personally.” Teaching courses and being a student at the same time played a part in those feelings. She went on to say that the discussion boards sometimes have nothing to do with the weekly unit. The first and second discussions relate, but the rest of them do not.

Lauren S. said that she can go in-depth with research and feels the discussion board helps her to think about the topic in another way and get clarity. She knows that there is a lot of information, and the discussion board helps her see the perspectives from the eyes of other students. Bristee believed the discussions “get you thinking” and Brandy said the discussion helps “by getting me to come up with things outside of the box and come up with things you did not know.” She was able to think of several answers and expand on prior knowledge.

Erica believes that the discussion may get her mind going, but the questions did not pertain to her way of thinking. To clarify, she did not see the questions relating to the weekly learning, and they only contribute to a grade. In addition, she said the discussions felt unneeded when looking at the bigger picture.

Felicity pointed out how the discussion board helped foster reflective thought on personal experiences, but that aspect depended on the instructor. She also believed that the discussion board “makes you think about what you’re learning [and] putting it in your day-to-day life.” Like Erica, she believed the discussions may not always connect to the actual unit, which makes things confusing for students.

Julius said that the main benefit is being able to “research topics,” but the benefits depend on the assignment. Kim commented that the discussion questions are “thought-provoking” and have relatable concepts. These concepts are tied to what she is going to deal with in regard to situations in the future. Katey believed the discussions help students look at various perspectives and foster collaborative work habits. The discussion can help students better understand confusing topics. She is also able to have multiple perspectives on different subjects by viewing them through the eyes of other students.

Lauren T. said the discussion boards did not stimulate much because she would post Wednesday and Sunday and the unit was over by that time. However, she can see various perspectives of other students and think about the topic at hand. She said the discussion boards did not give many benefits when it came to applying them to assignments.

Rhianna said that the discussion board “allowed her to use [her] current work history and experience.” They enabled Rhianna to also explore prior knowledge from the readings. Each topic was directly connected to her job. She believes the discussions help with understanding what is being read as well as how they can be applied.

Shirley said that the discussion board opened her mind. Posting can help build communication skills as well as engage with other people and prepare for customer service. In addition, she said, “The discussion boards can provide an extra push.” Julia admits to having a deep dislike for the discussion boards. The discussion questions seem to be distant from the actual units and do not connect to one another. The discussion board does not help her despite the devotion of extra time to the readings. Overall, the discussion boards are not helpful to her.

The student focus group gave a different view of cognitive presence. Kim believed the responses were robotic and lacked cognition. She said they only helped with feedback and

criticism. Julia said that the discussion can show knowledge and help with receiving feedback; however, she also said, “Review response is unnecessary.” She believed the discussions could also be used to help students get to know each other better. Rhianna agreed with Julia’s point, saying that most students have the same responses, so responding seems to be pointless. Katey believed that the discussion assignment shows students’ understanding of the topic and makes the classroom feel welcoming, but that is not what she is looking for. Rhianna went on to say to Kim that some students do not give feedback or criticism. Instead, those students give “I agree” statements, which Kim agreed with and even admitted to being one of those people.

Though students see cognitive potential and execution in the discussion board, observations of the forums presented a different picture. When exploring the postings, the concept of personal information was a reoccurring factor in the discussion board posts. Eighty-three of the initial postings, 73 of the first peer responses, and 69 of the second peer responses all showed personal information. This personal information is related to a student using his or her prior experiences to answer a discussion question. However, only 22 of the initial postings showed outside sources in the form of reference sections and quotes. Only one student used a quote reference in the initial peer response and there were none in the second peer response.

Engagement – Most Students do the Bare Minimum

Upon reviewing the individual responses of students, their sense of engagement in the course is mostly at the minimum amount. Of the 14 students participating in the one-on-one interviews, eight confessed to having a minimum to low amount of engagement.

Amy said her level of engagement was “at 50%,” and she missed two discussions. However, she usually just does the initial post and two responses. Lauren S. attempts to do the discussion every week. She does two peer responses, which are the minimum requirement.

However, it is a little difficult for her to write a complete paragraph. She said, “An entire paragraph seems like a lot for a single initial post.” Brandy said her level of engagement was hard because she works two jobs and is a full-time student and mother.

Erica believed she had the bare minimum amount of engagement, and Felicity had a consistent amount of engagement each week. Julius had a little engagement. He said the discussion “keeps you engaged just a little bit.” Outside of that, he is unsure. Kim admitted to doing her required posts. She would give her required responses to her classmates and professor. Kim only did the requirement and would not say she did beyond that. Katey loved engaging with students in the discussion. However, she had a “tough time getting the discussions in.” The discussions provided different perspectives, and she liked being able to see things in a different light.

Lauren T. said her level of engagement would be a “6 on a scale of 1 to 10.” She only will do what is required. Rhianna interacted on Wednesdays, Fridays, Saturdays, and Sundays. She would respond to the question on the discussion board only on those days. Rhianna would also interact with her classmates to reply to their discussion posts. She admitted to doing three peer responses. Shirley said she participated in the discussion board a “few times a week.”

Julia said she does her basic requirements. She will do her initial part and then give the responses of the other students. However, “I will not go and read through every post,” said Julia. She admitted to trying to do that in the past but there was not much to take away from the experience. Part of her feelings come from being unsure if the other students’ postings are correct.

The concept of engagement was not directly explored in the focus group, but students did share their feelings about the discussion, some of which had been expressed earlier. When asked

about the social presence aspect of the discussion board, Rhianna said she had the “bare minimum” and mentioned a struggle to get assignments done at the last minute. Whenever she asked questions, there usually was no response. Katey said she noticed fellow learners responded with the minimum required initial and two peer response posts. When it came to doing more responses, she did not notice more. In regards to herself, she responded to two classmates. She would only do the required amount and not go beyond.

An observation of the discussion boards supported the findings in the individual interviews and focus groups. With 14 students, seven of whom had the chance to participate in nine discussion boards and another seven with a chance to participate in eight discussion boards, there were 118 potential chances to engage in the discussion boards. Of the 14 student participants, seven had instances of responding beyond the bare minimum amount. The total for discussion board engagement that went beyond the bare minimum amount was 20. However, discussion board engagement posts show 72 bare minimum requirement posts were the highest number. There were 14 posts with only an initial post, eight missing posting engagements, and four discussions with just an initial post and one peer response.

Research Question Responses

Throughout the study, the four research questions were the driving force for the individual interviews, a focus group, and a discussion board observation. Below are the four questions, and each has been given an answer based on student responses and their work in the discussion boards.

Central Research Question

How do online first-year nontraditional students describe their experiences with the CoI in relation to social, teaching, and cognitive presence?

The participants' joint perspective is dissatisfaction with the personal connection opportunities. Though the discussion board encourages the students to share personal information, the postings seem to lack socialization to the students. However, instructor presence makes participation interesting at times. Features of instructor posts that help students feel more engaged are quick responses, critical thinking questions, and encouragement. Participation in the discussion gives access to multiple perspectives that may have been otherwise not accessible. Students are able to see the perspectives of one another, which broadens their view of the subject. Students get a chance to realize that their view is not the only view of a topic. Contrastingly, the discussion board postings seemed to lack critical thinking. In addition, students post the bare minimum responses. In response to interacting with other students on a friend basis, Julius said, "I don't know any [students] personally. You know, I read on the phone. It wasn't really considered friendship." When asked about critical thinking, Amy said, "I mean, it doesn't" in regards to cognitive presence, and Lauren S. said, "You can tell the teaching presence in the discussion board and some will come on and interact."

Subquestion One

How do first-year online nontraditional students perceive the discussion board experience in relation to social presence?

Students perceived a lack of social interaction in the discussion, though much of the discussion prompts and responses were personal. In the individual interviews, all but three students mentioned socialization was not present. The focus group responses echoed the same idea, with students believing the socialization aspect of the discussion board requires development. However, the discussion board postings show personal information. Brandy said, "I didn't have a lot [of] social interactions save for replying to two other people's post[s]" when

asked about social interactions in her interview. During the focus group, Felicity said she did not have much socialization. The discussion board observations showed most students believed socialization either did not exist or was deficient.

Subquestion Two

How do first-year online nontraditional students perceive the discussion board in relation to teaching presence? Students view the teaching presence as welcoming and present. The individual interviews revealed students see encouragement, quick responses, and critical feedback. Brandy said, “I had a lot of positive feedback,” when asked about teacher engagement. The same idea appeared in the focus group because students believed that an instructor presence was there. Rhianna believed teacher engagement was present in the discussion board. Despite only being able to see some introductory instructor responses, the discussion boards observed did reflect what students talked about in the focus group and individual interviews.

Subquestion Three

How do first-year online nontraditional students perceive the discussion board in relation to cognitive presence? Students feel the responses are robotic but show cognitive presence. Most students in the individual interviews believed the cognitive presence was there, but postings seemed robotic and lacked personality. During the focus group, students echoed the same feelings, saying responses seemed to lack interest or a sense of critical thinking. However, a review of the discussion boards shows a lack of cognitive presence. As noted in social presence, personal information and prior knowledge is most prevalent. When asked about the cognitive presence in the discussion board, Amy said, “I mean, it doesn’t. I think I get annoyed by the questions personally.”

Summary

In the study, participants shared their experiences with the CoI framework in the online classroom, via the discussion board. Themes emerged from the participants' shared thoughts, as well as their discussion board contributions. The student reflections about the discussion board experience present dissatisfaction with social presence, satisfaction with teacher presence, and a lack of cognitive press, with bare minimum engagement emerged.

Examining data from the individual interviews, a focus group, and discussion board observations indicate that students are influenced by the discussion board. From the participants' perspectives, there is not enough socialization in the discussion board, despite 8 weeks of questions that request personal information. However, students seem to enjoy the quick and engaging presence of their instructors. Instructor involvement seems to boost their engagement in the discussion board. In contrast, students post mostly affective responses to one another in the forums. The discussion board topics require students to share personal information instead of critical thinking. Lastly, students do the bare minimum requirement for the discussion board.

CHAPTER FIVE: CONCLUSION

Overview

The researcher's purpose for this study was to describe the experiences 14 first-year nontraditional online learners had with the CoI framework when engaging in a discussion board for 8 weeks. Guiding the study were four research questions that were answered based on data gathered through individual interviews, a focus group, and discussion board observations. The findings from the data may help higher education administrators understand how the CoI changes the experiences of online first-year learners enrolled in an online course at a for-profit institution.

This chapter includes a summary of the findings. The same findings are explained in connection with the previous research shared. The connection between the literature, theoretical framework, and the findings is given. Also, empirical and theoretical implications are detailed. Limitations of the study are outlined along with recommendations for future research.

Discussion

The purpose of this section is to discuss the findings of the study in relation to the theoretical and empirical literature reviewed in Chapter 2. An explanation of how the study extends the theory of sociocultural theory by Vygotsky (1978) and the CoI is given. The final section details how the study supports and extends earlier research on the CoI framework, student retention, and discussion board interaction.

Summary of Thematic Findings

The data analysis process revealed several themes. Those themes relate to dissatisfaction with socialization; satisfaction with quick, encouraging, and critical engagement from the instructor; dissatisfaction with cognitive presence; and bare minimum engagement.

Interpretation of Findings

The following section provides a summary of the thematic findings found in Chapter 4. Afterward, interpretations of the themes are given.

Theme 1 - Student Collaboration May Not Be Enough for a Satisfactory Learning Experience

The participants' experiences present a lack of satisfaction with social presence in the online classroom, specifically the discussion boards exists. Most of the participants did not see a sense of socialization despite having the majority of their discussion boards feature prompts requesting personal information. By the end of the courses, many students viewed their classmates as strangers. Basing these findings on the peer collaboration aspect of sociocultural theory, students may learn more together as opposed to alone via discussion about concepts (Rahiem, 2021). However, they may crave opportunities for natural socialization to connect themselves with other students better. Though Vygotsky (1978) argued that social interaction is a key to success via working with each other to formulate ideas, distance learners may not feel a sense of connectedness in the online environment. These learners are required to "post their initial thoughts" and give at least two responses, which does not necessarily require collaborating with a peer to create a certain answer. Instead, students post their requirements, which contrasts with Ferris and Hedgcock's (2023) belief about culture and diversity providing various opportunities for engagement. When student responses show "I agree" or "great discussion," an absence of diversity may take place, and the learning environment may not seem as inviting.

Theme 2 - Instructor Engagement Benefits the Online Learning Environment

This study also supported the CoI's subarea called teaching presence. Teaching presence relates to the instructor's input in the discussion classroom and has three subareas: instructional design organization, facilitation, and direct instruction (Thornbury, 2020). Choo et al. (2020)

showed that teaching presence failed to be a predictor of satisfaction, but this study's results suggest the opposite finding. Of the three types of presence represented in the CoI framework, the most positive one was teacher presence. Students looked favorably upon "quick responses," "encouraging feedback," and critical constructive criticism. The findings support Hassan et al.'s (2022) study results, which showed increased constructive experiences with teacher facilitation.

Theme 3 - Discussion Questions May Not Foster Critical Thinking

The study's results also explored cognitive presence, which is the last subtopic of the CoI framework. Cognitive presence relates to what students learn, and it has four subtopics: triggering event, exploration, meaning construction, and application of knowledge (Restall & Clark, 2021). As mentioned earlier, the question of how students view cognitive presence was explored in the individual interviews, a focus group, and discussion boards. The students believed the discussion could get them thinking about the topic in a multiperspective way, but the responses seemed generic and lacked personality. The discussion board observation showed a lack of cognitive thought, which Padayachee and Campbell (2022) argued is necessary for a quality learning experience. Cognitive presence is supposed to help students create and confirm meaning, so questions that ask students to provide prior knowledge may not be enough to establish strong critical thinking (Garrison et al., 2000). Instead, students would be merely answering questions and not expanding their cognitive abilities.

The findings can create a drawback of the sociocultural theory connected to critical thinking. Vygotsky's (1986) subtheory of internal language shows critical thinking is a byproduct of overcoming challenges. A student needs to encounter a specific problem to find a solution. In the discussion board, the problem is the question, but if the question is easily answered by prior knowledge, critical thinking skills are not developed. Another problem is the

idea of practical intelligence being incapable of operating independently (Vygotsky, 1978). If students cannot employ practical intelligence alone, discussion questions that do not push students to make use of the responses of one another may not assist in the learning process.

Theme 4 - Engagement May Not Dictate Participation

The findings also add to the theory regarding engagement. Engagement is defined as attention, curiosity, interest, optimism, and passion (Glossary of Education Reform, 2016). Engagement is a priority in the discussion board because learners with low levels of engagement have an increased chance of not participating in the discussion (Bond 2020; Delaney et al., 2019). Nontraditional freshman students are at a higher risk of lacking engagement and low completion rates as opposed to traditional learners (Ortagus et al., 2021). From what has been shared in the individual interviews, group study, and discussion board observations, students have a minimum amount of engagement. Throughout the 8 weeks students spent in the course, they posted the minimum requirement and did not go beyond. Despite having minimum engagement by only doing the required number of responses, the participants were able to participate in the discussion board. This information contrasts with Tight's (2020) ideas about high engagement leading to higher levels of assignment submissions. For the participants in this study, interest may be low, but they have to engage in the discussion to receive a grade; otherwise, they will fail the course. However, Tight's (2020) thought about high engagement connecting to higher levels of participation may connect to this study's findings. Most of the students felt a lack of engagement and only did a minimum requirement. These students might have interacted more in the discussion board if engagement were higher, but this idea cannot be generalized with this study.

This study's findings also contrast with Wang et al.'s (2023) results about interest being a deciding factor for participation. Wang et al. (2023) found in one study that students participated if interest was present. Without a sense of interest, students may not post their ideas. This study's participants confessed to a lack of interest, but most managed to participate in all of the eight weekly discussions and provided peer responses. This outcome aligns and builds on Bond's (2020) statement about students' participating and behaving with little interest. Despite a low level of engagement in English, students can continue to partake in the discussion board for the sole purpose of completing a course.

Implications for Policy or Practice

This section includes suggestions for policy and practice. The suggestions for policy are related to higher education institutions, specifically the institutions with online-only offerings. The implications for practice are suggestions for educators working in online classrooms with learning management systems, such as Canvas, Blackboard, and others that include discussion boards.

Implications for Policy

The CoI framework is designed to improve the online learning experience, which could enhance engagement by creating a sense of community (Fitzgerald et al., 2021; Swan et al., 2020; Tight, 2020). The findings of this research study support the effectiveness of one of the CoI's subareas: teaching presence. Through strong teaching presence, students are given opportunities to have questions answered in a short time with answers that are critical and well thought out. Also, the instructors make themselves approachable to students on the discussion board. The school in which this study was implemented may consider exploring the teaching presence aspect of the online classroom to give instructors more control in terms of engagement.

Currently, instructors teaching at this institution are limited in what they can do in the classroom design-wise because most of the choices come from preloaded shells made by subject matter experts. From the findings, students seem to appreciate the engagement of the instructors, so it would make sense to allow the instructors to create the discussion board questions and design the units of the courses.

Another policy implementation relates to the critical thinking and socialization aspects of the discussion board. Based on the findings, the discussion boards seem to leave students with a lack of satisfaction. Though the results are not generalizable, school administrators will want to look into performing more research to see if there is a disconnect between discussion board requirements and student satisfaction. If additional research proves the findings of this study are valid, it would behoove higher education administrators to expand on the critical thinking requirements as well as find new approaches for personal interaction in the discussion board.

The findings of this study have implications for other higher education institutions with online offerings throughout the United States. Any college or university offering courses that utilize discussion boards through a learning management system may use these findings, in conjunction with other research, to perform additional exploration into the CoI framework and its impact on the online classroom. Also, higher education institutions that do not currently have online learning options may consider adding them to their learning services to better the learning experience for students. The CoI framework's implementation would require higher education institution to make policy changes, such as the instructors' role, student expectations, and online classroom design. Developing a CoI framework that fits into institutions' learning management systems requires a significant amount of work and will have to be evaluated for effectiveness annually.

Implications for Practice

The 14 students who participated in this case study expressed their discussion board experiences with the three subareas of CoI: social, learning, and cognitive presence. Instructors at the college level can benefit from reading the descriptions of the participant experiences. Though these are personal experiences without quantitative research, the voices of students are important for better understanding and improving the online classroom. Hearing the reflections of students can make instructors aware of the impact that learning frameworks, like CoI, can have in their classrooms. Additionally, administrators get a chance to see the impact of teaching presence with the discussion board experience. These outcomes can be used to better strategize online course shells as well as instructional methods.

Also, colleges experiencing difficulty with struggling students or wanting to improve their online instruction offerings can benefit from the experiences of these students. The current study examined the CoI impact on the discussion board, which was initially set up to improve the online learning experience. The participants in the study came across social, teaching, and cognitive presence while posting initial and peer responses on the discussion board throughout the 8 weeks. These students are made up of nontraditional learners who hold full-time jobs and are parents. The 14 participants in this study shared a lack of socialization, awareness of strong teaching presence, and little to no cognitive presence.

Instructors interested in improving online learning experiences through the discussion board would benefit from this study's results. Instructors must understand that students sharing personal information may not be enough to foster a sense of community. A sense of community is critical for online learners because it can lead to better retention outcomes (Calderon & Sood,

2020). Furthermore, cognitive development may not manifest in the discussion board simply through initial and peer responses.

Empirical and Theoretical Implications

This section of Chapter 5 is to address the theoretical and empirical implications of the study. In the next subsections, I will explore how this study's implications connect to Vygotsky's (1978) sociocultural theory. I will also examine the empirical implications and how this study connects previous research on the CoI framework and extends previous research on discussion board practices.

Vygotsky's (1978) sociocultural theory examines the connection between human consciousness and the environment. Sociocultural theory focuses on social environments and their impact on learning. The theory helps examine the line between the actual development a student makes alone versus the potential development through the assistance of a teacher or peers (Cherry, 2019). Sociocultural theory also asserts the importance of having a teacher model a result for students to learn as well as peer collaboration. Lastly, Vygotsky's (1978) theory argues that critical thinking appears as an internal language to help solve complex problems. Without the environment, the experience of learning is limited.

The CoI framework is based on social learning and builds on sociocultural theory for the online classroom (Fitzgerald et al., 2021; Vygotsky, 1978). Through the implementation of its three subconstructs—learning social, teaching, and cognitive presence—a successful learning experience can happen in the virtual classroom (Goh & Wen, 2021). Users of the CoI framework must stress student socialization (Garrison, 2000). Through socialization, students create a sense of community, which can better the learning experience as far as self-regulation, feedback,

support, and self-responsibility (Padayachee & Campbell, 2022). Both CoI and sociocultural theory can be better understood through the findings of this study.

Based on the participants' experiences, there is a lack of satisfaction with social presence in the online classroom, specifically the discussion boards. Most of the participants did not see a sense of socialization despite having the majority of their discussion board featuring prompts requesting personal information. Basing these findings on the peer collaboration aspect of sociocultural theory, students learn more together as opposed to alone via discussions about concepts (Rahiem, 2021). However, they may crave opportunities for natural socialization to better connect themselves with other students. This area needs additional exploration to see if a connection between strong socialization affects student engagement in the online classroom.

In this study, 11 of the 14 one-on-one interviews and three of the five focus group participants believed socialization was lacking in the discussion board despite an overall personal theme in each discussion board throughout the 8 weeks. These findings may suggest the concept of community requires more than personal posts to be successful. Though students did not directly report feeling a sense of isolation like the participants in Banks and Dohy's (2019) study, feeling a lack of socialization may be equivalent. However, a lack of socialization did not seem enough to deter the participants in the study from participating in the discussion board.

In regards to the CoI, social presence has affective expression, open communication, and group cohesion (Garrison, 2000). Though the discussion boards showed affective responses and are set up for open communication, there may be a lack of group cohesion, which may hinder students from progressing more with socialization. Group cohesion represents the links made between members in a group via bonds (Choo et al., 2020). Members of a group that failed to

establish a connection may not have a social bond, which could explain what happened in the study. Regardless, additional research and exploration would be needed.

This study also supported the CoI's subarea of teaching presence. Teaching presence relates to the instructor's input in the discussion board and has three subareas: instructional design organization, facilitation, and direct instruction (Thornbury, 2020). Though Wang et al.'s (2023) study results show teaching presence fails to be a predictor of satisfaction, this study's results seem to suggest the opposite. Of the three types of presence represented in the CoI framework, the most positive one was teacher presence. Ten of the 14 students, two of the five in the focus group, and most of the instructor responses in the Week 0.4 support the notion of instructor presence being an integral part of a satisfactory learning experience. These findings suggest facilitation and direct instruction were recognizable to students, thanks to instructor engagement (Evans et al., 2020). According to the findings, teaching presence can affect a student's satisfaction in a course, which contrasts with findings from Choo et al.'s (2020) study. If teaching presence positively affects satisfaction, it may be worth furthering the CoI framework to highlight this point.

From what students shared, instructor presence is shown in the online classroom to reflect two of the subareas of teaching presence—facilitating discourse and direct instruction (Evans et al., 2020). The students' experiences of instructor presence as engaging, quick, and constructive ties to the idea of instructors fostering increased constructive experiences with students in the learning environment (Hassan et al., 2022). This study's findings also support Lin and Gao's (2020) results that revealed discussion boards can link students and instructors together. However, it is unclear if the instructor engagement via questions and explanations ties directly to cognitive development from this study without a look into student completion outcomes. Also,

some students in the focus group talked about students not responding to the instructor's posts. This idea would mean Champion and Gunnlaugson's (2018) argument about students focusing more on instructors' posts than students' posts may not be completely accurate in every online classroom. In this study's case, students seemed to be more preoccupied with completing the bare minimum.

The study's results also explored cognitive presence, which is the last subtopic of the CoI framework. Cognitive presence relates to what students learn, and it has four subtopics: triggering event, exploration, meaning construction, and application of knowledge (Restall & Clark, 2021). As mentioned earlier, the question of how students view cognitive presence was explored in the individual interviews, a focus group, and discussion boards. Ten of the students in the individual interviews believed cognitive presence existed because the discussion board helped with thinking. Four students in the focus group believed cognitive presence was there, but the responses seemed robotic. Observations of the discussion posts showed little to no cognitive presence.

These findings suggest the critical thinking portion of a discussion board, which is tied to the CoI, may need additional investigation. Student and instructor interaction is supposed to foster critical thinking (Goh & Wen, 2021). However, an online classroom where students post their thoughts to a prompt is not the same as an instructor interacting with a student in person. Furthermore, critical thinking develops to overcome problems, but if students are only required to post initial answers and peer responses, there may not be a chance to develop this important ability.

Limitations and Delimitations

This study has some limitations. The setting is only a single online learning institution and would not be recommended for generalization for higher education institutions. This suggestion is especially important because each for-profit and not-for-profit institution has its own set of policies governing online learning. To increase generalizability, this research should be conducted with more for-profit institutions to get a better picture of student experiences. Also, the participants in this study all completed the course without having signs of retention issues. Retention could be examined better with a participant group struggling to participate in a course. Their statements could potentially contrast with that of this study, which is why one solely looking at at-risk students is recommended.

The study examining two versions of English Composition I is a limitation because it does not give a complete picture of what each half of the student participants experienced. Though each half has a diverse view thanks to the different versions, the alterations of some of the questions and the inclusion of more discussions for postings in one of the English Composition I courses may have shaped the data differently. A future study should examine one version of English Composition I instead a multiple may provide different outcomes.

The absence of instructor engagement throughout the 8 weeks is a limitation in need of examination. Though this study was able to look at some instructor posts from the Week 0.4 discussion board found in some of the English composition courses, the postings in future weeks were not accessible. This inability to access the instructor posts was due to certain permissions that were not granted to the researcher. As a result, what the instructors were specifically saying to students throughout the rest of the unit could not be seen to support student responses in the individual and focus group responses. Replications of this study could include instructor

responses to students. Researchers could compare them with student testimony to see if changes occur throughout the 8 weeks.

One delimitation of the study was choosing nontraditional first-year online students over any online learners. This choice gave the researcher a chance to see experiences from a single group that has not been explored much in previous research. In previous studies, the focus was on experiences related to graduate students and instructors. Another delimitation was choosing to collect data through discussion board observations, individual interviews, and a focus group. The discussion boards that were analyzed were made by the participants and included peer responses, as well as an initial post. At first, the researcher believed looking at just the qualitative data would be enough, but the results of the study show that a glimpse into student outcomes would have been welcome through quantitative data.

Recommendations for Future Research

This case study's results support previous research on the CoI framework related to teaching presence. The results also extend prior research about social presence in the online discussion board. Recommendations for future research include replicating the study with other English Composition I courses from more than one for-profit higher education institution. A quantitative study examining student experiences with the CoI framework would be interesting to see if student outcomes were affected by its implementation.

Examining the impact of discussion board prompts on student engagement would also be a critical research plan. A quantitative or qualitative study that specifically examined discussion board prompts and how students answered them could further cognitive presence research. From this study's findings, cognitive presence seemed non-existent, but a future study examining the actual questions against student responses may reveal findings that were not found. A

longitudinal study on student progress based on the CoI framework, with both qualitative and quantitative frameworks, could also be a worthwhile investment. The reason is that higher education institutions could see how CoI impacts student behaviors in the classroom over the year, which would lead to more data than a single 8-week course could generate. If this study is to be performed, it would require an examination of multiple courses throughout the summer, fall, winter, and spring sessions.

Conclusion

As the number of students partaking in an online course grows, the issue of retention increases as well (Burke, 2019; Ghapanchi et al., 2020). Student retention is only as old as the 1930s, but the issue negatively impacts higher education institutions all over the United States through finances, accreditation, and rankings (Maldonado, 2021). Colleges have implemented various strategies, like CoI, to improve student retention levels (Dickinson et al., 2021). Despite the presence of CoI, student retention continues to decrease, so student perceptions of the framework are needed to see if the answers can explain why the issue persists (Goh & Wen, 2021; Tight, 2020).

The purpose of this study was to describe nontraditional student experiences with the discussion board's CoI implementation. The setting was a for-profit school with online English Composition I courses. The participants were 14 nontraditional students from various online English composition courses enrolled in the selected school. The study itself was a qualitative case study with individual interviews, a focus group, and student discussion board postings. The findings of this study suggest that though teaching presence is well received by students, they are not as satisfied with social and cognitive presence. In addition, student engagement is reflected

as meeting the bare minimum requirements with students only doing what is necessary to finish the course.

The first main takeaway from this study is students do not need to feel a sense of interest to participate in the discussion board forums. From what has been shared through the one-on-one interviews, the focus group, and discussion board observations, a student can look past interest because completing the course seems to be more important. This idea means nontraditional students in the course know their responsibilities and what matters. If they did not, there would be less activity on the discussion board.

The second takeaway is the lack of satisfaction with socialization in the online classroom, specifically the discussion board. The discussion board, despite having questions geared toward getting students to create a sense of community, becomes another assignment to complete to finish the course. Students will post to the discussion board with their personal information. Ten of the 14 students, two of the five in the focus group, and most of the instructor responses in the Week 0.4 discussion board support the notion of instructor presence being an integral part of a satisfactory learning experience. These findings suggest facilitation and direct instruction were recognizable to students online because they can detect instructor engagement (Evans et al., 2020). From the findings, teaching presence can affect a student's satisfaction in a course, which is a contrast to other findings (Choo et al., 2020). If teaching presence positively affects satisfaction, it may be worth furthering the CoI framework to highlight this point about student experiences and prior knowledge. However, sharing this information is not enough to create a sense of community or familiarity with other learners. Instead, a student can start the course feeling as if all the other students are strangers and leave the same way.

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Appendix A

Consent Agreement for Discussion Board Study

Your participation in a study on online discussion board experiences is greatly desired, but this process cannot move forward without your approval. You are under no obligation to involve yourself in this study, and not participating will in no way damage your standing with the school.

This study's goal is to get a better idea of how students like you experience the online discussion board. By getting this information, better insight into what you and fellow students go through can be obtained and used to potentially better future courses.

Information collection will take place after the online course has concluded. Gathering this information will require interviews to be completed by participants like you. From there, horizontalization will be employed to target important testimonies, and those chosen parts will be merged into themes.

If you decide to take part in this study, personal information will not be given to the public without consent. Furthermore, it is acceptable for any participant to withdraw from the study at any point if the situation feels negative. Single and group interviews will be conducted via Zoom.

Should all of this interest you, sign your name below along with the date. Be sure you understand the signature will be given to acknowledge full consent of the above information.

Date: _____

Signature: _____

Appendix B

Case Study on Discussion Boards Questionnaire

Case Study on Discussion Boards Questionnaire December 2022 -Screening Survey-

A Case Study of Online Nontraditional First-Year Student Experiences with Discussion Boards through the Community of Inquiry Framework

Screening Questions:

S1

Are you 18 years of age or older?

- Yes
- No

S2

Are you a college student?

- Yes
- No

S3

Is this your first online course?

- Yes
- No

S5

Were you enrolled in the English Composition Course I online course?

- Yes
- No

S6

Did you participate in the discussion board for the English Composition Course I online course?

- Yes
- No

S7

Did you complete the course?

- Yes
- No

Thank you for completing the survey

Appendix C

Proposal Letter

11/28/2022

Senior Vice President and Executive Officer
UHCP

Dear Senior Vice President and Executive Officer

As a graduate student in the Doctorate of Education Program at Liberty University, I am conducting research as part of the requirements for a doctoral degree. The title of my research project is A Case Study of Online Non-Traditional First Year Student Experiences with the Discussion Board Through Community of Inquiry Framework, and the purpose of my research is to better understand learner engagement with the community of inquiry's three layers affecting discussion board interaction.

The problem being investigated is as follows: retention is still an issue despite the presence of community of inquiry and other retention strategies. Students in the online classroom failing to engage leads to drop out, which directly impacts retention levels. Because retention impacts a school's reputation, its income, and accreditation, this problem needs more investigation.

I am writing to request your permission to conduct my research in UHCP via the online classroom. I would like to interview ten students individually and within focus groups. Also, I want to analyze their discussion board responses. The participants will be 18 years of age or older, have taken an online course, be in their freshman year of college, and employed in a part-time or full-time position. Participants, if willing, will be asked to take part in one-on-one interviews and a focus group via Zoom. Responses students post in the discussion board will also be examined. Members of the doctoral research committee will check the data for accuracy. It should take approximately 30 to 45 minutes for the individual interviews, 45 to an hour for the focus group, and 4 to 5 weeks for the discussion board postings review to complete the procedures listed.

Participants will be emailed a recruitment letter. After reading and agreeing to the study, they will complete a consent form and short questionnaire. I will then schedule individual interviews with those who qualify. Afterward, four of them will be asked to participate in a focus group. Responses the students post to the English Composition I course will be reviewed alongside their interview responses. The data will be collected and analyzed to uncover themes related to student engagement and the community of inquiry's effect on it in virtual asynchronous discussions.

Participation will be completely anonymous, and no personal, identifying information will be collected. All of the student data will be coded and identifiable information delete it. This strategy will ensure the participant identities are not compromised. Additionally, the data will be stored on a secure laptop that will be in a locked building.

Once your approval is given, I will submit it to the Internal Review Board, and I can begin collecting data in the middle of December. The data process should be finished at the start of February 2023 if not earlier.

The school will not be referenced by its title. Instead of pseudonym will be used. UHCP is the current pseudonym. By using this title, the information for the school will be protected. In addition, some of the information about the institution will be altered to further assist with securing the universities information (e.g., the five hundred students served will only encompass Illinois and Georgia). At the moment, the setting information is as follows:

“10 students from UHCP, a higher education institution with a main campus in Illinois and Georgia, will be recruited.”

Thank you for considering my request. If you choose to grant permission, respond by email to ecummings4@liberty.edu. A permission letter document is attached for your convenience.

Sincerely,

Eric Cummings
Doctoral Research Principal Investigator