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Doctor of Education in Organizational Leadership

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School of Educational Leadership

An Autoethnographic Study of Online Class Size and Instructor Participation in Discussions

A dissertation submitted in partial satisfaction

of the requirements for the degree of

Doctor of Education in Organizational Leadership

by

Danielle M. Philipson

March 2021

Dedication

I dedicate this dissertation to my family who has always supported me in pursuing my dreams. To my husband, Ty, thank you for encouraging me to take the leap when I first talked about entering a doctorate program. Your unwavering support and confidence in my abilities made it possible for me to push through the challenges. Thank you for sacrificing time and travel so that I could reach my academic potential.

To my parents, thank you for sacrificing so much to give me the academic foundation I needed to pursue my goals. You instilled in me the value of education and your words of encouragement always came at the perfect time.

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Abstract

This research provided a detailed description of the researcher's experience as an online instructor who faced increasing demands while trying to maintain instructional effectiveness. This account provided online program directors who sought to balance instructor satisfaction, accreditation standards, and financial pressures with insight into the impact of class size choices on instructor behavior in the online classroom. A qualitative autoethnographic method was used to understand the nature of the connection between class size and instructor use of instructional posts and to identify factors that influence the way instructors participate in online discussions. The autoethnographic genre of qualitative research allowed the researcher to create a compelling narrative that can inform the experiences of readers. Although the demands faced by instructors at different institutions will vary, the introspection required by the autoethnographic approach creates an understanding of the phenomenon that is credible and valid. The sample for this study was the researcher's experience as an instructor at one university. A review of artifacts such as email, discussion posts, workplace calendar, a personal journal, and professional development logs and personal experience was used to generate a researcher journal. The researcher journal was used as a mechanism for identifying pertinent themes.

Keywords: online class, teacher presence, discussions, instructor experience, online instructor, autoethnography

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Chapter 1: Introduction

The challenge of meeting competing priorities is not new in higher education; however, the adoption of online learning has intensified this challenge. An increasing number of public undergraduate universities have transitioned from a pure brick and mortar model to a model that includes online courses (Allen & Seaman, 2017; Bickle, 2018). With this transition, competing priorities, such as financial performance, student learning outcomes, new responsibilities for online instructors, and high workload of online instructors have emerged, making the work of online program directors even more arduous.

Financial Pressures

Budgets for educational institutions are being squeezed at both ends. From a revenue standpoint, per-pupil funding allotments have decreased in all 50 states (Dugas et al., 2018). At the same time, the cost of personnel has increased such that personnel costs are the largest category of expenditures in education (Chingos & Couch, 2013). A recent report (Hussar et al., 2020) examined expenses in 2017-2018. The findings were that instruction, which includes faculty salaries and benefits, was the largest single expense category for public degree-granting institutions and private nonprofit institutions (https://nces.ed.gov/programs/coe/indicator_cue.asp).

Educational institutions have used various methods to contend with these financial pressures. One such method is to increase the number of asynchronous fully online course offerings. According to Schmidt et al. (2016) “because online education offers a way of increasing enrollments and managing financial difficulties, an ever-increasing number of colleges and universities are embracing online education as part of their strategic plans” (p. 1). Additionally, administrators at some universities have increased online class size to bolster

revenue (Chen et al., 2017). Bettinger et al. (2017) suggested that increasing class size by 10% could lead to a 10% reduction in salary expenses since fewer classes would need an instructor. While enrolling students in online courses seems to be a great option for increasing revenue and capturing students who are not able to attend traditional courses due to other obligations or preference, it is not a panacea. Wladis et al. (2017) explained that online courses have often had lower retention rates than face to face courses and Simplico (2019) suggested that online course dropout rate can be as high as 80%. Lower retention rates result in the inability of organizations to capture maximum revenue per student since revenue from courses not taken cannot be realized. Ultimately, failing to capture that revenue directly impacts the bottom line.

Growing Demand for Online Courses

Despite lower retention rates, increased engagement in eLearning is an indicator that it is becoming an integral part of higher education (Allen & Seaman, 2017). Student demand for online classes has increased as technology has developed and the stigma of being a nontraditional student has disintegrated. Even though total postsecondary enrollment has decreased, enrollment in online courses has grown (Berry, 2019a; Gray, 2013). Now, about 33% of college students are taking at least one online class (Simplico, 2019). To keep up with this demand, public universities have continued to add online courses (Bickle, 2018).

Accreditation

Regardless of student demand, universities must maintain accreditation in order to continue to serve students. In the United States, accreditation is the primary process used for quality improvement and assurance in higher education (NECHE, 2016.). The standards used for accreditation span the entire scope of academic offering and include online programs in the

assessment of standards. In recent years, there has been an increased focused on learning outcomes (NECHE, 2016).

Accrediting bodies such as the New England Commission of Higher Education (NECHE) have included standards that require organizations to assess and improve student learning outcomes. NECHE Standard 8 states that:

> The institution demonstrates its effectiveness by ensuring satisfactory levels of student achievement on mission-appropriate student outcomes. Based on verifiable information, the institution understands what its students have gained as a result of their education and has useful evidence about the success of its recent graduates. This information is used for planning and improvement, resource allocation, and to inform the public about the institution. Student achievement is at a level appropriate for the degree awarded. (NECHE, 2016, p. 4)

NECHE Standard 8 applies to asynchronous online courses in section 8.1, which indicates that "the institution enrolling multiple student bodies, by degree level, location, modality, or other variables, develops and uses the data, evidence, and information below for each student body" (NECHE, 2016, p. 4). Similarly, WASC Senior College and University Commission Standard 2.7 requires that program review includes, but is not limited to, analyses of student achievement of the program's learning outcome and retention and graduation rates; and SLOs, retention/graduation data, external evidence and evaluators," and Section 2.4 sets forth "faculty's collective responsibility for setting standards of performance and demonstrating through assessment the achievement of these standards" (https://www.wscuc.org/resources/handbook-accreditation-2013). The Southern Association of Colleges and Schools Commission on Colleges (SACS COC) also focuses on student learning

outcomes as information about student learning outcomes and improvement efforts is required on the Quality Enhancement Plan that must be submitted prior to the Reaffirmation Review Committee's onsite visit (SACS COC, 2018).

Beyond student outcomes, accrediting bodies also hold expectations that faculty are effective in their roles. In Standard 6.1, the NECHE (2016) sets forth that "faculty are demonstrably effective in carrying out their roles" (p. 18). The SACS COC (2018) also highlights the expectation that faculty are effective in Section Six of the "Principles of Accreditation" document which states "qualified, effective faculty members are essential to carrying out the mission of the institution and ensuring the quality and integrity of its academic programs" (p. 17).

Instructor as Facilitator

Online instructors assume the roles of facilitator, course designer, content manager, subject matter expert, and mentor (Martin, Budhrani, Kumar, et al., 2019). In the asynchronous environment, the role of the instructor as a facilitator is emphasized (Hoey, 2017; Pilotti et al., 2017). Student interaction with instructors is correlated with student achievement, academic development, and degree attainment (Grantham et al., 2015). Further, Jones (2015) suggested that robust interactions are paramount to quality in online education. Mandernach and Holbeck (2016) found that instructors do not spend more time facilitating large classes and the majority of instructor time is spent in the discussion and providing feedback. If the amount of time spent is constant and the number of students has increased, this means that the time spent per student decreased, and instructors, who must manage their time, must find ways to quickly and selectively participate. The results from Hoey's (2016) seminal study on instructor participation in asynchronous online discussions indicated that instructional posts have the greatest impact on

student outcomes. As instructors choose how they will participate, it may be that they should focus on using instructional posts as a way to get the most out of their participation.

Statement of the Problem

Fueled by declines in state spending on higher education in all 50 states (Dugas et al., 2018; Li, 2017; Ortagus & Yang, 2018), undergraduate online class sizes in higher education continue to grow (Chen et al., 2017; Cordie & Lin, 2018; Gurley, 2018). Some proposals have sought to increase online class size limits to 35 students (Barbour & LaBonte, 2019). Large class size contributes to lower instructor behavioral engagement and shortened instructor discussion posts (Frazer et al., 2017; Pilotti et al., 2017; Woods & Bliss, 2016). Additional consequences are lower instructor effectiveness (Trammell & LaForge, 2017), less effective use of instructor expertise (Sorensen, 2014), and decreased instructor time in the discussion (Mandernach & Holbeck, 2016).

With increased class size, online instructors report high workload and time management challenges (Hansen & Gray, 2018), fatigue and burnout (Cooper et al., 2019), and a negative impact on course quality (Kibaru, 2018). Although the correlation between student outcomes and online class size is unclear (Parks-Stamm et al., 2017; Scott et al., 2017; Sorensen, 2015), there is agreement that online instructors influence student satisfaction and achievement (Bigatel & Edel-Malizia, 2018; Martin & Bolliger, 2018; Steele et al., 2018; Vallade & Kaufmann, 2018), particularly through instructional and perspective widening discussion posts (Ebrahimi et al., 2017; Hoey, 2017; Kwon et al., 2019). Influence on student achievement is paramount as accrediting bodies such as The New England Commission of Higher Education have placed increased importance on learning outcomes (NECHE, 2016). With the increased focus on student achievement, undergraduate online instructors have been urged to adopt a time-intensive student-

centered model where instructors are active partners in the learning process rather than using a teacher-centered "sage on the stage" approach (Fischer & Hänze, 2019). This model is largely supported since evidence suggests that instructor presence influences students' experience and learning (Richardson et al., 2016). The problem is that online program directors at Rock Hill University (pseudonym) struggle to manage increasing class size for financial stability with accreditation requirements for optimizing student learning and instructor overload from increasing demands.

Research is needed to understand better the impact of class size in undergraduate online courses (Afify, 2019; Chen et al., 2017; Hansen & Gray, 2018) . Online program directors must balance revenue enhancement efforts with instructor well-being, instructor effectiveness, and student success. Research on class size and instructor discussion posts is warranted as online program directors in the undergraduate environment need more information to help them achieve this balance by advocating for class sizes that will leverage instructor expertise.

Purpose of the Study

The purpose of this qualitative autoethnographic study was to give a personalized account of the influence of class size on my use of instructional posts and to provide insight into the thoughts, feelings, and experiences that influence my participation in discussions. In this study, I explored the nature of the connection between online asynchronous class size and my use of instructional posts, which are those posts that provide new information to the discussion, clarify an area of confusion, or share resources to improve understanding (Hoey, 2017). Additionally, I considered what other factors may have influenced changes in my participation in the discussions.

The nature of the connection between online asynchronous class size and my use of instructional posts was studied within the context of a university in the United States. Data was obtained through the organization's learning management system (Moodle). I logged in to each course I taught during academic years 2017-2018 and 2018-2019 and reviewed each discussion post I made in discussion forums that were intended for teacher-student and student-student interaction surrounding a targeted discussion question. The posts were coded as "instructional" or "non-instructional." Next, the frequency of instructional posts was compared with the number of students in the class, which can range from two to 25, to understand the nature of the connection between my use of instructional posts and class size.

Additional artifacts such as personal development logs, personal journal notes, workplace calendar, interactions in a "Reflective Practice Group," and workplace email were reviewed. During the process, a researcher journal was created to capture my thoughts, feelings, experiences and recollection of significant events related to course size and workload. My experience and participation in the discussions is examined through the lens of the community of inquiry framework and used to provide recommendations for future study. Additionally, my analysis and findings are used to make recommendations to online program directors who must address faculty concerns about increased class size or advocate for limiting class size in order to protect student learning outcomes, which are scrutinized during the accreditation process and enhanced by the use of instructional discussion posts.

Research Questions

This study was about how my experiences, feelings, and thoughts influence the contents of my discussion posts (as instructor) when online asynchronous class size changes. Lowenthal, Nyland, et al. (2019) asserted that "it is hard to achieve positive student outcomes while also

maintaining a reasonable faculty workload" (p. 153). The difficulty in balancing positive student outcomes and a reasonable faculty workload suggests that instructor workload may influence the way that faculty participate in an online course. Pilotti et al. (2017) explained that larger classes are associated with lower instructor behavioral engagement, as measured by response rates in discussion forums and length of discussion posts. Hoey (2017) considered the contents of instructor posts and found that instructional posts had the greatest influence on student achievement outcomes. I used the following questions to study the connection between the size of online asynchronous classes and how often I used instructional posts and to explore if other workplace demands influenced my participation in discussions.

RQ1: What is the nature of the connection between class size and the frequency of "instructional posts" made by the instructor?

RQ1a: How did the frequency of my "instructional posts" change as class size changed?

RQ2: What factors influenced my participation in discussions?

RQ3: What feelings, experiences, and emotions did I experience as class size changed?

Definition of Key Terms

Asynchronous online course. The vast majority (80% or more) of the content is delivered via the World Wide Web (Wladis et al., 2017) and participation is not required at a specific time or on a specific day (Jacobsen, 2019). This does not mean deadlines are not used. This term excludes "video/audio conferencing, blended learning, and real-time virtual representations of participants" (Al Tawil, 2019, p. 146). Students "complete work at their own convenience and submit it to a discussion forum or assignment drop box by a required due date" (Pilotti et al., 2017, p. 145).

Learning management system. Technology used to develop and deliver asynchronous online courses. Computer information technology equipped with internet and multimedia telecommunications facilities (graphics, audio, video) in delivering material and interaction between instructors and learners" (Tubagus et al., 2020, p. 186).

Online course. The vast majority of the course delivery is via the World Wide Web. Wladis et al. (2017) suggested that the term applies only to courses where 80% or more of the content delivery is online.

Online instructor. Professional assigned to teach an online course. This person may or may not have other responsibilities and includes adjunct faculty. The person may or may not have previous training (Martin, Budhrani, Kumar, et al., 2019).

Significance of the Study

Personal narratives can provide a deeper understanding of a lived experience. My autoethnography contributes to the underdeveloped research regarding instructor interactions in online discussions (Hoey, 2017) by describing an aspect of the instructor experience that is rarely discussed in public forums. The description of my experience supports leaders in the educational environment in making informed decisions by offering a more complete view of the impact of the decisions they make. The findings from my research also provide online program directors valuable and unprecedented access to an insider's view of the phenomenon under study (Saldaña, 2011).

Summary

Through the literature I have investigated factors contributing to the increase in asynchronous online class size in the undergraduate environment. As classes have grown and the focus of the instructor role has shifted to "facilitator," faculty will need to determine how to best

use their time. Program directors will benefit from this study because they will understand if changes in class size are connected to changes in the use of instructional posts, which positively influence student outcomes, and ultimately, impact accreditation. Organizations will also benefit from this study as they will understand better how changes in class size impact instructors and students and have more information they can use to optimize outcomes and class size.

In the next chapter, I survey findings in the literature regarding class size, student outcomes in the online environment, the instructor role, interaction in online courses, and instructor effectiveness in discussions.

Chapter 2: Literature Review

In this study, I sought to understand better the nature of the connection between online asynchronous class size and my use of instructional posts. As such, I present existing literature on class size, student outcomes, the online instructor role, interaction in the online classroom, online discussions, and instructor effectiveness in discussions as a way to make a case for the study. Additionally, I describe the community of inquiry framework as it provides the theoretical framework for the study.

Literature Search Methods

To position this study in the context of the literature and to grasp better the academy's understanding of online learning, a preliminary literature search was conducted. The search for literature was performed using the EBSCO database. The initial search contained a variety of terms including *online class size*, *online instructor role*, *instructor burnout*, *online best practices*, *online instructor expectations*, *instructor satisfaction*, *class size*, *student outcomes*, *and online discussion*. The search was limited to peer-reviewed, academic journals and focused on research published between 2013 and 2020. Initially I reviewed the abstracts and eliminated any articles that did not pertain to the topic of interest. For those articles that were relevant, I wrote annotated bibliographies and saved key excerpts in the notes section of Zotero. For articles that were older than five years, I typed the name of the article into Google Scholar and searched for later articles that had referenced the initial article that was located. The results yielded an array of articles that informed the research question for this study. The review of literature is organized by theme, beginning with the theoretical framework.

Theoretical Framework Discussion

This study was grounded in the community of inquiry (CoI) framework. The CoI framework applies to the population of interest and informed the direction of research.

Community of Inquiry

The groundbreaking work of Garrison et al. (2000) led to the widely adopted community of inquiry framework. Later, Garrison et al. (2010) pointed to several studies that validated the framework. Community is paramount for creating a place where ideas can be shared. As ideas are shared, members of the community are forced to make meaning of the content as they progress through the four stages of learning. This idea of using community for learning extends into the formal education setting and has proven to be more than a fleeting trend. Cleveland-Innes et al. (2019) posited that "creating communities of inquiry in education is a well-researched pedagogical approach" (p. 4). Research on the approach has focused on several areas including the relationship between the CoI components and the ability of the framework to generate deep learning.

One aspect of CoI research that has intrigued the academy is understanding what constitutes a successful community of inquiry. Stewart (2017) suggested that "in a successful 'community of inquiry,' students engage in a combination of dialogue and reflection to question their existing assumptions about a subject matter and ultimately construct new knowledge" (p. 68). For new knowledge to be constructed, the environment must be structured in a way that supports interactive learning through dialogue, reflection, and questioning. The CoI framework provides insight into how to promote interactive learning by applying specific design and facilitation strategies (Stewart, 2017). The success of this approach has translated to widespread

adoption of the CoI framework in online learning environments (Dempsey & Zhang, 2019; Stewart, 2017).

The CoI framework is comprised of three constructs: cognitive presence, social presence, and teaching presence (Fiock, 2020; Pollard et al., 2014). Hansen and Gray (2018) explained that "each of the three presences within the CoI model work together in an inter-related manner to support students' holistic learning experiences" (p. 27). If one of the presences is weak or absent, the other presences are impacted.

Figure 1

Community of Inquiry

From "Instructor Social Presence Within the Community of Inquiry Framework and its Impact on Classroom Community and the Learning Environment" by H. Pollard, M. Minor, and A. Swanson, 2014, *Online Journal of Distance Learning Administration, 17*(2), p. 42. Copyright 2014 by Online Journal of Distance Learning Administration. Reprinted with permission.

Social Presence

Pollard et al. (2014) pointed to the social presence (SP) definition offered by Gunawardena and Zittle from 1997, which was "the degree to which a person is perceived as a 'real person' in mediated communication" (para. 9). This definition is similar to that offered by Kozan and Richardson (2014) in that it focuses on social interactions that are specific to maintaining relationships that lead to trustful communication. It is important to note that the view of SP is typically only associated with students and is different than that of instructors.

Cognitive Presence

In contrast to SP, cognitive presence (CP) focuses more on the individual's experience and learning. CP refers to how an individual is engaged in the cognitively active process of moving through the four phases of learning beginning with a triggering event, going through exploration, the integration of concepts and information, and resolution (Kozan & Richardson, 2014).

Teaching Presence

Teaching presence (TP) refers to structure and process and involves the three principles of design, facilitation, and direction (Dempsey & Zhang, 2019; Garrison et al., 2010; Pollard et al., 2014). Although these things are sometimes offered by others, they are primarily offered by the instructor (Ke, 2010). Increasing evidence has pointed to the importance of this construct as TP has been associated with student satisfaction, development of community, and perceived learning (Garrison et al., 2010; Ke, 2010).

The focus of TP, according to Kozan and Richardson (2014) is to sustain SP and CP. These findings mirror the earlier findings by Ke (2010) that a community of inquiry begins with an effective teaching presence followed by "supportive features to reinforce the merging of

cognitive and social presence in an online learning environment" (p. 818). Martin, Budhrani, and Wang (2019) referred to TP as "instructor presence" or "facilitator presence" and found that the most critical role of the online instructor is establishing TP. The importance of online instructors establishing TP stems from the impact it has on the other two presences. Dempsey and Zhang (2019) echoed Martin, Budhrani, and Wang (2019) in saying that teaching presence is the most influential and informative presence. Additionally, the authors found that teaching presence "predicts cognitive presence through the mediation of social presence" (Dempsey & Zhang, 2019, p. 73). However, communication through asynchronous, text-based communication creates unique challenges for developing teacher presence (Garrison et al., 2000).

Examining the Components

Pollard et al. (2014) responded to research published between 2009 and 2012 that suggested a need for "critical examination of the components of the CoI framework" (p. 41). Their work sought to investigate the impact of instructor social presence since the CoI framework only "acknowledges the effect of instructor behaviors and attitudes in teaching presence" (Pollard et al., 2014, p. 42). Pollard et al. (2014) found that instructor social presence impacted both the learning environment and the community and supported the inclusion of instructor social presence as a fourth construct in the CoI framework. Instructor social presence is different than teacher presence, and would include interactions and discussion posts that are non-instructional.

Conclusions by Oyarzun et al. (2018) validated Pollard et al.'s (2014) recommendations as they found that instructor social presence positively impacted student social presence and achievement. However, Richardson and Lowenthal (2017) cautioned that while instructor social presence should be considered more carefully, previous studies have not always clearly

differentiated between instructor presence and instructor social presence. Since further study regarding instructor social presence is needed, particularly with respect to measurement, it has yet to be formally adopted as a construct of the CoI framework.

Theoretical Framework Summary

For this study CoI provided a comprehensive theoretical framework. The CoI framework helps us differentiate between the types of interactions in the online environment. To meet the unique needs of adult learners, online instructors must establish and continuously demonstrate teaching presence, which is a construct outlined in the CoI framework. Mews (2020) suggested specific strategies for meeting the needs of adult learners. These strategies include actions such as correlating short-term objectives with long-term goals, introducing new concepts and ideas through discussion, and exploring areas of interest through discussion (Mews, 2020). These strategies not only address adult learner needs, but also allow the instructor to demonstrate teaching presence. Teaching presence is a vital vehicle through which adult learner needs can be met. The CoI framework was used in the analysis, particularly to explain any implications for practice and to contribute to the literature explaining what may impact teacher presence.

Literature Review

The literature provides insight into student outcomes, class size, class size impact on instructors, the online instructor role, skills needed to effectively teaching online, and interactions in the online classroom. These constructs are framed within the context of CoI.

Student Outcomes: Online Learning vs Face-to-Face Environment

Online learning has been touted as offering significant benefits including preparation for future employment, availability of content, student-centered teaching approaches, and cost efficiency (Nemetz et al., 2017). Since its inception, online learning has been compared to the

face-to-face environment. This comparison extends beyond the differences in cost and requirements of instructors and learners. One comparison, which is perhaps considered the most important. is the efficacy of each environment (Arias et al., 2018). Many leaders, including instructors, have opinions about which format is most effective, but research has not provided definitive evidence to support one opinion or another (Arias et al., 2018). In fact, conflicting evidence has abounded (Arias et al., 2018; Cavanaugh & Jacquemin, 2015; McGuire, 2017).

Despite the fact that some previous studies demonstrated conflicting findings when using grades as a measure of performance (Cavanaugh & Jacquemin, 2015), Cavanaugh and Jacquemin (2015) sought to provide clarity by incorporating a large data set into the research. The findings of their study supported evidence from previous studies that found "no significant difference" in student outcomes in the online environment as compared to the face-to-face environment (Cavanaugh & Jacquemin, 2015). Beqiri et al. (2015) focused on graduate students, but also concluded that a significant difference in learning outcomes does not exist between the online environment and the face-to-face environment.

Additional evidence that there is not a significant difference between modality can be found in the "No Significant Difference" database which is a "fully indexed, comprehensive research bibliography of…research reports, summaries and papers that document no significant differences (NSD) in student outcomes between alternate modes of education delivery" (https://detaresearch.org/research-support/no-significant-difference/). As of October 27, 2020, of the 210 reports posted and sorted in the database, 67% found no significant difference and 24% found a significant difference that indicated better results with technology. Zero reports reflected a significant difference and indicated better results in the classroom.

The notion that most studies and reports do not reflect a significant difference between student outcomes and modes of education may be explained by Mayer's (2019) assessment that instructional methods, not instructional media, is what drives learning. The data may also be influenced by the variables used in the research. Arias et al. (2018) conducted a randomized study with random assignment to course sections (online or face to face) that was intended to eliminate sample selection bias that was inherent in previous studies due to issues of self-selection and different levels of use of online tools. Arias et al. (2018) concluded that the results could differ based on how a researcher defines and measures student performance.

Earlier research by Nemetz et al. (2017) had similar findings and the researchers noted that students performed equally well whether in the online environment or face-to-face environment. Stauss et al.'s (2018) findings contributed more support for the idea that neither the online format nor the face-to-face format were more effective and students in the two environments performed equally as well. Given that there did not seem to be a significant difference in student outcomes for online compared to face-to-face classes, undesirable outcomes in the online environment cannot be simply chalked up to the format that is used. Additional research that offers insight into what actually impacts student outcomes will benefit users of both formats.

Growth in Online Education

Online education began to take shape in the mid-1990s (Perry & Pilati, 2011). Although it has been growing steadily and evolving rapidly, online learning is still in its early stage of development (Martin, 2019; Stauss et al., 2018) and is positioned to become mainstream in 2025 (Palvia et al., 2018). In particular, we are still learning how to use online courses effectively (Perry & Pilati, 2011). While the first era of online education was focused on increasing access,

the current era is focused on increasing quality in education, both online and on ground (Epp et al., 2017; Kentnor, 2015). However, "issues in disseminating good practice, research findings and effective e-learning designs continue to impede the rate of successful transformation in teaching and learning" (Keppell et al., 2015, p. 2).

There are two key issues that have impeded the dissemination of information as a way to improve practice. One issue is that existing studies lack generalizability and comparability (Rüth & Kaspar, 2017). Without generalizability and comparability, sound theory cannot be established. The second issue is that researchers are unclear about what is being researched and how it is being researched (Cronje, 2020). Cronje (2020) explained that in studies focused on e-Learning, there is often a mismatch between the purpose of the study and the research questions.

The recent change in focus to improving quality comes at a time when technology is rapidly changing, and these changes impact online courses. For instance, recent studies have started to investigate the use of gamification and interactive components (Davis et al., 2018) and mobile learning has become part of the online education landscape (Cross et al., 2019). For this reason, it is important to continue learning about effectiveness in the online environment.

Class Size

Researcher interest in class size originally began with face to face courses. Until recently, class size research has been focused on the k-12 environment (Bettinger et al., 2017) and on the face-to-face environment (Russell & Curtis, 2013). The growth of online learning has generated new interest on the topic of class size (Lowenthal, Nyland, et al., 2019). There has also been new interest in high-enrollment online courses (Lowenthal, Nyland, et al., 2019; Trammell & LaForge, 2017).

As countries around the world, including the United States, recognized the value of education for society, class sizes increased as a way to provide access to learners (Allais, 2014). Moreover, administrators "concerned with fiscal responsibility…see increasing the number of students in a class as one way to save schools and programs money" (Lowenthal, Nyland, et al., 2019, p. 153). Unfortunately, increased access and financial benefits have come at a cost. The learning process has not always been the primary consideration even though choices about class size impact important aspects of the learning process. In particular, feedback, which is a cornerstone of the learning process, was compromised as it cannot be sufficiently provided in large classes (Allais, 2014; Sorensen, 2014). Instructors and students agree that smaller class size is associated with better feedback (Russell & Curtis, 2013).

Concerns about class size (Allais, 2014) are substantiated by Fong et al.'s (2015) findings that class size is inversely related to progression in the community college setting. Larger collegiate classes have also been associated with higher dropout rates and a decrease in on-time degree completion, although long-term degree completion is not compromised (Bettinger & Long, 2018). However, research has also indicated that students in smaller sections did not perform statistically better or worse than students in larger classes (Towner, 2016). It is unclear if these findings include both face-to-face and online students.

While research has continued to examine student persistence, some researchers investigated differences between the experience of online students in smaller classes and larger classes. Beattie and Thiele (2016) discovered that larger class size negatively impacted interactions in the course. The authors specifically noted a negative impact on interactions with instructors regarding course material and assignments. Later findings by Scott et al. (2017) also

demonstrated a difference in student experience as they argued that students in smaller classes not only had higher grades and course completion rates, but they were more engaged.

As researchers have investigated differences in class size and sought to make recommendations for optimal class size, the plethora of conflicting findings has become more apparent. Some researchers recommend a maximum of 20 students in online courses (Woods & Bliss, 2016). Recommendations for low enrollment classes stem from the fact that instructor effectiveness is a key challenge in a large online class (Trammell & LaForge, 2017). At the same time there is evidence to suggest that a universal recommendation is not ideal and that large classes of 40 are effective for foundational courses and courses requiring higher order thinking should be limited to 15 students (Taft et al., 2019). Parks-Stamm et al. (2017) pointed out that class size is a moderator of the relationship between student and instructor participation in online courses; in smaller classes more instructor participation is needed whereas the same level of engagement is achieved in larger group discussions without as much participation from the instructor. It is clear that there is not a standard definition of large, or high enrollment course (Lowenthal, Nyland, et al., 2019). Without this standard definition and evidence-based recommendations for online class size, class size decisions continue to be made based on financial implications.

Some researchers have shifted their focus away from comparing large and small classes and focused on examining the impact of small changes to class size. Bettinger et al. (2017) found that regardless of academic discipline or types of assignments, small changes to online class size, which they defined as a 10% increase, do not have an impact on student outcomes. These findings contrast earlier research by Fong et al. (2015) who found that for every one student increase in a class, the likelihood of student success decreases. The conflicting findings suggest

that there is a delicate balance between increasing class size, which has the potential to increase access to education, and compromising student outcomes. This delicate balance is not yet fully understood or explained in existing research. One of the factors that influences this balance is the impact of class size on instructors.

Class Size Impact on Instructors. Studies examining the impact of increases in class size on instructors have yielded consistent results. In a mixed-methods sequential exploratory study, Russell and Curtis (2013) investigated student and faculty perceptions in small courses (max of 25 students) and large courses (max of 125 students). The findings illuminated concern by both students and faculty that in large courses, feedback is insufficient. Additionally, large classes were found to "prevent the instructor from doing that which s/he knows to be pedagogically effective" (Russell & Curtis, 2013, p. 10). Additionally, it was noted that larger classes inhibit the ability of the instructor to create instructor presence and limited the quantity and quality of instructor-student interaction.

Sorenson (2014) noted that in larger classes, instructor expertise is used less effectively. Sorenson (2015) conducted a nonexperimental study that examined the relationship between online class size and the quality of instruction in both undergraduate and graduate courses. Peer reviews were conducted using a rubric that facilitated assessment of faculty performance relative to areas that reflect teaching and levels of performance. The statistical analysis demonstrated a negative relationship such that as class size increased, instructor performance and quality declined. In particular it was noted that instructor feedback and use of instructor expertise declined as class size rose.

The decrease in instructor feedback and use of expertise may be explained by the findings of Mandernach and Holbeck (2016) that an increase in class size does not mean that the

instructor is spending more time facilitating. Instead, instructors may have to spend less time facilitating and more time on other responsibilities such as one on one communication, grading, and preparing instructional content (Mandernach & Holbeck, 2016). Larger classes are associated with a decline in instructor behavioral engagement (Pilotti et al., 2017), however, changes in instructor engagement due to changes in class sizes are not statistically significant (Seaton & Schwier, 2014). The biggest challenges for instructors teaching large online courses are course design and instructor effectiveness, primarily with respect to instructor presence, availability, and organization (Covelli, 2017).

More recently, Lowenthal, Nyland, et al. (2019) investigated faculty perceptions regarding class size. One finding was that faculty typically reported the ideal class size was smaller than how the faculty defined a high-enrollment course, despite that the definition of high-enrollment was not the same across all study participants. However, faculty in the study did acknowledge that high-enrollment courses are sometimes needed in order to support students in progressing toward graduation. To that end, the faculty explained that the course design can help mitigate negative effects of high enrollment. Other findings mirrored those by Sorenson (2015) and showed faculty concern about being able to provide timely feedback and responses to students in large online classes. Finally, the faculty in the study reported an increased workload and time requirement when teaching large online classes (Lowenthal, Nyland, et al., 2019).

Fiock (2020) drew on findings of other research and proposed that to enhance teaching presence, online class size should be limited and smaller student-instructor ratios should be preserved. However, recommendations for small student-instructor ratios may be ignored by administrators since larger classes present the opportunity for reductions in salary costs since the same number of students can be served with fewer instructors (Bettinger et al., 2017). With such

efforts to contain cost, instructors are challenged to maintain effectiveness, which could ultimately compromise accreditation.

Instructor Burnout. Another way instructors have been impacted is through the experience of burnout. Berg and Seeber (2016) shined light on an Australian study that found that "stress in academia exceeds that found in the general population" (p. 2). While the faculty role is often considered desirable due to flexibility, "flexibility of hours can translate into working all the time, particularly because academic work by its very nature is never done" (Berg & Seeber, 2016, p. 3). Faculty also report an increase in workload (Berg & Seeber, 2016, p. 3). The increase in workload is partially fueled by self-expectations, but is largely attributed to the "rise in contractual positions, expanding class sizes, increased use of technology, downloading of clerical tasks onto faculty, and the shift to managerialism" (Berg & Seeber, 2016, p. 3).

In their research that was first to specifically examine burnout of online instructors, Hogan and McKnight (2007) made use of Maslach's Burnout Inventory Educator Survey. The researchers discovered that although online instructors had an average score relative to emotional exhaustion, they had a high score relative to depersonalization and a low degree of personal accomplishment, both of which are drivers of burnout. Seaton and Schwier (2014) later explained that the need for high interaction with technology and feelings of isolation negatively impacted instructors. Factors causing online instructor burnout fall into the categories of "workload, problems of isolation, and the ubiquity of the online classroom and the associated blurring of profession/personal boundaries" (Cross & Polk, 2018, p. 2). Hansen and Gray (2018) underscored the degradation of work-life balance and high levels of stress that stem from unclear boundaries when teaching online.

The issue of workload and stress is concerning because the lack of time to fulfill responsibilities, expectations, and demands is connected to poorer work performance and productivity (Makarenko & Andrews, 2017) and "faculty stress directly affects student learning" (Berg & Seeber, 2016, p. 6). Oyarzun et al. (2020) purported that providing substantive feedback, being responsive, and being engaged are time consuming. As such, these activities may suffer if faculty feel short on time or lack time management training or skills for working in the online environment, and this could be interpreted as lower quality work. Further, Vallade and Kauffman (2018) posited that instructor misbehaviors such as a lack of responsiveness and lack of engagement contribute to student disengagement and have a negative impact on student learning. Later research by Vallade and Kaufman (2020) substantiated these findings and led the researchers to conclude that these misbehaviors lead to "undesirable instructional outcomes" (p. 10).

While instructors struggle to meet demands, other aspects of their life, such as family life, leisure, and personal development may suffer, which can increase burnout (Berg & Seeber, 2016). The lack of personal development may lead to further decline in effectiveness and, according to Kegan and Lahey (2016) is the "biggest cause of work burnout" (p. 2).
Despite the literature connecting online instructor burnout, instructor behavior, and student experience and outcomes, there is still much to be learned about the well-being of online instructors in higher education (Makarenko & Andrews, 2017). What is known is there is evidence that technological issues, time constraints, and large class sizes are the most significant drivers of stress for online instructors (Smith et al., 2015). Faculty behavior in light of these stressors must be understood since they can directly impact student outcomes.

Online Instructor Role

Over time the role of the instructor has evolved (Martin, Budhrani, Kumar, et al., 2019). Traditionally, faculty were full-time, tenure track, and focused on teaching, research and service (Maxey & Kezar, 2016). Now, approximately 70% of positions are nontenure track and focus on either teaching or research (Maxey & Kezar, 2016).

An increasing number of faculty are teaching some or all of their courses online (Walters et al., 2017). Historically, the instructor was the dispenser of information and the initiator of all student activities while bearing responsibility for students' learning (O'Neil, 2006). As technology has expanded, students have gained access to more information and the instructor role has shifted to a member of the team who does not have total control over the learning environment (O'Neil, 2006). In online education, the role of the instructor has become that of a facilitator and arranger of "meaningful learner-centered experiences" (O'Neil, 2006, p. 2). Martin, Budhrani, Kumar, et al. (2019) summarized the changes by saying "the role of the instructor has transitioned from being teacher-centered to student-centered, low-interaction to high-interaction, and low-initiator to high initiator" (p. 186). Additionally, technological advancement has required faculty to adapt to "new ways to prepare, organize, deliver, and assess courses and learning materials for online teaching" (Martin, Budhrani, & Wang, 2019, p. 97).

Martin, Budhrani, Kumar, et al. (2019) explained that the "online instructor's role is very important to the success of online learning" (p. 186). The instructor role is a cornerstone of the student experience (Berry, 2019b) and one of the strongest predictors of a successful online course is instruction (Seaton & Schwier, 2014).

As online learning has changed, so too has the online instructor's role (Feydnich et al., 2015; Martin, Budhrani, Kumar, et al., 2019). Feydnich et al. (2015) highlighted work by

Goodyear et al. (2001) that identified eight roles of online instructors as advisor-counselor, process facilitator, researcher, assessor, content facilitator, designer, manager-administrator, and technologist. The instructor role has also been described as consisting of seven categories including active learning, active teaching/responsiveness, administration/leadership, classroom decorum, policy enforcement, multimedia technology, and technical competence (Bigatel et al., 2012). Another view categorizes the role of the instructor as leadership and instruction, active teaching, community and netiquette, tools and technology, and instructional design (Farmer & Ramsdale, 2016). More recently, Martin, Budhrani, Kumar, et al. (2019) depicted the instructor role as being comprised of facilitator, course designer, course manager, subject matter expert, and mentor.

The role of facilitator is described by Martin et al. (2020) as a component of the pedagogical role. In the facilitator role, instructors "facilitate students' learning and sustain their participation and motivation in an online course" (p. 30). A significant aspect of this is the online discussion forum. In discussion forums, the instructor role is to incite critical thinking and promote deep learning (Kwon et al., 2019). In the discussions, instructors foster participation by encouraging contributions, ask probing questions, keep discussions focused, and provide information and points of view (Martin et al., 2020). As part of the facilitator role, online instructors are tasked with building community in the online classroom (Berry, 2019a). The most notable change over time is that there has been a paradigm shift from a teacher-centered environment to a student-centered environment (Fischer & Hänze, 2019; Martin, Budhrani, Kumar, et al., 2019). With the shift in roles, the instructor view of their role, and associated behavior has changed.

Instructor View of Instructor Role

The interactions between instructor and students is influenced by how the instructor views her or his role. Baker (2013) noted that online instructors have multiple roles including a technical role, social role, managerial role, and pedagogical role. Part of the pedagogical role involves interaction. Dietrich (2015) explained that the approach to interaction is unique in the online environment and that consistent feedback is an important form of instructor-student interaction. Another aspect of this role is building community. Some instructors view their role of building community as confined to the online classroom while others utilize synchronous tools such as video chat (Berry, 2019b).

Instructor perception of the instructor role may be influenced by many things, including whether or not a robust faculty orientation was completed (Lewis & Wang, 2015). Gurley's (2018) findings suggested that completion of on-the-job training as compared to completion of a certification course may also play a role. Regardless of training, instructors have conceptions and misconceptions about their roles and competencies which may also be influenced by previous experience in the face-to-face setting (Kara et al., 2018).

Some instructors view their role as providing lectures, guidance, motivation, and material development (Kara et al., 2018). Hansen and Gray (2018) postulated that online instructors have an ambiguous role and a high workload. These findings may be attributed to instructor lack of agreement regarding the impact of their presence on students (Richardson et al., 2016). With such ambiguity, it is not shocking that some instructors are unsure of their role.

Seaton and Schwier (2014) found that instructors struggle to determine their role in the online discussion in particular. Such role confusion is not entirely surprising given the conflicting recommendations found in the literature (Phirangee et al., 2016) and the fact that

there is discord among the scholars regarding the best role for instructors to play to generate a sense of community (Epp et al., 2017). However, recent findings by Epp et al. (2017) indicated that an instructor-facilitation model, as compared to a peer-facilitation model, is superior for generating a sense of community. Without a clear understanding of the online instructor role, instructors may succumb to the pressures that are causing burnout and skip behaviors they do not consider important so that they can effectively complete other tasks.

Skills Needed to Effectively Teach Online

Palloff and Pratt (2009) explained that teaching is about producing learning, not just providing instruction. To produce such learning, faculty need to be competent not only in their field, but in the skills necessary to teach online, which differ from the skills used in traditional teaching (Frazer et al., 2017; Rice & Deschaine, 2020). Schmidt et al. (2016) purported that effectively teaching online involves specific competencies and skills that are not necessarily intuitive to instructors who often teach in the way that they were taught. However, many teachers do not have experience as an online learner and transferring face-to-face courses to an online format is not a simple process (Schmidt et al., 2016). Lowenthal, Shreaves, et al. (2019) clarified the situation by explaining that "while faculty may have experience designing and teaching face-to-face courses, they often lack experience with the technologies, instructional strategies, communication processes, and organizational structures involved with teaching online" (p. 1). Online teaching is "substantively different from doing so face-to-face" (Stickler et al., 2020, p. 135).

Schmidt et al. (2016) investigated the skills that faculty feel they need to develop to be more effective and found that faculty desire professional development activities focused not only on course design, but also on the "actual pedagogy of online teaching" (p. 4). Sanga (2018)

pointed to earlier work by Pelz (2014) that outlined the following key principles of online learning pedagogy:

1. "Let the students do (most of) the work" (Sanga, 2018, p. 16)
2. "Interactivity is the heart and soul of effective asynchronous learning" (Sanga, 2018, p. 16)
3. "Strive for presence" (Sanga, 2018, p. 16). This includes social, cognitive, and teaching presence, which is consistent with the CoI framework.

Online instructors need a wide range of skills including pedagogical skills, content skills, design skills, technological skills, management and institutional skills, and social and communication skills (Albrahim, 2020). Stickler et al.'s (2020) work supported these categories but provided additional detail. Relative to technological skills, important skills such as basic word processing skills, the use of email, use of networked computers, familiarity with interactive Web 2.0 technology, security and maintenance skills, and the ability to provide technical support to students are necessary (Stickler et al., 2020). A variety of pedagogical skills such as creating opportunities for interaction, managing a learner-centered classroom, promotion of learner autonomy, and considering individual student needs are also required (Stickler et al., 2020).

McGuire (2017) took a different approach and identified best practices for effective asynchronous online courses. These practices include chunking the course content, humanizing the course website, making the approach to the discipline (such as religious studies) explicitly, structuring then monitoring the online discussion, prioritizing giving feedback, and making the course relevant to learners (McGuire, 2017). Rice and Deschaine (2020) identified a similar list to McGuire (2017) but also suggested that instructors need to be able to explain information, make themselves available, and model interest in learning. All of these best practices require the

skills described by Albrahim (2020) and possibly more. These robust lists illuminate the fact that the skills set required to effectively teach online is vast.

In an interesting twist, Martin, Budhrani, and Wang (2019) examined faculty perceptions of readiness to teach online. The researchers examined faculty attitude regarding the importance of several competencies needed to teach online and faculty perception of their ability to perform. The researchers investigated competencies pertaining to designing online learning activities and course orientations, organizing online instructional materials and assessment, promptly responding and giving feedback online, sending announcements and email communication, scheduling time for course design and grading, and managing the learning system and documents. A significant finding was that "the competencies that faculty perceive as most important in all competency areas differ from the top competencies that faculty believe they can perform" (Martin, Budhrani, & Wang, 2019, p. 111). Lack of faculty competence may influence faculty behavior in the online classroom and cause failure to effectively participate in online discussions.

Professional Development for Online Instructors

Development of competencies for new online instructors and seasoned instructors alike is critical for the success of higher education organizations. There is high demand for quality online teachers in higher education (Borup & Evmenova, 2019). One way to support the availability of quality online teachers is to provide professional development. Gómez Palacio et al. (2018) described professional development as "a continuous and evolving learning process, encompassing self-disclosure, reflection and professional and personal growth" (p. 550). Both content-specific practices and technology pedagogies specific to the asynchronous learning environment must be addressed in order to enhance student learning (Alexiou-Ray & Bentley,

2015) and the quality of teaching (Brinkley-Etzkorn, 2015). Continued support is imperative for instructors who teach online (Brinkley-Etzkorn, 2015) especially since faculty who receive professional development pertaining to their role of online instructor are more satisfied in their role (Walters et al., 2017). Together, these claims support the notion that professional development for online instructors is imperative.

In some cases, professional development is only available for full-time professors while adjunct faculty are ignored due to space, contract, and time constraints (Gómez Palacio et al., 2018). Even if all instructors are afforded the opportunity to engage in professional development, time, space, and geographic constraints may persist, or the training may not be effective (Powell & Bodur, 2019). Although common, a "one size fits all" approach to professional development is no longer appropriate since online instructors have unique and varying needs and experience (Martin, Chuang, et al., 2019; Rhode et al., 2017) . Martin, Chuang, et al. (2019) found that many online instructors do not have any formal training in how to teach, let alone training on how to teach online. Without this training, it is less likely that online instructors will use best practices for course management or facilitation.

Many online instructors have never been an online student (Martin, Chuang, et al., 2019) or only have experience with online learning as a student (Borup & Evmenova, 2019). Additionally, experiences as an online learner do not mean that the instructor experienced the modeling of best practices (Borup & Evmenova, 2019). Borup and Evmenova (2019) found that use of professional development, where best practices are modeled, can positively impact online instructor skills, knowledge, and perceptions relative to online learning. Further, "online professional development programs that model high-quality online teaching and learning offer an effective and efficient environment for instructors to update their skills and beliefs" (Borup &

Evmenova, 2019, p. 15). Training of online teachers must extend beyond training teachers how to use the institution's learning management system and must also support pedagogy (Rodrigo & Ramírez, 2017). Pedagogy in an online course would include developing community and using approaches, such as discussion forums, to generate student learning. Martin, Chuang, et al. (2019) noted that while training does not replace experience, it can highlight critical issues, including "communication that is essential for an effective online course" (p. 63). Such communication includes the interaction that takes place in the online classroom, especially in the online discussion.

Interaction in the Online Classroom

There is agreement in the literature that interaction in the online classroom is important and influences learning outcomes (Bernard et al., 2009; Hodges et al., 2020) and satisfaction (Self et al., 2018). Bernard et al. (2009) suggested that this agreement stems from the "integral role that interaction between students, teachers, and content is presumed to play in all of formal education" (p. 1246). The quality of e-learning for adults depends not only on products, but on interactions (Dinevski & Radovan, 2013).

Interactions in the distance educational setting fall into Moore's (1989) framework of three categories: learner-content, learner-learner, and learner-instructor (Bickle, 2018). Learner-content interactions are those interactions "between the learner and the content or subject of study" (Moore, 1989, p. 1) whereas learner-learner interaction describes those interactions "between ne learner and other learners" (Moore, 1989, p. 2). In contrast, learner-instructor interactions "between the learner and the expert who prepared the subject material, or some other expert acting as instructor" (Moore, 1989, p. 1).

Moore's framework is still the most widely accepted despite efforts to extend the framework (Xiao, 2017). For instance, Hillman et al. (1994) suggested a learner-interface interaction as a way to acknowledge the types of interactions unique to the distance education environment. Xiao (2017) highlighted later work by Anderson and Garrison (1998) that recommended adding teacher-content, teacher-teacher, and content-content to the model. Jung et al. (2002) made additional recommendations that focused on the asynchronous environment and included "content-centered academic interaction which occurs between learners and instructor or between learners and online resources; collaborative interaction among learners;, and social interaction between learners and instructor" (p. 154). Since Moore's framework is still the most widely accepted, the focus of this research is be on one of the constructs originally proposed by Moore (1989), specifically the learner to instructor piece of the framework.

Learner-Instructor Interaction. According to Kent et al. (2016), "interaction is one of the most important tools for learning" (p. 117). Interpersonal interaction in the online classroom has been noted to "decrease transactional distance and thus provide a more robust educational experience for the learner" (Mehall, 2020, p. 182). Additionally, learner-instructor interaction leads to higher student engagement (Martin & Bolliger, 2018) and a lack of instructor presence has proven to be a primary point of dissatisfaction of online students (Martin, 2019). Conrad and Donaldson (2011) explained that engaged learning is a "collaborative process in which the instructor and learner are partners in building the knowledge base" (p. vii). However, development of the interaction between learners and instructors has proven to be challenging (Seifert et al., 2020).

The work of Lee et al. (2017) builds on the seminal work of Moore (1989) that suggested that one of the most important aspects of learning is student-instructor interaction. Similarly,

Chang and Wei (2016) purported that student-instructor interaction is central to knowledge acquisition. Moreover, students prefer online learning due to the perceived increased response from the instructor (Lee et al., 2017). For these reasons, while more students have been enrolling in online classes, and large class sizes can provide high revenue at low cost, student-instructor interaction must be protected.

Response from the instructor can come in many forms. Martin and Bolliger (2018) noted that summative feedback, grading, interaction using technologies such as Skype and Twitter, and assessment are all forms of interaction that can increase student engagement. Instructor feedback has also been found to engage students and make online collaboration more meaningful (Chadha, 2017). Students welcome being challenged by the instructor to think more deeply about course content (Bigatel & Edel-Malizia, 2018). Additionally, students seek interaction in discussion forums that helps them to achieve learning outcomes (Ebrahimi et al., 2017).

The value students place on instructor interaction was echoed by Rath et al. (2019) who found that students may prefer face to face classes if they perceive that student-instructor interaction will be lower in the online environment. Instructor interactivity plays a key role in supporting learning in online discussions (Smith, 2019). A primary way that students interact with instructors in the online environment is through discussions conducted asynchronously in discussion forums or synchronously through video conferencing.

Online Discussions

Online discussions have been used in a variety of educational contexts to promote student learning (Aloni & Harrington, 2018; Chen et al., 2020). Asynchronous online discussions are commonplace in online courses (Lee & Martin, 2017; Woods & Bliss, 2016) and foster "the exchange of opinions and group interactions in diverse disciplines" (Kwon et al., 2019, p. 226).

Chen et al. (2020) averred that there are many advantages to online discussions including "open communication, supportive collaboration, information exchange, and the connection of ideas" (p. 1). These advantages may be explained by the findings of Kilis and Yildirim (2019), who posited that discussions are a sound strategy for creating teaching presence.

AlJeraisy et al. (2015) suggested that discussion boards are a powerful tool. In addition to supporting the acquisition of content knowledge, discussions promote development of critical thinking and writing skills (Aloni & Harrington, 2018). Chen et al. (2017) reaffirmed this sentiment by explaining that "asynchronous discussions play an important role in online learning" (p. 165). Franklin (2015) even suggested that having a good student biography on a discussion board can promote retention. This strategy aligns with later recommendations by Covelli (2017) who argued that best practices in online discussions share a common goal of increasing a sense of community among learners. Perrotta (2020) found that online asynchronous discussions that "emphasize writing intensity and undergraduate research can serve as a HIP [high impact practice]" (p. 216). At the same time, she noted that class size is "an important factor in promoting HIPs with asynchronous discussion boards" (Perrotta, 2020, p. 216).

Discussions can not only increase a sense of community, but can also enhance the students' experience (Smith, 2019). Discussion boards can also enable the instructor to "establish instructor and social presence that affects online learning outcomes and also increases engagement, satisfaction, and retention" (Martin, Chuang, et al., 2019, p. 58) and provide an interactive learning opportunity that can support student outcome mastery (Alexiou-Ray & Bentley, 2015). Mulvaney (2020) found that discussions produce a higher rate of learner content specific self-efficacy when compared to other group activities. While there tends to be agreement that discussions are valuable, there is disagreement about the frequency in which instructors

should participate in the discussions (McGuire, 2017). Some experts promote frequent interaction between the instructor and student while others promote abstaining from participation and simply moderating the discussion instead (McGuire, 2017).

Most students find online discussions to be at least as effective as face-to-face discussions (Jacobi, 2017). As students engage in online discussions, they have the opportunity to learn from the viewpoints of others (Jacobi, 2017). Further, students who may be less vocal in a face-to-face setting often feel empowered to voice their opinions more freely in online discussions (Jacobi, 2017). These interactions make the development of a community of inquiry possible and meet the needs of adult learners who seek to understand how course content connects to their social roles.

Small Discussion Groups. Online discussions vary in group size and composition (Qiu et al., 2014). Early research by Wickersham and Dooley (2006) examined small discussion groups and found that smaller discussion posts in smaller groups often incorporated all 10 indicators of critical thinking (relevance, importance, novelty, outside knowledge, lack of ambiguities, linking, justification, critical assessment, practical utility, and width of understanding). Later, Dooley and Wickersham (2007) sought to determine if the same results would occur in whole class discussions. The researchers found that in whole class discussions, "discussions were more often off-topic, certain students tended to dominate, and there was more disconnect between and among the critical thinking indicators with fewer intense interactions" (Dooley & Wickersham, 2007, p. 4).

Although large class discussions increase diversity of participants and ideas (Qiu et al., 2014), Martin and Bolliger (2018) found that smaller group discussions increased student engagement by promoting deep thinking and the sharing of meaningful insights. Ringler et al.

(2015) cited previous research by Reonieri (2006) that suggested the optimal class size is 10-15 students because fewer student limited perspectives and a greater number of students led students to be overwhelmed.

Findings by Seifert et al. (2020) lend credence to previous research and suggest that not only do students prefer small groups in the online environment, but small group learning produces a better experience for students. One aspect of the better experience is that students in small groups report a stronger sense of belonging (Seifert et al., 2020). Other reasons that students prefer small groups are that they feel like they can better keep up with the conversation and they have the opportunity to develop relationships with others (Jacobi, 2017; Qiu et al., 2014). Small groups contribute to a sense of community and assist students in engaging in in-depth discussions (Jacobi, 2017). Another reason students report a preference for small groups is the high level of interaction that students desire (Seifert et al., 2020). Research findings suggest that smaller forums alleviate student concern about being overwhelmed and frustrated by so many messages in the discussion (Afify, 2019; Jacobi, 2017; Lee & Martin, 2017).

Afify (2019) suggested that small and medium sized groups "provided a bigger opportunity for concentration and effective participation in online discussion forums" (p. 147). Students prefer online discussion groups of six to eight people (Jacobi, 2017) although some researchers recommend limiting group size to five participants (Akcaoglu & Lee, 2016; Aloni & Harrington, 2018). In groups of four or five, students felt better connected to others in the class, had a more positive experience, and thought more deeply about content (Akcaoglu & Lee, 2016). Beyond experience, smaller groups, as defined as four to six students, were found to be associated with higher quality posts by the students (Qiu et al., 2014). Eighty-one percent of learners prefer discussions that occur within a small group and small group discussion was

associated with a higher level of motivation (Lee & Martin, 2017). While there is agreement that small groups in discussion are most effective, discussion group size is influenced by limitations of the learning management system (how many groups can be created) and total class enrollment.

Instructor Effectiveness in Discussions

Best practices in online instruction stress the importance of active participation in discussions and thorough feedback, but selective participation may limit the application of these best practices. While they must be well managed, discussion boards have been found to promote critical thinking, help students develop writing skills, and provide an opportunity for students to learn from one another and from the instructor (Aloni & Harrington, 2018). Cooper et al. (2019) highlighted the instructor role in this learning by noting that facilitating discussions is a "pivotal element of online instruction" (p. 6).

Instructor involvement in the discussions has been found to be correlated with student learning, student satisfaction, student involvement, and development of higher order thinking (Self et al., 2018). However, as online class sizes increase, response rates and length of discussion posts decline and instructors demonstrate lower levels of behavioral engagement (Pilotti et al., 2017). Woods and Bliss (2016) pointed to previous research that found that "larger class enrollments are negatively correlated with faculty participation in the online discussion" (p. 84). These findings are explained by Smith (2019) who found that active participation in discussions is a luxury available when teaching a small course.

Changes in faculty participation in the online discussion may come in the form of changes to frequency or the types of posts that are used. Hoey (2017) noted that teaching presence facilitates both cognitive presence and social presence in the online classroom. She also

acknowledged that adult learners "want their instructors to be engaged in their courses" (Hoey, 2017, p. 263). To understand better how the frequency and content of instructor discussion posts impacts student satisfaction and achievement, Hoey performed a quantitative study on qualitative data that examined the contents of all posts in 36 online graduate courses. The focus of the study was on "intentional communication of an instructor in discussion forums to promote deep learning, focus the discussion, encourage student participation, and direct and extend discussion on the content" (Hoey, 2017, p. 266). During the qualitative analysis, posts were categorized as instructional, encouraging, questioning, conversational, acknowledging, negative evaluative, positive evaluative, and operational. Hoey found instructional posts to be most influential on student satisfaction and achievement of outcomes. The instructional posts were those that "provided new information to the discussion, clarified an area of confusion, or shared resources to improve understanding" (Hoey, 2017, p. 268). These findings support the recommendations of CoI proponents who suggest establishing teaching presence "by presenting content and providing resources to improve learning" (Hoey, 2017, p. 276). However, the study did not examine differences, if any, in the frequency of use of instructional posts and what may have contributed to those differences.

Kent et al. (2016) suggested that interactivity alone is a shallow view of student participation. This notion extends to the participation of instructors and the ability of instructors to be effective. Frazer et al. (2017) conducted a descriptive qualitative study that investigated nursing faculty perceptions regarding teaching effectiveness and indicators of quality in the online environment. In the study, the researchers used a focus group to explore instructor practices and how well they aligned with best practices for online education. Relative to teaching effectiveness, Frazer et al. (2017) found that the most effective instructors are those who

facilitate student learning, aim to feel connected with students in the classroom, share experiences, are approachable, establish mutual comfort, and are responsive to students' needs. Participants in the study highlighted the "importance of stimulating students to explore new thought, keeping them challenged and leading students to the spotlight during the discussion and, in turn, having those invite others into a scholarly dialog" (Frazer et al., 2017, p. 3). Frazer et al.'s (2017) findings mirror Hoey's (2017) findings relative to instructional posts.

Later, Kwon et al.'s (2019) research offered another glimpse into the impact of instructor comments in the online discussion and explored the types of comments that best facilitate group discussions in an online asynchronous environment through establishing teaching presence. The researchers used a single-subject design and examined instructor comments and levels of knowledge construction, interactivity, and types of messages. Instructor posts were categorized as praise-oriented, elaboration-encouraging, or perspective-widening. Kwon et al. (2019) found that perspective-widening posts increased student interactivity and contributed to knowledge construction. The perspective widening posts were those that "suggested different or challenging opinions regarding the initial messages" (Kwon, 2019, p. 231). The findings of Hoey (2017), Frazer et al. (2017), and Kwon et al. (2019) substantiated those of Grantham et al. (2015) who found that students highly value interactions that broaden horizons by "either introducing them to new content, causing them to see material or a discipline in a new light, or helping students gain a new perspective on the world" (p. 130) and MacKnight (2000) who suggested that instructors use thought provoking questions to provide feedback in discussions.

More recently, Mehall (2020) touted interpersonal instructional interaction as having an association with "important student outcomes like perceived learning, satisfaction, and academic achievement" (p. 195). This type of interaction was described through examples of application

such as disseminating information that is not readily available and heightening student interest (Mehall, 2020). Mehall (2020) noted that these strategies increase instructor presence and pointed to earlier work by Dennen et al. (2007) who explained that "presence is not only confined to the amount of instructor-learner interaction, but also to the content of those interactions" (Mehall, 2020, p. 187). While a great deal about instructor effectiveness has been uncovered, Covelli (2017) posited there is a gap between identified best practices and use of best practices in online classrooms. It is unclear if the application of the best practice of using instructional posts changes as class size changes.

Limitations of Previous Research

The majority of articles located focused on attempting to correlate class size with the impact on the student (Afify, 2019; Allais, 2014; Beattie & Thiele, 2016; Bettinger et al., 2017; Lee et al., 2017; Scott et al., 2017; Towner, 2016). While there was acknowledgement that class size may influence instructor behavior (Mandernach & Holbeck, 2016; Pilotti et al., 2017), and instructor behavior in the online classroom influences student outcomes (Grantham et al., 2015; Hoey, 2017; Kwon et al., 2019), specific aspects of instructor behavior that are most likely to impact student outcomes were not evaluated with respect to class size. Additionally, while several located studies focused on for-profit higher education (Bettinger et al., 2017; Pilotti et al., 2017; Sorensen, 2014) research examining public universities in the northeast United States was not found. The studies that were located that did not find a correlation between an increase in class size and student outcomes were conducted by researchers at for-profit organizations where class sizes are noted to be larger (Starcher, 2017). While many studies explore the "role of teaching presence in discussion forums" (Fiock, 2020), none were found that focused on the changes to one aspect of teaching presence as class size changed.

Summary

Class size has long been studied in the field of online education. Much of the research has focused on whether or not class size has a negative effect on students, but little attention has been given to the impact on instructors. Researchers agree that the instructor significantly influences student satisfaction and achievement, and recent research (Hoey, 2017; Kwon et al., 2019) suggests that instructional posts have the most value. However, the instructor experience of increasing workloads, higher levels of burnout, and limited professional development opportunities may influence the way instructors participate in discussions. What is unknown is how to describe the connection between instructor use of instructional posts and changes in class size. This study contributed to existing literature by examining the nature of the connection between online asynchronous class size and my use of instructional posts and providing insight into the experiences thoughts, feelings, and actions taken by instructors as class sizes rise.

Chapter 3: Research Method

While student demand for online learning has continued to increase, institutions of higher learning have faced increased budgetary constraints (Chingos & Couch, 2013; Dugas et al., 2018; Hussar et al., 2020). Many organizations have increased the number of online classes and the number of students per course (Lowenthal, Nyland, et al., 2019). These changes have influenced instructor workload and, ultimately, instructor behavioral engagement and effectiveness (Covelli, 2017; Mandernach & Holbeck, 2016; Pilotti et al., 2017).

In conversations with my colleagues, the challenges associated with increasing and competing demands often arise. Throughout my academic journey I began to wonder if data existed to corroborate the frustrations that many of my colleagues shared. As I have engaged in collegial conversations about how to advocate for less stressful working conditions, I realized that I did not know if my own practice of using instructional posts had actually changed as class sizes fluctuated across terms. This issue is of concern since discussions are a primary vehicle through which an instructor can establish teaching presence, which is integral for student learning (Hoey, 2017).

Online program directors are placed in a position where they must advocate for changes that support student learning, lead to positive accreditation survey outcomes, and support faculty in their role. Research findings demonstrate agreement on the influence of teacher presence on student outcomes, so it is important to understand how changes in class size influence instructor behavioral engagement, particularly in the context of the discussion. Since research has already shown that instructional posts are the most influential on student outcomes (Hoey, 2017; Kwon et al., 2019), this study will determine if there is a connection between online class size and the frequency of instructional discussion posts made by the instructor.

Purpose

The purpose of this autoethnographic study was to give a personalized account of the impact of class size on my use of instructional posts and to provide insight into the thoughts, feelings, and experiences that influence my participation in discussions. I explored the nature of the connection between asynchronous online class size and frequency of instructional discussion posts using ex-post facto data and reflection. The study explored the connection between online asynchronous class size and the number of instructional posts (as defined by Hoey, 2017) that I made as the instructor, while explaining other factors that may have influenced changes in my participation in the discussion. The evidence from the study provides program directors with information they can use as they strive to meet accreditation standards while also meeting instructor needs. More specifically, the findings illuminate the nature of the connection between online asynchronous class size and the frequency of instructional posts made by the instructor, explain what factors influence my participation in discussions, and describe what feelings, experiences, and emotions I experienced as class size changed. Without this information, program directors cannot address faculty concerns about increased class size or advocate for limiting class size in order to protect student learning outcomes, which are scrutinized during the accreditation process and enhanced by the use of instructional discussion posts.

Research Design and Method

This research was nonexperimental since experimentation is not feasible and nonexperimental research is the predominant kind used in the social sciences (Reio, 2016). Since the primary purpose was to understand if, how, and why I, as the instructor, change the way I participate in discussions when the usual context changes, a qualitative approach was appropriate (Dobrovolny & Fuentes, 2008; Freebody, 2003; Hatch, 2002). Although qualitative methods

limit generalizability (Dobrovolny & Fuentes, 2008), they are preferable when the focus is on human actions rather than generating general descriptions of interaction (Adams et al., 2015; Hatch, 2002).

Qualitative research includes various genres including case study, action research, and phenomenology (Denzin & Lincoln, 2011; Saldaña & Omasta, 2018). The qualitative methodology I use for this study is autoethnography. Although autoethnography is a relatively new way to represent research (Sparkes, 2000) the tool is becoming more commonly used by experts in many fields, including education (Chang, 2008; Jones et al., 2016) and educational technology (Willis, 2008). Ellis (2016) suggested that the autoethnographic approach adds value by expanding "scholarship about human experience" (p. 16). This expansion is possible because the story of the researcher can illustrate the culture under study in a way that facts and figures cannot (Ellis, 2004).

Ellis et al. (2011) explained that autoethnography is "an approach to research and writing that seeks to describe and systematically analyze (graphy) personal experience (auto) in order to understand cultural experience (ethno)" (p. 273). This approach allows me to answer the research questions of how the type of posts I made in discussions changed as class size fluctuated and what factors influenced my participation in discussions. The autoethnographic method allows full exploration of the phenomenon while protecting both student confidentiality and instructor intellectual property.

Autoethnography is a self-narrative but is distinguished from other self-narrative formats by the use of analysis and interpretation (Chang, 2008). This insight and interpretation is critical for establishing quality in a self-study (Bullough & Pinnegar, 2001). The genre of

autoethnography connects the personal and the cultural as it includes explanation which extends it beyond a simple autobiography (Chang, 2008; Gill, 2014).

One way autoethnography is used is to examine topics that are sensitive, masked by other issues, or insufficiently studied (Jones et al., 2016). This use is applicable to this study as instructor acknowledgement of changing participation in discussions as a way to manage increasing demands is a sensitive topic that could lead to poor performance reviews, damage to an organization's reputation, or job loss. Further, this method is appropriate because it promotes change by challenging readers to carefully consider situations that are taken for granted in a new light (Jones et al., 2016). In the field of education the notion of taking situations for granted is quite relevant as it is often taken for granted that the best way to address budget concerns is to cut cost, with emphasis on cutting labor cost. In the context of this study, cutting cost is being achieved by increasing class size rather than offering additional sections which would require additional instructor cost.

A key distinction between autoethnography and other forms of research is that autoethnography does not keep the observer and the observed separate (Chang, 2016; Saldaña & Omasta, 2018; Sparkes, 2000). Instead, the researcher becomes the object of inquiry (Bullough & Pinnegar, 2001; Ellis & Bochner, 2000; Freebody, 2003). The shift in position from the periphery to the center is an integral part of fulfilling the priorities of ethnographers which include placing personal experience in research and writing in the foreground, illustrating the sense-making process, using and showing reflexivity, illustrating insider knowledge of a cultural phenomenon or experience, describing and critiquing cultural norms experiences and practices, and eliciting responses from the reader (Adams et al., 2015).

Researchers select autoethnography for a range of reasons. Adams et al. (2015) pointed to the value of autoethnography as a way to highlight people as they encounter struggles and determine how to handle them and a way to make life better. Other reasons to use autoethnography include making contributions to existing research, making research accessible, and reclaiming disregarded voices (Adams et al., 2015; Jones et al., 2016). In the context of this study, highlighting the potential struggle of the instructor to balance increasing workload with maintaining effectiveness is critical for generating understanding that can lead program directors to advocating for changes that improve the satisfaction of instructors that report to them.

The presence of subjectivity has led some experts to debate the credibility of autoethnography (Chang, 2008). However, it should be noted that the approach used by a researcher can span the continuum between subjectivity and objectivity (Chang, 2008). Autoethnography is a qualitative genre that acknowledges and accommodates subjectivity, emotionality, and the researcher's influence on research, rather than hiding from or ignoring these matters (Ellis et al., 2011). Moreover, autoethnography strikes a balance methodological rigor, creativity, and emotion (Adams et al., 2015) since the naturalistic approach asserts that relevance is an important aspect of research (Guba, 1981).

Population

Consistent with the tradition of autoethnography, the population for this study was me. This means that unlike other research methods, the total population was one person.

Study Sample

Typically, the sample in autoethnography mirrors the population and consists of one person. In this study, the sample must be more clearly defined as I focused solely on my online

discussion interactions at one particular university because collecting the detailed interactions data for all of the organizations where I work was impractical and infeasible.

The sample of interest was asynchronous online courses I taught at Rock Hill University (pseudonym), a university in the United States. The sample was appropriate to respond to the study problem and purpose as the online courses were asynchronous, discussions were commonly used in the courses, and the organization held regional higher education accreditation. Class sizes varied, which allowed me to highlight the nature of the connection between the use of instructional posts and class size.

The sample was limited to the 16 classes I taught during academic years 2017-2018 and 2018-2019 (fall, spring, and summer terms) in order to include the most recent data while excluding courses that may reflect atypical personal and professional stress and responsibilities due to the COVID-19 pandemic. The data included asynchronous online courses that included discussion forums and excluded any courses that did not have any discussion forums and rare courses that utilized the 10 week format. Discussion forums that were not intended for teacher-student and student-student interaction surrounding a targeted discussion question were excluded. For instance, discussion forums that students used strictly for asking course related questions were excluded.

An advantage to this approach for the sample was that the privacy of other instructors was protected since they were not included in the sample. Additionally, FERPA regulations were adhered to and respected. Finally, intellectual property rights of other instructors were protected. However, the sample did not allow for generalizability to other populations since the qualitative approach did not support generalizability. This disadvantage was acceptable since the purpose was to explore the topic and elicit responses from readers rather than to generate general

descriptions. The lack of generalizability was an acceptable tradeoff for the increased transferability and credibility offered by the approach (Wall, 2008).

Materials

Moodle, the organization's Learning Management System, was used to access my discussion posts that were made during the study period. Moodle provided a Participant List that indicated the total number of students enrolled in the class at the end of the term. The data collected from the courses (number of instructor posts, number of instructional posts made by the instructor, total class size, and the month and year of the discussion) were placed into an Excel spreadsheet. The spreadsheet did not include the course name, section number, institution name, instructor name, or name of the discussion. Instead, each course and discussion was numbered based on the order in which the course and discussion were reviewed. For instance, the first course and discussion I reviewed was named "Course 1, DQ1." A course code number was also added to ensure I could go back to the course to obtain additional information if necessary.

Beyond the raw data contained in the spreadsheet, archived data including professional development logs, a personal journal, workplace emails, a workplace calendar, and interactions with a professional learning community (referenced as a "Reflective Practice Group") and contracts for the various terms were examined. Reflection on these items, coupled with reflection on personal memories, was used to create a researcher journal. The researcher journal was used as a vehicle for identifying themes and answering the research questions.

Qualitative Data Collection and Analysis

Since self-study in the field of education is typically intended to change what is happening in the educational environment, validity of such studies is imperative (Feldman, 2003). An aspect of demonstrating validity is explaining how data were collected which is why a

detailed description of data collection procedures is paramount (Feldman, 2003). However, it must be noted that the autoethnographic approach is not bound by rigid rules about how data are collected since it is flexible, reflexive, and reflective (Ellis, 2016).

Consistent with the autoethnographic tradition, my personal experience is the primary data (Chang, 2008). Although personal memory is a starting point, it is best to complement it with other data sources to allow for triangulation, which improves objectivity and limits bias (Denzin, 2014) while improving credibility (Johnson et al., 2020).

Instructor interaction in discussions was captured with two data points: class size (number of students enrolled on the last day of class) and content of my (instructor) discussion posts (number of instructional posts). The number of students enrolled on the last day of class was obtained through the "Participant List" within the course. Next, a content analysis, or systematic investigation of texts (Leavy, 2017; Neuendorf, 2020) was performed. The content of the instructor discussion posts was reviewed directly from the organization's learning management system (Moodle). Each instructor post was evaluated to determine if it "provided new information to the discussion, clarified an area of confusion, or shared resources to improve understanding" (Hoey, 2017, p. 268). Each post that met this definition was counted as "instructional." Posts that did not meet this definition was counted as "other." The percentage of total posts that were instructional was then calculated and the percent of instructional posts in each discussion was recorded in an Excel spreadsheet.

While the data related to instructional posts tells an important part of the story, supplementary information that illuminated the complexity of my lived experience was obtained and analyzed. To begin, I logged into the learning management system for each organization where I taught and counted the total number of classes I was teaching during each discussion that

was analyzed. While the content analysis only included my posts at one university, understanding total instructor workload must incorporate the demands I faced at all institutions where I taught. I also reviewed course development and course revision contracts for the study period. This information helped me describe the demands I was facing during each week when I participated in a discussion.

Another aspect of data collection entailed reviewing my professional development logs to determine when formal professional development activities took place and reviewing personal journal notes, my workplace calendar, and workplace emails for indications about other workplace demands, changes in the workplace, or other aspects of my experience that were significant. Since autoethnography is a reflexive process (Ellis & Bochner, 2000; Wall, 2008), I remained open to considering other documents and artifacts that became relevant as the exploration and reflection took place. This reflexivity allowed for me to also consider interactions with my Reflective Practice Group that took place in a shared workspace in Moodle.

While the various data sources were reviewed, I created a researcher journal. I then assigned codes to the entries in the researcher journal in an attempt to identify key themes (Coffey, 2020). The journal was in chronological order and noted the original data source(s) of the reflection and code(s). Use of a manual approach such as a journal is acceptable since this is a small scale study (Saldaña, 2013). While writing about things as they occur offers the advantage of allowing the writer to capture the raw emotion associated with a situation, writing about them later offers the distinct advantage of allowing the writer to step outside of the emotion and consider things from a cultural perspective (Ellis, 1999).

Saldaña (2013) suggested that “Initial Coding” is a sound method for ethnographies and when a wide variety of data forms are used. Codes were comprised of short words or phrases that

described factors that influenced my participation in discussions and my experiences. I began with a set of tentative a priori codes (high workload, frustration, satisfaction, changing view, teacher presence), although I knew these codes could evolve during analysis (Saldaña, 2013). During analysis codes such as time saving strategy, excitement, engagement, overwhelmed, thoughts, feelings, and experience were added. Once the researcher journal was coded, categories were created to highlight any groups of comparable codes that give insight into relevant patterns (Saldaña, 2013; Saldaña & Omasta, 2018). My approach of moving from codes to categories represents the transition from open coding to axial coding as I search for themes and meaning (Saldaña, 2013; Suter, 2011).

As I developed the researcher journal, I used the codes as a prompt for reflection and simultaneously create analytic memos. Analytic memos support researcher reflexivity and served as a forcing function that challenged me to confront my own assumptions and recognize how my own views may influence the research and my analysis (Saldaña, 2013). The analytic memos also allowed me to take notice of emergent patterns and make connections between the various sources of data (Saldaña, 2013). Once I completed all analytic memos, I coded and categorized the analytic memos themselves as I searched for additional patterns and connections.

Reflection was the next step in data analysis. My research questions were used as a guide for examining the information, codes, categories, and memos and making meaning of the experience since making meaning of the experience is an essential function of reflection (Rodgers, 2002).

RQ1: What is the nature of the connection between class size and the frequency of "instructional posts" made by the instructor?

RQ1a: How did the frequency of my "instructional posts" change as class size changed?

RQ2: What factors influenced my participation in discussions?

RQ3: What feelings, experiences, and emotions did I experience as class size changed?

Using the research questions as a guide for reflection ensured that the reflection resulted in specific answers to the research questions. Since the research questions focus on the context and the phenomenon of interest, the rigor and quality of the study is enhanced (Johnson et al., 2020). Blending the various forms of data allowed for triangulation, which allowed critical themes to emerge. These themes focused on my thoughts, feelings, and experiences as well as factors that influenced by participation in discussions. The themes were ultimately be used to address the research questions and help me convey my lived experience.

Ethical Considerations

This study was timely given recent increased interest in online learning as a result of the COVID-19 pandemic. To ensure compliance with ethical standards, IRB approval was obtained through Abilene Christian University. Since the information is sensitive in nature and may reflect poor performance of the instructor/researcher, and ultimately the institution, the identity of the institution remained confidential. A general description of the organization was used so the researcher and the organization could not be connected by the readers of this study. All data will remain confidential and will not be distributed to any other parties since confidentiality remains an ethical consideration, even when using a self-narrative (Farrell et al., 2015). Since the data reflects posts that were made in previous academic years, the risk of the Hawthorne effect, or alteration of behavior by the subject (me) of a study due to their awareness of being observed, was eliminated. Given that some of the data may be unflattering, I am committed to being rigorously ethical in coding, which means being honest and not leaving out any texts or analysis

(Saldaña, 2013). Following conclusion of the study, a copy of the dissertation was made available to all employees of the organization upon request.

Assumptions

Three assumptions were made. The first assumption is that I am able to effectively reflect on my experiences. The second assumption is that I am able to combine the reflection with evidence of my participation in the online classroom to understand better the nature of the connection between class size and my posts in online discussions. The third assumption is that the posts I made in past courses reflect my regular and routine life without undue influence of outside sources.

Limitations

The primary limitation is the autoethnographic methodology introduces bias due to its subjective nature (Chang, 2008). My honesty in reflections, although intended to be transparent, could pose an additional limitation. Additional limitations include the number of discussions in a course, the number of student posts required in a course, and the minimum or maximum number of students enrolled in a course. Relative to instructor participation, the university does not require a specific number of instructor discussion posts or the use of discussions in a course, which pose additional limitations. Another limitation is the small sample size since the sample is limited by the number of online asynchronous courses the researcher was able to teach during the study period. Finally, since the organization does not mandate that instructors engage in a specific number of professional development hours per year, the researcher's engagement in professional development activities may be atypical.

Delimitations

Exclusion of the 2019-2020 academic year ensures that any changes to instructor behavior were not inadvertently made due to the increased responsibility, workload, and stress that resulted from course assignment changes due to the COVID-19 pandemic. Courses that include discussion forums that do not contain any posts from the instructor were excluded from the sample because a lack of posts would make it impossible for the nature of the connection between class size and my use of instructional posts to be examined. While most courses should be eight weeks in duration, there may have been some exceptions where the 10-week format was used. The 10-week courses were eliminated from the sample since they are likely to be capstone courses that have a limited number of discussions and instructor participation is typically minimal due to the expectation that learners in the capstone courses are engaging in self-directed learning. Since courses may have any number of discussions within them, capturing the number of instructional posts per discussion rather than the total number of instructional posts in a class ensured that the analysis and findings are not skewed by the data from courses with a greater number of discussions.

Summary

In this chapter I summarized the purpose for the study at Rock Hill University (pseudonym), the population, and the sample. The methods for data collection and analysis, my role as a researcher, ethical considerations, limitations, and delimitations were also described. I selected an autoethnographic methodology that includes data from all asynchronous online courses taught by the researcher during the 2017-2018 and 2018-2019 academic years and reflection on total instructor workload, changes in the environment, and changes in the instructor's professional development.

The method described helps fulfill the purpose of the study (to determine if a correlation exists between class size and the number of instructional posts made by instructors) and directly answers the research questions. Additionally, the method provides information that program directors can use as they evaluate strategies for fulfilling accreditation standards. Future chapters describe the results of the data analysis, conclusions, and suggestions for future research.

Chapter 4: Findings

The purpose of this autoethnographic study is to give a personalized account of the impact of class size on my use of instructional posts and to provide insight into the thoughts, feelings, and experiences that influence my participation in discussions. This chapter will convey various thoughts, feelings, and experiences that answer the research questions by revealing themes that emerged during analysis. Lower use of instructional posts was associated with themes of high workload, feelings of frustration and isolation, constant shifting of attention and use of time saving strategies. Conversely, high use of instructional posts was associated with growth and development, feelings of engagement and excitement, feelings of connection, and strong teacher presence.

The Journey

Some people might describe my journey as an out of body experience that started with a checklist. I commenced "data collection" by creating a research checklist, as seen in Table 1, so that I would not overlook any important information that would inform my analysis.

Table 1

Research Checklist

- ☐ Researcher Journal Development
  - Discussion posts
  - Personal journal
  - Workplace calendar
  - Contracts
  - Professional development logs
  - Workplace email
  - Reflective practice group
- ☐ Read through researcher journal twice
- ☐ Initial pass at coding researcher journal/start memos
- ☐ Second pass at coding researcher journal/start memos
- ☐ Analytic memo development/additional memos
- ☐ Read through memos
- ☐ Titles
- ☐ Initial pass at coding analytic memos
- ☐ Second pass at coding analytic memos

The first item on my checklist was to examine all of the discussion posts I made during the study period and create an Excel spreadsheet to track the frequency of discussion posts and class size for each discussion. Despite the fact that many months have passed since my involvement in the discussions I reviewed, each post I read created an internal flood of emotion almost as if I were suddenly back in the class. I could feel the tension in my throat as I encountered insufficient student posts and had to decide how to respond to them and my heart raced when I looked at discussions that involved a larger number of students. As I continued to read, I allowed myself to experience the emotions that were flooding in, recall the thoughts I had, and take brief notes on how I felt about my work and my performance. After reading all of the posts for a course, I went back to the document where I was taking notes and engaged in freestyle journal writing where I expanded on my feelings, thoughts, and experiences.

Once the discussion posts were reviewed, I continued through my checklist and examined the remaining artifacts. For each artifact, I followed the same process of taking notes and then expanding on those notes as I completed review and reflection. Since the artifacts did not have defined stopping points, such as the start and end dates of an online course, I continued to examine, take notes, and reflect until I reached a point where I needed to provide explanation beyond a few notes. For instance, I reviewed several contracts before needing to pause to write in the journal, but there were times when I felt it was necessary to write in the journal after reading a singular email. This process continued until I had completed review of my personal journal, my workplace calendar, my contracts, my professional development logs, and my workplace email.

In the middle of reviewing my workplace calendar I noticed appointments to meet with my “Reflective Practice Group,” which is a professional learning community I meet with monthly. My participation in this group created an opportunity for me to review an additional

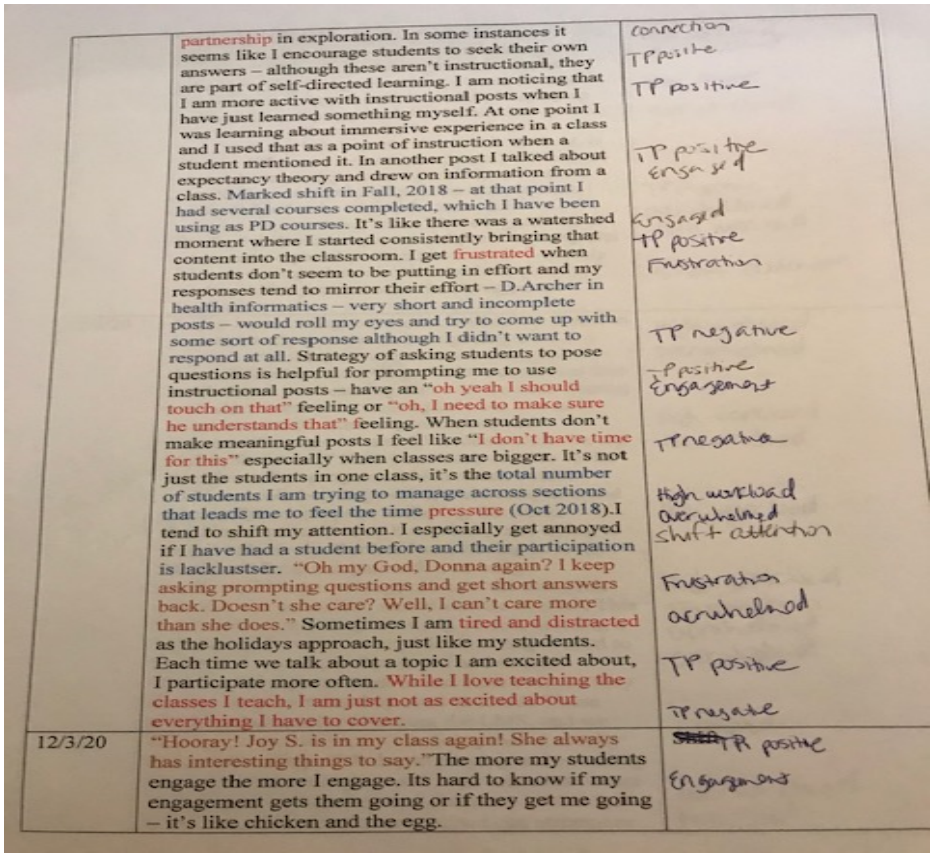
artifact, which was our Moodle workspace, so I added this to my checklist. Additionally, I was able to review several emails between group members that furthered my thinking about some of the feelings, experiences, and emotions I contended with as class size changed. These artifacts were reviewed with the same rigor as those I initially set out to consider, and I followed the same process of note taking and journal writing that I used when studying the other artifacts.

Once all of the artifacts on my list were checked off, I moved to the next item on the list, which was to read through my researcher journal twice. I printed the journal and each time I read through it I took note of words that jumped out at me and changed student names to ensure that all names in the journal were pseudonyms rather than actual student names. Immediately I noticed how much information was contained in the researcher journal entries and I got nervous that I would go off track. This concern spurred me to print a copy of my research questions and keep them at my desk so that I could review them each time I sat down to work on the remaining tasks. This strategy proved to be useful as I encountered key points and made notes next to the printed research questions so that I would not forget to include them in my writing.

With a thorough review of the journal entries complete, I moved on to the next checklist item, which was to perform an initial coding of the researcher journal. To get myself focused, I decided to begin by color coding sentences and words that illustrated thoughts, feelings, or experiences (see Figure 2).

Figure 2

Researcher Journal With Color Coding and Some Codes



	partnership in exploration. In some instances it seems like I encourage students to seek their own answers – although these aren't instructional, they are part of self-directed learning. I am noticing that I am more active with instructional posts when I have just learned something myself. At one point I was learning about immersive experience in a class and I used that as a point of instruction when a student mentioned it. In another post I talked about expectancy theory and drew on information from a class. Marked shift in Fall, 2018 – at that point I had several courses completed, which I have been using as PD courses. It's like there was a watershed moment where I started consistently bringing that content into the classroom. I get frustrated when students don't seem to be putting in effort and my responses tend to mirror their effort – D.Archer in health informatics – very short and incomplete posts – would roll my eyes and try to come up with some sort of response although I didn't want to respond at all. Strategy of asking students to pose questions is helpful for prompting me to use instructional posts – have an "oh yeah I should touch on that" feeling or "oh, I need to make sure he understands that" feeling. When students don't make meaningful posts I feel like "I don't have time for this" especially when classes are bigger. It's not just the students in one class, it's the total number of students I am trying to manage across sections that leads me to feel the time pressure (Oct 2018).I tend to shift my attention. I especially get annoyed if I have had a student before and their participation is lacklustser. "Oh my God, Donna again? I keep asking prompting questions and get short answers back. Doesn't she care? Well, I can't care more than she does." Sometimes I am tired and distracted as the holidays approach, just like my students. Each time we talk about a topic I am excited about, I participate more often. While I love teaching the classes I teach, I am just not as excited about everything I have to cover.	connection TP positive TP positive TP positive Engaged Engaged TP positive Frustration TP negative TP positive Engagement TP negative High workload overwhelmed shift attention Frustration overwhelmed TP positive TP negative
12/3/20	"Hooray! Joy S. is in my class again! She always has interesting things to say."The more my students engage the more I engage. Its hard to know if my engagement gets them going or if they get me going – it's like chicken and the egg.	~~Shift~~ TP positive Engagement

Next, I went through the same content and applied the a priori codes (high workload, frustration, satisfaction, changing view, teacher presence) I identified. However, during the process I identified an opportunity to add six additional codes which were "excitement," "time saving strategy," "shifting attention," "isolation," "connection," and "growth."

After each journal entry was coded I paused to think about what I was feeling and experiencing, and leveraged those powerful moments by immediately writing an analytic memo. I completed the first round of coding feeling elated that themes were beginning to emerge, but aware there might be more I could not yet see. As such, I progressed to the next item on my checklist, which was a second pass at coding the researcher journal. In each entry I was able to

apply codes to sentences and words I had previously overlooked. Again, after the second pass of each journal entry I paused to reflect and drafted an analytic memo.

Following the second pass at coding I felt confident that the coding captured important themes and further review and coding was not necessary. With coding of the researcher journal complete, I proceeded to review the researcher journal and codes and draft additional memos to address anything I noticed. At this stage I realized that I had made quite a few notes on the printed copy of my researcher journal. In various sections I used arrows to denote things that felt important while I was coding, so I revisited each arrow in the personal journal and developed an analytic memo about the topics associated with the arrows.

Once I felt satisfied that I had a robust compilation of analytic memos that captured the contents of the research journal, I continued along my checklist and set out to read through and reflect on each memo. As words or ideas caught my attention, I again made note of those on my printed copy of the research questions. Next, I went through each memo individually, paused, and reflected on the overarching theme in that memo. The overarching themes and ideas became the title of each memo.

Again following the checklist I jumped into an initial pass of coding the analytic memos using the codes I used in the researcher journal, including the color coding for thoughts, feelings, and experiences. While I started to notice groupings of codes that seemed to appear together, I continued with the checklist and conducted a second pass at coding the analytic memos to make sure that I was becoming entrenched in the contents and using my reflexive abilities to the extent possible.

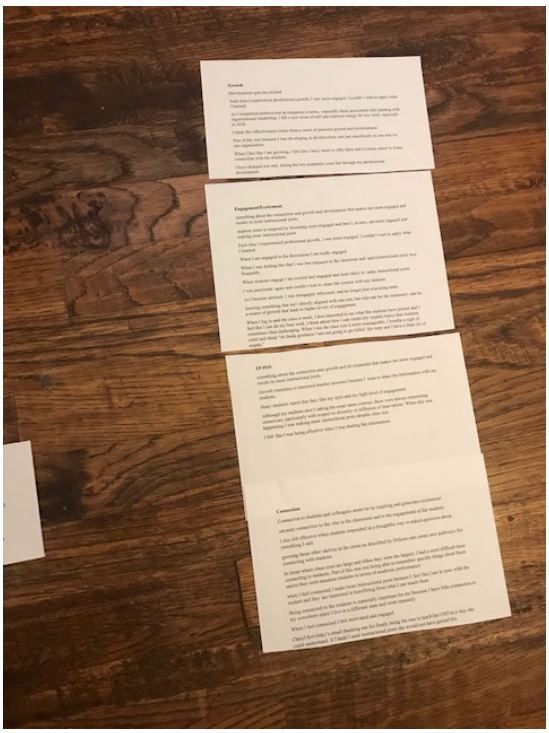
Suddenly my checklist ended and I had to figure out what to do next. As my eyes poured over the analytic memos I kept seeing the same groupings of codes over and over, but I needed a

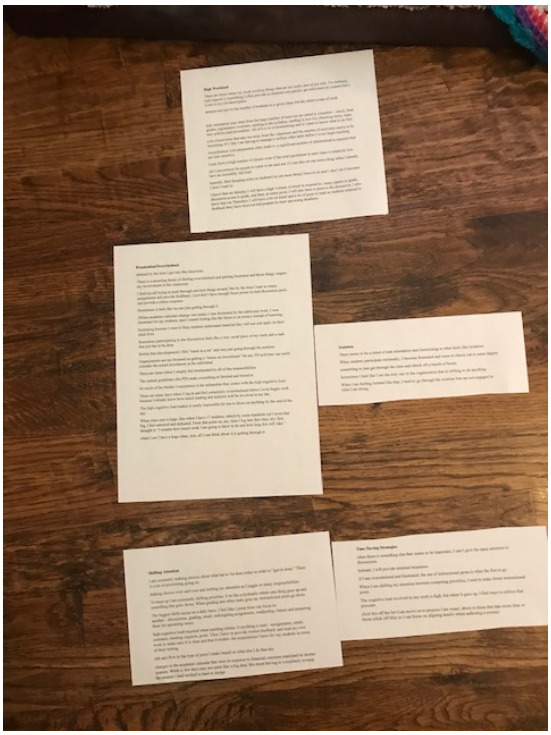
way to see things more clearly. I opted to create a new document with headings for each theme I was beginning to see. Next I opened an electronic version of the analytic memos and, using my printed and coded copy as a guide, copied sections and pasted them under applicable headings (themes) in my new document. Everything seemed organized, but I could not help but wonder, "what is the relationship between these themes?"

To find a relationship I decided to place each header (theme) on its own page, print the pages, and lay them on the ground so that I could move things around and try to see how each theme was connected (see Figure 3). As I moved the paper around the floor I started to see that there were two primary groups: negative thoughts, feelings, and experiences associated with lower use of instructional posts and positive thoughts, feelings, and experiences associated with higher use of instructional posts.

Figure 3

Theme Pages Arranged to Find Connection





What was not yet clear, was the connection to class size or what was different that was driving me to behave in different ways in the online discussions.

While mulling over my pile of positive themes I noticed “2018” typed under the theme of growth. “That’s odd, I wonder what was happening then,” I thought. I decided to go back to the original Excel file I created and look at the percent of instructional posts to see if I could glean anything else from the associated class size. I noticed that overall I used instructional posts more frequently in smaller classes, but that was not universally true. I sorted the spreadsheet chronologically, and that was when I noticed that while my use of instructional posts did fluctuate as class size changed, there was a stark difference during certain periods of time, beginning in 2018. Periods of higher use of instructional posts shined through in my reflective writing that was ultimately categorized in positive themes. In contrast, periods of lower use of instructional posts blatantly appeared in my reflective writing that generated themes that were negative in nature.

I took this opportunity to use the Excel file as a guidepost and started thinking through when each of the significant events occurred, when my feelings were different, and what was happening at different points in time. The more time I spent looking closely at the dates, the clearer it became that my experience as an instructor differed throughout the study period (fall, spring, and summer terms of academic years 2017-2018 and 2018-2019), and those experiences closely aligned with changes in my behavior in online discussions.

In the following paragraphs I guide the reader through real experiences captured in my personal journal and reflections. These narrated stories expose my thoughts, feeling, and experiences in my role as an online instructor by allowing readers to vicariously share in those experiences.

High Workload: The Instructor Machine Fall, 2017–Spring, 2018

Rep one. Breathe. Rep two. Breathe. Rep three. Breathe. I feel my mouth get dry and my heart races as the thoughts continue to creep in. *Uggghh I am dreading this. How am I ever going to get through today? Just keep breathing and focus on counting. If you are counting you can't think about later*. The conversation in my head repeats itself over and over as I struggle to keep the thoughts out so that I can avoid feeling so overwhelmed before I can begin my day. However, by the time I jump on the treadmill, the thoughts are pervasive and I run as fast as possible so that I can complete my workout, scurry home, and get ready in hopes there is some way I can get everything done before I have to go to bed.

Mondays are the worst. I log in to inevitably discover what seems to be an unsurmountable number of emails that require a response. The emails are from students, administrators, team leads, and what seems to be anyone else who can log into the system. Again I have several emails from students explaining why they couldn't submit an assignment on time and asking for an extension. Each response must be carefully crafted so that I can come across as encouraging and compassionate while adhering to organizational policies.

When I finally get through the last email I log in to Moodle and navigate to the dropbox. As soon as I click on the dropbox my heart sinks.

> Why is it that so many students don't submit until the very last minute? Why am I seeing a paper with a Turnitin score of 97%? Uggghh, that means I am going to have to spend extra time investigating that paper and will likely have to allocate time to submitting a potential plagiarism report.

Time marches on and I click through each assignment, taking care to provide constructive feedback that students can use to improve their performance.

> Do they even read what I am writing? I doubt it. I spend so much time writing this feedback and very few students use it to improve on the next assignment. If only they would do what I ask them to do, they would be much happier with their grades.

I read and write and read and write and read and write. The grading of assignments feels like it will never end, and then finally it does. “One task down, many to go.”

Now that assignment grading is complete, I can log into the discussion and participate. After all of that reading and writing I do not know how I can read one more thing and respond in an intelligent fashion. I am delighted when I read Joy’s (pseudonym) post because it is easy to read and directly answers the discussion prompts. I want to respond in a way that is meaningful for her career, but I cannot remember if she is more interested in teaching or designing classes. “Gee, I should keep notes on a class roster, but that is one more thing I would have to do and I hardly have time to get through today’s grading.”

I eventually make it through the course and log into the next course to begin grading assignments. This class is smaller but it does not feel less taxing since there are still assignments to grade and discussion posts to make. “Oh wait. I forgot to look at the discussion in the first class. Back we go!”

Even though I have responded to email earlier, the emails continue to come in with more and more requests. Even though only one of my classes has high enrollment, managing both classes in light of my other responsibilities creates a long task list each day. Right now I am lucky because there are times when I have so many classes, it does not even matter if each course enrollment is low because the work just compounds until the mountain of work is tremendous. “I just need to keep going and get through these tasks ask they come in. I hate starting every day

like this where I am already behind because requests came in while I was asleep." So, I continue to plug through.

As I go on, I feel like a task master. I am submitting final grades for some courses, sending in a syllabus for an upcoming course, completing registration overrides, and interacting with the bookstore manager to make sure the correct texts are listed for an upcoming class. I spend a few minutes working out the final details on a course I am authoring, checking to make sure links are still working, and trying to wrap my arms around several updated policies and procedures that were distributed electronically and go into effect next week. The volume of tasks is especially high today as our accreditation site visit is looming and everyone is scrambling to get everything in place and every request is time sensitive. The flurry of requests and tasks continues and I feel like I am running in a circle. Sometimes it is difficult to know what to do first.

Each of these tasks I am working on is part of my role, but in the middle of it, I am being asked to do things that have nothing to do with being an instructor. Today I am getting emails from a student who is new to online learning and needs help using Moodle. Tech support requests come up often, especially in the beginning of the term, even though the tech support contact information is clearly posted on the course home page. However, I respond to the email anyway because I want to help the student get refocused on course content as quickly as possible.

Another email comes through and it is Mary (pseudonym), who wants to know if I can author some course content. She explains she has nobody else that has my unique expertise that is needed for this particular module. She knows I am busy but really needs me to do this. It feels

like this email is from a form letter; everybody knows I am maxed out but they need me to take on one more thing.

Later, Ann (pseudonym) emails me. She really wants to enroll in the next class in the instructional design series, but it is not listed in the course catalog. She knows I may not be teaching the course, but she was confident I would at least help her find the person to talk to who would know when the course would be offered. I feel blessed that my students, past and present, feel comfortable enough asking for help, but it takes my attention away from course activities and adds to the workload.

The workload is consistently high. Sometimes the volume is because I have large classes, sometimes it is because I have multiple small classes, and sometimes it is because I am contending with administrative tasks that are time consuming. No matter the source of the work on a given day, there are still only twenty-four hours in a day and I want to do all of the things I do well.

Internalizing It: Frustration/Overwhelmed

High workload led me to have a constant sense of frustration and feeling of being overwhelmed. The experiences I recount in the following paragraphs illustrate how high workload can create these feelings.

I sat down this morning and started dutifully replying to each of my emails. I responded to my students first and then moved on to emails from administrators. That is when it happened. I opened an email explaining that due to financial constraints, the organization was hoping to bolster revenue by changing the academic calendar to have two start dates in each term rather than only one. The idea, the email said, was to give more students the opportunity to take a class

if one start date was not feasible. In order to do this, of course, the term was being split into two and all courses would be two weeks less in duration.

> How can this be, I shouted. The courses move so quickly as it is and many of my students already struggle to keep up. I deliberately designed my courses using UbD (understanding by design) and now I am going to have to rewrite all of the courses. It just won't be possible to cram all of the content into a shorter term without making my students crazy and pushing them to withdraw. How can I also do this when I am managing such a full workload? We don't even have help in building courses in Moodle which is notorious for being a hassle.

These types of additions to my workload are frustrating because I want to help students understand material they will use and apply in their adult lives. My frustration grows as it seems there is less of a focus on learning and more of a focus on everything else. Nonetheless, the changes must be made and I plug along feeling like I am just getting through it even though I feel bombarded by so many responsibilities. As my frustration grows it impacts my interest and involvement in the classroom and it feels like a very small piece of my work is participating in discussions, although it is still a task that must be done. By the time I take care of all of these other demands, I am drained, yet I haven't even logged into the classroom.

The first day of the term is a game changer. When I first log in and see that I have a large class of 17 students, which is not all that large by some standards, I feel annoyed, defeated, and immediately frustrated. "Ugggghh, why didn't they break this into two sections?" These feelings arise like an erupting volcano any time I log in after that first day as my first thought is always "I wonder how much work I am going to have to do and how long this will take." Every time I see that huge participant list in Moodle, all I can think about is getting through it.

There are days when I log in and feel completely overwhelmed before I even begin work. As I press my computer's on button and the whirring of the CPU gets stronger I can feel the lump in my throat start to grow. The buzzing I hear matches the buzzing in my head as I think about how much reading and analysis will be involved in my day. When the computer is loaded and I officially log in to Moodle, I take a deep breath, just as if I am jumping off of a diving board into a pool with an unknown depth. I click on assignment after assignment, trying to stay focused. The longer I go, the more I feel like I am treading water but getting more tired. With each assignment I try to provide thorough and actionable feedback, but my brain gets tired. By the time I begin working on reading discussion posts, the cognitive load has taken its toll and it feels nearly impossible to provide robust responses. Never mind that everything in this environment is read: email, contracts, meeting requests, assignments, contracts, posts. Even if there are only a few discussion posts to which I must respond, the high cognitive load makes it nearly impossible for me to focus on anything by that point. On some days I try posting to the discussions first, but the anxiety over what is to come can be overwhelming and distracting, so I end up racing through it so that I can get on to the other tasks.

At some point I begin to feel like I am just a machine. The whirring of the CPU continues just as I keep punching the keyboard in hopes that my work is enough to get students through. I feel like I keep doing the same thing over and over and the job is just on repeat day after day. There is little job growth and I get frustrated by the professional development requirements. All of the guidelines are so limiting and it feels like the same couple of topics are covered repeatedly. Now these activities feel like just another annoying check box to complete and there is pressure on the instructors to find free activities. The offerings by the organization have been largely scaled back due to budget constraints. There is little investment in the instructors. It is

frustrating to feel like a cog in a wheel. I just keep going through the motions. Day after day. Day after day.

Internalizing It: Isolation

Feelings of frustration and being overwhelmed are not the only feelings I experienced with such high workload. Another important feeling was that of isolation. The stories I share in the following paragraphs illuminate how an instructor can feel isolated despite daily online interactions.

The continuous work day after day keeps me in a task orientation that makes me feel isolated. I am constantly scrambling to just get through the classes and check off the boxes so that I can move on to the next task. I feel like I am the only one in the organization that is willing to do any of the extra tasks, although that probably is not true. Worse yet, as students minimally participate, I feel alone in the class and like the only one who cares about the content. “Oh my goodness Donna (pseudonym). Again? I keep asking prompting questions and get short answers back. Doesn’t she care? Well, I can’t care more than she does.” Nonetheless I keep going through the motions. With each round, my engagement and interest drops, and my feelings of isolation surge. Just like my computer I keep processing each task and the next task and the next task.

Coping: Shifting Attention

Instructors experiencing high workload must find ways to continue to meet competing priorities. One way I did this was to shift my attention based on what had to be accomplished in a given day. The following paragraphs demonstrate how shifting attention is a coping strategy for contending with high workload.

Click. Click. Click. Click. Just like I click around the internet, my mind is constantly toggling to new tasks as I make frequent choices about what has to be done right now in order to "get to done" for the day. I am constantly shifting priorities just to stay afloat. The shifting reminds me of a hydraulic where the pressure for one thing goes up forcing the pressure on something else to go down. When my grading load and other tasks go up, something has to give to release some pressure, and it is usually my instructional posts that go down. When class size increases, my instructional posts often go down. The biggest shifts occur on a daily basis. I jump from one focus to another; discussions, grading, email, redesigning assignments, committee participation, meetings, preparing for upcoming terms, and readjusting classes.

When my classes are large my attention fades in the discussion. I am hoping that my students can fend for themselves while I take care of the other responsibilities, especially grading of assignments. When I have many classes, even if they are small, I feel the same. While discussions are important, they are often the lowest priority. However, when classes are really small, I often feel like I cannot hide, but there are also times where I feel like the student can take care of himself or herself.

Jo-Ann unfortunately fell into this bucket. During the first couple of days of class a couple of students dropped the course, but, because the course had already started, the university opted to allow the course to run with just one student. Jo-Ann quickly established herself as a self-directed learner and created responses to discussion prompts that clearly demonstrated content mastery. Jo-Ann even included examples in her posts, which made it feel like my job was done. It was often the case that my responses included things like "I am glad you find the videos helpful! The first time I experienced that with an instructor I immediately became more engaged in the class and vowed to make that a part of my practice" (post from May, 2018).

While these types of posts validated her comments, they did not provide instruction or a new perspective. In this term I felt like the student was strong so I approached my interactions from a coaching and encouraging standpoint more so than providing instruction.

There is a constant ebb and flow where my use of instructional posts goes up and down. The Excel spreadsheet I created revealed that the ebb and flow is somewhat tied to class size but also to other priorities that arise. I am making choices over and over and shifting my attention as I juggle so many responsibilities.

Coping: Time Saving Strategies

Shifting attention is just one of the strategies I used to keep pace with work demands. The following paragraphs describe how I employed time saving strategies as a way to complete all of the tasks required of me in a given work day.

As I sat down that day to begin chipping away at the work, I inhaled the sweet scent of a cup of coffee brewing in the room, and then promptly let out a long sigh. My husband glanced at me with a concerned look and asked

> "Are you okay?" I literally feel like I am buried under a pile of bricks and there is no way out. Even if I work for 12 hours today I don't know how I can possibly get all of this done. I have to finalize this course map so that I can get it turned in and approved for development to start. To do that I have to make sure all of the outcomes are aligned to the program learning outcomes and confirm the assignments actually line up to the course learning outcomes. This is probably going to take half a day. Then, I have to grade somewhere around 12 assignments, because, of course, none of my students submitted their papers until the last minute last night. If each paper takes me 20 minutes to grade, that is about four hours of work. In my other class discussion posts were due last night,

> and, naturally, all but two of the students submitted them just before the deadline. The emails are literally flooding in as I speak and I just got two text messages about a project I am working on. I guess I need to just start and see where I end up.

These conversations are not uncommon.

The work I do takes immense focus and comes with a cognitive load that is unparalleled in other roles. As I tackle each day I am nervous because I know that my work can impact the lives of other people and I feel tremendous responsibility to "get it right." While I desire to give all aspects of my work the same attention, it just is not possible all of the time. Instead, as competing priorities emerge, I tend to shift my attention constantly and search for ways to relieve the pressure of such an intense cognitive load.

These issues were starkly evident during winter, 2018 I was tasked with redesigning an undergraduate business program. Each course was reviewed, outcomes were reevaluated and rewritten, and, in a new twist, I was charged with collaborating with on ground counterparts to create mastery assignments that more closely aligned the on ground and online student experience. As the project wore on, my attention often shifted from my classes to a heavy focus on the project. Simultaneously, my attention shifted from participating in discussions to other work that had to be completed by a deadline.

I had to find ways to survive, and since my course load had not changed, that meant spending less time in the classroom. Most often, this meant spending less time in the discussion. Each week where the project was busy, I tried to save time by limiting how long I had to spend in the discussion. I often replied to every student, but to minimize the time, I would provide quick responses acknowledging their comment or posing a question. "Michelle, you made a great point about reimbursement. Do you think that trend is likely to continue?" "Thank you for your

post Nick. I agree that inventory turns are an important metric even if the calculation doesn't always provide a perfect picture."

The Transition to an Instructor on Fire: Spring, 2018–Summer, 2019

> There is an energy that comes from renewal and growth.
>
> I can't believe I came across this article! I was just telling Joy (pseudonym) about this problem in the discussion the other day; I can't wait to log in tomorrow so I can post the link as a follow up since she will enjoy seeing a real life example.

Every time I completed a monthly professional development session I felt like I made a connection to something that my students needed to hear about that would help them in their academic and professional pursuits. The very next morning I would log in, go directly to the discussion, and write multiple instructional posts that helped my students understand the content and the relevance for them.

Then, something magical happened. In May, 2018, I started the Ed.D. program and discovered I could use the courses for professional development hours. The courses were focused on organizational leadership and learning with emerging technology, all of which were relevant for the courses I was teaching since my courses are in business/healthcare management and instructional design. Over that time, I started to grow, and by fall, 2018, I was a different instructor.

While some of the content was not specific to the courses I was teaching, I could often see connections and quickly jumped into the discussions and made instructional posts that offered students a perspective that I had not previously considered, and which they had no idea about. As my knowledge accumulated and I felt myself growing, I desperately wanted to share that growth with my students. Concepts pertaining to leadership theories were shared in

discussion posts in finance courses. Notions of diversity were used in discussions as a tactic for widening the perspectives of instructional design students.

I started to become adept at reading research and found myself reading more and more studies as it became easier. I felt empowered and excited to share the research I found with my students. The notion of community of inquiry was relevant for my instructional design classes and I started sharing information and research with those students. Research pertaining to strategies for approaching complex problems was applicable to all of my classes as all of my students will be leading, whether it is in the classroom, in the healthcare environment, or in a business environment. Each discussion suddenly became a way for me to share my growth and new found perspective with students who would soon be entering into a new role. Suddenly I felt like I was "in it" with my students and the new found partnership revived me.

I could tell my new engagement was resonating with my students who were participating more. I was effective in my role and started to see more meaningful posts from my students. This effectiveness stemmed from my sense of personal growth and development. Part of this was because I was developing in all directions, not just specifically relative to one role for one organization, and this was the first time I had really done this since I began working as an online instructor 15 years ago.

With each study I read and each course I completed, I felt a sense of professional growth and my engagement skyrocketed. I could not wait to log in and apply what I learned and to share this learning with future leaders. I was excited and renewed. I felt a new sense of pride in my work because I felt like I had more to offer my students, which made it seem easier to foster connection with the students. Like all instructors, personal events, experience, and time, have changed me as a person over the course of the study period. However, my professional

development activities changed me so significantly that it translated to new behavior in the discussions as I more fully embraced my ability to offer new perspectives and clearly explain course content with a particular emphasis on providing examples and pointing to research.

This is not to say that formal professional growth activities are the only growth opportunities that influenced my participation in discussions. I have consistently participated in a monthly "Reflective Practice Group." This group is comprised of ten members from throughout the state system. The members all have different roles, varying levels of experience and education, different approaches to online learning, and come from a variety of disciplines. In the early summer of 2018 the group began to explore the role of curiosity in the classroom. Between meetings we gathered research on the topic and then met again to discuss the findings and how we can apply them in the classroom. The connection between curiosity and motivation was explored in depth and this made me feel empowered to motivate myself, which was a moment of significant growth. This empowerment, and the ability to take action with the information I explored with the Reflective Practice Group, led to increased engagement and a sudden uptick in instructional posts.

Engagement/Excitement

Each time I experienced significant professional growth, I was more engaged in the classroom. The discussions I reviewed in Moodle revealed that as I became more engaged, my students responded and were more engaged, which, in turn, increased my engagement further and led to more instructional posts. Learning something that is not directly aligned with one role, but relevant for my life, can be a source of growth that leads me to be more engaged. This engagement was coupled with a feeling of excitement from becoming "unstuck," which helped me get refocused and eliminated the feeling of needing to just focus on tasks so I could get

through them. I was passionate and could not wait to share that with my students, and this passion showed up in my increased use of instructional posts, even when some of my classes were large.

Professional development was not the only contributor to my engagement and excitement. Both relief and excitement flooded in on those glorious first days of class when I first logged in and saw a small class of 12 or fewer students. To add icing to the proverbial cake, I was also lucky to have repeat students that were motivated to learn. “Hooray! Joy (pseudonym) is in my class again! She always has interesting things to say.” I immediately developed a positive association despite having multiple courses on my list for that term.

Any time I logged in and found that I would be teaching a small class, I felt interested to see what the students had posted and I felt like I could do my best work. This engagement was pronounced in a couple of terms where I had extremely small courses. As I read, and I mean really read, those few discussion posts, I would sit quietly and think about how I could creatively explain topics that students sometimes find challenging. A sense of calm materializes on those special days when I log in on the first day and see that the class size is more manageable. I literally breathe a sigh of relieve and think “oh thank goodness I am not going to get killed this term and I have a little bit of respite.” From then on, logging into those small classes is almost like a mini escape because I know it is a short lived vacation that will abruptly end in a few weeks.

Students themselves drive some of my engagement. About half way through one of my classes, student Lisa emailed me regarding a recent submission. In her final paragraph, Lisa wrote “I am really enjoying this class. Your discussion posts and feedback have really helped me understand the improvement process and I am excited to start using this at work.” These

comments made me want to log in and immediately make more posts. I was suddenly more engaged in the classroom both cognitively and behaviorally because I felt appreciated and like my work mattered.

Connection

My connection to students and colleagues inspires me and generates excitement. I have little connection to my coworkers because I reside in a different state and work remotely (many of them live in close proximity), so feeling connected to the students is especially important for me. In times where class sizes are large, especially when they were the largest, I had a more difficult time connecting to students. Part of this was not being able to remember specific things about them unless they were standout students in terms of academic performance.

I seem to have an uncanny connection to the vibe in the classroom and to the engagement of the students. I felt effective when students responded in a thoughtful way or asked questions about something I said. When I feel connected I make more instructional posts because I feel like I am in sync with the students and they are interested in benefiting from what I can teach them. These connections become more frequent as I grow because I can create new pathways for connecting with and relating to students.

This connection through a new pathway was clear as I came up with a new way to explain UbD (understanding by design) to my instructional design students. In one of my discussion posts I wrote:

> Imagine that you are going to go on a trip, which is the class you are writing. The first thing you decide is the destination. Once you know the destination, you can figure out the route you need to take to get there, the stops you need to make on the way, and timelines that will indicate if you are where you need to be. UbD is the same. You begin with the

> end destination in mind and then figure out the route to get your students to the final destination. Instead of planning where you will stop on the way and the timelines for getting there, you will figure out where you need to pause to evaluate mastery of outcomes and the evidence that will tell you if the student is where they need to be.

The post explaining UbD deeply resonated with my student Cheryl K. who later emailed me to say "Thank you for being such a great instructor. You will always be remembered as the instructor who FINALLY explained UbD in a way that made it make sense for me." The moment I read that email my heart leapt with joy. Not only had I grown and used that growth to explain the information, I had made a deep connection with a student and could not wait to do it again. I was clearly in sync with my students and wanted to make more posts to explain the UbD model because I realized they are interested in my explanation and can benefit from what I teach them.

While connecting with colleagues is a bit of a challenge, my participation in the Reflective Practice Group has improved my ability to connect with other members of the state system. Each month we discuss a challenge that is brought to the group by one of the members and explore strategies for addressing the challenge by sharing our own experiences, contributing research on the topic, or brainstorming. At the conclusion of each session I am once again connected to the organization, energized, and excited about how in one hour I could grow as a practitioner just a little bit more.

Teacher Presence

Connection with students, coupled with growth and development, translated to more engagement and resulted in more instructional posts. Beyond instructional posts, my teacher presence overall increased as my desire to share knowledge with students proliferated. Although

my students aren't taking the professional development courses I am taking, there were always interesting crossovers, particularly with respect to diffusion of innovation and diversity. When this was happening, I was making more instructional posts, and more posts in general, regardless of class size.

Beyond providing instruction, I was more engaged in the courses when I wanted to share knowledge and took charge in facilitating the courses. In particular I was pointing students to course resources I thought they needed to review and encouraging students to look at other posts made by students. Further, I was helping them make connections between various aspects of course content with discussion posts such as "To tie back to our other discussion this week, that approach creates interdependence and unique experiences…which can foster strong relationships." I used other opportunities to point students to the posts made by their peers when I thought it would be valuable.

As my level of teacher presence increased, students consistently reported that they liked my style and high level of engagement, which they had not experienced in other courses. Further, they reported having an easier time doing well in my class despite the high workload and challenging content as compared to other courses. Most impressive was that these students were more engaged in the discussions and posting beyond the minimum requirements. The more students engaged in the discussion, the higher my level of teacher presence. It is difficult to determine if my engagement sparks their engagement or if their engagement sparks mine; it is like trying to figure out if the chicken or the egg came first.

Summary

In this chapter, I described my journey from artifact review through theme identification. Themes that emerged during my analysis were described through specific examples and

experiences. The next chapter will directly address the research questions, describe implications for action, and provide recommendations for future research.

Chapter 5: Discussion, Implications, and Recommendations

This study provided a personalized account of the influence of class size on my use of instructional posts and provided insight into the thoughts, feelings, and experiences that influenced my participation in discussions. A personalized account will help program directors better manage the competing demands of class size, instructor overload, and accreditation requirements.

Findings were generated from careful review of my discussion posts, my workplace calendar, workplace email, a personal journal, interactions with my Reflective Practice Group, and contracts. As these artifacts were evaluated, I kept a researcher journal that highlighted various thoughts, feelings, and experiences that were tied to changes in my use of instructional posts. The journal was coded and themes began to emerge. While I coded the journal, I wrote analytic memos that captured some of the common themes related to my experience. Finally, I coded the analytic memos and discovered additional themes that were clearly associated with low use of instructional posts and other themes that were associated with high use of instructional posts.

Initially I expected the findings to point to negative thoughts and feelings that stemmed from increasing class size and led to low use of instructional posts. I also expected positive thoughts and feelings that stemmed from small class size to be associated with high use of instructional posts. However, the more closely I looked at my entire experience, it was clear that total workload and professional growth played much bigger roles than class size itself. In this chapter I will explain the findings for each research question within the context of the literature, discuss implications of the study, and provide both recommendations for future research and practical recommendations.

Discussion

The three research questions that guided my research are: (1) what is the nature of the connection between class size and my use of "instructional posts," and (1a) "how did the frequency of my "instructional posts" change as class size changed?" (2) What factors influenced my participation in discussions? 3) What feelings, experiences, and emotions did I experience as class size changed?

Nature of Connection Between Class Size and My Use of Instructional Posts

The nature of the connection between class size and my use of instructional posts is complex. Overall my use of instructional posts increased as class size decreased, which mirrors the findings of Pilotti et al. (2017) that behavioral engagement changes with increases in class size. However, the relationship between class size and my use of instructional posts is not direct since there were also instances where I used fewer instructional posts despite having a small online course.

While class size had some influence on my use of instructional posts, a broader set of feelings, experiences, and emotions connected to my scope of responsibilities as an instructor played a significant role. These feelings, experiences, and emotions were largely driven by total workload. Class size contributed to total workload, and total workload had the largest influence on the frequency with which I used instructional posts. This may explain why there is conflicting evidence regarding the impact of class size on student outcomes (Bettinger & Long, 2018; Towner, 2016). If teacher presence directly influences student outcomes and teacher presence in the form of discussions is influenced by factors other than class size, class size itself cannot be used as the only determinant.

As total workload increased, whether it was because of large class size, managing multiple small sections that added up to a large total number of students, or because of increased responsibilities outside of the classroom, my use of instructional posts declined. This decline reflected a time saving strategy as I tried to demonstrate presence in the classroom while limiting how much time and energy I had to dedicate to the discussion. Such time saving strategies were employed the most when other responsibilities, such as authoring courses, which create a high cognitive load were present.

Factors That Influence Discussion Participation

Factors that influenced my participation in discussions fluctuated throughout the study period. The most influential and consistent factor was workload. Berg and Seeber (2016) pointed to increased workload that stems from expanding class sizes and downloading clerical tasks to faculty, among other things, and my experience paralleled these findings. Part of that workload is attributed to sudden demands that take my attention from the classroom. For instance, urgent requests pertaining to accreditation visit preparation or abrupt changes to the academic calendar can significantly increase instructor workload. My experience is an example of how faculty stress can impact student learning (Berg & Seeber, 2016) and the increase in demands can lead to poorer work performance (Makarenko & Andrews, 2017).

Another noteworthy factor is professional development. Gómez Palacio et al. (2018) described professional development as “a continuous and evolving learning process, encompassing self-disclosure, reflection and professional and personal growth” (p. 550). While professional development that is specifically associated with the role of the online instructor helped increase my participation, professional development that I selected that covered topics beyond my instructor role led to a more substantial increase in my participation in discussions

and use of instructional posts. Prior to a considerable amount of professional development that began in 2018, hints of burnout were evident as task orientation was pervasive. Such burnout is consistent with Berg and Seeber's (2016) suggestion that burnout can increase as personal development is overlooked as instructors struggle to meet demands.

The third factor that influenced my participation in discussions was student engagement. When students were more engaged, my participation increased. My initial teacher presence drove student engagement. As students demonstrated increased engagement through more active participation and more fully developed discussion posts, my engagement increased. As my engagement increased, my teacher presence continued to rise. This cycle illustrates a successful community of inquiry where dialogue and reflection take place (Stewart, 2017). In the discussions where I exhibited the strongest teacher presence, students were most engaged, lending support to the notion that teacher presence is associated with perceived learning, development of community, and student satisfaction (Garrison et al., 2010; Ke, 2010). Further, this finding gives credence to the claims of Martin, Budhrani, and Wang (2019) that teaching presence is not only the most informative, but also the most influential of the three presences in the community of inquiry framework.

Feelings, Experiences, and Emotions I Experienced as Class Size Changed

As class size changed my feelings, experiences, and emotions changed. The first day of class set the tone for each term as my feelings of being overwhelmed and frustrated heightened with large classes and plummeted with smaller classes. However, the shifts were not only associated directly with the size of an individual class, but rather, the total number of students across sections.

When class size increased, I experienced feelings of being overwhelmed. When class size decreased, I experienced feelings of calm. However, my experience of being effective and having students acknowledge my effectiveness was not directly impacted by class size, but rather, professional development and the acquisition of new skills, such as the ability to understand research studies. My ability to choose to use a formal degree program for professional development was a major contributor to the increased skills that transferred to the workplace as teacher presence in discussions. Martin, Chuang, et al. (2019) and Rhode et al. (2017) explained that a one size fits all approach to professional development is not appropriate, and my experience serves as evidence of that claim.

I experienced an ebb and flow in my engagement, excitement, and participation as class size changed. This ebb and flow was more pronounced as total workload increased or decreased. When I had a class of 17 students, I felt inundated from the start of the term. It seemed like I could not possibly get everything done and I had more of a task orientation. This task orientation came with a focus on finding and using time saving strategies which is aligns with the findings of Mandernach and Holbeck (2016) that a larger class size does not mean the instructor is spending more time facilitating. With the sizeable cognitive load, I sought ways to minimize the amount of reading I had to do by making simple, encouraging posts that did not require me to read a lot more because they were shorter and less difficult to construct.

Generally, when I had small classes, I felt like things were more manageable. I felt more accountable for my participation because I could not hide. This discomfort was okay because I did not feel as much pressure to find and use time saving strategies. However, this only held true if my total workload felt manageable. Overall, feelings of frustration and being overwhelmed

when class size changed were mitigated by smaller workload in other areas of responsibility and my own growth and development.

Limitations. A primary limitation of this study is that the artifacts may be incomplete. Since the artifacts were retrospectively reviewed, it is not possible to know if information was missing. Additionally, my memory of my experiences may be incomplete or not reflect what was occurring in other areas of the organization. Finally, my feelings, thoughts, and experiences may not be experienced by other instructors in the same way. Further, the impact of these feelings, thoughts and experiences may not influence discussion participation of other instructors in the same way it influenced my participation in discussions.

Self-Reflection

Online instructors are scrambling to keep pace with increasing demands. As the demands come in and terms fly by, there is rarely time for self-investigation and reflection. Taking the time to review my work provided an opportunity for me to view my participation in discussions through a new lens. Using autoethnography was powerful as it created a time to go back and relive my experience as an online instructor and to make sense of the thoughts, feelings, and emotions I had because I was able to step back and view the bigger picture. One of the most important contributions of this reflection was to see how my frustration and task orientation can compromise teacher presence and to understand better factors the influence my participation in discussions and effectiveness in my role.

Autoethnography also provided an opportunity to understand how I have changed during the dissertation process. As I reviewed posts and noticed how my use of instructional posts increased as I developed professionally, I began to wonder if the change was associated with when I first read Hoey's (2017) study and learned about instructional posts. To make this

determination I logged into Zotero (my reference management software) to find out when I created the entry for Hoey's (2017) article since the entry would have been made the day I read the article. As it turned out, I first read Hoey's article on January 6, 2020, which is several months after the end of the two academic years I used as the basis of my autoethnography! This finding helped me realize how much I have changed because through my deep consideration of instructional posts, the understanding of their importance became part of who I am, and it is difficult to imagine not knowing how valuable these posts are.

Implications

Many studies have examined student outcomes in the context of class size (Bettinger et al., 2017; Fong et al., 2015). These studies have generated conflicting findings which have left program directors with little direction on how to limit or expand class size as they seek to promote student achievement of learning outcomes. While changes in class size have been found to influence instructor behavioral engagement (Pilotti et al., 2017), these findings ignore the fact that instructors are tasked with much more than teaching online classes.

The findings from my study created new knowledge by offering a deep exploration of the instructor's thoughts, feelings, and experiences that influenced behavior in discussions. Previous studies did not account for how the daily work and emotions of the instructor influence the work that is done in the discussions and the instructor's presence in the classroom. By considering these things, my study provided information about human actions in the online classroom, which are the core of the online educational experience.

My study also contributed new information about the factors that influenced my participation in discussions. Many factors influence instructor behavior and this study demonstrated that instructor behavior is driven by many factors, not just class size. While

instructors are the face of the institution within the classroom, they are also part of a much bigger system with many demands that must be met. Hoey (2017) concluded that instructors should direct time spent in the discussion to making instructional posts and posts that help students see the instructor as a real person. While I desire to do this, I feel limited given the large number of competing demands I face. Understanding better the scope of demands and organizational activities that impact instructors is useful for understanding why instructor use of instructional posts may vary.

Finally, understanding the scope of demands and organizational activities can help leaders determine if allowing instructors to work for overload pay, rather than contracting with additional faculty, is a valuable approach to minimizing cost. When faculty work for overload pay the amount of time they invest in a course may be limited, and this could mean lower use of instructional posts and compromised teacher presence.

Connection to Community of Inquiry

Establishing teacher presence is the most critical role of the online instructor (Martin, Budhrani, & Wang, 2019). Mews (2020) directly pointed to strategies for demonstrating teacher presence while meeting the unique needs of adult learners, who are the primary learners in online higher education. Strategies suggested by Mews (2020), such as including introducing new concepts and ideas through discussion and exploring areas of interest through discussion, mirror Hoey's (2017) recommendation to use instructional posts. However, my study demonstrates that instructors may limit this type of participation in discussions as a result of thoughts, feelings, and experiences associated with the large scope of demands. Limiting participation in this way negatively impacts the instructor's ability to establish teaching presence, especially when posts other than instructional posts are used as a time saving strategy. Failure to establish teacher

presence impacts both social presence and cognitive presence (Dempsey & Zhang, 2019). This means that the thoughts, feelings, and experiences of the instructor, which are largely driven by workload and participation in meaningful professional development activities, influence the development of community of inquiry in the online classroom.

Recommendations for Future Research

While my experience will resonate with others and give voice to online instructors, there remains a need to more fully paint the picture of the online instructor experience. Additional studies to determine what factors influence instructor participation in discussions and the ways that instructors participate are needed. Such studies will help program directors understand better how to address online instructor workload so that the load does not compromise the online instructor's best tool for helping students achieve learning outcomes, which is the discussion.

The hours that instructors work involve a multitude of formal activities such as those I described in this study. However, there are other demands that make the instructor role ambiguous (Hansen & Grey, 2018). One such demand is "care work" where faculty provide care and development support to students beyond the scope of course content. For example, enrolled students have contacted me after completing one of the courses I teach to ask for guidance on how to handle a situation or how to begin searching for meaningful internships. While engaging with students in this aspect of their development is not in my job description, instructors are encouraged to contribute to a positive student experience and ensure that students feel supported by their instructors.

Another example of these additional demands is providing support to colleagues who are adjusting to the online environment or who need help learning how to use a new tool. Similarly to care work, assisting other instructors is not typed neatly into a job description, but is part of an

expectation that instructors help create a collegial environment. Since this type of work contributes to overall workload, additional studies are needed to determine how much time instructors are spending on work, such as care work or assisting other instructors that is not considered in typical productivity measures or necessarily captured in workplace artifacts. Further qualitative studies that explore instructor views of their responsibility for engaging in such additional demands and quantitative studies that capture daily time spent performing this type of work would help establish the true workload of online instructors.

While my study focused on various demands pertaining to my role as an instructor, it did not consider nuances that may lead to increased workload for the instructor. For instance, teaching a course for the first time typically requires more hours than the third or fourth time. When I teach a course for the first time, I find areas that need to be refined and do not have access to previously developed support content such as weekly course announcements. Further quantitative studies that explore the different time requirements associated with different types of courses would enhance understanding of how instructor workload may fluctuate despite the components of the workload remaining constant.

Through reflection on my study, I determined that although I was using instructional posts, I was not consciously aware of their impact on students and their value in creating teacher presence despite engagement in professional development activities. While there are a range of professional development activities, professional development pertaining to pedagogy in the online environment is paramount (Borup & Evmenova, 2019; Rodrigo & Ramírez, 2017). Further qualitative studies are needed to determine if professional development activities are directly addressing the use of instructional posts. Moreover, since Hoey (2017) posited that instructors must focus on the type of interactions they have in discussions rather than on the

quantity of interactions, additional quantitative studies are needed to determine if, once an instructor is aware of instructional posts, instructional posts are used more frequently, regardless of class size.

Recommendations for Practical Application

The findings from my study highlight how while a connection between class size and the use of instructional posts exists, other activities and demands also play a role in how instructors participate in discussions. Rock Hill University must consider this as decisions are made about class size and total instructor workload. There is not a "one size fits all" approach to determining the best class size. Instead, program directors at Rock Hill University should consider the entire scope of work for an instructor and assign total classes and class size as a part of total workload allocation.

As instructors continue to manage increasing demands, they must also remain excited and engaged because it translates directly into the classroom and the student experience. While professional development opportunities related to online course management are essential, it is important to also allow for opportunities that support instructor growth beyond course management. Online instructors need a wide range of skills that encompasses both skills needed to function effectively as an online instructor and competency in their area of expertise (Frazer et al., 2017; Rice & Deschaine, 2020). Instructors at Rock Hill University should allow instructors to choose how they would like to develop based on what is meaningful to them and what they view as necessary for increasing their performance in the classroom.

Even if parameters around accepted professional development activities are expanded, some instructors may shy away from opportunities due to financial, time, or geographical constraints (Gómez Palacio et al., 2018; Powell & Bodur, 2019). Rock Hill University should

encourage participation and consider ways to support instructors financially. Further, it may be useful to incorporate Kegan and Lahey's (2016) suggestion to build professional development activities into allotted work hours so that it is considered within total instructor capacity rather than something extra that must be done outside of work hours. Improving financial support and time allocation would support Rock Hill University in meeting NECHE standard 6.1, which explains that faculty should have appropriate opportunities for professional development.

Conclusions

The nature of the connection between class size and instructor use of instructional posts is complex and needs further investigation. The number of students in a class has been a focus of previous studies (Bettinger & Long, 2018; Towner, 2016), but it does not tell the entire story. Class size is part of a bigger picture of total workload. Neither the influence of each component of total workload, nor the list of all factors contributing to total workload, are well understood. This study is a step in better understanding class size and the connection to use of instructional posts, but more information is needed to really understand when the behavioral changes noted by Pilotti et al. (2017) occur and when they do not.

Workload must also be understood as it is a significant contributor to faculty stress. Faculty stress can directly impact student learning (Berg & Seeber, 2016). Faculty stress is associated with increased demands and workload, and can lead to poorer work performance (Makarenko & Andrews, 2017). This study demonstrated that poorer work performance resulting from faculty stress and workload is evident in the discussion. However, workload is only one piece of the puzzle. This study serves as evidence that access to professional development can improve instructor use of instructional posts, which is indicative of better work performance. Further, the excitement generated by professional development can lead an instructor to develop

stronger teacher presence, which can contribute to the development of a strong community of inquiry.

Program directors must consider the entire scope of work for online instructors. As the total workload increases, efforts must be made to alleviate the frustration and feelings of being overwhelmed that instructors experience and ensure that online instructors have the capacity to promote teacher presence through the use of instructional discussion posts. Additionally, helping instructors grow through professional development is important because it influences their participation in the classroom, especially with using instructional posts. These strategies are in the best interest of the program director and the organization since teacher presence promotes student achievement, which is considered during accreditation reviews.

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Appendix A: Permission to Use Figure

Bill Pollard < **xxxxxxxx@xxxx.xxxx**> Sun, Jun 14, 2020, 12:19 PM

to me

Hi Danielle,

You are very welcome to use the figure in your work. I wish you the best with your research.

Sincerely,
Herbert Pollard

Herbert W. Pollard (Bill), DBA, CPA
Assistant Professor of Business
Office: (xxx) xxx-xxxx (voice mail only)

Appendix B: IRB Approval

ABILENE CHRISTIAN UNIVERSITY
Educating Students for Christian Service and Leadership Throughout the World

Office of Research and Sponsored Programs
320 Hardin Administration Building, ACU Box 29103, Abilene, Texas 79699-9103
325-674-2885

December 1, 2020

Danielle Philipson
Abilene Christian University

Dear Danielle,

On behalf of the Institutional Review Board, I am pleased to inform you that your project titled
"An Autoethnographic Study of Online Class Size and Instructor Participation in Discussions",

(IRB# 20-200)is exempt from review under Federal Policy for the Protection of Human Subjects as:
☑ Non-research, and
☐ Non-human research
Based on:
* The activity does not involve a systematic investigation designed to develop or contribute to generalizable knowledge [45 CFR 46.102(d)]

If at any time the details of this project change, please resubmit to the IRB so the committee can determine whether or not the exempt status is still applicable.

I wish you well with your work.

Sincerely,

Megan Roth

Megan Roth, Ph.D.
Director of Research and Sponsored Programs