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## Online Learning And Academic Support Centers: How Synchronous Support Opportunities Affect Graduate Students' Interaction With The Content

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ONLINE LEARNING AND ACADEMIC SUPPORT CENTERS:  
HOW SYNCHRONOUS SUPPORT OPPORTUNITIES AFFECT  
GRADUATE STUDENTS' INTERACTION WITH THE CONTENT

By

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B.S. (Humboldt State University) 1995

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Abstract

This study analyzed the effects of live academic support sessions on online graduate students' interaction with the course content. This was accomplished through qualitative methods of data collection and analysis. In-depth interviews with eight purposely selected online graduate students provided the textual data. Through a systematic framework analysis of the data garnered through interview, it was found that students did perceive the live interactions as being especially effective in improving their interactions with the course content. Students partially attribute the effectiveness to connections made between the students and university stakeholders. This study also revealed that students recognize initial student distress using new technology can be resolved with guided practice. Also uncovered in this study were the students' perceptions of staff behaviors and characteristics as being influential in their interactions with the content. Finally, it was discovered that all meeting types (writing support, content tutoring, and learning strategies) were all understood to be valuable from student perspective. The study concluded that live interaction plays a positive role in student interaction with the course content and recommended universities employ live interaction opportunities between their online graduate students and the academic support department.

University of New England

Doctor of Education  
Educational Leadership

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## DEDICATION

To my wife, Sandrine, and my children Matisse and Madeleine who have missed out on many weekends these past three years.

To my mother, Veronique, who has taught me the importance of education.

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I would like to thank the online graduate students around the world who continually work hard to legitimize this form of education. They inspire me to work harder both as a student and a professional in the online education field. I would like to thank the members of my committee and fellow doctoral students, who have pushed, shared, enthused, instructed, and entertained me immensely these past three years. I would like to thank my colleagues at UNE—SASC for their assistance and acceptance of nothing less than completion from me. Additionally, I would like to thank Dr. Collay for her bringing of the Ed.D. program to the University of New England and her guidance throughout the theoretical framework development. Finally, I would be remiss if I failed to mention the support, encouragement, and patience of my family.

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## CHAPTER 1

### INTRODUCTION

An online graduate student's experience can be comparable to that of an individual's displacement to a distant island. The online student is alone, physically distant from faculty, student colleagues, and university support services. In addition to physical distance, online graduate students experience larger cognitive detachment, or *transactional distance* (Moore, 1972, p. 76) between themselves and institutions (Burns, Cunningham, & Foran-Mulcahy, 2014; Szeto & Cheng, 2014). The degree and consequence of this distance are dependent upon the efficacy of three identified interaction types between the distance learner and the facilitator, other learners, and the content (Falloon, 2011; Moore & Kearsley, 1996; Moore, 1972).

It is incumbent upon universities to find and employ sound interaction opportunities between themselves and students in order to decrease transactional distance. Past and current research focus on direct instructional practice and course design intended to minimize the distance. Additionally, current research points to student support service's role in minimizing transactional distance (Brindley, 2014; Russo-Gleicher, 2013) and the positive impacts of synchronistic instructional opportunities (Borel, 2013; Bower, 2011). However, few studies illuminate the impact live contacts between students and academic support departments have on student relationship to the content—and it is this area that is the crux of this study.

The student-content interaction, as described by Moore and Kearsley (1996), is understood to be students' engagement with the instructional information. Today, interactions of this type include watching videos, reading PowerPoint lessons, completing written assignments,

and reading assigned research studies and text selections. These interactions are fundamental in teaching and learning the stated learning objectives (Nandi, 2015).

This study sought to explore the phenomenon of how a university academic support center's use of synchronous technologies can affect online graduate students' relationship to the content. The purpose of this phenomenological study was to explore, with a sample of online graduate students, their perceptions of the impact of live interactions with academic support staff on their connection to the content. The knowledge garnered from this study illuminated the potential of academic support staff's usage of web conferencing during academic support exchanges in bringing the student closer to the given course content. This study employed the aspects and structures of a phenomenological qualitative inquiry, with participants purposely selected based on time spent working with academic support staff in live formats.

### **Problem Statement**

The number of postsecondary students taking online courses continues to rise prodigiously. Allen and Seaman (2013) indicated there were over seven million online graduate students attending American universities in 2012 (p. 5). In the same report, Allen and Seaman pointed to the importance online graduate school programming plays in university long-term planning. This large increase in numbers of students and programs, though, does not leave the academic community without concern. Allen and Seaman (2013) pointed to two larger trends expressed by faculty and administrators: (a) few academic leaders think their faculty accept online learning as a legitimate alternative to traditional face-to-face (F2F) structures and (b) widespread low retention and graduation rates are considered the largest obstacles in distance learning achieving more positive accolades in the higher education world.

Research regarding efficacy of distance learning compared to F2F programs yields mixed conclusions, while glaringly poor results regarding student retention (Greenland & Moore, 2014; Lee & Choi, 2011) stand out. Two common factors leading to poor retention rates are (1) online students' feelings of isolation and disconnection from the institution (Cao, Griffin, & Bai, 2009; Fotini & Henkel, 2008) and (2) inadequate academic support offered by the institution for its online population (Burns et al., 2014; Russo-Gleicher, 2013). Burns et al., (2014), and Russo-Gleicher (2013) listed lower educational outcomes—specifically unsatisfactory content mastery—as a manifestation of the lacking academic support for this student population.

Burns et al. (2014) considered the disconnect between student academic support need and institutional support offering as a “divide” (p. 114). Instead of properly addressing this gap with increased vital resources “the institutional answer to this dilemma has been to increase online course offerings” (p. 114). In result, students feel disconnected from vital campus resources and services—the campus library and tutoring center, for example (Burns et al., 2014)—and ultimately face greater risk of dropping out (Russo-Gleicher, 2013). The problem examined in this study was the unsatisfactory retention and graduation rates of online students (Allen & Seaman, 2013) and how the wide gap between support services and online graduate students is negatively affecting the students' relationship to the course content (Burns et al., 2014; Russo-Gleicher, 2013).

### **Purpose of the Study**

As in any academic course modality, especially one that continues to proliferate (online courses), it is vital for administrators, faculty, and instructional designers to pay close attention to the three interaction types in order to improve quality (Moore & Kearsley, 1996). The learner-content interaction (LCI) is vital in attaining learning objectives (Moore & Kearsley, 1996).

Academic support has proven to be an effective method in assisting graduate students with the content (LaPadula, 2003). Couple that idea with the demonstrated advantages of synchronous instruction (Szeto & Cheng, 2014; Giesbers, Rienties, Tempelaar, & Gijsselaers, 2013; Hrastinksi, 2010), it becomes clear supporting online students in a synchronous manner may prove beneficial. The research in synchronous interactions, though, is limited to course development and direct instruction with little attention given to live work by the academic support centers.

It was this researcher's goal to identify online graduate students' perceptions of how working live with academic support staff affects their interactions with the course content. In a modern online program, academic support is essentially an asynchronous phenomenon (Simpson, 2012). Asynchronous support sessions take the forms of email writing, video watching, and paper editing (Simpson, 2012). Synchronous support sessions are characterized by phone calls, web-conferencing (WC), Internet chatting, and interactive document processing. This study focused on live support sessions between academic support staff and online graduate students. Specifically, the study aimed to garner student perceptions of the effect these sessions have on their interaction with the course content. Synchronous support sessions consist of writing support, academic tutoring, or learning strategy meetings—all employing WC technologies.

Research demonstrates a clear connection between interaction and WC usage (Huang & Hsiao, 2012; Cao et al., 2009); however, there is no clear connection between the presence of WC and its usage by academic support departments. Positive benefits of WC include: increased interaction among students (Huang & Hsiao, 2012; Cao et al., 2009), improved feelings of community (Borel, 2013; Liu et al., 2007), and improvement in student course satisfaction (Hudson et al., 2012; Karal et al., 2011). The component missing and the impetus of this study



was a description of the connection between academic support center WC usage and student interaction with the course content.

In summary, this qualitative, phenomenological study aimed to contribute to research about online graduate students' perceptions of how working live with academic support staff impacts their interactions with the course content. Ultimately it was demonstrated that live academic assistance opportunities such as writing support, content tutoring, and academic coaching positively affected students' work with the content. As a result, academic support centers may move to incorporate a synchronistic support model—in order to ultimately improve upon retention and graduation rates. Since live interactions between graduate students and academic support center staff proved to have positive impact on student-content interactions, university personnel should look no further for alternative modalities in which academic support centers might assist in improving retention and graduation rates but rather incorporate synchronous assistance opportunities into their support programs. This study contributed to the gap in research regarding academic support usage of synchronous technologies by exploring the perceptions of online graduate students of the impacts of live support on their interaction with the content. While there is significant literature examining live interaction opportunities between facilitators and students, there is little research regarding live academic success centers and students. Little attention has focused—beyond this study—on the impact of these live meetings on student relationship to the content.

### **Research Questions**

Grounded in the stated research problem, and guiding this study, was the overarching question *How do real-time interactions between academic support departments and online graduate students impact student interaction with the course content?* Examining student

perceptions of live meetings with academic support staff offered vital information in creating programming to advance student content understanding, and ultimately improve retention and graduation rates of online graduate students. Related research questions included

1. What are the student perceptions of the impacts of live academic support meetings on their interactions with, and understanding of, the course content?
2. What factors of live web-conferences with academic support centers do participants perceive as being more or less beneficial to their relationship with the content?
3. To what extent do varying staff characteristics and behaviors during synchronistic support sessions affect student interactions with the content?
4. In comparison, how do the different live support session types (writing support, content tutoring, and academic coaching) affect student-content interactions?

### **Conceptual Framework**

Mastery of content in a graduate online program is a function of interaction with others (Szeto & Cheng, 2014; Moore & Kearsley, 1996), course satisfaction (Kim, Lee, & Skellenger, 2012), effective instruction (Brown, 2012; Esgi, 2013), well designed courses (Bates, 2011), and sufficient student support (Burns et al., 2014). It is with these concepts, combined with theoretical understandings developed in Moore's (1972) Transactional Distance Theory and Vygotsky's Social Development Theory (1978), that this study was framed.

Moore (1972), and later Moore and Kearsley (1996), described the importance of three interaction experiences (student-facilitator, student-student, and student-content) present in effective distance learning. Lacking sufficient opportunity in any of the three interaction experiences leads to feelings of isolation and disconnect from the institution (Moore and Kearsley, 1996), which leads to substandard graduation rates (Cao et al., 2009). This

phenomenon acts as support for Vygotsky's Social Development Theory (1978), which states the necessity of social interaction for cognitive development. This study focused specifically on the student-content interaction type.

Hrastinski (2010) found live instruction as an effective modality in increasing quality interaction opportunities. Other research (Giesbers et al., 2013; Ellingson & Notbohm, 2012) demonstrated strictly asynchronous programs lack ample interaction opportunities between students and other students and their facilitators. The demonstrated benefits of synchronous instruction drove the current study's look at synchronous interactions. Concurrently, online students need (Brindley, 2014; Floyd & Casey-Powell, 2004) and are missing (Brindley, 2014; Burns et al., 2014) academic support. Because of these findings this study was grounded in academic support interactions.

In short, synchronous interactions between institution and online students reduce the negative consequences of large transactional distances by improving upon cognitive development, motivation, and social presence (Szeto & Cheng, 2014; Moore & Kearsley, 1996). Additionally, online students do not receive much needed academic support from their host institutions (Brindley, 2014; Floyd & Casey-Powell, 2004). Hence, having academic support offer live support opportunities may improve student experience while filling the support need.

### **Assumptions and Limitations**

The presented phenomenological study accepted the major epistemological assumptions of constructivist thinking (Creswell, 2013). It was assumed that online graduate students' experiences interacting with university resources varies greatly, and these experiences construct a reality among the students in regards to their feelings of isolation and connectedness to the institution. Additionally, it was assumed the student participants would be honest and

forthcoming with their meanings and interpretations resulting from their experiences when answering the interview questions. Finally, it was assumed that the drive to minimize transactional distance with online graduate students is, and will remain, important to university administration.

While the small participant size enabled the generation of a thick, rich description of student experience—and the emerging themes garnered from the study—it minimized the generalization of any findings to the larger population (Creswell, 2013). Additionally, contributing to the minimization of generalization, the live interactive opportunities offered by the local student support center were limited to the capacity of one small department, in that they are basic and less sophisticated than diverse opportunities offered by larger universities employing larger, interdisciplinary teams working to decrease feelings of isolation experienced by online graduate students. Furthermore, Merriam (2009) pointed to the necessity of a researcher to address innate circumstances derived from the researcher's active role in the study. In order to create consistent data gathering interviews this researcher developed a semi-structured interview form with predetermined questions.

### **Significance**

This qualitative study contributed to the scholarly conversation regarding the impact of live interactions on student-content interactions. Research specific to this topic has centered on faculty and student interactions (Burns et al., 2014; Hrastinski, 2010; Moore & Kearsley, 1996). Little attention has been paid to academic support departments' live interactions with this student population. Additionally, research (Brindley, 2014; Burns et al., 2014; Floyd & Casey-Powell, 2004) illuminated some of the positive impacts academic support centers have on retention and satisfaction, but little information on the centers' specific impact on student-content interactions

is available. This study, therefore, sought to illuminate the influence of academic support departments' synchronistic interactions with online graduate students in the area of student-content interaction.

Beyond contributing to a better understanding of live interactions between students and academic support staff, possible benefits of this study include improved student contacts by university academic support departments. At the local level, online students may no longer need to experience asynchronous writing support meetings, view recorded statistics tutoring sessions, and/or watch canned orientation videos. A better understanding of the elements of real-time tutoring, writing support, and/or academic coaching sessions could help universities plan for and provide more effective support services. Specifically, improving student relationship to the content may be added as an indicator of an effective student support center interaction.

### **Definition of Terms**

*Academic Support Center*—the university department dedicated to provide students, including online graduate students, support in the areas of writing, content tutoring, and learning strategies (LaPadula, 2003). This phrase is used interchangeably with *Student Support Center* throughout the text.

*Asynchronous*—a type of communication that is not live. Participants are able to respond to content and instruction at their own convenience (Cao et al., 2009).

*Face-to-Face*—interaction that takes place with all participants sharing the same physical space (Cao et al., 2009).

*Graduation rate*—the percentage of first time students who complete the online program to degree completion (Greenland & Moore, 2014).

*Interaction*—“Reciprocal events that require at least two objects and two actions” (Wagner, 1994, p. 8). Interactions occur when these objects and events mutually influence one another.

*Online course*—All of the course content is located online.

*Online learning*—a learning environment where learners, instructors and support staff are geographically dispersed and use the Internet to access learning materials.

*Retention rate*—the percentage of first time students who continue in the online program course by course (Greenland & Moore, 2014).

*Student-content interaction*—students’ engagement with the instructional information, mostly in asynchronous form (Moore & Kearsley, 1996). Examples include readings, recorded lectures, and assignments.

*Synchronous*—a type of two-way communication that is live. Participants interact in real time. Real time and live will be used synonymously with synchronous (Cao et al., 2009).

*Transactional distance*—physical and/or psychological distance between learners and content/instructors (Moore, 1972).

## **Conclusion**

This chapter introduced the phenomenological study that aimed to explore an academic support center’s impact on online graduate students’ relationship to the course content. Recent research indicates that online students feel isolated and less connected to their institution than their face-to-face counterparts. As a result, students and host institutions face consequences such as lower course satisfaction and dropout. It was this researcher’s intention to examine, through qualitative phenomenological methodology, the lived experiences of online graduate students who worked live with academic support staff in the areas of writing support, content tutoring,

and learning strategies and how those experiences impacted the students' interactions with the course content. Knowledge gained from this study may increase and improve online graduate student interactions with the institution, specifically the academic support center. Ultimately, these interactions may reduce online graduate students' feelings of isolation and disconnect from the institution by reducing the inherent transactional distance that exists for these students. The following chapter will review the relevant literature regarding the development of synchronous instruction and academic support for online graduate students.

## CHAPTER 2

### REVIEW OF LITERATURE

The number of postsecondary students taking online courses continues to rise astronomically. Recent reports place over 7.1 million students in a postsecondary online course (U.S. Department of Education, 2014). Additionally, nearly 70 percent of higher education administrators indicated in a recent survey that distance learning is critical to their long-term institutional strategies (Allen & Seaman, 2013, p. 4). Finally, while enrollment in campus-based programs has completely flat lined, online-based programs have seen annual increases every year since its inception (Bates, 2011). However, these exploding numbers are not without negative consequence and opinion. The survey by Allen and Seaman (2013) pointed to two larger trends expressed by faculty and administrators: First, only 30 percent of academic leaders think their faculty accept online learning as a legitimate alternative to traditional face-to-face (F2F) structures (p. 6), and second, wide-spread low retention and graduation rates are considered the largest obstacles in distance learning achieving more positive accolades in the higher education world (p. 6).

Research regarding efficacy of distance learning compared to F2F programs yields mixed conclusions, while glaringly poor results regarding student attrition (Greenland & Moore, 2014; Cochran, Campbell, Baker, & Leeds, 2014; Lee & Choi, 2011) stand out. Greenland and Moore (2014) compared a 25% attrition rate of online students to a 12% attrition rate of on-campus students in the same program. Cochran et al., (2014) presented evidence that universities should expect online attrition rates to be 10-15% higher than those of face-to-face classrooms. Lee and Choi (2011) completed a literature review of dropout rates of online students and concluded



“online courses have significantly higher drop out rates than conventional courses” (p. 594). Two common factors leading to poor attrition rates stand out among the others: online students’ feelings of isolation and disconnection to the institution (Cao, Griffin, & Bai, 2009; Fotini & Henkel, 2008) and inadequate academic support offered by the institution for its online population (Burns, Cunningham, & Foran-Mulcahy, 2014; Russo-Gleicher, 2013; Floyd & Casey-Powell, 2004; LaPadula, 2003). Burns et al., (2014) presented a picture of online learners bereft of academic support, be it synchronous or asynchronous. Russo-Gleicher (2013) found that not only did institutions lack quality academic support, but of the universities that do have support available few faculty members refer students in need to the proper support departments.

Moore’s (1972) Theory of Transactional Distance, coupled with Moore and Kearsley’s (1996) later work regarding interaction types provide an explanation for online learners’ feelings of isolation and disconnect, along with providing justification for increasing interaction opportunities for distance learners. Further, Vygotsky’s Theory of Cognitive Development (1978), which described the importance of social interaction as a key component of students’ cognitive development, illuminates reasoning for increased synchronistic academic support interactions—live academic support meetings create opportunities for social interaction, thus increasing cognitive development.

Burns et al., (2014) considered the disconnect between student academic support need and institutional support offering as a “divide” (p. 114). Instead of properly addressing this gap with increased vital resources, “the institutional answer to this dilemma has been to increase course offerings” (p. 114). Erroneously, these increased course offerings are not coupled with increased support opportunities, and in result students feel “exile[d] from vital resources—the campus library and tutoring center” (p. 114) that their face-to-face counterparts do not feel.

Beyond offering increased support services to distance learners, universities need to provide more effective support opportunities (Burns et al., 2014; Fiege, 2010)—opportunities that decrease transactional distance (Moore, 1990) by improving interactions (Moore & Kearsley, 1996) and ultimately increase cognitive development (Vygotsky, 1978). Researchers demonstrated the use of synchronistic technologies as effective tools in teaching and learning (Bower, 2011) and student satisfaction (Cao et al., 2009).

The university academic support center is a commonly untapped university resource (Burns et al., 2014) that can be key in increasing student interaction with the host institution. While live interaction opportunities employing web conferencing have proven beneficial in improving writing support and content tutoring experiences for online graduate students (Van Horne, 2012; Artz, Barnett, & Scoppetta, 2009), they continue to be underutilized (Burns et al., 2014). Research on the impact of these interaction types reducing feelings of isolation and improving perceived student connectedness to the institution is lacking and was the center of this research study.

In summary, online enrollment for graduate students continues to surge while attrition rates have much room for improvement. These low rates are due in part to students' feelings of isolation and disconnection from the institution, ultimately caused by poor interaction opportunities, and specific to this study, communication opportunities offered by academic support departments to meet with students in live content tutoring and writing support sessions. Meanwhile, affects of these interactions are lacking scholarly description. A goal of this study was to describe the impact of these synchronistic communications on student interaction with the course content.

### Relevant Research

The objectives of this literature review were as follows: (a) describe the literature regarding the larger constructs related to the proposed study, (b) identify themes found within the literature, (c) display the scholarly relationship between the constructs, and (d) provide justification for studying this topic. The constructs to be discussed were online graduate students' feelings of isolation and disconnection, distance learning and interaction, synchronistic interaction opportunities for these students, and university academic support centers' interactions with online graduate students. The organization of the literature review describing the constructs and their relationships demonstrates developing themes within the constructs and ultimately the synthesis of these themes points to the need for the completed study.

The literature search consisted of four significant steps. The first involved locating literature via the ProQuest Database directly related to web conferencing (WC) with key phrasing *web conferencing*, *distance education*, and *higher education* included. This search resulted in literature describing WC technologies, strategies, and interrelationships between WC, interaction, and course satisfaction. Secondly, a similar process employed the phrases *interaction*, *distance education*, *synchronous learning*, *connectedness*, *online graduate school academic support departments*, and *higher education*. Highlighting this search was the delineation of the interaction types and the developing theme of the relationship between interaction and course satisfaction. Additionally the search yielded ample information regarding synchronistic learning opportunities and practices. Thirdly, a comprehensive search centering on academic support centers serving online students was completed. Current and past synchronistic support practices and their efficacies highlight this section. Finally, a separate search of the

literature regarding theorists Moore, Kearsley, and Vygotsky was completed in order to establish a framework in which to shape the study.

### **Isolation, Disconnect and Student Satisfaction**

Online education is burdened with increasing student feelings of isolation (Ali & Smith, 2014; Allen & Seaman, 2013; Brown, 2012). Ultimately, lack of direct contact (Priego & Peralta, 2013) and other live interaction opportunities are considered to be the larger contributing factors to this phenomenon. This feeling of social isolation is “determined to be a major factor that causes students to drop out in academic courses and programs” (Ali & Smith, 2014, p. 16). In addition to feelings of isolation, online students rarely feel as connected to their institution compared to their face-to-face counterparts (Exeter, Korkmaz, Harlin, and Bichelmeyer, 2009; Shin, 2003; Rovai, 2002). “Connectedness is the sense of belonging and acceptance” (Bolliger & Inan, 2012, p. 43). Without this sense of connection students feel isolated and express high levels of dissatisfaction with their programs (Bolliger & Inan, 2012; Cao et al., 2009).

Student performance is a direct function of student satisfaction (Esgi, 2013; Cao et al., 2009; Chen, Ko, & Lin, 2005). When students are satisfied with any combination of such factors as faculty engagement, workload, relationship of assignments to course objectives, opportunities for interaction, and feeling of community, the following prove true: higher graduation and retention rates, higher grades, higher course satisfaction ratings, and proficiency test scores (Esgi, 2013; Cao et al., 2009).

Studies, though, present inconsistent conclusions regarding whether satisfaction drives performance or whether it is performance influencing satisfaction (Hrastinski, 2006)—or if they are interchangeable (Esgi, 2013). Either way, the larger indicators of online student satisfaction are interaction, Internet self-efficacy, and self-regulated learning (Esgi, 2013; Cao et al., 2009).

Interaction is deemed one of the more important indicators (since the middle 1990s) and is split into three types—learner-learner interaction, learner-facilitator interaction, and learner-content interaction (Moore & Kearsley, 1996).

**Contact as an Indicator.** Research points to feelings of isolation as having direct influence on student satisfaction ratings, which directly affects attrition and retention rates (Esgi, 2013; Cao et al., 2009). There is a correlation between contact numbers between students and institution and satisfaction ratings (Cao et al., 2009; Chen et al., 2005). When students describe low contact levels, lower satisfaction ratings result. This statement reflects some respondents' experience, but Hrastinski (2006) did find that other students have very little interest in interaction and it is not an indicator of course satisfaction for them.

Increased contact opportunities are present in online learning, but institutions remain diligent to maintaining a mostly asynchronous platform (Oztok, Zingaro, Brett, & Hewitt, 2013; Fotini & Henkel, 2008). Reasoning for maintaining solely asynchronous platforms includes a possible institutional misunderstanding of student preference for flexibility and autonomy (Oztok et al., 2013). While many students do require flexible scheduling due to families and professional careers, they still crave the contact and connection (Oztok et al., 2013; Cao et al., 2009).

Moore and Kearsley (1996) described three interaction types that need to be accounted for in order to reduce transactional distance—the cognitive space between learner and instructor. Moore and Kearsley (1996) described transactional distance as a pedagogical phenomenon that is dependent upon the relationships between the three concepts of dialogue, structure, and learner autonomy. Interaction is an ever-present concept within the larger theory. Moore and Kearsley (1996) posited three interaction types that fall within the three concepts. Learner-content interaction (LCI) is described as students working with the course content (Moore & Kearsley,

1996). This interaction type is primarily presented in asynchronous settings with examples including videos, PowerPoints, readings, and videos, and has little impact on improving student feelings of isolation (Cao et. al., 2009). Learner-facilitator interaction (LFI) can be presented in either modality with synchronous opportunities including live workshops, supplemental instruction, and live presentations by faculty and students (Huang & Hsiao, 2012). For example, learner-facilitator interactions (LFI) are those where a student reads or listens to a lesson, faculty watches a student presentation, or the two talk on the phone. Students in the Oztok et al. (2013) study demonstrated positive ratings of these interactions, but not a startling difference between these offerings and LFI opportunities restricted to asynchronous formats. Finally, learner-learner interactions (LLI) are contained to discussion board work (asynchronous) and student presentations and group work (synchronous). Students rated LLI the lowest in efficacy and importance (Oztok et al., 2013). Moore and Kearsley (1996) explained the importance of designers in creating an environment where the three interaction types are effectively accounted for in yielding a shorter transactional distance. The learner-facilitator interaction type is the focus area of the proposed study.

**Community as an Indicator.** Relationship with faculty and the school lead to higher indicators of feelings of community (Barr & Miller, 2013). There are several strategies implemented by administrators, instructional designers and faculty to create and emulate traditional feelings of community in online courses and programs. Student support centers offer academic assistance and counseling services. Course designers introduce activities likely to increase interaction. Faculty look to increase live presence in the course and maintain collegial relationships with students (Offir, Lev, & Bezalel, 2008).

Student-student relationships are considered less important, according to many students, in building feelings of community (Offir et al., 2008; Hrastinski, 2006). There are other efforts being made by students, designers, faculty, and institutions to enhance feelings of community that are unrelated to web conferencing—ending in mixed results (Barr & Miller, 2013).

### **Interaction**

Ample research (Barr & Miller, 2013; Offir et al., 2008) demonstrates interaction is vital in all forms of education, including online learning. Older research (Moore & Kearsley, 1996; Moore, 1990) created a description of the relationship between interaction and distance learning. In describing the theory of Transactional Distance, Moore and Kearsley (1996) argued distance education is its own form of education where psychological and communication gaps are present, thus different interaction pedagogies are necessary. The researchers explained the main requirement for distance instruction involves attention to the three different interaction types. Subsequent studies (Nandi, 2015; Szeto & Cheng, 2014) looked at interaction as transactions and aimed to describe the different types of interaction. Early in the research, little attention was paid to live learning opportunities, specifically WC; however as knowledge of the topic advanced, research included this technology's potential in improving interaction types (Barr & Miller, 2013; Matthias, Piesche, & Jablonski, 2012; Offir et al., 2008).

**Learner-Learner Interaction (LLI).** Of the three types of interactions, students consider LLI, or student-student interaction, the lowest for educational value and motivation (Borup, Graham, & Davies, 2013; Liao & Lu, 2008). Traditionally, LLI is limited in the online environment to asynchronous discussion board work, and much of that work is students spending time creating the “illusion of participation” (Wickersham & Dooley, 2006, p. 185). Employing

WC is slowly, according to research, attempting to change this paradigm (Stewart, Harlow, & DeBacco, 2011).

In addition to online discussions, synchronous group work contributes to lower student satisfaction in the area of LLI (Wade, Cameron, Morgan, & Williams, 2011) due to reasons such as technological problems, artificial group building assignments from faculty, lack of trust, and timing issues—a larger factor in employing any synchronistic learning approach. However, with increased use of WC, potential for improved LLI opportunities exist (Kim et al., 2012). Kim et al. (2012) explained the necessity of staff development for faculty in training students in the use of the live conferencing technology. Additionally, they found the many options of WC available to be a detriment due to the different processes required. To combat this problem, the researchers suggested consistent use of one or two technologies at the institutional level. Wade et al. (2011) addressed the need for faculty to create more authentic assignments requiring group work and explained the lack-of-trust factor declines with more and better usage. Comments by both groups of researchers were made regarding institutional understanding that solely asynchronous formats may be inadequate; yet institutional delay moving forward in multi-chronous opportunities persists (Kim et al., 2012; Wade et al., 2011).

Learner-learner interaction (LLI) has been studied online since the middle 1990s, but improvements in this area have lagged behind Learner-facilitator interaction (LFI). Most of the research presented student dissatisfaction in this area (Borup et al., 2013; Wade et al., 2011; Liao & Lu, 2008). Assignments incorporating WC given to students are perceived as a frustrating waste of time given so the faculty can claim they made an effort in increasing LLI opportunities (Borup et al., 2013). Specifics regarding misuse of WC/LLI opportunities include timing, appointment creation and adherence, the lack of facilitation, and numerous technical



difficulties—resulting in lower student satisfaction (Greenland & Moore, 2014). When students are less satisfied they tend to perform poorly and/or drop out (Greenland & Moore, 2014; Cochran et al., 2014; Lee & Choi, 2011). Interaction is key in reducing transactional distance (Moore, 1972), which ultimately improves attrition and graduation rates (Moore & Kearsley, 1996; Moore, 1990).

**Learner-Facilitator Interaction (LFI).** Compared to LLI, LFI has had much more positive results on student satisfaction (Matthias et al., 2012; Offir et al., 2008) due to passive listening by the audience—traditional teacher/learner feel, building community, duration of implementation of LFI in courses compared to LLI (Barr & Miller, 2013). Kim et al. (2012) explained LFI successes can be used as models in improving other live-learning opportunities. LFI opportunities to be emulated include students giving live one-way presentations with a question and answer session afterward, having the students meet for reasons other than schoolwork (Kim et al., 2012), and better meeting experience (Borup et al., 2013). Borup et al. (2013) and Wade et al. (2011) both stressed the importance of this *better meeting experience*. Thematically, researchers (Borup et al., 2013; Wade et al., 2011) found students to believe they are being told to meet for no other larger reason than the faculty and institution want to claim a presence of interactive opportunities in their courses. Additionally, reasoning for the lagging of LFI implementation consists of technological difficulties experienced by student facilitators (Borup et al., 2013), unclear group work dynamic (Wade et al., 2011), and student perceived artificial assignments with the primary objective being to use the technology—not the content (Borup et al., 2013; Wade et al., 2011).

**Learner-Content Interaction (LCI).** Interaction with the course content is vital in any learning setting, but particularly important when examining online student experience

(Zimmerman, 2012). Learner-content interaction (LCI) is the action of a student's working with the course content (Moore & Kearsley, 1996). Time spent reading, studying, writing about course subjects defines this interaction type. This cognitive interaction between a student and the materials of study drives learning objective outcomes (Moore & Kearsley, 1996). Positive LCI's result in better course completion numbers (Zimmerman, 2012). The amount of time a student spends with the content directly impacts learning outcomes (Moore & Kearsley, 1996) and the quality of the content influences the amount of time a student will spend with the content (Zimmerman, 2012). Attention to the design of online courses improves online attrition rates (Greenland & Moore, 2014), improves satisfaction ratings (Kim et al., 2012), and improves online learning effectiveness (Zimmerman, 2012). Students respond well to a variety of content presentations, and rank text-based online learning as the least favorite (Garndzol & Garndzol, 2010 as cited in Zimmerman, 2012). Course structure, design, and format contribute to the effectiveness of a student's interaction with the course content (Moore & Kearsley, 1996).

Summarily, interaction is vital to students' success and satisfaction with online courses. Three types of interaction have been defined by researchers, and of the three, learner-learner interaction receives the lowest approval ratings and presents a larger challenge for synchronous learning formats. Learner-facilitator interaction naturally produces an environment in which online stakeholders can interact in real-time, yet institutions are reticent to move in this direction. Learner-content interaction is a primary focus of researchers, and its effects on student satisfaction and performance abound (Kim et al., 2012; Zimmerman, 2012). Studies, though, in the area of synchronous opportunities developing LCI are limited and the possibilities in this area create the focus of the current study.

## **Synchronous Learning**

Online learning at the graduate level is broken up into three larger learning environments, (1) asynchronous, (2) synchronous, and (3) a combination of the two. As the name implies, synchronous learning involves real time, live instruction, group work, and support. The synchronous environment allows for increased social presence (Szeto & Cheng, 2014), higher motivation (Giesbers, Rienties, Tempelaar, & Gijsselaers, 2013) and increased interactions (Hrastinski, Keller, & Carlsson, 2010). Synchronous opportunities made available to online graduate students include live lectures, real time group work, and to limited extent, academic tutoring (LaPadula, 2003). Technology currently employed centers on the usage of web-conferencing. Despite the positive outcomes of synchronous e-learning, difficulties primarily in the area of technology use are present and researched benefits of asynchronous instruction and discussion are not to be ignored—ultimately pointing to a combined use of both environments.

Instruction remaining in a solely asynchronous environment has significant drawbacks. First, in the area of communication, students express frustration in properly conveying their messages in this environment (Paulus, 2006). Additionally, misinterpretations of writing and completed assignments are common and sources of dissatisfaction among online learners (Bromme, Hesse, & Spada, 2005). Griesbers et al. (2013) demonstrated lower engagement and motivation values with students who communicated in solely asynchronous means compared to students communicating synchronously. Additionally, Giesbers et al. (2013) explained the impact the synchronous/asynchronous environments have on engagement and participation. Students who participated in web-conferencing communicated more often and more effectively later on in asynchronous environments than students who remained strictly in asynchronous environments.

Further evidence necessitating a combination of the two environments includes the Hrastinski et al. (2010) demonstration of the impact on synchronous interactions on social presence. When students are learning from each other and interacting with faculty, the social environment becomes present. As a result, the learning environment moves from a teacher-centered one to a more learner-centered model. Synchronous interactions were described as more intense and more liberating in that students felt free to discuss other topics than content. Due to these interactions students expressed more arousal, motivation, and ultimately better content understanding. Further, Yamagata-Lynch (2014) reinforced the theme that live interactions allow for students to develop strong connections with each other, which result in better learning. The synchronous environment forces the student to be more active in the learning process (Yamagata-Lynch, 2014) while making connections necessary for cognitive development (Vygotsky, 1978). Yamagata-Lynch (2014) went on to posit that a combination of the two environments is best because it is what students want.

Asterhan and Schwarz (2010) described the differences in synchronous and asynchronous communication. The researchers noted the live environment necessitated more responses and the dynamics of communication mirrored those in face-to-face situations. The timing in live interactions was quicker leading to less thought out responses, where the asynchronous environment allows the time for deeper thinking. Asterhan and Schwarz (2010) also noted that students want their instructors to be more active and keep live discussions moving forward. Their conclusion from this study was that indeed, synchronous collaboration affects student-learning outcomes. Importantly, they noted that there is little scholarly discussion regarding how to support students in synchronous environments. This finding aligns with the current study's

conceptual framework that posits synchronous work is beneficial, academic support is lacking, so the usage of the former may address the problem defined by the latter.

Negative results regarding synchronous additions to an online program further the idea that learning solely in one of the synchronistic or asynchronistic realms may be less effective than combining the two. Yamagata-Lynch (2014) pointed to the expressed frustrations of small group synchronistic work. Olson and McCracken (2015) illuminated the larger challenges needed to incorporate synchronous technology (technological infrastructure, faculty development, and student technical ability). Johnson (2008) found no difference in student preference regarding the two platforms. Finally, Melkun (2012) demonstrated the ever-present factor of unpredictability synchronous instruction adds to online learning. Hrastinski et al., (2010, as cited in Olson and McCracken, 2015) made an effort to define whether asynchronous or synchronous e-learning was better. Instead, researchers (Szeto & Cheng, 2014; Yamagata-Lynch, 2014; Giesbers et al., 2013) looked to identify synchronous components to complement asynchronous environments furthering the idea that one without the other may not be the best way to proceed.

**Technology.** Synchronous tools used in online learning have evolved from phone calls and live text chat to sophisticated, live facilitator presentations and complex student-student interactive meetings—made available by increasing and more readily accessible web-conferencing technologies. Web-conferencing—the synchronistic learning tool employing a camera, microphone, whiteboard and chat box—allows for live student interaction in an online course with the instructor and other students. Research points to WC as a developing synchronistic tool that is increasingly being used in online graduate work (Bower, 2011; Skylar, 2009). Specifically, Bower (2011) surveyed the AACE EdITLib database and found 22 of the 24

papers focusing on web-conferencing work in teaching and learning have been written since 2007. Since 2011 additional research demonstrates an even higher increased usage of this synchronistic learning tool (Ellingson & Notbohm, 2012; Glaeser, Renold, Shariq, Lee, & Carter-Wells, 2012; Dvorak & Roessger, 2012). Technology can act as a barrier when a student decides to sign up for an online course (Mullenburg & Berge, 2005). However, with guided assistance, confidence may improve. Mostert and Snowball (2013) demonstrated the necessity of technological support if institutions want to employ advanced technologies with their students.

**Benefits of WC.** “The concept and use of synchronous and asynchronous forms of virtual conferencing [web-conferencing] is central to the experience of global design education” (Moldenhauer, 2010, p. 219). Research demonstrates this tool is effectively being used to increase interaction (Huang & Hsiao, 2012; Cao et al., 2009), improve feelings of community (Borel, 2013; Liu, Magjuka, Bonk, & Lee, 2007), and improve student satisfaction (Hudson, Knight, & Collins, 2012; Karal, Cebi, & Turgut, 2011). In addition to the findings of Cao et al. (2009) demonstrating WC as a direct indicator of improved student interaction among Computer Information Systems undergraduate students, Huang & Hsiao (2012) found similar results—with the population studied being postsecondary faculty and facilitators.

Liu et al. (2007) first demonstrated the use of WC as positively creating a sense of community among online MBA students. However, Leiss (2010) was not able to demonstrate a significant difference in feelings of community between synchronous and asynchronous formats but did find quantitatively that “synchronous communication encourages informal, social interactions creating camaraderie that influences a collaborative environment” (p. 53). Subsequently, Borel (2013) did find a statistical significance in increased WC offerings and feelings of community among online graduate students at a Texas university. Additionally, Karal

et al. (2011) proved, through a qualitative study, that the more WC opportunities made available, the higher the satisfaction rates the students demonstrated. In another study regarding WC and student course satisfaction, Hudson et al. (2012) found similar results with students with special needs.

**Challenges of WC.** Challenges in web-conferencing include technological limitations, cost, technical problems, and technical deficiencies by all users (Ellingson & Nothbohm, 2012; Bower, 2011; Karal et al., 2011). Technical deficiency by users (Ellingson & Nothbohm, 2012) is the highest indicator for user dissatisfaction with web-conferencing. While Ellingson and Nothbohm (2012) discussed many of the challenges described by students, Bower (2011) explained some of the challenges experienced by faculty and facilitators. Faculty did describe student incompetence regarding the technology, but more than that discussed their own weaknesses attributed to lack of training and technological deficiencies. These deficiencies include hardware and software configuration and WC user-interface ability (Bower, 2011). Finally, Bower (2011) outlined professional development opportunities for faculty and staff in order to improve confidence and efficacy among WC facilitators. While the three studies described challenges of WC, all pointed to an environment ripe for the increasing and improving use of WC in higher education (Ellingson & Nothbohm, 2012; Bower, 2011, Karal et al., 2011).

**Current WC Technologies.** WC technologies such as Interwise, AnyMeeting, GoToMeeting, Blackboard Collaborate, Skype, Meeting Room Platform, and Webex have enabled faculty members and other university personnel to reach out to their students in live formats. Additionally, these formats enable students to work together in a live format. Like new technologies, steep learning curves and functionality issues burden WC programs (Ellingson & Nothbohm, 2012). Researchers (Ellingson & Nothbohm, 2012 & Hudson et al., 2012) illustrated

free services like Skype are better for one-on-one interactions, where pay services (Web-ex, GoToMeeting, and Adobe Connect) are more suitable for larger meetings.

Use of WC varies greatly among online courses (Kim et al., 2012; Moldenhauer, 2010). Some courses use WC for occasional instructor presentations or lessons, where other courses are run strictly in a synchronous format using WC technologies. Some courses employ WC for occasional student group work, where others require multiple live meetings per week among the learners. It is this researcher's opinion that further investigation into student opinion of the use of WC and its effects on learner-content interaction is needed.

**WC, Isolation, and Student Satisfaction.** WC has increased quality student-facilitator interactions, and to a lesser extent, student-student interactions (Hrastinski, 2006; Kamel-Boulos, Taylor, & Breton, 2005). These interactions reduce feelings of isolation (Cao et al., 2009; Fotini & Henkel, 2008) but at times increase feelings of frustration—both of which contribute positively and negatively to student satisfaction. Older research (e.g., Abrahamson, 1998; Brown, 1996; Rahm & Reed, 1998) illuminates one of the larger problems of online education—students' isolation. Rovai (2002) completed one of the seminal studies in this area and found the sense of community is both vital to student success and alleviates much of these feelings of isolation. Building community though, is an ongoing challenge (Cao et al., 2009).

In summary, online students attribute feelings of isolation as one of the larger reasons for course dissatisfaction. These feelings can be alleviated with more interaction and employing WC technologies and live learning opportunities increase interaction types that may result in increased course satisfaction. Research demonstrating live interactions between academic support centers and online graduate students made available by WC and its impact on student-content interaction has not been found—providing the impetus for the presented research study.



## Academic Support Centers

What is considered student support for online graduate students varies by researchers, and how the support is offered varies as well. Student support, as an overarching term, includes activities such as advisement, enrollment and registration assistance, counseling, disability services, and academic support (Simpson, 2012; Floyd & Casey-Powell, 2004). Academic support, specifically, centers on the institutional need of providing for student skill assistance (Williams, 2015; Kuo, Hagie, & Miller, 2004), writing support (Artz, et al., 2009; Santovec, 2005) and content tutoring (Van Rosmalen et al., 2006; Floyd & Casey-Powell, 2004). These three components of academic support frame, in part, this study. Providing quality support services for online graduate students remains one of the larger challenges for higher education administrators (Williams, 2015). It is within the institutional academic support center where much of this assistance takes place.

Popular distance learning models (Simpson, 2012; Floyd & Casey-Powell, 2004) include academic support as a primary component. Beyond the instruction and assessment phases of the student process, the *Learner Support Phase*, while sometimes an afterthought, need be present (Floyd and Casey-Powell, 2004, p. 59). Simpson (2012) presented the idea that while few academic institutions employ a *Student Support Activities* component to their programs, all of them should. Floyd and Casey-Powell (2004) describe the need for user-friendly and learner-centered online support services. Effective and efficient academic support is vital to the attributes of student success (Floyd & Casey-Powell, 2004). However, since 2004, few demonstrable improvements have been made in this area (Simpson, 2012). Additionally, academic support is an expectation of online graduate students (Simpson, 2012; Floyd & Casey-Powell, 2004).

**Writing Support.** Santovec (2005) touted the specific writing skills taught and reinforced in an effective writing support center. Higher-level writing abilities such as organization, synthesis, effective response to written prompts along with basic skills such as grammar competency, paper formatting, and writing in a clear and concise manner are targeted areas of writing support centers. Additionally, Santovec posited the need for writing support practices to cater specifically to distance learners (2005). Beyond the positive results of effective writing support, researchers are directing attention to the mode of writing support offerings. Offering real-time writing support is an effective option (Van Horne, 2012) when compared to asynchronous write, send, comment, and return writing support models. Arzt et al. (2009) demonstrated the effectiveness of using live writing support in achieving larger Writing Across the Curriculum goals. Beyond the improved results of student writing, faculty were pleased with the format and the status of the writing center improved. Older and more recent research (Burns et al., 2014; Arzt et al., 2009) point to student technological difficulties as the larger complaint for tutoring sessions held in real-time formats. Finally, students viewed their writing tutors as tremendous assets to their educational experience (Burns et al., 2014).

**Content Tutoring.** Content tutoring for online students results in improved attitude toward the content material and increased performance on test scores and written responses (Fiege, 2010). Content tutoring in a live format has the potential to further improve these results and adds as a tangential result, the improved feeling of connection to the institution. The increasing usage of web conferencing has greatly improved the tutoring experiences for online students (Arzt et al., 2009). Employing WC technologies, institutions are able to work with students and emulate the much sought after face-to-face experience (Nandi, 2015).

**Academic Coaching.** Students well versed in graduate level study skills perform better and last longer in school (Kuo et al., 2004). These skills make up the second component of a comprehensive academic support program for online students (Simpson, 2012). Specifically, these students well versed in graduate level study skills unique to the online setting adapt well to challenges, have better scholastic and personal balance, and work well collaboratively (Simpson, 2012). Skills such as time management, organizational habits, active reading, and research are vital to a successful online graduate student (Simpson, 2012) and necessary components to a successful academic support program (Wyland, Winkel, Lester, & Hanson-Rasmussen, 2015; Kuo et al., 2004).

**Challenges.** Researchers point to the lack of academic support services available to distance learners. Most vocal regarding this problem are Burns et al. (2014) who claim a large divide between distance learners and academic support. They go on to note that support services in the areas of registration, financial aid, and academic advising are readily available, but academic support services are still lacking. Burns et al. (2014) negatively attribute this gap to institutional desire to expand offerings and increase revenue, and in result the students express dissatisfaction in their lack of access to the campus tutoring center. They add that institutions are mistaken in assuming students will succeed without academic support systems in place. This finding is in exact agreement to the LaPadula (2003) premise. LaPadula theorized the importance of student support presence in a quality distance education program. LaPadula found that online students both want and need technology assistance, help with time management, and content tutoring. Before Burns described the large gap between student need and institutional offering, LaPadula (2003) described a comparable need of online student access to services as their traditional face-to-face counterparts.

Santovec (2005) and later Burns et al., (2014) noted that when support is available to online students, it is commonly inferior to face-to-face services. Appointments are more likely to be canceled (Artz et al., 2009), there are technological difficulties (Morrison et al., 2015), and there are less engaged tutors and participants (Simpson, 2012). Also, online students are less likely to schedule a subsequent appointment with a support center than their face-to-face counterparts (Burns et al., 2014). Additionally, Burns et al. (2014) noted that face-to-face tutoring sessions are dynamic and flexible and, in order to offer the same experience, online tutoring sessions should use a variety of methods and technologies.

**Synchronous Tutoring.** Continuing scholarly investigation into writing support and tutoring yields the expressed need for live interactions between students and schools (Van Horne, 2012). Van Horne found live writing support sessions to be more than just effective means to help students with their writing. He described these meetings as opportunities to reduce the transactional distance felt between online students and their host institutions. Also citing Moore's Theory of Transactional Distance (1976), Burns et al. (2014) described the use of real time communication between the academic support centers and online students as a means for providing more personal, individual, and dynamic interactions. This idea is similar to Huang and Hsiao (2012) who found the primary reason for instructors who favor synchronous delivery as the increased student-teacher connection.

### **Theory Driving Research Study**

The theory driving the proposed research study is Michael Moore's Theory of Transactional Distance (Moore, 1972). Moore defined a metaphorical distance between learners and instructors in all learning environments. In developing the Theory of Transactional Distance (TTD) Moore built upon his theory of independent learning. TTD is grounded in the idea that

dialogue, structure, and autonomy all are interactive components present in the learning environment and directly impact the distance between learner and instructor. Moore (1980) describes this distance as “a psychological and communication space to be crossed, a space of potential misunderstanding between the inputs of instructor and those of the learner” (p. 17). Moore and Kearsley (1996) went on to apply the larger concepts of transactional distance specific to online learning and define three interaction types present in this educational setting.

Moore (1972) and later Moore and Kearsley (1996) explained that any time there is an instructor, a learner, and any form of communication, transactional distance is present. The measure of this distance is a function of teacher behaviors such as dialogue and structure combined with student behavior of autonomy. As an example, Course A (an online course) is a course full of teacher announcements, dialogue in the discussion boards, ample live interaction with students, and effective structure. Course B, on the other hand, is void of many of these interactions and contains a poor structure. Course A is considered a course to have low transactional distance, while Course B is considered a course with high transactional distance (Moore, 1980). Additionally, as learner autonomy increases the learner is more proactive in initiating interaction further closing the distance.

### **Conceptual Framework**

Moore’s (1976) Theory of Transactional Distance (TTD) combined with Moore’s later solo work (1980) and work with Kearsley (1996) have partially provided for both the narrow focus and theoretical rationale for the proposed study. Moore (1976) explained three behaviors (dialogue, structure, and student autonomy) that contribute to the degree of transactional distance in a learning environment as a pedagogical phenomenon. While the behavior of student autonomy is out of the course instructor’s and designer’s control, minimizing the metaphorical

distance is controllable by adjusting the dialogue and structure behaviors. Moore (1976) stressed the importance of minimizing the distance in order to create an effective learning environment. The proposed study will look at improving course satisfaction and alleviating feelings of isolation solely through the lens of the dialogue behavior.

Moore and Kearsley (1996) developed three interaction types present and necessary to successfully implement a distance course (learner-learner interaction, learner-facilitator interaction, and learner-content interaction). Moore and Kearsley (1996) stressed the importance of including sophisticated aspects of all interaction types in order to successfully design and facilitate a distance course. All three interactions can be viewed through the lens of the dialogue behavior, but to further narrow the scope of investigation the researcher plans on centering the study on learner-content interaction (LCI).

Vygotsky's Theory of Social Development states social interaction is critical for cognitive development. This theory acts as an antecedent and influencer of Situated Learning Theory (Lave & Wenger, 1991). Situated Learning Theory argues that social interaction is a critical component of situated learning. Learners become part of a community and the community drives appropriate behaviors within the learning environment. Between Vygotsky's and Moore's writings, it becomes clear social interaction is important in learning. Moore's model offers dialogue in which to look at interaction. Moore and Kearsley's (1996) model offers the learner-learner interaction to look at dialogue. Research is plentiful in the areas of learner-facilitator and learner-learner interactions, but lacking in learner-content interactions.

The next concept framing the proposed study comes from literature pointing to the dearth in academic support provided to online students by the host institution (Simpson, 2012; LaPadula, 2003). Without needed academic support, content understanding is impacted.

Adjacent to this concept is the published demonstration of the effectiveness of synchronous instruction in the online platform (Oztok, et al, 2013; Leiss, 2010). When this concept is synthesized with discussed theories, a logical path points to incorporating live academic support.

In summary, it is clear interaction is important, academic support for online students is lacking, and live instruction is effective in content understanding, so it was deemed appropriate to investigate the impacts live content tutoring and writing support offered by an academic support center has on the students' relationship to the content.

### **Prominent Authors**

Prominent authors in the areas of transactional distance, interaction, synchronous learning, isolation, and web-conferencing were identified in both the preliminary literature review and this writing. Components of transactional distance were first explored by Moore (1972), improved upon (1980) and completed by Moore (1993). Other contributors to the knowledge base regarding transactional distance include Kearsley, with Moore (1996), Chen and Willits (1998), Caspi, Gorsky, & Chajut (2003), and Gokool-Ramdoo (2008).

The next concepts to shape this study involve interaction, web-conferencing (WC) and their impacts on effective instruction. Ample research (Barr & Miller, 2013; Offir et al., 2008) demonstrates interaction is vital in all forms of education, including online learning. Older research (Soo & Bonk, 1998; Moore & Kearsley, 1996) set the stage in describing the relationship between interaction and distance learning. Early on in the research, little attention was paid to live learning opportunities, specifically WC; however as knowledge of the topic advanced, research (Barr & Miller, 2013; Offir et al., 2008) includes this technology's potentials in improving interaction types. Additionally, Ellingson and Notbohm (2012); Cao et al. (2009);

and Huang and Hsiao (2012) presented benefits and potential pitfalls of various WC technologies.

Plentiful research is available regarding synchronous learning, isolation, and the relationship between the two. Kamel-Boulos et al. (2005), Hrastinski (2006), and Fotini and Henkel (2008) worked to demonstrate and to describe relationships between increased interaction via live learning and feelings of isolation. Past research has done much to pinpoint this researcher's place in the knowledge base regarding this topic. Summarily, researchers demonstrate the importance of interaction in distance learning and how isolation can lead to poor student course satisfaction. Researchers point to the effective use of WC technologies in increasing interaction and course satisfaction. Finally, Simpson (2003) and Lapdula (2003) paved the way for academic support department responsibility in serving online students. Subsequent to Simpson, Floyd and Casey-Powell (2004) created an instructional support model.

### **Conclusion**

Similar to other researchers, Ludwig-Hardman and Dunlap (2003) explained that feelings of isolation that lead to student dissatisfaction is a big problem in distance learning. Consistently, Schreiner (2009) points to the positive impacts of the perceived sense of belonging and a welcoming climate. Despite this knowledge, academic support as an opportunity to increase student sense of belonging and connection for the online students is rarely found in research. Fiege (2010), without empirical evidence, posited the *Learner Support Phase* of the Floyd and Casey-Powell (2004) Model of Student Support as an ideal opportunity in increase student sense of belonging. The goal of this study was to add to the structure of knowledge in the area of synchronous student support and its effects on student interaction to the course content. As demonstrated by research, online students feel isolated and this leads to low satisfaction and poor



performance (Cao et al., 2009; Fotini & Henkel, 2008). Live interactions between students and institutional components decrease transactional distance (Hrastinski et al., 2010)—and these interactions are uncommon between students and academic support staff (Simpson, 2012). It was hypothesized that increasing these interaction types may also decrease transactional distance while improving students' feelings of connectedness and belonging to the host institution.

## CHAPTER 3

### METHODOLOGY

A goal of the presented phenomenological qualitative study was to investigate the phenomenon associated with University of New England (UNE) online graduate students and their experiences working with Student Academic Support Center (SASC) staff in synchronistic formats. This study implemented semi-structured interviews in order to identify perceptions and explore the insights and beliefs of the participants to provide answers to the following question: How do real-time interactions between academic support departments and online graduate students impact student interaction with the course content? Additionally, the data gathered and analyzed aimed to answer the following research questions:

1. What are the student perceptions of the impacts of live academic support meetings on their interactions with, and understanding of, the course content?
2. What factors of live web-conferences with academic support centers do participants perceive as being more or less beneficial to their relationship with the content?
3. To what extent do varying staff characteristics and behaviors during synchronistic support sessions affect student interactions with the content?
4. In comparison, how do the different live support session types (writing support, content tutoring, and academic coaching) affect student-content interactions?

In 1972 Moore developed the Theory of Transactional Distance (TTD), essentially describing the metaphorical distance between students and their educational programs. Transactional distance exists in any learning setting but is noticeably greater in a distance-learning environment (1972). Over time the concepts of TTD transferred to the online learning

environment, and in an effort to minimize transactional distance between online students and their host institutions, Moore (1989) later identified and defined the importance of three interaction types online learners experience. Besides student-facilitator and student-student interactions, Moore and Kearsley (1996) pointed to the importance of student-content interactions as an integral component of an online learning program. Course completion and successful learning outcomes are dependent on effective learner-content interaction (Zimmerman, 2012).

It was this researcher's intent, using Moore's (1989) Theory of Interaction as a framework, to ascertain perceived student understandings through the methodologies of a phenomenological qualitative inquiry, of how a live support program impacts their interactions with the offered content. Creswell (2013) defines phenomenology as "a research strategy of inquiry in which the researcher identifies the essence of human experiences about a phenomenon as described by participants" (p. 13). This chapter will include the discussion of the chosen research methodology, and its rationale and influences on setting, participants, data collection procedures, and data analysis.

### **Setting**

The setting of this study was central to the University of New England's (UNE) Portland, Maine campus. However, since the participants are online graduate students, the setting was not limited to the university. The UNE Portland Campus primarily serves graduate students in two different settings including (1) on-campus students in varying disciplines such as pharmacy, physical therapy, and nursing and (2) online students in social work, education, and public health. This study utilized student participants from varying United States locations.

The research study aimed to address the problem of inadequate interactions between graduate students and the course content. Online students spend much of their time alone with the content (Zimmerman, 2012) in the forms of readings, videos, asynchronous discussions, and Powerpoint slides. Often the students have little support when interacting with the content, so implementing a live support system may indeed improve upon learner-content interactions. In order to answer the research questions, the proposed study utilized UNE's Student Academic Support Center (SASC) as a setting where the support system was implemented. SASC has a small division that serves only online graduate students. SASC staff including professional writing tutors, student statistics tutors, this researcher—the online learning specialist—met live, via web-conferencing with the online graduate students. Data central to the research questions was then garnered from students who experienced these meetings. Moustakas (1994) summarizes the purpose of phenomenology as, “seek[ing] meanings from appearances and arriv[ing] at essences through intuition and reflection on conscious acts of experience, leading to ideas, concepts, judgments, and understandings” (p. 58). These meetings provided the acts of experience studied using phenomenological methodology.

### **Participants**

The study sample consisted of eight UNE online graduate students spread across the United States who had participated in four or more synchronous support sessions during the period of December 2014 through November 2015. This sample was from a pool of 2,100 online graduate students attending UNE, primarily in the departments of Social Work, Education, and Public Health. This sample was chosen because of the students' shared experience of working live with SASC staff during their time as UNE graduate students. At the time of interview, participants' duration in respective programs ranged from second course to near program

completion. In order to explore how real-time support sessions led by academic support staff impacts online graduate student to content interactions, eight qualifying students were interviewed. Participants were active and past social work and public health students. Of the 2,100 online graduate students at UNE 78% are female and the average age is 36 years old. Other demographics of this student type—not specific to UNE—indicate 60 percent are Caucasian, 73 percent are employed full time, 63 percent are over the age of thirty, and 65 percent of the students live in households making less than 100,000 dollars (Aslanian and Clinefelter, 2012).

The participants were identified by contact data collected at SASC, were asked to participate via email, and were chosen purposely from the resulting pool of positive responses depending on support session type (content tutoring, writing support, or academic coaching). The familiarity between the students and the researcher may have influenced responses during interviews (Srivastava & Thomson, 2009), and for this reasoning participants working with other staff members were first asked to volunteer. However, three of the eight participants received academic support directly from the researcher at least one time. In order to garner access to the participant pool the researcher sought local approval by departmental heads in social work and public health by submitting the research proposal and interview script. In addition to consent materials completed by the participants, verbal permission was requested from departmental heads to record the interviews with their students.

### **Data**

Groenewald (2004) offers the all-encompassing word in phenomenological research as “describe” (p. 5). In order to attain the best description possible regarding student experience, the researcher employed qualitative interview techniques with the purposely-selected sample. First,

eight students were interviewed in a semi-scripted format. This format allowed the interview to focus on several key questions but also allowed for divergence to explore other ideas and the ability to member check responses (Gill, Stewart, Treasure, & Chadwick, 2008). The interviews took place using the computer mediated communication tool web-conferencing. This format is increasing in use and, due to noticeable conversational aspects such as intonation, pacing, and inflections, is equivalent in results compared to traditional, qualitative face-to-face interviews (Opdenakker, 2006). The 90 minute interviews enabled the exploration of student views, experiences, and motivations (Stewart et al., 2008). In preparation for subsequent analysis the interviews were recorded and transcribed.

The semi-structured interviews followed a scripted outline (see Appendix A) created by first listing the four research questions. The researcher then brainstormed several questions under each of the four larger research questions that provided information to answer the larger research question. Each interview prompt also had at least two probing questions as well—with a reminder for continual member checking posted. Two academic support colleagues reviewed and improved upon some of the questioning. A practice session was conducted with a student tutor who is not an online student. The official interviews were held using the AnyMeeting web-conferencing platform. Interviews were recorded and data subsequently transcribed. Follow up interviews were held in the same format, and centered on clarifying responses and refocusing some questions as themes developed in data analysis.

### **Analysis**

“Qualitative research is all about discovery” (Bloomberg & Volpe, 2012, p. 135). The phenomenological approach to qualitative research allows the researcher to dig deep in order to access participant experience in a given phenomenon (Creswell, 2013). After collecting data, the

researcher then analyzes these experiences in order to portray participant “essence of the experience” (Moustakas, 1994, p. 13). It is this principle that drives phenomenological analysis methodology and the basis for choosing this approach. It was the researcher’s goal, through semi-scripted interviewing, to garner data regarding student experience working live with academic support staff, and then using systematic data analysis, to present a comprehensive portrayal of the experience. This research design allowed for the uncovering of important insights of the phenomenon that became findings in Chapter 4. Beyond allowing for the formation of themes and patterns derived from garnered data, the inductive steps of qualitative-phenomenological analysis bring order and structure to the immense amounts of expected data (Bloomberg & Volpe, 2012).

Data derived from semi-structured interviews with eight current online graduate students were analyzed with the framework analysis methodology. This inductive methodology allowed for the identification of similarities and differences in the data that ultimately allowed the researcher to “draw descriptive and/or explanatory conclusions clustered around themes” (Gale, Heath, Cameron, Rashid, & Redwood, 2013, p. 1). Consistent with the goals of the analysis of this study, the framework analysis method (see Appendix B) is most frequently employed when qualitative researchers seek to clarify data garnered from semi-structured interview transcripts (Srivastava & Thomson, 2009). Additionally, the framework analysis methodology intuitively allows for the generation and defense of themes, categories, and explanations identified throughout the analysis procedure (Pope, Ziebland, & Mays, 2000).

The following components of data analysis are derived from the Gale et al. (2013) model (see Appendix B) for a framework analysis driven qualitative-phenomenological data study. The first step in analyzing the interviews entailed data managing. Bloomberg and Volpe (2012)

explained researcher transcription as an ideal time and way for the researcher to immerse one's self in the data. They went on to argue that this method is "quite different from *just* working off transcriptions done by someone else" (p. 136). This step in the analytic process allowed for the initial generation of researcher insights. During this listening and transcription process non-verbal communications (pauses, interruptions, laughter) were noted as well. During this step the following for larger categories were created: Beneficial, Technology, Support Staff Characteristics, and Session Types.

The next step (Gale et al., 2013) consisted of reading and memoing. Activities in this step included active reading, reflecting and note taking while reviewing the transcripts. Next, classifying (Gale et al., 2013) entailed the finding and listing of meaning statements and then grouping those statements into the four larger categories using a coding system. As classifying continued, a fifth category arose. Interpreting is the fourth component of Gale et al.'s (2013) model. For this study, this interpretation took the shape of a preliminary narrative describing *what* happened and *how* the phenomenon was experienced (p. 149). The creation of matrices, with the headings on the y-axis being participants and the x-axis being sub-categories, enabled this step. The matrices revealed the truths within the data that both confirmed the four findings and justified the fifth. The interpretations of the matrices provided for information that enabled the deeper description and explanation of the findings. Additionally, data within the matrices informed the interpretations and stipulated the recommendations.

### **Participant Rights**

It was the researcher's intention to protect the rights of participants throughout the duration of the proposed research study. An informed consent document demonstrating the research purpose, time commitments, participant expectations, risks, and benefits was distributed



to selected volunteers (Appendix C). Confidentiality was addressed in the consent form and was secured with the use of pseudonyms throughout the data collection and analysis periods. All paper documentation was stored in a locked file cabinet. Digital materials were stored in a password-protected computer. Additionally, recordings were maintained in a password-protected file housed within the cloud-based Anymeeting program. Study materials were maintained off-site. Participation in the study was voluntary and participants could have ended their participation at any time. There was no compensation for participation. Finally, participation in the study will have limited effect on subsequent meetings between students and SASC staff.

### **Limitations**

Limitations for the study included the inability to generalize qualitative research and the biases of the researcher innate in qualitative research. In the traditional sense, findings from small qualitative studies are not generalizable (Creswell, 2013). However, according to Yin (2003) if the findings based on participant response are in context to the research questions, qualitative research can be generalized in creation of theory. In addition, findings from qualitative studies may be influenced by the researcher's presence (Srivastava & Thomson, 2009). A researcher brings his or her background to the study, but as a rule, this is understood. Unique to this study was the researcher's involvement in the live support sessions. The familiarity between the students and the researcher may have influenced responses during interviews (Srivastava & Thomson, 2009), and for this reason participants working with other staff members were first asked to volunteer. Additionally, it was made clear to the three participants with whom the researcher had worked with that nothing the students said during the interviews could be used for or against them in subsequent meetings with the Student Academic Success Center.

## CHAPTER 4

### RESULTS

The purpose of this qualitative phenomenological study was to create an understanding of online graduate students' perceptions of how working live with academic support staff affects their interactions with the course content. Results from this study will contribute to the gap in research regarding academic support usage of synchronous technologies by exploring online graduate student perceptions of the effects of live support on their interaction with the content. The objective of Chapter Four is to offer a meaningful representation, using a theme-based approach, of a framework analysis of the raw data garnered from the interviews. Included in this representation are the key findings obtained from the analysis of the interview transcriptions.

Five larger findings were identified from the completed study:

1. Students perceive live meetings to have both short-term and long-term benefits to their interaction with the course content.
2. Connections between online students and each other, university staff, and faculty are a large contributor to the perceived benefits.
3. Web-conferencing technology was not a hindrance, rather an effective tool in assisting the students with their relationships to the content.
4. Support staff behavior was vital in improving student interaction with the course content.
5. The three live session types (learning strategies, writing support, and content tutoring) all were perceived as beneficial.

Data derived from semi-structured interviews (Appendix A) with eight current online graduate students were analyzed with the framework analysis methodology. Gale, Heath,

Cameron, Rashid, & Redwood (2013) designated six steps of a qualitative framework analysis, and Appendix B summarizes how the steps were utilized within the analysis piece of this study.

The first two steps were transcription and familiarization. Researchers recommend personal transcription of the data in order to become fully immersed in the data (Bloomberg & Volpe, 2008) and be able to simultaneously collect and analyze data (Merriam, 2009). During these steps, the advantage of framework analysis became evident. The working framework, headed by four initial categories, would become a sorting receptacle for individual quotations and interview notes. The four initial categories included the following: Beneficial, Technology, Support Staff Characteristics, and Session Types. Next, and integral to the framework analysis methodology, matrices were employed in order to sort ideas, quotations, and noted concepts within the structure provided by the research questions. Figure 1 provides a pictorial of the initial data sorting process.

Participant	Beneficial	Technology	Support Staff
Talita	<p>1. <b>The assignments</b> in discussion board and large papers are the whole grade. If you can't write you can't pass in this program. I was always a great writer and got great grades in college, but when I got here I couldn't do nothing right. If I didn't get help from you all, there is no chance I could be passing these classes. I never know how to start going at the beginning. You showed me how to research from an outline and make my outline better as I research. 2. <b>"I wouldn't</b> of passed any of my first three classes without the writing center." 3. <b>My confidence</b> is better. When my first professor told me I needed help I was mad. Who is he? But [SASC staff names] are right when they helped me. I am not scared to write in the discussion boards no more...Confidence is important in life, and yes, as a student it is important; I do better when I know it's gonna be good. I am not afraid to read something hard and write about it now...My confidence is always good, but if my meetings wasn't live it would be slower is all.</p>	<p>1. <b>Thank God I</b> had my sons with me for the first meeting. I never did nothing like this before. In the military we use the phone or had in person meetings. I'm glad I learned it though. It [using web-conferencing technology] is easy now. I just got to remember to turn the TV off. 2. <b>[Other technological practices]</b> I'm good at now are attaching documents and downloading and finding my documents.</p>	<p>1. "I just want to work hard because you all are so helpful, so nice. If everyone took the time to help us, maybe everybody wouldn't be pissed off in the parking lot about how lost they is." 2. <b>I read</b> so many names on these syllabus and Blackboard classes that I don't even know. I know you and XXXXXXX. It is you all that are nice and care if I fail or not. No one else. I know that you have been so patient and I thank you. 3. <b>That (talking about patience here)</b> has helped me because I know someone cares and it's hard sometimes to do everything or anything. I just need help is all. I have a disability and I need to work with someone that cares and like you said, is patient.</p>

*Figure 1.* Initial sorting example. This is an example of the initial data sorting of Talita's responses into three initial categories. Note: the fourth initial category, *Session Type*, is not pictured.

After completion of the arduous tasks of transcription and familiarization, further development of the working analytic framework and the coding process took place. Codes were assigned within each of the four categories. The categories were then broken up into smaller sub-categories and codes were assigned within. Figure 2 demonstrates the further breakdown of Talita's data specific to the *Beneficial* finding.

Participant	Immediate Benefits	Longer-term Benefits
	<b>Benefits</b> <b>Immediate benefits</b> Assistance with assignment Assistance with passing class <b>Longer-term benefits</b> English practice Increased confidence Student skills Research and writing skills	<b>IB</b> <b>AA</b> <b>AC</b> <b>LTB</b> <b>EP</b> <b>IC</b> <b>SS</b> <b>RWS</b>
<b>Talita</b>	<p>1. <b>(IB, AA)</b> The assignments in discussion board and large papers are the whole grade If I didn't get help from you all, there is no chance <b>IB ACI</b> could be passing these classes. I never know how to start going at the beginning. <b>IB AA</b> You showed me how to research from an outline and make my outline better as I research. <b>IB AC2</b>. "I wouldn't of passed any of my first three classes without the writing center." was mad. Who is he? But [SASC staff names] are right when they helped me. I am not scared to write in the discussion boards no more...</p>	<p><b>LTB/RWS</b> If you can't write you can't pass in this program. I was always a great writer and got great grades in college, but when I got here I couldn't ..do nothing right.3. My confidence is better. When my first professor told me I needed help I...Confidence is important in life, and yes, as a student it is important; I do better when I know it's gonna be good. <b>LTB SS</b> I am not afraid to read something hard and write about it now...<b>LTB IC</b> My confidence is always good, but if my meetings wasn't live it would be slower is all.</p>

Figure 2. Coding example. This is a sample of Talita's coded responses into the *Beneficial* finding.

As more data were sorted, categorization gave way to descriptive findings. As an example, for the question looking to explore perceived benefits of live meetings sub-categories of immediate and longer-term benefits were assigned. Within these sub-categories, as noted in Figure 2, coding such as IBAA for assistance with assignment as an immediate benefit and LTBRWS for research and writings skills as a longer-term benefit were assigned. The data

within the subcategories contributed to the interpretations, implications, and recommendations of each finding. Talita's data within the subcategory of immediate benefits, for example, directed the researcher to recommend increasing live support opportunities to online graduate students.

Another finding—students partially attribute the benefits of live meetings to connections made during the meetings—was discovered later due to it not being directly linked to a stated research question. Initially data for this finding was stored within the *Benefits* category; however as data accumulated discussing student perception of why the meetings were beneficial, it became clear the sub-category of *Connection* needed to become its own category. Appendix D summarizes the coding schema for the five discussed findings. Finally, in addition to sorting, framework analysis allows for a description of the quantity of response within a category or sub-category. Appendix E provides an example of this process.

After the provision of an overview of the participants, including a brief description of the demographics, Chapter Four will include the detailed findings derived from the framework analysis of the data collected from the semi-structured interviews. Included in the findings are the identified patterns and themes that contributed to the findings.

### **The Participants**

This study included eight online graduate students from the University of New England (UNE) in the Social Work and Public Health programs. Time enrolled varied for the interviewees from 16 weeks to 18 months. Five women and three men were interviewed for 90 minutes in a semi-structured format. Names of participants during the analysis were changed and pseudonyms given. Throughout Chapter 4, participants are represented by these pseudonyms. In addition to attending school full time, all but one of the students were employed full time. Five students had at least one bachelor's degree and three had at least one master's degree. Many of

the participants have families at home they are responsible for, and all are extremely busy. Three of the students were content with their programming at UNE while five noted several criticisms. Due to some of the negative characteristics inherent to the nature of online learning, all of the students felt isolated from the institution and little connection to their student colleagues and faculty. Following is a succinct characterization of each participant. All details regarding demographic information, unless noted, are to be considered current only at the time of interview.

Afia is a Pakistani immigrant and is enrolled in UNE's Public Health Program. She is expected to graduate from the program in May of 2016. She has a master's degree and works full time for a public health organization in the Southeast of the United States and is a single mother of two. She met live with Student Academic Success Center (SASC) staff over 15 times in all session types (learning strategies, writing support, and content tutoring). Afia's largest concerns in school are her English writing abilities, her ability to do statistics, and her feeling that "[university personnel beyond SASC staff] are not all that concerned with her success of being a student." Afia considers her time spent with SASC staff as highly beneficial.

Fagago lives on an American territory island and has been enrolled in UNE's Public Health Program for eight months. Fagago lives at home with his parents and works part-time for an electronics store. He has a bachelor's degree in sociology and met with SASC staff between 10 and 15 times in the areas of learning strategies, content tutoring and writing support). Fagago's largest concerns in school are his English reading and writing, technology, lack of interaction with faculty and lack of time to complete the assignments. Fagago considers his time spent with SASC staff as somewhat beneficial. He summed up his academic support experience

with, “Help is important and I thank you. But you must know there just is not enough help available.”

Abasiama is a Nigerian immigrant enrolled in UNE’s Public Health program. She is expected to graduate from the program in May of 2016. Abasiama has two master’s degrees in healthcare disciplines and works full time in an American Southeast hospital. She is married and has two children living in the home. She has web-conferenced with SASC between 10 and 15 times in all session types. Her two largest concerns about being an online student in America are her English reading and writing skills and research at the graduate level. Abasiama characterizes her time working live with SASC staff with, “You and your staff are life savers!”

Chandni is a Bangladeshi immigrant who resettled in a Mid Atlantic state and has been a public health student for 16 weeks. She received a bachelor’s degree in English at the University of Maryland. She is a single, full time student who works part time for a social services agency in northern Virginia. Chandni expressed her three larger concerns being an online graduate student as time to do the work, expressing herself well in English, and being isolated. Chandni gave her overall opinion of meeting live with SASC personnel by stating, “I appreciate the assistance your department has much provided for me. I have spoken many times with your department and rarely with the public health department.”

Yet another immigrant attending a UNE online graduate program, Mark moved from England to the Southeastern United States. His undergraduate degree is in social work, and he has been in UNE’s Master of Social Work program for four months. He devotes all of his time to his wife, two children and his advanced degree work. He has met live for both writing support and academic coaching purposes between five and ten times. His expressed concerns about his

schooling are writing, time, and keeping organized. Mark expressed his gratitude with, “I want to thank you for making me believe in myself.”

Talita comes from the Coastal Mid Atlantic region of the United States and is pursuing a master’s degree in social work. She has been enrolled at UNE for one year and has faced issues in the areas of plagiarism, incomplete work, and isolation. She is a mother of two adult children, is a retired Navy veteran and comes to UNE with a bachelor’s in social work. She has met live with SASC staff over 15 times for writing support and academic coaching work. Talita classifies her time spent with SASC staff as highly beneficial and summed it up with, “I trust you. Trust is built with time—time on the phone, time on the computer.”

Susan, too, is acquiring a master’s degree in social work. She lives in the Southeastern United States with her husband and together they run a non-secular homeless shelter. She has a bachelor’s degree in psychology and has no children. She has attended UNE’s social work program for eight months and met with SASC personnel between five and ten times. Her meetings focused on learning strategies and writing support. She expressed her areas of concern as an online graduate student as not enough time, technological difficulties, and being alone in the process. Loneliness was a pervasive theme during the interviewing and member checking processes: “I don’t know why I don’t have a study group, or a support group. Something like that. Where are the other students?”

Finally, Abah, who originates from Nigeria, has been a public health student for over a year. His bachelor’s degree in public health has served him well with his full-time duties as a public health worker in the Southeast region of the United States. He is married and has three children. His five to 10 meetings have centered on learning strategies, writing support, and content tutoring. His biggest concerns as an online student are his math abilities, English writing,



and time management. Abah's meaningful "I praise you and your team. My work is nearly complete and it is your help that made this possible," sums up his experience working with SASC.

After interviewing these participating distance students and analyzing the data, five major themes emerged that further the understanding of academic support's usage of synchronous technologies and its effects on online graduate students' interactions with the course content. The first theme was that online graduate students perceive live meetings to be particularly beneficial to their interactions with the course content. Secondly, the connections between students and university personnel influenced this perception. In addition to increased live interaction with university personnel, it was found that several components of web-conferencing technology also contribute to improved interactions between the students and the course content. The fourth finding demonstrates the importance of positive staff characteristics and behaviors during the sessions on the students' interactions with the content. Finally, it was found the three live session types all were perceived as beneficial, and differing components of each were found to be particularly valuable.

### **Beneficial Live Support Meetings**

The first theme to emerge in the analysis process involves the students' perceptions of meeting live with university support personnel. The students overwhelmingly expressed positive responses to the meetings and the effects on their work with the content. Data synthesized within this finding come primarily from the following interview questions:

1. Of the times you met with SASC, describe a time when a meeting helped you out in class?
2. How did the live meeting(s) address your need(s)?

3. What about the meeting(s) particularly influenced your understanding of the content?

Due to the larger purpose of the study being the exploration of *live* interactions between support staff and online graduate students a variation of the following question was asked as a follow up several times throughout the interviews:

What was it about working synchronously with support staff in comparison to working asynchronously that contributed to your response?

For demonstrative purposes this theme was broken down into two sub-categories: immediate benefits specific to the content and longer-term student success. Finally, of note, the most commonly expressed benefit involved connections made between students and university support staff, faculty, and other students. In fact, this benefit proved to be substantive enough to demand a theme heading of its own.

### **Immediate Benefits**

Immediate benefits from meeting with SASC personnel that students discussed include assistance with the coursework and assistance in passing the class. The interaction with the course content was key to this study and the participants had little difficulty expressing how SASC meetings affected this interaction type.

All participants expressed assistance with writing assignments as a key benefit. About her experience in multiple writing support meetings, Abasiama, stated:

Your [SASC staff's] help with my papers is so important. I will have received many poor grades on papers without working on them with [SASC staff names]. I needed a lot of assistance to start the writing assignments. I needed a lot of help with researching and finding sources for citation. There is so much about writing papers that is different in

America with citations and research. I cannot have received high marks without the assistance of you and [SASC staff names].

Also, directly related to paper completion Abah expressed:

It is hard, you know, to write in graduate level form in English for many students. My essays received passing scores. If students receive no assistance then they cannot write the papers. Online students write many papers. We cannot raise our hands; we must write papers to let the professors understand we know the readings. [SASC staff names] many times helped me look at my mistakes and better complete the writing assignments.

Finally, rounding out student experience with live writing support's effects on course content, Susan added:

I owe so much gratitude to you and your staff, Henri. I have always in my history in school had troubles writing. So much so, that I failed courses and hired tutors, etcetera. If I didn't have help from the writing center my papers would have probably had to be redos, and I would have to hire a tutor. I know my grades in class would not be passing if I fail the papers all the time.

Additionally, the specific mention of "helping me pass the class" was prevalent among participant responses. This immediate benefit of working live with SASC staff was mentioned by six of the eight interviewees. Talita stated several times in her interviews, "I wouldn't of passed any of my first three classes without the writing center." When prompted for details she continued:

The assignments in discussion board and large papers are the whole grade. If you can't write you can't pass in this program. I was always a great writer and got great grades in college, but when I got here I couldn't do nothing right. If I didn't get help from

you all, there is no chance I could be passing these classes. I never know how to start going at the beginning. You showed me how to research from an outline and make my outline better as I research.

Mark, a bit more subtly, expressed similar thoughts:

I like to write, but it is hard is all. Online students have to write everything. They told me about creating videos sometimes, or working in groups, but I have seen nothing of the sort. It's all about writing and [SASC staff names] kept my papers in top form. I know it is my responsibility to do this, but the assistance was important; I would not have passed my first two courses without all of the tutoring.

Chandni offered more material in the area of SASC live content tutoring and its impacts on helping her pass her courses:

The group sessions worked very well for me. I needed every Friday meeting in Biostatistics to help me with the weekend assignments. If there were no Friday meetings, I could have had to repeat Biostatistics. That would have been bad.

### **Longer-Term Student Success**

Similar to the results in the area of short-term student success, all participants responded positively to varying characteristics of long-term student success. Characteristics students included during the interviews are English practice, increased confidence as a student, better planning and time management, research and writing skills. When questioned about perceived benefits from the live meetings, Afia partially answered:

Anytime to practice my English is great of course. I have learned English many ways over my years and the most effective way has been through conversation. My English is no better by watching TV or movies. My English improves with conversations

that I am forced to interact with other people...As my English improves so does my life in Virginia—so does my life as a student...English skills will help me in UNE school projects and my job as well.

From Fagago:

We always talk about language. It is important to be better...Yes I have had chances offered by live meetings to improve. It is [very] difficult when people speak rapidly...The chance to improve is important in my schooling and my future. Also you have worked a lot with me with researching for a formal response. My responses are better...Writing is a task that will never end.

From Talita:

My confidence is better. When my first professor told me I needed help I was mad. Who is he? But [SASC staff names] are right when they helped me. I am not scared to write in the discussion boards no more...Confidence is important in life, and yes, as a student it is important; I do better when I know it's gonna be good. I am not afraid to read something hard and write about it now...My confidence is always good, but if my meetings wasn't live it would be slower is all.

From Mark:

Time management is a skill I try to teach my children and it was me who needed the most help. I can now plan for immediate tasks and larger ones. You have taught me to plan for more things at once...Sure, I could have watched a video on time management and maintaining healthy organization, but this way [live meetings] is much better...Why? Because I can ask and get answers immediately. I can watch how you do it and ask you to do it for my courses. We did that for an example the first time.

From Susan:

I think a thing about meeting with you and [SASC staff member] that helped me the most was that you all helped me with my paper while you helped me be a better student too...the example I can give is [SASC staff member] showed me how to outline the paper and research the paper and how to do that with good timing...You know there is no way, no way at all to do this by email. That's lazy and doesn't work.

Interviewees offered prodigious material in developing the theme of live meetings being beneficial to both short-term and long-term student success. Of note in this finding area was the consensus that student success results would have been less, to non-existent, had the support been offered asynchronously. Omitted from this section, and to be presented next, were the ubiquitous responses regarding benefits focusing on establishing connection between the student and UNE.

### **Live Support Specifics**

Throughout the questioning students were frequently prompted to discuss what exactly it was about working live with a support staff compared to other alternatives such as email exchange, video watching, and asynchronous paper assistance. Student responses can best be summed up with a quote from several students: "I cannot imagine doing it any other way." Students were also prompted several times to bring the discussion back to their relationship with the content, and a synthesized response is: "Everything's easier when you know what you're doing." The following quoted responses further developed the finding that the live component of the interaction specifically contributed to the short and long-term benefits.

From Abasiama:

Of course it [live meetings] is better than meeting with emails. That is how my professors do it, and your way is better. Of course working with the curriculum is made better with more understanding. I account much of my understanding of the writing assignments to the meetings.

From Abah:

It would be silly to have tutoring in back and forth situation. I could not understand what you wanted and you could not understand what I wanted. Yes, after the meetings I can work later by myself.

From Susan:

Are you kidding me? Watching videos? That isn't extra help. Someone tells me one more time to go to Youtube to find the answer myself and I will scream! Anyone can work better when they know what they are doing.

From Mark:

I feel sorry for the students who do not get live help. I cannot imagine that to even be a thing. If you were a teacher would you make the students watch videos instead of teach? The live meetings contributed to significant understanding, and for that I am grateful. Later readings and discussion board posts and responses would not have been as good, for certain.

From Chandni:

It is the problem to watch something over and over again and not understand it. I want to have the opportunities to ask questions for your explanation. I like to see you doing the

problem on Excel. No, if I watched more videos I could not understand Excel and setting up the formulas.

### **Connection**

After it became clear during the interview sessions and data analysis that students perceived the synchronistic support meetings as especially beneficial, I followed up with the participants in order to gather data to answer the following: To what extent do the students perceive connection as attributing to these positive benefits? Students, as one, described connections made during the live support meetings between themselves and each other, university staff, and faculty as large contributors to the perceived benefits.

As mentioned previously, the students found the live interactions to be beneficial to their later work with the content—and much of this perception is due to connections made between the students and each other, university staff, and faculty. These connections resulted in reducing students' feelings of isolation and increased access to assistance—both of which positively affected student interaction with the course content. Fagago summed up much of others' responses with, "Having tutor sessions with you on web-conference made me feel I was a part of the school in Maine."

### **Isolation and Connectedness**

Due to unique features inherent in online graduate programming, including a predominantly asynchronous structure (Skylar, 2009), online students routinely experience feelings of isolation (Cao, Griffin, and Bai, 2009) and disconnection from the institution (Lee & Choi, 2011). In one way or another, all eight students alluded to these experiences, and further, expressed direct reduction in these negative feelings as a result of the real-time support meetings with SASC staff. Six of eight students included increased interactions with SASC staff, other



students, and program faculty as decreasing the negative feelings of loneliness and disconnect. Finally participants credited better interaction experiences as factors in improvements with their later interactions with the course content.

After students expressed feelings of isolation, follow-up questions included:

1. Tell me more about feeling by yourself during this process.
2. Has that feeling changed any?
3. Would asynchronous communication been as effective?
4. How has feeling better affected your schoolwork, or interaction with the content?

From Afia:

It is often where I, with my colleagues, feel our own-self to do the tasks. It is okay to said graduate students can be more independent, but help is needed...I am pleased with my time web-conferencing the writing tutors. These are times it is like the school knows I need help...If you emailed me only and corrected my writing assignments there is no change. No one will help me then. I know when there is help available on [tutor scheduling software] I am going to do a better job, and sometimes like it a little.

From Fagago:

I do not think that there is much understanding by the University of New England that students are failing and struggling in the work. It is frustrating [to] have appointments with [SASC staff names]...I want to tell you to call the bank and talk to the computer on the phone...What is better? A person, or a computer asking for many buttons and numbers?...The time is much appreciate that is given. [Knowing someone will see my written work before professors do makes me confident].

From Abasiama:

I do not tell people the school I attend because it is so far away. Tutor sessions are what I am proud of. Online learning I am not proud of. I am proud because it [support sessions] is real, understand? If you [Henri] only passed out Internet links in your presentation and not to give the information directly then I would be bored and not proud. I am proud to receive assistance and to use the assistance for the completion of difficult assignments.

From Talita:

At no point do I ever feel like the school cares about me, except when I call you. There is no reason for this. People gonna take my money and give me bad grades and give no help? That's messed...I do feel better when I work with you and [SASC staff member]. It feel like I am in a real school where they care about what we doin'. I know it hard 'cause we all over the world and all, but come on. We pay and need help too...they [live support sessions] keep me up on my work and make me believe I ain't alone all the time. Yes, they [live support sessions] make me do better. Without them I'd quit, really...I do better 'cause I understand what to look for when I researching and when I am reading.

In summary, students feel alone, frustrated, and somewhat angry when offered conventional asynchronous instruction and support. Live meetings appear to alleviate some of these feelings and feel more connected to the host institution. As a result, the students are more motivated to complete the assignments.

### **Increased Access to Assistance**

Coupled with decreased feelings of isolation, connectedness to other students, SASC staff, and faculty positively affect online graduate student interaction with the course content. Meetings with SASC staff have offered ample live communication opportunities for the students,

and in addition, have encouraged students to make more live contacts with other university stakeholders. Questioning for this section predominantly included:

1. How has working live with SASC staff influenced your opinion of live contacts?
2. Who else have you reached out to?
3. How have other live meetings with university staff, faculty, and student colleagues affected your interaction with the course content?

From Chandni:

I remember an important day that you [Henri] said to make contact with everyone. I work with two students in public health program a lot. We help each other and answer questions to each other a lot. It is good to work with people on the phone and webconference because it is more like regular schools in Virginia and America... Yes it [working with other people] is motivating. I also can tell new students to communicate frequently with professors in the program. Do not be afraid.

From Mark:

I can honestly say this [work with other people] is the best piece of advice you gave during orientation. I never would have thought to put student contacts on my portable...my group [Mark's student group] is very friendly and we are planning on attending commencement together. I rarely reach out to my professors because they are so busy, but I know I can always reach out to you [Henri] and your staff in the success center...Most motivating about having a student team is knowing other people are suffering through the same [expletive].

From Susan:

It is not in my nature to reach out mostly. I know you say it is important, and I do have one friend in the program. We have the same classes each new semester [eight week term]. What is best about talking to [student name] is knowing that I am not the only one behind. I help her mostly, but she helps me sometimes...I know I should reach out to faculty, but I don't...I don't know why, really; I guess I can't call them like I can call you all. I think I can find another person who will help me more.

From Abah:

It is important to work with the writing center. I do not contact other students...and not faculty. [If I were to do this] I will have more help. I will do better in my coursework and completion timing.

By decreasing feelings of isolation and emphasizing the creation of a team to work with, live academic support meetings have positively influenced online graduate students' interactions with the content. Students complete the work quicker, have access to immediate assistance, and feel better about the work they are doing. Students yearn for an ally—someone to comfort, someone to commiserate with, someone for assistance—who will advance through the program with them. A comparison of the responses of Chandni and Mark compared to those of Susan and Abah further the thought that online students feel better when connecting live with university stakeholders. Additionally, students simply need to feel that someone at the university will spend the time to meet live with them. Despite the expressed positive results, the continued reticence of online students to reach out to faculty is notable.

### **Web-conferencing Effects**

Technological fear is a known barrier of online student enrollment (Glaeser, Renold, Shariq, Lee, & Carter-Wells, 2012) and further, technological issues are factors in institutional determination of increased usage of live programming for online students (Greenland & Moore, 2014). The eight participants from this study offered ample data in the area of student perception on the use of web-conferencing technology and its effects on their interaction with the course content. Summarily, students were somewhat apprehensive at first, but continued use of the web-conferencing technology produced increasing confidence in using such programs as AnyMeeting and Blackboard Collaborate. Discussion during this portion of the interviews was framed by the following:

1. Tell me about your experience using the technology for the web-conferencing meetings between you and SASC staff.
2. How did your use of the web-conferencing program(s) affect other aspects of your coursework?
3. Expand upon your opinion of any part of AnyMeeting or Blackboard Collaborate software packages.

Framed by the questions, an analysis of the participant responses yielded mostly positive results in the following areas: (1) increased technological confidence and (2) later use of web-conferencing for coursework. Additionally, students continued (3) to praise the chance to meet live with university personnel. Students partially attributed these opportunities to the web-conferencing technology.

## Technological Confidence

Students overwhelmingly (eight of eight) expressed some degree of improved technological confidence. Most (five of eight) described situations of early trepidation, and all felt the instruction by the software company coupled with SASC staff assistance was enough to guide them to a level of proficiency.

From Afia:

Of course I was nervous to not have help and have Internet problems. The first meeting is not so well for new people, for me too. There was problems for me and for the tutor. She told me to use the phone instead of my headphones and microphone equipment. I am much better now. I can do the login and call in right away with no troubles... Yes, it [staff support] was enough on the first time or second time. Now it is no problem.

From Talita:

Thank God I had my sons with me for the first meeting. I never did nothing like this before. In the military we use the phone or had in person meetings. I'm glad I learned it though. It [using web-conferencing technology] is easy now. I just got to remember to turn the TV off. [Other technological practices] I'm good at now are attaching documents and downloading and finding my documents.

From Susan:

I had a very hard time. My husband has no technology sense, and I don't have much either. I was worried I would get cut-off and miss my appointment... Now I have no concerns but maybe sometimes during a storm, I guess... I can say that [about other technological improvements] I can move around the screens better and find my

attachments. It just takes practice, you know? But now, no, working with Anymeeting is okay. I don't feel like a whiz or anything though.

From Chandni:

I am so proud. Yes it was very hard, very hard. My friend shows me the first time. [SASC staff member] was so helpful. She is patient and a blessing...Yes I feel much better now.

It is easy and a good way to do tutoring...It is different now; there are times at work I help the clients with emails and job search. Sometimes I help my boss.

Responses from other participants followed similar patterns: When told they were to meet live via Anymeeting or Blackboard Collaborate, the students were a bit nervous but accessed help at home. If the students still needed help, SASC assistance was sufficient. After using the web-conferencing technologies, students' apprehensions waned, and their confidence grew in other technological areas. Increasing students' technology proficiencies is not a stated goal of meeting live with students during academic support sessions; however, it has been an unexpected positive result.

### **Later Use of Web-conferencing Technology**

The subtheme of this section developed naturally, in that there was no real prompt, yet four of the eight online graduate students interviewed brought up the fact that their experience with web-conferencing with SASC staff helped them later when using web-conferencing for their coursework.

From Mark:

I was glad to practice web-conferencing during our writing tutoring meetings. I am better now than before, and in fact I was the organizer of my group meetings during the last three modules. I was the one who set-up the meetings with free Anymeeting, and I was

the one who got the ball rolling during the meetings. As you [Henri] said, people are looking for someone to take charge [during online class group meetings], and I was able to do so because I knew the technology. People joked that I must have been an IT guy back home.

From Fagago:

This is a good experience for me. Using the Internet for work is a new experience for me. [Also], of course for school. Our professor has Monday nights for SI [supplemental instruction] [using] GotoMeeting. It is easy for me and sometimes I tell other student colleagues with many difficulties to call in [on] the phone as I do.

From Abasiama:

I like to say thank you most of all. I was very nervous to use Anymeeting. I was very nervous to use headset and my laptop. Now it is easy and I tell my family in Nigeria that I am soon to graduate from technical college. In my program, recently, I was to make a website and a video of public health in the community. I did Anymeeting with three public health students and together we had one big assignment [instead of] many less assignments by ourselves.

From Abah who, during statistics tutoring sessions volunteered to answer login or technology questions during the beginning of my presentation:

Two times I was in charge of the chat boxes. When the professor was curious about the tutoring I told him I was a great and wonderful assistant. Technology is fun for me. Working to help others with technology is important, and I like to help people with it sometimes.

When simply asked, "How has the mastery of web-conferencing affected your



interactions with the course content” students offered little response data. However, allowing the participants to speak freely on the topic, student participants were able to demonstrate productive subsequent use of Anymeeting and Blackboard Collaborate technologies in other settings—use that was directly related to course content. The same students who were fearful of the technology in the first place have gone on to lead group meetings, assist other students with the technology, and assist SASC staff with collaborative tutoring sessions.

### **Live Opportunities**

Students attributed much of the positive results from live web-conferencing, such as increased connections between themselves and the school and the efficacy of the meetings directly to the technology of web-conferencing. Thematically, the participants stated none of this would be possible without the technology. This sub-theme is interwoven intricately with previous themes; however the distinction to be made here is the students directly credited the technology, as opposed to the staff members for example, for their successful interactions with the content.

From Abah:

The technology of web-conference is a powerful tool. It [has] enabled the learning community to connect with the university.

From Abasiama:

I am proud to learn the technology. I could [not] have reach out to my student colleagues and professors and tutors.

From Mark:

Not to sound like an infomercial, but without the technology we would not be having this discussion at all, now would we?

From Talita:

If we wasn't meeting live we would be wasting my time, so yeah, the technology is important.

Students have demonstrated that through the use of web-conferencing technology they have become more confident technological users. With these newfound proficiencies, students are taking leadership roles in support sessions, assisting other users, and confidently spearheading subsequent use of web-conferencing technologies in course group work. Finally, of note, the students said that these positive results, among other positive findings represented in this writing, would not be possible without the technology.

### **Influence of Staff Characteristics**

Staff characteristics in an asynchronous support system are limited to knowledge on a subject and professionalism, and their impact on student experience is minimally impactful. On the other hand, staff characteristics in a synchronous support system abound and directly influence a student's experience.

Three specific characteristics were found to be particularly influential based on the following questioning structure:

1. Tell me about your interaction with the SASC staff, at a customer service level.
2. What, if anything, do you think a learning support staff member should be aware of or a master of when working specifically with online students?
3. What, if anything, was it about the SASC staff member you met with that you could say aided in your work on the course?

The first staff characteristic found to be an important factor on student's interaction with the course content was knowledge of the topic. All eight participants mentioned the necessity of

an academic support individual's understanding of the content. Secondly, eight respondents discussed the attitude of the staff member in terms of patience, tolerance, and overall willingness, which they found to be a positive contributing factor to a student's interaction with the content. Finally, professionalism as a factor was discussed by six of the participants during the interviews.

### **Knowledge of the Topic**

Naturally, an instructor or tutor of any type needs substantial understanding of the content being presented. Online academic support sessions at SASC include writing support, content and research tutoring, and academic coaching. Student participants pointed to SASC staff's mastery of the content and its necessity in assisting them through their coursework.

From Abah:

[SASC staff member] knew much of research statistics and employing the program Excel to use them...I was able to trust her advice and instruction.

From Abasiama:

You [Henri] are a good worker and my help during my troubles. But sometimes, I don't know, you could help with English writing better. I speak and learned four language and I know too being critical is important. Maybe you are nicer too often and can be more critical of it...If I had a perfect English instructor I could do better in my written assignments.

From Mark:

It goes without saying if someone is not a master of the material, he or she is wasting others' valuable time trying to teach it. Your instruction or assistance, but yes,

instruction, and that of your colleagues at UNE has been high quality... Yes, it [knowledge of SASC staff] has directly helped me be a better research-based writer.

From Abah (later):

The writing tutoring made available has been helpful. [SASC staff member] must be a writer to know about writing so much. Also she is a good teacher of her tips and help in writing. I use her tips to fix errors.

### **Attitude**

The question about customer service yielded several data points that were divided into the attitude and professionalism sub-themes. Participants noted significant influence of the attitude of the individual helping them on their meeting success. Words and phrases like *patience*, *willingness*, and *take the time*, were brought up several times by participants.

Thematically, Talita, put it best:

I just want to work hard because you all are so helpful, so nice. If everyone took the time to help us, maybe everybody wouldn't be [expletive] in the parking lot about how lost they is.

More from Talita:

I read so many names on these syllabus and Blackboard classes that I don't even know. I know you [Henri] and [SASC staff names]. It is you all that are nice and care if I fail or not. No one else. I know that you have been so patient and I thank you... That [patience] has helped me because I know someone cares and it's hard sometimes to do everything or anything. I just need help is all. I have a disability and I need to work with someone that cares and like you said, is patient.

Abah added to the patience subtheme:

It is important for the student to listen to instruction [from a] teacher with tolerance and patience.

Susan expressed a negative experience from another school:

They didn't have any patience with me. That's why I dropped out. They didn't have any time to help me. I want to see positive people around me.

Finally, Abasiama:

Your department is very kind, Henri...yes it [SASC kindness] is important. When I sign off or hang up from a meeting I am in good spirits.

### **Professionalism**

Professionalism of the support member during the live meetings proved to be vital in student experience. Professionalism was described by participants with the following words and phrases: *workman-like vibe*, *on time*, *good language*, and *serious*. Similar to attitude, students expressed professionalism as a motivator in keeping the meetings, listening attentively during them, and applying the information later on with their coursework. Specifically, Chandni stated, "When I am with [an] official representative of the university working I know it is important."

Chandni continued:

Professional[ism] is important in my field. It is important in many fields like education. Your staff is very professional...yes it [SASC professionalism] influenced my later work all the time...I will listen better when I am not watching a cartoon of people (avatar). I would like to have an appointment on time and I would like to make good progress each one.

Mark used a comparison between a past online school and UNE to illuminate the importance of professionalism:

Whilst my last school was extremely corporate, the support staff were a bunch of fools. It was clear these jokers were hired part-time at 15 bucks an hour to fill the needs. They knew nothing of what I was asking and cared even less. I do not know how many times a writing tutor told me, “not to worry, the professors don’t have time to read everything.” How do you think that makes one feel? [SASC staff members] maintain a workman-like vibe with me.

After a lengthy discussion of what professionalism was, Abasiama offered:

It is what is wrong with America to me sometime. People wear ugly clothes and use bad language too much...if the meetings with UNE are like this I will not attend. To be serious is important to me.

Finally, Talita furthered the finding that professionalism, or lack thereof, in an academic support meeting is important for an online graduate student:

I know you all [SASC staff] is serious and it make me serious too. I got to say it ain’t like that all the time in the discussion boards. I see other students posting some real [expletive]. I work hard on my discussion boards. I keep waiting on the professor to call them out, but they just probably get passing grades. To me that ain’t professional. How we supposed to take this serious when they ain’t?

Knowledge of the topic, attitude, and professionalism demonstrated by the support staff member affected the students’ opinions of the meetings. Thematically, when questioned about the effect these factors had on their work with the content, the students explained that poor ratings in these areas would have ended their use of the resources made available by the center, ultimately reducing the potential positive results of ongoing live meetings.

### **Support Session Type**

Regardless of the session type (writing support, online learning strategies, and content tutoring), online graduate students found the live support sessions highly beneficial toward their later interactions with the course content. The original intention of investigating live support session type was to compare the effects of the three different session offerings on online graduate student interaction with the content. A qualification of choosing the participants included their experience in at least two of the session types. However, despite refocusing efforts, response to questioning in this area rarely centered on comparison between the session types, rather specific components of the live support meeting types were illuminated. Information from this secondary intent offers specific components support program administrators may want to account for when creating or improving upon a live support program for online graduate students. Appendix F summarizes the support session types interviewees participated in with SASC staff.

#### **Writing Support Meetings**

While enough data to create a comparison between the support sessions did not materialize, clear themes on specific components of the meetings that the students found particularly beneficial arose. In the area of live writing support sessions, a majority of the students (seven of eight) discussed the assistance offered by SASC staff in the area of outlining the writing from the given prompt as especially helpful. Students expressed difficulties starting a paper, keeping on topic, and fully addressing the prompt as areas addressed when discussing outlining techniques.

Afia summarized her experience with:

I always have difficulties beginning. I do not know when to start, you know? How do I write the introduction? These are my difficulties. Outline from the prompt is good to

understand. I wish to have learnt this before in my other studies. I can write what is important and not write about items or topics that will lose points on the writing.

From his perspective, Fagago added:

I do not like to get my writing assignment returned...it [why papers are returned] is because I write paragraphs about other topics. To outline writing assignment first is helpful to write paragraphs that are appropriate. I score complete on the rubric when I write only about the topic I am supposed to write about. In other classes [before] I score incomplete on the rubric when I do not finish the idea on the topic.

Eight of eight participants also mentioned the assistance provided in the area of accessing and synthesizing research with their written assignments. Usage of the university's online databases, synthesizing scholarly work with student writing, and literature review understanding were all mentioned during interviews.

Data from Abah's interview regarding research includes:

I can thank you to teach to me to use [UNE's online] library. I have hard time much to look for research. It [understanding of literature review] is better know; they are to discuss the other work of other writers. I use the literature review to start my writing on occasion.

Susan offered:

I was so surprised at the difference between using research when I was in undergrad. I cannot write anything now without using research. Your [SASC] workshops taught me how to do this. I would not have passed my classes without this. My first two papers were rewrites for not using citations. I know it is important and how, nobody talks about how, just do it is what they say.



Finally, seven of eight students discussed the importance of paper formatting (APA or AMA) training. Addressed in the writing support meetings, according to students, were inconsistencies in faculty expectations, how to cite and reference scholarly work, and the creation of a graduate level formatted paper.

Susan added:

Some faculty say it [APA formatting] is important, but others don't care. How are we supposed to know? Like you say, just do it right all the time...My writing is so much better; I am proud of my work now; I feel like a real graduate student.

Mark also added:

I never really learned how to use APA. I was told to do it since I have been in the states, but no one ever taught it? When do you all learn it? Elementary school? Anyway, I am glad to have learned it from you and your staff. I prefer faculty to comment on my writing, not my formatting...well, not my writing, but what I am writing about. Am I answering the questions? Do I know about the theory I am writing about? These are the issues to be discussed, not how many spaces I put after a comma in a reference page; a page that used to take me longer to write than the paper, actually. It is not like that anymore; do not worry!

### **Academic Coaching**

Similar to writing strategy meetings, all eight participants joined in at least two separate live academic coaching meetings. *Backward Planning*, a detailed time management plan created to assist online students both plan for weekly module completion and larger writing assignment completion, was mentioned by the entire participant pool as being helpful in their course completion and interaction with the content. Specific effects of the plan considered to be

particularly beneficial were (1) newly-gained confidence, (2) more time available, and (3) production of more quality work.

Mark described his experience of the *Backward Planning* meetings with:

As I stated earlier, I spend my time completing superior work. I was always fearful I was either missing something, or maybe, spending too much time on a less-important assignment. Backward Planning allows for my budgeting of time. The 400 point, culminating papers take immense amounts of time, actually. I know, if indeed, we are to examine my time management, I am working on the particular type of assignments for appropriate amounts of time. As a result, I am completing better work in lesser amounts of time.

Susan added:

I feel so much better now that I have time to work. I am very confident about submitting an assignment, you know? It's like after I press the button I'm not so stressed out. Now I upload or submit or whatever and feel like, well this is my best work, *que sera, sera* [whatever happens, happens; it's out of my control now].

Secondly, the positive impacts of *Reading with a Purpose*, an intervention that synthesizes research and writing, was brought up by seven of eight students. Specifically, students described positive effects as time saving, better understanding of the reading, and better written work.

Abah provided data in this area with:

My time to preparing for my writings is shorter now. I am efficient. Also, can I say that I save a lot of time not to do the tasks in separate occasions. It [combining reading and writing] is a system that I know. It is good.

Additionally, Talita expressed:

If you want to get down to it again, then let me say this [reading with writing in mind] is so important. I have loads of trouble reading about things that are boring. Very boring, but when I read I look for what I'm gonna write. I know my assignments are better when I'm in a good mood; I'm not wasting time, you know? But not really boring, it's just, like I know what I'm reading now, when I know there's a real reason, not just to waste my time. It is so important to read for a reason. I told my kids this all the time, but I didn't know it was for me too!

Learning strategies specific to online learning were also mentioned several times throughout the data collection process. Students attributed the meetings to improvements in discussion board posting and responding, avoiding technological distractions, and making connections with other students, faculty, and support staff as specific positive effects. Intuitively, students exhibiting these behaviors are ultimately going to have better interactions with the course content later on.

Fagago summarized his experience in this area with:

Before my discussions lose points for me. Tutor sessions teach me to do discussion boards with research and with rough drafts. This is something I did not do before...I work a lot and cannot waste my time. It is important to me. I do not look at my iPhone and work near my family when I do my work.

Also, Chandni discussed:

To work with people is missing for me. What I like about you is you tell me to reach out. I talk to my professors many times, other students too. Also, please, I thank you to know

that I am for professional behavior. I do not waste my time playing games or nothing. I agree to say the phones are too distracting.

### **Content Tutoring**

The purpose of this research study was to shed light on how live support affects student interactions with the content. Content tutoring is inherently going to impact how a student interacts with his or her coursework. Three of the eight interviewees participated in specific content tutoring. The participant pool for this sub-topic is smaller than the others, but enough rich responses were gained from the three participants to present the results in this section. The content tutoring sessions distinctly helped the students do better on their quizzes, act as leaders during other tutoring sessions and discussion board posting, and complete their work on time. Afia discussed her improvement on quizzes after participating in live tutoring sessions:

I did so much better completion on the quizzes; I was not doing so before our meetings. I was listening in the group sessions when everyone was talking about the PowerPoints that tell us what to do. I did not understand all the time the purposes in the lectures, but the tutoring made my understanding better, like I scored a 9 or 10 every time I went to tutoring.

Abah shared a similar experience with his quiz scores and added information on leadership:

To me, you must understand my gratitude. I received high marks on my quizzes in biostats [biostatistics—Public Health]. It is of my opinion that the tutoring sessions helped me. There were many videos to watch, but to see instruction was helpful. I watched what [SASC tutor] did on his computer in Excel and did the same instruction to other students in your group meetings.

Abasiama scored well on the quizzes and appreciated studying in a group, rather than alone:

My grades for the quizzes were all passing. I was not so sure at the beginning. I am always poor at math and did not understand the lectures in Blackboard. I enjoy the tutoring sessions for many reasons. I have better understandings normally, and I complete the assignments quicker. I do not spend the long times studying when I watch and learn in the group meetings.

The final finding—all session types were considered beneficial in interaction with the course content by student participants—evolved from the initial goal of comparing the types. Questioning directed at finding which meeting type was more or less effective than the others was insufficient, and interviews invariably moved in the direction of identifying specific components of the meetings that were particularly beneficial. Additionally, while the eight participants were involved in writing support and academic coaching sessions, only three actively joined in content tutoring sessions. Despite these alternate directions and shortcomings in the research design, the interviews ultimately provided ample information and prescription for support program administrators looking to add, or evaluate an existing, live support system for online graduate students.

### **Chapter Summary**

Eight online graduate students from the University of New England's Public Health and Social Work Program were interviewed about their experiences working with academic support staff in live settings. A framework analysis of the interview transcripts uncovered five larger findings that may contribute to the dearth of knowledge of this population's use of synchronous conferencing technologies in receiving academic support. Specifically, this study aimed to garner student perception of effects of live meetings with academic support staff on their interaction

with the course content. Students perceived the live meetings to be particularly beneficial to their interactions with the course content. Students also believed their meetings with academic support staff created meaningful connections to the university somewhat mollifying feelings of isolation and disconnect from the university. Next, the students found the technological aspects of web-conferencing, not to be a barrier, but rather a tool that better enabled the students to interact with their course content. Also uncovered in this study were the students' perceptions of staff behaviors and characteristics were influential in their interactions with the content. Finally, it was discovered that the three meeting types discussed were all understood to be valuable from student perspective.

## CHAPTER 5

### CONCLUSION

Since the late twentieth century distance education has become an integral component of institutional offering of post-graduate degrees (Allen and Seaman, 2013). Support for these students, while vital (Russo-Gleicher, 2013), is particularly inadequate in comparison to their on-campus counterparts (Burns, Cunningham, & Foran-Mulcahy, 2014). Theorists (Doughty & Long, 2003; Vygotsky, 1978) pronounce effective cognition as a function of sufficient social presence. The connection can be made that the lack of social presence in an asynchronous environment may contribute to some of the negative opinions of asynchronous online academic support. The proliferation of live conferencing technologies has enabled institutions to increase important live interaction opportunities between students and university staff and faculty (Ellingson & Notbohm, 2012), and these opportunities may indeed improve upon academic support results for online graduate students.

The purpose of this qualitative phenomenological study was to explore how real-time meetings between an academic support department and online graduate students affected student interaction with the course content. Specifically, this study aimed to identify online graduate student perception of the effects the synchronous meetings with academic support staff had on their vital interactions (Moore & Kearsley, 1996) with the course content. Utilizing semi-structured interviews with eight online graduate students—purposely selected—the researcher answered the overarching research question of how real-time interactions between academic support departments and online graduate students impact student interaction with the course content.

Through a systematic framework analysis of the data garnered through interviews, it was found that students did perceive the live interactions as being especially effective in improving their interactions with the course content. It is the intent of this chapter to further demonstrate and interpret the findings from the study, discuss the implications of the results on the larger body of literature, make recommendations for action in the field of online support, and list related opportunities for further study.

### **Discussion**

This study identified the student perceptions of the benefits of live support and how the connections created inherently through these meetings furthered those benefits. Additionally, this study found that students are comfortable with the web-conferencing technology, identified characteristics of support staff such as patience and knowledge that are deemed helpful, and ascertained live writing support, content tutoring, and academic coaching sessions are effective. This study demonstrates live interactions are effective, that students appreciate them, and how students prefer they be offered.

Scholars credit interaction as key in learning (Moore & Kearsley, 1996; Vygotsky, 1976) and a primary goal of academic support is to ultimately allow for better student relationships with the content (Kuo, Hagie, & Miller, 2004; LaPadula, 2003). A support center with few synchronous options must take advantage of synchronous technologies to assure it of using all means available in achieving the goal of interactive student support. The theme of connection between student and institution as being vital in student accomplishment pervades the literature (Nandi, 2015; Melkun, 2012; Lee & Choi, 2011) and this study. Live tutoring offers an avenue for students to make that connection. Academic support sessions with limited synchronous



options are not seizing upon opportunities to create and build these connections, not to mention tutor using a best-practice methodology.

### **Short and Long-term Benefits**

The first research question looked to define student perceptions of the effects of live academic support meetings on their interactions with and understanding of the course content. Through analysis of the interview data it was found that students perceive live meetings to have both short-term and long-term benefits to their interaction with the course content. Student participants perceived assistance with the coursework and assistance passing as two short-term benefits of the academic support meetings. Students expressed long-term benefits as practice with English writing and speaking, increased confidence as a student, better planning and time management, and research and writing skills. The opportunity to communicate in a real-time format created an environment in which English language-learning students were able to improve upon their English writing and speaking skills. This finding corresponds with Long's Interactional Hypothesis that posits the necessity of constant interaction between a second language learner and a native speaker in order to learn the second language proficiently (Doughty and Long, 2003).

Students in this study also expressed increased confidence in later schoolwork and other interactions at home and at work, which is also consistent with Doughty and Long's (2003) work. Increased confidence was not limited to the English language-learning students. They and other students expressed increased confidence in their schoolwork due to their newfound abilities to better manage their time. The ability of a student to plan his or her time effectively is a skill that—if not inherent in the individual—needs to be specifically taught to ensure student success (Garcia-Ros, Perez-Gonzalez & Hinojosa, 2004). Live meetings enable a student to question and

instructors to immediately check for understanding. These tasks are vital to student understanding of content (LaPadula, 2003).

Improved research and writing skills were also reported by participants to be a benefit of the synchronous support meetings. Much of graduate level coursework involves in-depth research and, specific to the online format, must be produced in a written format. Understandably, improvement in these skills will improve upon the confidence of these students. The ability to engage in a live meeting enables the student to interact socially, which is necessary for later cognition of the skill being taught (Vygotsky, 1978).

### **Students Attribute Benefits to Connection**

Regarding the research question of the extent to which students perceive connection as attributing to these positive benefits, it was found that all participants described connections made during the live support meetings between themselves and each other, university staff, and faculty as large contributors to the perceived benefits. It was found that students initially felt isolated and disconnected from the institution, and connections made between themselves and others—particularly support staff—improved upon these negative feelings. Bolliger and Inan (2012) believed online students experience high levels of isolation, and Kim et al. (2012) found that students who felt isolated presented lower course satisfaction ratings in comparison to other students who did not. Findings from this study are consistent with results from Bollinger and Inan (2012) and Kim, Lee, & Skellenger (2012) and further point to the necessity of increased live learning and support opportunities. The real-time conversations with academic support staff enabled the students to better feel as if they were closer to the school, and as a result, the students attributed these feelings of closeness as directly influencing their interactions with the content.

Moore (1990) might use this result as an example of the reduction of the metaphorical transactional distance between students and institution.

Additionally, live support meetings encouraged students to reach out to other students and faculty in order to increase their access to other types of assistance. Students spoke to greater interest in their work after support staff viewed it and provided live feedback. Additionally, students expressed increased curiosity in faculty comments after they had actually interacted with the faculty. Finally, students conveyed increased desire to complete quality work after their student colleagues read it, or participated in its creation. These findings point to a more engaged student, who not only feels better about being a student, but also is learning more effectively due to increased social interaction opportunities (Doughty & Long, 2003; Vygotsky, 1976).

### **Web-conferencing Technology**

The third sub-question asked to what extent students perceive technological factors of live web-conferences with academic support centers to help or hinder their relationship to the content. In response, this study revealed web-conferencing technology was not a hindrance, rather an effective tool in assisting the students with their relationships to the content. This study, and others (Borel, 2013; Huang & Hsiao, 2012), demonstrates the effectiveness of web-conferencing in improving student-content interaction. Summarily, the results from this study demonstrate an early fear, and later, an increased sense of confidence among online graduate students using web-conferencing technologies. Initially, students expressed some trepidation early on in meeting with academic support staff using AnyMeeting or Blackboard Collaborate. This corroborates with research that shows technology can act as a barrier when a student decides to sign up for an online course (Muilenburg & Berge, 2005). However, with guided assistance, students' apprehensions waned and their ability and confidence grew. Again, this is

consistent with research (Mostert & Snowball, 2013) that points to the necessity of technological support if institutions want to employ advanced technologies with their students.

### **Staff Characteristics**

Social Development Theory (Vygotsky, 1978) posits the necessity for interaction for cognitive development. Live support sessions involve people interacting with each other, and where an asynchronous session is mostly void of tutoring characteristics and behaviors, a live session abounds with various tutor personalities and actions. This study revealed that support staff characteristics and behaviors during synchronistic support sessions were vital in improving student interaction with the course content. Students felt their meeting experience affected their decision to schedule later meetings and their subsequent interactions with the coursework. Knowledge of the topic, attitude, and professionalism were the three tutor characteristics students identified as influential in their later work with the course content.

### **Comparison of Support Types**

The fifth sub-question explored how the different live support session types (writing support, content tutoring, and academic coaching meetings) affect student-content interactions. The study revealed the three live session types all were perceived as beneficial. Unfortunately, the study was not effectively designed in a way to identify differences in terms of efficacy and preference of the support session types; rather it was designed to simply identify student perceptions of specific benefits of the different meetings on their interaction with the course content. Ample research demonstrates the importance of writing support (Melkun, 2012; Arzt, Barnett, & Scoppetta, 2009), content tutoring (Russo-Gleicher, 2013; Dvorak & Roessger, 2012), and academic coaching (Brindley, 2014; Borel, 2013; Floyd & Casey-Powell, 2004) for graduate students. Specific to this study, it was found that writing support sessions' foci on organization,

beginning a larger research project, and fully addressing the prompt best support an online graduate student's need. Time management instruction was perceived to be beneficial because it offered students gained confidence, increased available time, and improved quality of work. Finally, the content tutoring support sessions distinctly helped the students do better on their quizzes, act as leaders during other tutoring sessions and discussion board posting, and complete their work on time.

### **Implications**

During the literature review process for this study the problems of unsatisfactory retention and graduation rates of online students (Allen & Seaman, 2013) and how the wide gap between support services and online graduate students is negatively affecting the students' relationship to the course content (Burns et al., 2014; Russo-Gleicher, 2013) were identified. Results from this study point to the effectiveness of implementing live support opportunities for online graduate students. In this study it was found that these live meetings have a positive effect on the students' interactions with the course content. The larger implication from this finding is there is more justification for introducing or increasing synchronous support opportunities at the academic support level. These opportunities may contribute to bridging the gap between support services and online graduate students.

### **Multiple Benefits**

Assistance with the coursework is a purpose of academic support (LaPadula, 2003), and, to students of need, passing the class is a function of the assistance with the coursework (LaPadula, 2003). Content tutoring directly affects a student's understanding of the course material (Boyer et al., 2010) and that understanding will improve one's likelihood of passing the class. Students participating in this study affirmed these findings. Since content understanding is

a factor in a student's continuance of program participation (Allen & Seaman, 2013), departments should pursue the most effective ways of tutoring their students. Cognition is dependent upon the ability to communicate ideas and understandings (Vygotsky, 1978), and live meetings enable students to do exactly this. Additionally, writing support meetings tend to improve a student's writing ability (Van Horne, 2012) as well as the grade on the written assignment. Lower academic writing levels continue to plague graduate programs of all types (Van Horne, 2012; Arzt et al., 2009). Results from this study illuminate the use of web-conferencing technologies as a possible tool in improving a graduate student's writing abilities. Finally, this study demonstrated the positive outcomes of meeting live with students in varying levels of English language acquisition. Students expressed increased confidence due to noticeable development in English writing and speaking. Students learning English are discouraged with the extra amount of time spent working solely on their English development (Hinkel, 2011). Students from this study were pleased with the spontaneous opportunities to work on their English as a secondary endeavor while focusing on content during tutoring sessions.

### **Increased Feelings of Connection**

Academic support has proven beneficial in aiding student understanding of the content (Russo-Gleicher, 2013; Simpson, 2012). This study has demonstrated that live academic support meetings can do more than that. Previously it was demonstrated that live support meetings may aid in English language development and student confidence—and in the case of connection—live academic support meetings may prove beneficial in improving feelings of connections to institution and alleviating feelings of isolation among the online student population. Online students commonly experience feelings of isolation and disconnect from the institution (Cao,

Griffin, & Bai, 2009; Fotini & Henkel, 2008), and these feelings are large factors of student drop-out (Greenland & Moore, 2014; Lee & Choi, 2011). This study illuminated students' increased interactions between themselves, faculty, and other university staff as direct outcomes of meeting live with support staff. Results from this study point to the potential of live academic support staff meetings positively impacting online graduate feelings of connection to the host institution.

### **Comfort with Technology**

In relation to the technological aspects of web-conferencing, it was found that confidence increased to the point where students employed the technology on their own in subsequent group projects required in their coursework. Students took leadership roles in organizing meetings with classmates in order to effectively complete group assignments. Also related to content interaction, students expressed appreciation for the technology because it enabled them to meet live with academic support staff. Students attributed much of the benefits from their support meetings to the availability of the web-conferencing technology. As a group, the respondents expressed the impracticality of asynchronous academic support, and if it were not for the technology, their ability to interact with the content would have been significantly reduced. While not specific to academic support, scholarly work regarding the effectiveness of live faculty instruction compared to asynchronous instruction mirrors this finding (Oztok, Lev, & Bezalel, 2013; Stewart, Harlow, & DeBacco, 2011).

Results in the area of student technology use from this study are consistent with other research in that some students initially show fear using the technology and ultimately overcome the fear with instruction and use (Ellingson & Nothbohm, 2012; Bower, 2011), and students who learn a new technology apply this knowledge elsewhere in their subsequent coursework (Borel,

2013; Huang & Hsiao, 2012). These results should act as a mollifier and reduce institutional leadership concern that advancing technology may scare off prospective students or further damage retention numbers (Divall et al., 2011). Additionally, this study demonstrated the use of web-conferencing can improve upon student interaction with each other, university staff, and ultimately the course content. These interactions tend to improve retention numbers, rather than hurt them (Cochran, Campbell, Baker, & Leeds, 2014). Concerning the fear of student apprehension, results from this and other studies (Mostert & Snowball, 2013) demonstrate initial technological anxiety is usually overcome with instruction and usage.

As another institutional concern, faculty tend to offer negative response to new technologies because they argue their workload prior to learning new technologies (Faloon, 2011) and desire to see if the technology is truly effective or not before they have to implement it in their courses (Johnson, 2008). The first concern, involving faculty workload, is addressed at two levels. First, this study demonstrated the use of web-conferencing is effective in assisting student-content interaction. This improved interaction results in better content mastery (Moore & Kearsley, 1996). Second, if students are introduced to the technology in support sessions they will not have to be taught how to use the application during their courses, and in fact may assist other users who do not participate in academic support. This information also placates faculty concern regarding wasting of time learning new technologies that may or may not actually be effective.

### **Professional Development**

Results from this study show staff characteristics and behaviors are influential in the efficacy of a live support program. The people working in an academic support department, as well as staff development are important components of a live support program. From this study it



was found that online graduate students perceive knowledge of topic as integral to their understanding of the course content. Similarly, Schmidt and Moust (1995) described an effective tutor as one with a high level of expertise in the specific discipline. The researchers go on to define effective tutoring as providing the tutee with solid content understanding along with external resources that enable the tutee to continue his or her work alone.

From a customer service perspective, it is clear that attitude of the tutor will also influence the efficacy of a support session (Jordan-Henley & Maid, 1995). Online students participating in this study pointed to patience, tolerance, and willingness as directly influencing their understanding of the content, motivation to complete later assignments, and likelihood of meeting with a support staff later. Motivation is a key factor in online student success (Priego & Peralta, 2013) and the motivation to complete assignments and continue support participation both influence a student's interaction with the course content.

Throughout the support process—the early stages of ease of accessing an appointment, to timeliness of a staff member's response, to punctuality and adherence of scheduled meetings, to relevant post-meeting feedback—students expressed the importance of professionalism. Students voicing satisfaction with components of an online program tend to do better in terms of performance and retention (Schreiner, 2009). Additionally, performance and retention are functions of a student's grasp and understanding of course content (Russo-Gleicher, 2013), understanding improved upon by academic support (Russo-Gleicher, 2013; LaPadula, 2003).

### **Support Types**

After an examination of the three live support session categories (content tutoring, writing support, and learning strategies) this study did not reveal student preference or ranked effectiveness of support type. Instead this study demonstrated that all three types are beneficial

and have positive components. Academic support should not target a singular support type; rather offer a multitude of opportunities for the students to interact with staff. Results from this study point to a synthesis of the three session types in order to create a comprehensive live support program.

Many online graduate students demonstrate deficits in writing (Melkun, 2012), content grasping (Dvorak & Roessger, 2012), and basic student skills unique to the online learning environment (Borel, 2013). Students may appreciate the convenience of attaching a social work theory paper and having someone edit it asynchronously, but this study shows the live writing support meetings go deeper. Support staff seeks ways to use the naturally made connections during meetings to instruct writing, motivate the students, and increase student confidence. A recorded, voice-over PowerPoint may be sufficient to explain a difficult statistical analysis procedure for some students, but for others, the immediate questioning and answering available in live session are necessary. Finally, watching a YouTube video on time management may offer skills to employ, but little connection between the student and institution is made. Social Cognitive Theory posits that students need to observe an instructor; synchronous support allows for this condition.

### **Recommendations for Action**

The predominant recommendation regarding synchronistic academic support comes from a synthesis of the results from this study, theoretical understanding regarding the importance of interaction in cognitive development, and research demonstrating effective synchronous instruction. Simply stated, it is necessary for online graduate programs to offer effective academic support—support offered in synchronous formats—for their students. In comparison to asynchronous academic support, synchronous support opportunities will greatly contribute to

the efficacy of provided support. This study clearly demonstrated the need for increased live support opportunities for online graduate students. The demonstrated benefits of a synchronous support program provide reasoning for implementing the program, and the connection students make participating in the program partially explains the benefits. Additionally, this study provided information on the structure of a live support program. Support departments can and should use web-conferencing to support students in writing, content understanding, and learning strategies. A competent support staff employing sound customer service characteristics should lead these support sessions. Using theoretical understandings and guidelines provided for within this study an academic support department could significantly improve their output by adding live assistance opportunities.

### **Justification for Live Support**

In this study students demonstrated their perceptions of the effects of meeting live with university staff. Those perceptions overwhelmingly pointed in the positive direction. The first finding of this study demonstrated benefits such as writing development, improvement of English language speaking, better content understanding, and improved connections between students and other university stakeholders all positively affect a student's interaction with the course content. These benefits are explained in part by the student-demonstrated importance of increasing connection between them and the university. Many online students crave connection and interaction opportunities (Cao et al., 2009). Online programming, at the support level, needs to place a higher value on this connection. Academic support centers need more activities that improve connection for these students. An academic support staff member can greatly increase interaction opportunities by organizing student support groups, leading group-tutoring meetings,

participating in informal English language learning sessions, and tutoring one-on-one, all while modeling professional online behavior.

### **Components of a Live Support Program**

Beyond arguing the need for live support, results from this study point to what the support should look like. This study provides a prescription of a comprehensive live academic support implementation. Using student perception, this study demonstrates who would benefit from increased live interaction opportunities, what to offer during those interactions, and how to deliver the meetings.

According to online graduate students participating in the study, live support should consist of plentiful opportunities in the areas of writing support, content tutoring, academic coaching sessions, and English language development. All session types were characterized as beneficial and a comprehensive support program cannot be void of any of these components. Additionally, students participating in this study further the notion that this live support can and should be offered using web-conferencing technologies. While the students may need some initial assistance using the technology, this time is well spent when considering the many positive outcomes demonstrated in this study.

Additionally, results from this study guide an academic support administrator when hiring and training a synchronistic support staff. New hires need to be knowledgeable of the topic, professional in behavior, and exhibit positive traits of attitude. While knowledge of topic is not necessarily novel in thinking, the significance of tutor behaviors reinforces the importance of interaction between students and university staff. Positive experience for the students would prove difficult if the staff member is impatient, rude, and disinterested. For the most part, professional development of online support staff tends to focus on new technology,

programming changes, and tutoring techniques (Russo-Gliecher, 2013). However, this study and Hardman (2015) point to the necessity of adding interaction skills as a strand to an effective professional development program.

In short, an academic support center can design or critique its current programming and better assist online graduate students. They can implement live support sessions into existing support offerings or add more live support offerings to a program already containing some of these opportunities. Because of demonstrated needs, coupled with the demonstrative effectiveness of synchronous support from this study and others (Van Horne, 2012; Stewart et al., 2011; Skylar, 2009) online academic support centers should add comprehensive live support opportunities.

### **Recommendations for Further Study**

Consistent with the nature of epistemology, the more one learns about a subject, the more he or she feels they need to know more. Subsequent topics of research in the area of live academic support include explorations of efficacies of the different support session types, the role of collaboration between academic support departments and instructional programs, the potential of the academic support center's influence on students' feelings of connectedness to the school, and finally, how other student affair departments can employ live interaction opportunities.

### **Types of Meetings**

This study was framed in part by Moore and Kearsley's (1996) definition of three interaction types integral to a successful distance education program. Specifically this study looked at online students' perceptions of live support meetings with academic support staff on only one of the interaction types (student-content interaction) defined by Moore and Kearsley

(1996). Subsequent studies would provide support centers with valuable information on how live meetings can affect the other two interaction types (student-faculty interaction and student-student interaction). This study did demonstrate the use of synchronous meeting technologies promoted both of these interaction types, but specific effects on these interaction types would greatly fill a void in the literature. This void impacts current academic support staff and program manager decision-making that tends to favor asynchronous support offerings (Huang & Hsiao, 2012; Hrastinski, Keller, & Carlsson, 2010).

### **Collaboration**

There is arguably a dearth in the literature in the area of the interrelations between academic support departments and online programming administrators. This presents several opportunities, but specific to the topic of this study, research exploring stakeholder perceptions of collaborating between the two groups during a live-support implementation could prove beneficial. The identification of what worked well during the implementation, how the two groups contributed to the process, and how the implementation was assessed could prove as a model for schools looking to move in this direction.

In order to create effective live support programming, program staff and administration and academic support departments may need to work closer together. Support department administrators may need to make programs aware of the live support opportunities. Researchers should look into how administrators from both groups can create an integration of the academic support department's live offerings into departmental curriculum. As an example, academic support staff and departmental staff can orient new students—in real-time—to the learning management system, expectations of graduate students, and preferred discipline citation style. Additionally, researchers can explore how departments should place a larger focus on English

language learning when working closely with academic support departments employing live-interactive technologies. It may be found that academic and support departments can work together to create targeted material to be presented during live support sessions. Faculty who are aware of, and confident in, successful academic support opportunities are more likely to refer their students (LaPadula, 2003).

### **Connectedness**

Literature abounds on the importance of online student-institution connection (Cao et al., 2009; Skylar, 2009; Fotini & Henkel, 2008), but little research points to an academic center's impact on student connectedness to the university. It is recommended that researchers look at the potential of the academic support center's influence on students' feelings of connectedness to the school. Students who feel disconnected from their host institution tend to perform poorly in comparison to other students who feel connected (Cao et al., 2009; Fotini & Henkel, 2008). Unfortunately, online student connection ratings to the institution lack considerably when looking at connectedness ratings of on-campus students (Burns et al., 2014).

### **Other Student Affairs Services**

Additionally, a look into how other student affairs departments can employ live technologies to further advance student connectedness and performance is necessary. Counseling services, physical education, social clubs, multicultural groups, and school leadership all highlight a comprehensive *campus-life* student affairs program. Online students utilize all of these offerings considerably less in comparison to their on-campus counterparts (Brindley, 2014). An *online-life* component of a student affairs department is plausible when considering usage of web-conferencing. An online student can effectively receive counseling online (Wagner, Horner, & Maercker, 2013). He or she can participate in a group exercise program via

web-conferencing. Online students should be able to participate in ongoing campus clubs and programs, and if preferable, maybe institutions can create organizations exclusive to the online population.

### **Conclusion**

The body of literature in the area of academic support illuminates the fact that academic support for online graduate students is insufficient (Russo-Gleicher, 2013; Simpson, 2012; LaPadula, 2003). Additionally, the literature paints a picture of online students, to their detriment, feeling disconnected to their host institutions (Szeto & Cheng, 2014; Cao et al., 2009; Fotini & Henkel, 2008). It is apparent that these two problems may be solvable with one solution. Academic support centers could act as a bridge between students and the graduate school. Findings from this study are consistent with synchronous instruction literature, which point to the positive effects of increasing live-interaction opportunities between students and the university (Bower, 2011; Asterhan & Schwarz, 2010). According to the results from this study, academic support centers' employment of similar technologies can have positive effects on both a student's feeling of connection and his or her interaction with the course content. This study pointed to several basics that other academic learning centers could use in their own creation of a support environment complete with live interactive opportunities. This study has demonstrated that the students perceive benefit in the live meetings, and they attribute those benefits to connections made during the meetings. Additionally this study has demonstrated some of the beneficial characteristics of a support staff member and the effectiveness of three different support session types. Finally, university administrators' apprehension of introducing new technologies to this student population should be mollified with the understanding that students



may initially fear new technology, but with guided practice and a vision of the potential benefits those fears will wane.

Academic support departments play significant roles in the success of on-campus students. While this statement rings less true for the online graduate student, it is the hope for individuals with a stake in this process that this gap is closed. Coupled with existing literature, this study will advance needed knowledge in fulfilling this hope.

## REFERENCES

- Abrahamson, C.E. (1998). Issues in interactive communication in distance education. *College Student Journal*, 32(1), 33. ISSN: 01463934
- Ali, A. and Smith, D. (2014). Comparing student performance in online versus face-to-face courses in computer literacy courses. *Competitiveness Forum*, 12(2), 118-123. Retrieved from: <http://search.proquest.com.une.idm.oclc.org/docview/1640470642?pq-origsite=summon>
- Allen, I.E. and Seaman, J. (2013, January). *Changing course: 10 years of tracking online education in the United States*. Retrieved from Online Learning Survey website: <http://www.onlinelearningsurvey.com/reports/changingcourse.pdf>
- Arzt, J., Barnett, K.E., and Scopetta, J. (2009). Online Tutoring: A symbiotic relationship with writing across the curriculum initiatives. *Across the Disciplines: Interdisciplinary Perspectives on Language, Learning, and Academic Writing* 6. Retrieved from: <http://wac.colostate.edu/atd/technologies/arztetal.cfm>
- Aslanian, C.B. and Clinefelter, D.L. (2012). *Online college students 2012: Comprehensive data on demands and preferences*. Louisville, KY: The Learning House, Inc.
- Asterhan, C.S.C., and Schwarz, B.B. (2010). Online moderation of synchronous e-argumentation. *International Journal of Computer-Supported Collaborative Learning*, 5(3), 259-282. doi: 10.1007/s11412-010-9088
- Barr, B.A. and Miller, S.F. (2013). *Higher education: the online teaching and learning experience*. Manuscripts submitted for publication. Retrieved from: <http://files.eric.ed.gov/fulltext/ED543912.pdf>

- Bates, T. (2011). Outlook for online learning and distance education. *Contact North*. Retrieved from: <http://provost.ncsu.edu/governance/task-forces/distanceeducation/2011/documents/2011-outlook-for-online-learning-and-de.pdf>
- Bloomberg, L.D. and Volpe, M. (2008). *Completing your qualitative dissertation: A roadmap from beginning to end*. Thousand Oaks, CA: Sage
- Bolliger, D.U. and Inan, F.A. (2012). Development and validation of the Online Student Connectedness Survey (OSCS). *The International Review of Research in Open and Distance Learning*, 13(3), 41-65. Retrieved from: <http://search.proquest.com.une.idm.oclc.org/docview/1634473717?pq-origsite=summon>
- Borel, D.A. (2013). *The influence of web conferencing on graduate students' sense of community in an online classroom*. (Doctoral dissertation). Publication number 3562263. Retrieved from: [gradworks.umi.com/35/62/3562263.html](http://gradworks.umi.com/35/62/3562263.html)
- Borup, J., Graham, C.R., and Davies, R.S. (2013). The nature of parental interactions in an online charter school. *American Journal of Distance Education*, 27(1), 40-55. doi: 10.1080/08923647.2013.754271
- Bower, M. (2011). Synchronous collaboration competencies in web-conferencing environments—their impact on the learning process. *Distance Education* 32(1), 63-38. doi: 10.1080/01587919.2011.565502
- Boyer, K.E., Phillips, R., Ingram, A. Eun, Y.H., Wallis, M., Vouk, M., and Lester, J. (2010). Characterizing the effectiveness of tutorial dialogue with Hidden Markov Models. *Intelligent Tutoring Services*, 55-44. Springer

- Brindley, J.E. (2014). Learner support in online distance education: Essential and evolving, in Zawacki-Richter, O and Anderson, T. (Eds.), *Online Distance Education: Towards a Research Agenda*, (287-310). Edmonton: AU Press.
- Bromme, R., Hesse, F.W., and Spada, H. (2005). *Barriers and biases in computer-mediated knowledge communication: And how they may be overcome (Vol. 5)*. New York: Springer.
- Brown, K. M. (1996). The role of internal and external factors in the discontinuation of off-campus students. *Distance Education*, 17(1), 44-71. Doi:10.1080/0158791960170105
- Brown, J.M. (2012). Online learning: A comparison of web-based and land-based courses. *Quarterly review of Distance Education*, 13(1), 39-42. Retrieved from: <http://search.proquest.com.une.idm.oclc.org/docview/1034104094?pq-origsite=summon>
- Burns, S., Cunningham, J., and Foran-Mulcahy, K. (2014). Asynchronous online instruction: Creative collaboration for virtual student support. *CEA Critic*, 76(1), 114-131. doi: 10.1353/cea.2014.0007.
- Cao, Q., Griffin, T.E., Bai, X. (2009). The importance of synchronous interaction for student satisfaction with course websites. *Journal of Information Systems Education*, 20(3), 331-339. Retrieved from: <http://search.proquest.com.une.idm.oclc.org/docview/200110602?pq-origsite=summon>
- Caspi, A., Gorsky, P., and Chajut, E. (2003). The influence of group size on nonmandatory asynchronous instructional discussion groups. *The Internet and Higher Education*, 6(3), 227-240. Doi: 10.1016/S1096-7516(03)00043-5

- Chen, N., Ko, H., Kinshuk, K., and Lin, T. (2005). A model for synchronous learning using the Internet. *Innovations in Education and Teaching International*, 42(2), 181-194.  
doi:10.1080/14703290500062599
- Chen, Y.J. & Willits, F.K. (1998). A path analysis of the concepts in Moore's Theory of Transactional Distance in a videoconferencing learning environment. *Journal of Distance Education*, 13(2), 51. ISSN: 0830-0445
- Cochran, J.D., Campbell, S.M., Baker, H.M., and Leeds, E.M. (2014). The role of student characteristics in predicting retention in online courses. *Research in Higher Education*, 55(1), 27-48. doi: 10.1007/s11162-013-9305-8
- Creswell, J.W. (2013). *Qualitative inquiry and research design*. Los Angeles, CA: Sage.
- DiVall, M.V., Hayney, M.S., Marsh, W., Neville, M.W., O'Barr, S., Sheets, E.D., and Calhoun, L.D. (2013). Perceptions of pharmacy students, faculty members, and administrators on the use of technology in the classroom. *American Journal of Pharmaceutical Education*, 77(4), 75. Retrieved from: <https://une.idm.oclc.org/login?url=http://search.proquest.com.une.idm.oclc.org/docview/1448009497?accountid=12756>
- Dvorak, J. and Roessger, K. (2012). The impact of web-conferencing training on peer tutors' attitudes toward distance education. *Quarterly Review of Distance Education*, 13(1), 31-37. Retrieved from: <http://search.proquest.com.une.idm.oclc.org/docview/1034104730?pq-origsite=summon>
- Ellingson, D. and Notbohm, M. (2012). Synchronous distance education: Using web conferencing in an MBA accounting course. *American Journal of Business Education*, 5(5), 555-564. Retrieved from: <http://search.proquest.com.une.idm.oclc.org/docview/1418446127?pq-origsite=summon>

- Esgi, N. (2013). Comparison of effects of e-learning types designed according to the expository teaching method on student achievement. *Education and Science*, 38 (170). Retrieved from: <http://search.proquest.com.une.idm.oclc.org/docview/1459946439?pq-origsite=summon>
- Exeter, M.E., Korkmaz, N., Harlin, N.M., and Bichelmeyer, B.A. (2009). Distance education students' responses to sense of community within a fully online graduate program. *Quarterly Review of Distance Education*, 10(2), 177-194. Retrieved from: <http://web.a.ebscohost.com.une.idm.oclc.org/ehost/pdfviewer/pdfviewer?sid=f2c8552b-2628-484d-9068-fbd7d848b4b1%40sessionmgr4002&vid=3&hid=4112>
- Falloon, G. (2011). Moore's theory of transactional distance and its relevance to the use of a virtual classroom in postgraduate online teacher education. *Journal of Research on Technology in Education*, 43(3), 187-209. doi: 10.1080/15391523.2011.10782569
- Fiege, K. (2010). Successful practices in supporting students in distributed learning: meeting the needs of diverse students engaging in e-Learning. *Office of Applied Research and Innovation*. Retrieved from: <http://www.ecampusalberta.ca/files/FINAL%20REPORT%20Successful%20Practices.pdf>
- Floyd, D.L. and Casey-Powell, D. (2004). New roles for student support services in distance learning. *New Directions for Community Colleges*, 128, 55-64. doi: 10.1002/cc.1175
- Fotini, K. and Henkel, H. (2008). Live instruction for distance students: Development of synchronous online workshops. *Public Services Quarterly*, 4(1), 1-14. doi: 10.1080/15228950802135657

- Gale, N. G., Heath, G., Cameron, E., Rashid, S., and Redwood, S. (2013). Using the framework method for the analysis of qualitative data in multi-disciplinary health research. *BMC Medical Research Methodology*, 13(117). Doi: 10.1186/1471-2288-13-117.
- Garcia-Ros, R., Perez-Gonzalez, F., Hinojosa, E. (2004). Assessing time management skills as an important aspect of student learning. *School Psychology International*, 25(2), 167-183. Doi: 10.1177/014303404043684
- Giesbers, B., Rienties, B., Tempelaar, D., and Gijselaers, W. (2013). A dynamic analysis of the interplay between asynchronous and synchronous communication in online learning: The impact of motivation. *Journal of Computer Assisted Learning*, 30(1), 30-50. doi: 10.1111/jcal.12020
- Gill, P., Stewart, K., Treasure, E., and Chadwick, B. (2008). Methods of data collection in qualitative research: Interviews and focus groups. *British Dental Journal*, 204. Doi: 10.1038/bdj.2008.192
- Glaeser, C.G., Renold, L.C., Shariq, A., Lee, J., and Carter-Wells, J. (2012). Video conferencing guidelines for faculty and students in graduate online courses. *Journal of Online Learning and Teaching*, 8(4), 277-284. Retrieved from: <http://search.proquest.com.une.idm.oclc.org/docview/1500361065?pq-origsite=summon>
- Gokool-Ramdoe, S. (2008). Beyond the theoretical impasse: Extending the applications of transactional distance education theory. *The International Review of Research in Open and Distance Learning*, 9(3). Retrieved from <http://www.irrodl.org/index.php/irrodl/article/view/541/1151>

- Greenland, S.J. and Moore, C. (2014). Patterns of online student enrolment and attrition in Australian open access online education: a preliminary case study. *Open Praxis*, 6(1), 45-54. Retrieved from: <http://dx.doi.org/10.5944/openpraxis.6.1.95>
- Groenewald, T. (2004). A phenomenological research design—illustrated. *International Journal of Qualitative Methods*, 3(1). Retrieved from: [http://www.ualberta.ca/~iiqm/backissues/3\\_1/html/groenewald.html](http://www.ualberta.ca/~iiqm/backissues/3_1/html/groenewald.html)
- Hardman, J. (2015). Tutor-student interaction in seminar teaching: Implications for professional development. *Active Learning in Higher Education*. 1-14. Doi: 10.1177/1469787415616728
- Hinkel, E. (2011). Ed. *Handbook of Research in Second Language Teaching and Learning*. Florence, US: Routledge.
- Hudson, T.M., Knight, V. and Collins, B.C. (2012). Perceived effectiveness of web conferencing software in the digital environment to deliver a graduate course in applied behavior analysis. *Rural Special Education Quarterly*, 31(2), 27-39. Retrieved from: <http://search.proquest.com.une.idm.oclc.org/docview/1029935110?pq-origsite=summon>
- Hrastinski, S. (2006). Introducing an informal synchronous medium in a distance learning course: How is participation affected? *The Internet and Higher Education*, 9(2), 117-131. doi: 10.1016/j.iheduc.2006.03006
- Hrastinski, S. (2010). How do e-learners participate in synchronous online discussions? Evolutionary and social psychological perspectives. In N. Kock (Ed.), *Evolutionary psychology and information systems research* (pp. 119-147). US: Springer. Retrieved from <http://link.springer.com/chapter/10.1007/978-1-4419-6139-6>



- Hrastinski, S., Keller, C., and Carlsson, S.A. (2010). Design exemplars for synchronous e learning: A design theory approach. *Computers and Education*, 55, 652-662. doi: 10.1016/j.compedu.2010.02.025
- Huang, X., Hsiao, E. (2012). Synchronous and asynchronous communication in an online environment: Faculty experiences and perceptions. *Quarterly Review of Distance Education*, 13(1), 15-30. Retrieved from: <http://search.proquest.com.une.idm.oclc.org/docview/1034104731?pq-origsite=summon>
- Johnson, G. (2008). The relative learning benefits of synchronous and asynchronous text-based discussion. *British Journal of Educational Technology*, 39(1), 166-169. doi: 10.1111/j.14678535.2007.00739.x
- Jordan-Henley, J. and Maid, B.M. (1995). Tutoring in cyberspace: Student impact and college/university collaboration. *Computers and Composition*, 12(2), 211-218. Retrieved from: <http://www.sciencedirect.com/science/article/pii/S8755461595900098>
- Kamel-Boulos, M.N., Taylor, A.D., and Breton, A. (2005). A synchronous communication experiment within an online distance learning program: a case study. *Telemedicine & e-health*, 11(5), 583-593. doi: 10.1089/tmj.2005.11.583
- Karal, H., Cebi, A., and Turgut, Y.E. (2011). Perceptions of students who take synchronous courses through video conferencing about distance education. *Turkish Online Journal of Educational Technology*, 10(4), 276-293. Retrieved from: <http://search.proquest.com.une.idm.oclc.org/docview/1288354845?pq-origsite=summon>
- Kim, D.S., Lee, H., and Skellenger, A. (2012). Comparison of level of satisfaction between distance education and on campus programs. *Assessment Publications & Presentations*. Paper 1. Retrieved from: [http://scholarworks.wmich.edu/assessment\\_pubs/1](http://scholarworks.wmich.edu/assessment_pubs/1)

- Kuo, J., Hagie, C., & Miller, M. T. (2004). Encouraging college student success: The instructional challenges, response strategies, and study skills of contemporary undergraduates. *Journal of Instructional Psychology, 31*(4), 60–67. Retrieved from: <http://search.proquest.com.une.idm.oclc.org/docview/195747450?pq-origsite=summon>
- LaPadula, M. (2003). A comprehensive look at online student support services for distance learners. *The American Journal of Distance Education, 17*(2), 119-128. Retrieved from: [http://www-tandfonline-com.une.idm.oclc.org/doi/abs/10.1207/S15389286AJDE1702\\_4](http://www-tandfonline-com.une.idm.oclc.org/doi/abs/10.1207/S15389286AJDE1702_4)
- Lave, J. and Wenger, E. (1991). *Situated Learning: Legitimate Peripheral Participation*. Cambridge, UK: Cambridge University Press.
- Lee, Y. and Choi, J. (2011). A review of online course dropout research: Implications for practice and future research. *Education Tech Research Development, 59*, 593-618. doi: 10.1007/s11423-010-9177
- Leiss, D.P. (2010). *Does synchronous communication technology influence classroom community?* (Doctoral dissertation). Publication number 3398688. Retrieved from: [gradworks.umi.com/33/98/3398688](http://gradworks.umi.com/33/98/3398688)
- Liao, H. and Lu, H. (2008). Richness versus parsimony antecedents of technology adoption model for E-learning website. doi: 10.1007/978-3-540-85033-5\_2
- Liu, X., Magjuka, R., Bonk, C., and Lee, S. (2007). Does sense of community matter? *Quarterly Review of Distance Education, 8*(1), 9-24. Retrieved from: <http://search.proquest.com.une.idm.oclc.org/docview/231180604?pq-origsite=summon>
- Long, M. H., & Doughty, C. (Eds.). (2003). *The handbook of second language acquisition* (pp. 487-536). Oxford, England: Blackwell.

- Ludwig-Hardman, S. and Dunlap, J. (2003). Learner support services for online students: Scaffolding for success. *The International Review of Research in Open and Distributed Learning*, 4(1), 1-15. Retrieved from: <http://www.irrodl.org/index.php/irrodl/article/view/131/602>
- Matthias, J., Piesche, C., Jablonski, S. (2012). Flexibility requirements concerning the design of synchronous e-learning systems. *Interactive Technology and Smart Education*, 9(4), 233-245. doi: 10.1108/174156511211284020
- Melkun, C.H. (2012). Nontraditional students online: Composition, collaboration, and community. *The Journal of Continuing Higher Education*, 60, 33-39. doi: 10.1080/07377363.2012.649128
- Merriam, S. B. (2009). *Qualitative research: A guide to design and implementation*. Jossey Bass, San Francisco, CA.
- Moldenhauer, J.A. (2010). Virtual conferencing in global design education: Dreams and realities. *Visible Language*, 44(2), 219-238. Retrieved from: <http://search.proquest.com.une.idm.oclc.org/docview/743851864?pq-origsite=summon>
- Moore, M.G. (1972). Learner autonomy: The second dimension of independent learning. *Convergence*, 5(2), 76-88.
- Moore, M. G. (1980). In R. Boyd & J. Apps (Eds.), *Redefining the Discipline of Adult Education*. San Francisco: Jossey-Bass, pp. 16–31.
- Moore, M.G. (1989). Editorial: Three types of interaction. *The American Journal of Distance Education*, 3(2), 1-7. Retrieved from: <http://site.ebrary.com.une.idm.oclc.org/lib/unelib/detail.action?docID=10650299>
- Moore, M.G. (1990). *Contemporary issues in American distance education*. London: Pergamon.

- Moore, M.G. and Kearsley, G. (1996). *Distance education: a systems view*. Wadsworth, New York.
- Mostert, M. and Snowball, J.D. (2012). Where angels fear to tread: Online peer-assessment in a large first year class. *Assessment & Evaluation in Higher Education* 38(6), 674-686. Doi: 10.1080/02602938.683770
- Moustakas, C. (1994). *Phenomenological research methods*. Thousand Oaks, CA: Sage
- Muilenburg, L.Y. and Berge, Z.L. (2005). Student barriers to online learning: A factor analytic study. *Distance Education*, 26(1). Doi: 10.1080/01587910500081269
- Nandi, D. (2015). What factors impact student-content interaction in fully online courses. *I.J. Modern Education and Computer Science*, 7, 28-35. doi: 10.5815/ijmecs.2015.07.04
- Offir, B., Lev, Y., Bezalel, R. (2008). Surface and deep learning processes in distance education: Synchronous versus asynchronous systems. *Computers & Education*, 51, 1172-1183. doi: 10.1016/j.compedu.2007.10.1009.
- Olson, J.S. and McCracken, F.E. (2015). Is it worth the effort? The impact of incorporating synchronous lectures into an online course. *Online Learning Journal*, 19(2). Retrieved from: <http://olj.onlinelearningconsortium.org/index.php/olj/article/view/499>
- Opdenakker, R. (2006). Advantages and disadvantages of four interview techniques in qualitative research. *Qualitative Social Research* 7,(4). Retrieved from: <http://www.qualitative-research.net/index.php/fqs/article/view/175/392>
- Oztok, M., Zingaro, D., Brett, C. and Hewitt, J. (2013). Exploring asynchronous and synchronous tool use in online courses. *Computers & Education*, 60(1), 87-94. doi: 10.1016/j.compedu.2012.08007
- Paulus, T.M. (2006). Challenge or connect? Dialogue in online learning environments. *Journal of Computing in Higher Education*, 18(1), 3-29. doi: 10.1007/BF03032722

- Pope, C., Ziebland, S., & Mays, N. (2000). Qualitative research in health care: Analysing qualitative data. *BMJ*, *320*, 114-116. Doi: 10.1136/bmj.320.7227.114
- Priego, R.G. and Peralta, A.G. (2013). Engagement factors and motivation in e-learning and blended-learning projects. In *Proceedings of the First International Conference on Technological Ecosystem for Enhancing Muticulturality* (453-460).
- Rahm, D. and Reed, B.J. (1998). Tangled webs in public administration: Organizational issues in distance education. *Public Administration and Management*, *3*(1). Retrieved from: [www.hbg.psu.edu/Faculty/jxr11/11](http://www.hbg.psu.edu/Faculty/jxr11/11)
- Rovai, A.P. (2002). Development of an instrument to measure classroom community. *The Internet and Higher Education*, *5*(3), 197-211. doi: 10.1016/S1096-7516(02)00102-1
- Russo-Gleicher, R.J. (2013). Qualitative insights into faculty use of student support services with online students at risk: Implications for student retention. *Journal of Educators Online*, *10*(1), 1-32. Retrieved from: <http://eric.ed.gov/?id=EJ1004894>
- Santovec, M.L. (2005). Accessibility and universal design. *Distance Education Report*, *9*(9), 37. Retrieved from: <http://web.b.ebscohost.com.une.idm.oclc.org/ehost/pdfviewer/pdfviewer?vid=7&sid=bc947ff5-76b2-477a-b18c-d9f21b2bc189%40sessionmgr114&hid=101>
- Schmidt, H.G. & Moust, J.H. (1995). What makes a tutor effective? A structural-equations modeling approach to learning in problem-based curricula. *Academic Medicine*, *70*(8), 708-714. Retrieved from: [http://journals.lww.com/academicmedicine/Abstract/1995/08000/What\\_makes\\_a\\_tutor\\_effective\\_\\_A.15.aspx](http://journals.lww.com/academicmedicine/Abstract/1995/08000/What_makes_a_tutor_effective__A.15.aspx)

- Schreiner, L.A. (2009). Linking student satisfaction and retention. Research study: Azusa Pacific University. Retrieved from: <https://www.faculty.uwstout.edu/admin/provost/upload/LinkingStudentSatis0809.pdf>
- Shin, N. (2003). Transactional presence as a critical predictor of success in distance learning. *Distance Education*, 24(1), 69-86. doi: 10.1080/01587910303048
- Skylar, A.A. (2009). A comparison of asynchronous online text-based lectures and synchronous interactive web conferencing lectures. *Issues in Teacher Education*, 18(2). Retrieved from: <http://files.eric.ed.gov/fulltext/EJ858506.pdf>
- Simpson, O. (2003). *Student retention in online open and distance learning*. London: Kogan Page.
- Simpson, O. (2012). *Supporting students for success in online and distance education*. New York: Routledge.
- Soo, K. S. and Bonk, C. J. (June, 1998). Interaction: What does it mean in online distance education? Paper presented at the Ed-Media and EdTelecom 98 conference, Freiburg, Germany.
- Srivastava, A. and Thomson, S.B. (2009). Framework analysis: A qualitative methodology for applied research. Note: Policy research. *JOAAG*, 4(2), 72-79. [http://research.apc.org/images/a/ad/Framework\\_analysis.pdf](http://research.apc.org/images/a/ad/Framework_analysis.pdf)
- Stewart, A.R., Harlow, D.B. and DeBacco, K. (2011). Students' experience of synchronous learning in distributed environments. *Distance Education*, 32(3), 357-381. doi:10.1080/01587919.2011.610289

- Szeto, E. and Cheng, A.Y.N. (2014). Towards a framework of interactions in a blended synchronous learning environment: What effects are there on students' social presence experience? *Interactive Learning Environments*, 22(1), 1-17. doi: 10.1080/10494820.2014.881391
- U.S. Department of Education. (2014). *The condition of education, 2014*. Washington DC: Institute of Education Sciences.
- Van Horne, S. (2012). Situation definition and the online synchronous writing conference. *Computers and Composition*, 29(2), 93-103. doi: 10.1016/j.compcom.2012.03.001.
- Van Rosmalen, P., Vogten, H., Van Es, R., Passie, H., Poelmans, P., and Koper, R. (2006). Current research in learning. *Journal of Educational Technology and Society* 9, (1), 72-83. Retrieved from: <http://search.proquest.com.une.idm.oclc.org/docview/1287050980/A4CEB3287C59474BPQ/4?accountid=12756>
- Vygotsky, L. (1978). *Mind and society: The development of higher mental processes*. Cambridge, MA: Harvard University Press.
- Wade, C.E., Cameron, B.A., Morgan, K., and Williams, K.C. (2011). Are interpersonal relationships necessary for developing trust in online group projects? *Distance Education*, 32(3), 383-396. doi:10.1080/01587919.2011.610288
- Wagner, E.D. (1994). In support of a functional definition of interaction. *The American Journal of Distance Education*, 8(2), 6-26. Doi: 10.1080/08923649409526852
- Wagner, B., Horn, A.B., Maercker, A. (2013). Internet-based versus face-to-face cognitive behavioral intervention for depression: A randomized controlled non-inferiority trial. *Journal of Affective Disorders*, 152, 113-121. Retrieved from: <http://www.ncbi.nlm.nih.gov/pubmed/23886401>

- Wickersham, L.E. and Dooley, K.E. (2006). A content analysis of critical thinking skills as an indicator of quality of online discussion in virtual learning communities. *Quarterly Review of Distance Education*, 7(2), 185-193. Retrieved from: <http://search.proquest.com.une.idm.oclc.org/docview/231078770?pq-origsite=summon>
- Williams, K.B. (2015). Academic support, social support, and professional development of higher and lower achieving psychology majors. *North American Journal of Psychology*, 17(2), 373-382. Retrieved from: <https://une.idm.oclc.org/login?url=http://search.proquest.com/docview/1686089938?accountid=12756>
- Wyland, R. L., Winkel, D. E., Lester, S. W., & Hanson-Rasmussen, N. (2015). Who can help working students? The impact of graduate school involvement and social support on school-work facilitation. *Industry and Higher Education*, 29(3), 175. ISSN: 0950-4222
- Yamagata-Lynch, L.C. (2014). Blending online asynchronous and synchronous learning. *The International Review of Research in Open and Distance Learning*, 15(2), 189-212. Retrieved from: <http://www.irrodl.org/index.php/irrodl/article/view/1778/2837>
- Yin, R. K. (2003). *Case study research: Design and methods* (3rd ed.). Thousand Oaks, CA: Sage.
- Zimmerman, T.D. (2012). Exploring learner to content interaction as a success factor in online courses. *IRRODL*, 13(4). Retrieved from: <http://www.irrodl.org/index.php/irrodl/article/view/1302/2>



APPENDIX A  
SEMI-STRUCTURED INTERVIEW SCRIPT AND OUTLINE

Thank you so much for meeting with me, \_\_\_\_\_. I know as a fellow online graduate student, that you have little free time out there and I thank you again for choosing to spend some of it with me online.

To facilitate my note taking, I will be recording the interview. Thank you for submitting the signed consent form. The only individuals who will have access to these recordings and my notes are faculty advisors, dissertation committee members, and myself. The recordings will be deleted within one calendar year of our meeting today.

Before we get started, remember:

- (1) All of this information is confidential.
- (2) Your participation is voluntary, and you may stop the interview at any time.
- (3) I have completed the necessary steps to ensure no harm is caused to participants as a result of their participation in the study.

This interview should not last longer than 90 minutes. I will be asking several questions, and to aide in keeping the interview within this timeframe, please answer the questions as completely, yet concisely, as possible. I will as follow up questions if your response needs to be clarified.

You have been selected to speak with me today because you have been identified as a student who has used UNE's SASC services on more than three occasions during your time as an online graduate student. My project focuses on the improvement of academic support centers' services—specifically when working with online graudate students, and more specifically how

these services affect a student's interaction with his or her course content. This study does not look to evaluate your work or experiences; rather it is intended to focus on what the experience was like for you and how it affected your schoolwork.

Finally, before we get started, and as you can probably tell, I'm going to be using the phrase course content quite a bit. Let me tell you quickly what I mean by that. Course content consists of the PowerPoints you read, lessons you listen to, journal articles you read and annotate, papers you research and write, textbooks, and discussion board posting and response. One other note, your meetings with SASC were live, or synchronous. Instead of meeting via email, those meetings involved using web conferencing allowing us to meet in real time.

### **Interviewee Background**

What program are/were you in?

How far along in the program are you?

What is the toughest part for you about being an online graduate student?

### **Meeting Background**

Please describe your time working with SASC staff.

How often did you meet, with whom, for what?

### **Student Perspective**

I. Of those times that you met with SASC, was there a time when a meeting helped you out in class?

- Which class were you enrolled in at the time?
- What aspect of your courses do you find most difficult?
- Did the live meetings address that aspect?

- How was the purpose of the meeting connected to the area you were having difficulty with?
- Was there anything about the meeting that particularly influenced your understanding of the content?
- Can you describe what it was about the meeting that affected your understanding of the content?

II. One of the things my study seeks to learn is whether or not students believe the experience of synchronous web-conferencing communication was different from the asynchronous communication. How can you compare meeting UNE staff and faculty asynchronously (NOT-live) through emails to meeting SASC staff synchronously via web conferencing?

- How would you compare or contrast the two communication approaches?
- Did you find one approach more effective in helping you interact with your coursework differently? If yes, please elaborate. If no, why do you believe that to be the case?
- Did you find either approach particularly motivating or frustrating? Which one and why?

III. Did the live meetings with SASC have any impact on \_\_\_\_\_?

Looking at:

- (1) recorded lectures
- (2) assigned readings
- (3) writing assignments
- (4) discussion board work,
- How was that so? In what way, exactly?

- How do you compare your time spent working on assignments directly related to SASC meetings to difficult assignments you tackled on your own?

### **Beneficial Factors/Web-conferencing**

Thank you for that information. Now I have a much better idea about how SASC live meetings impacted your schoolwork. Is there anything else you can tell me about what the web-conferencing meetings did for you? Now, I'd like to shift topics a bit and talk about the technology.

I. Describe your experience with the technology during your meeting.

- Did you use phone or headset? Anymeeting or Collaborate?
- What worked well, what did not?
- Where there any specific technological difficulties you would like to expand on?

II. Briefly describe your opinion on meeting live with SASC staff versus exchanging emails with a support member, or watching premade videos on the topic.

- I've asked before, but as another opportunity, do you feel the live meeting was more or less effective in your later work on your course? How about later courses?
- I know we talked about technological difficulties earlier, so beyond those issues, what about the live meetings could be improved upon?
- What was the best part about meeting live with university personnel?

### **Staff Characteristics**

Next I'd like to explore with you what it was about the staff members themselves that were or were not particularly effective in assisting you with your coursework.

I. Tell me about your interaction with the SASC staff, at a customer service level.

- Was the individual supportive, patient, and/or friendly?
- How would you say this individual's personality affected the meeting and your goals in getting help?

II. What, if anything, do you think a learning support staff member should be aware of or a master of when working specifically with online students?

- Which do you believe to be more important in a good learning support session: Support staff understanding of the content or Support staff ability to work with online students?

III. What, if anything, was it about the SASC staff member you met with that you could say aided in your work on the course?

- Was something particularly motivating about your staff member?
- Was something particularly discouraging or difficult about your staff member?
- What is something you could say your staff member could do better in the future?

### **Crossover of Session Types**

Okay, last topic here. Students meet with us at SASC for different reasons, including writing support, content tutoring, and academic coaching sessions. I notice you have met for these reasons \_\_\_\_\_.

I. If Writing Support:

Think back to a writing support session and tell me what you were writing about and the meeting's purpose. How did the session aid in your understanding of the content?

- Name a specific component of the content, other than writing your paper, (DB work, readings, research, any task required of you) which the writing support session helped you with.

- What about the writing support session do you feel aided in your completion of the course?

## II. If Content Tutoring:

Think back to a tutoring session and tell me what you were studying and the meeting's purpose.

Did the session aid in your understanding of the content?

- Did you notice any other benefits from the session?
- Did the sessions make you more confident in this course, and later courses?
- In what ways, if any, did your live session with SASC staff make you a better online student?

## III. If Academic coaching Session:

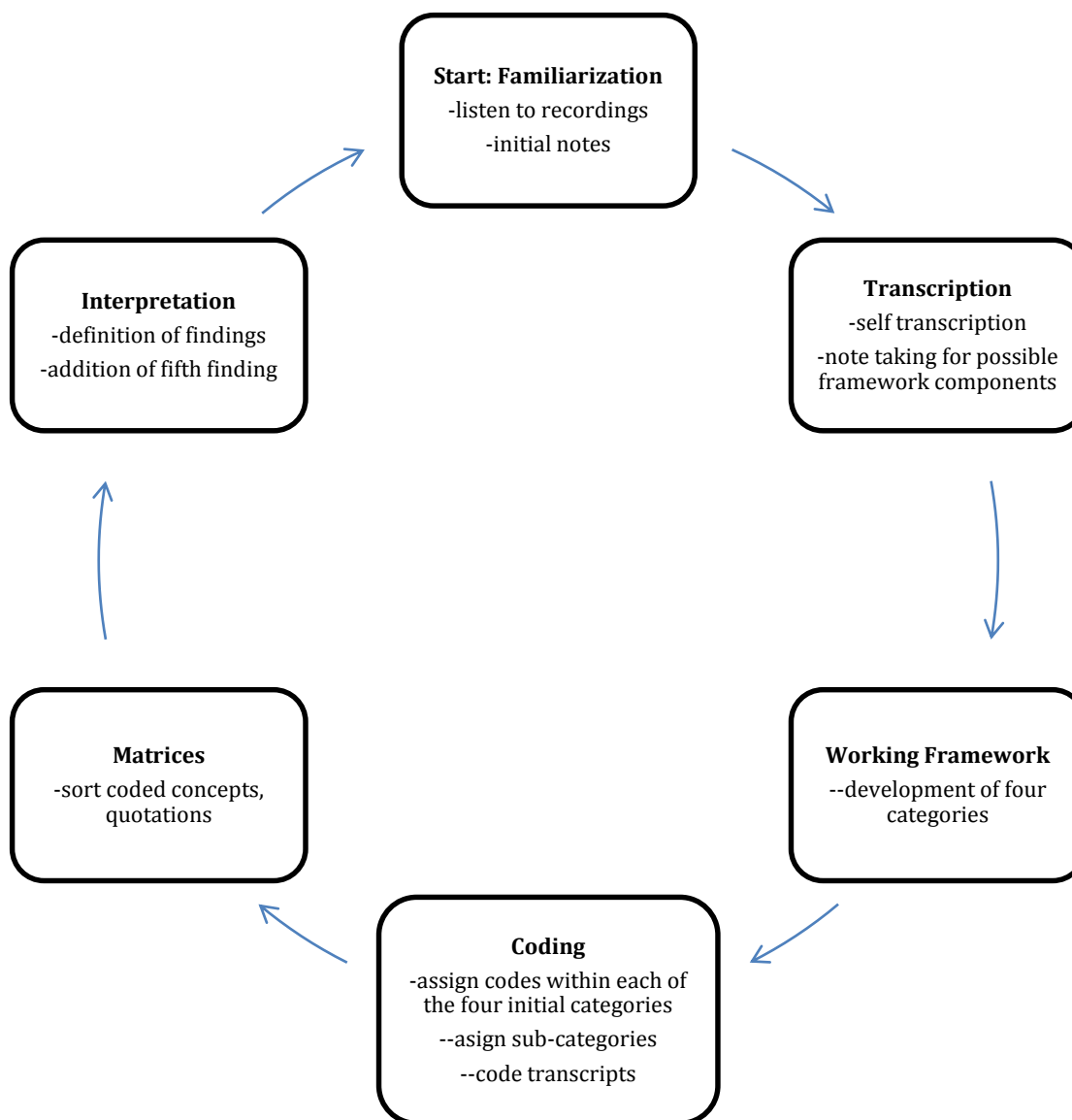
Think back to an academic coaching session and tell me what you were studying and the meeting's purpose. Talk about the academic coaching, or learning strategies you worked on.

- Did the session aid in your understanding of the content? In what ways, if at all?
- How did you use, if at all, your new academic coaching understanding later in the course?

Thank you so much for your time in helping me understand how you experienced your time working with SASC. Like I said earlier, I will listen to this recording. During that listening I may come up with questions of clarification for you. I will be in touch via email regarding possibly setting up another, shorter, meeting, or I may simply email the question to you. Again, thanks so much.

## APPENDIX B

## FRAMEWORK ANALYSIS USED IN THE STUDY



Framework Analysis Steps, adapted from Gale et al. (2013).

## APPENDIX C

## PARTICIPANT CONSENT FORM

## UNIVERSITY OF NEW ENGLAND

## CONSENT FOR PARTICIPATION IN RESEARCH

**Project Title:**

Online Learning and Academic Support Centers: How Synchronous Support Opportunities Affect Graduate Students' Interaction with the Course Content

**Principal Investigator(s):**

- Henri Moser, student researcher, University of New England  
hmoser@une.edu; (207)-221-4352
- Dr. Marylin Newell, faculty advisor, University of New England  
mnewell@une.edu; (207)- 345-3100

**Introduction:**

- Please read this form, you may also request that the form is read to you. The purpose of this form is to provide you with information about this research study, and if you choose to participate, document your decision.
- You are encouraged to ask any questions that you may have about this study, now, during or after the project is complete. You can take as much time as you need to decide whether or not you want to participate. Your participation is voluntary.

**Why is this study being done?**

- Often online graduate students experience inadequate academic support from their university. In an effort to improve the support available, this research study is going to investigate online students' experiences working with academic support departments in live, web-conference meetings sessions.
- New information that comes from the study may be used to help academic support departments when they decided whether or not to help online students in a live setting.

**Who will be in this study?**



- People participating in this study were chosen because they (1) are (or were) online graduate students at UNE, and (2) worked with UNE's Student Academic Success Center (SASC) in a live format at least three times. It is for these reasons that you have been identified as a potential participant.
- Several students who meet these requirements have been contacted and ultimately 6-10 will be selected to participate in the research interviews based solely on the order they agreed, via email to Henri Moser, to participate in the study.

### **What will I be asked to do?**

- The participant research activities for this study include: (1) signing of this consent form, (2) scheduling of a 90 minute long interview using Anymeeting web-conferencing, (3) completing the 90 minute interview, and (4) answering clarifying questions, via phone, after the interview has happened.
- (1) Please print, sign, and scan (or photograph) the consent form and email as an attachment to hmoser@une.edu. This form lets you know the purpose and what your role and rights are in the research study.
- (2) Upon receipt of the consent form, I will email you in an effort to schedule our interview session.
- (3) After we have settled on a time, I will send you the Anymeeting link that will allow us to meet for the interview. Remember to have your headset and sign in a few minutes early to make sure everything is working. This interview session is where I will be asking my research questions and gathering data (your answers). These interview sessions will be recorded.
- (4) While I am analyzing our interviews, I may come up with questions regarding your answers. I will list those questions and send them via email. You can either answer them in writing or call me at (207)-221-4352.
- In summary, we will schedule an appointment, meet once formally, and then possibly interact (via phone or email) later on in the process. The entire process for you will not be longer than one month.
- Students will not receive compensation for participation.

### **What are the possible risks of taking part in this study?**

- There are no reasonably foreseeable risks associated with participation. However, students may feel uncomfortable interviewing with a member of SASC with whom they have worked with. Students should understand nothing they say during the interviews would affect any part of future meetings or tutoring sessions with SASC.

### **What are the possible benefits of taking part in this study?**

- There are no direct benefits to you for participating in this study. There may be a benefit to current and future online graduate students depending on the results of the study. If it is found out that live web-conferencing is effective in supporting online graduate students, then it may be implemented more often—ultimately helping out current and future students.

### **What will it cost me?**

- I do not expect participants to incur any costs during the research process.

### **How will my privacy be protected?**

- I am the only SASC employee who will be able to identify the participants throughout the process.
- Your name will be changed to a participant number in all documents related to the study.
- My research advisor (who works in the Ed.D. department) is the only other UNE employee who will have access to your name.
- The interviews will take place using a unique Anymeeting link that only you and I will have permission to access. During the interviews I will be alone in my office.
- The finished project will not have any participant's identification and will be presented to a committee of UNE faculty.

### **How will my data be kept confidential?**

- Data in this study includes your answers to my questions.
- While this study is not completely anonymous (I will know who you are), I will make the following efforts to ensure my data is kept confidential:
  - (1) Emails between you and me will be stored in an email account that is only accessible by me. These emails will be deleted upon study completion.
  - (2) The recordings of the interviews may have your name mentioned, but only first names will be used and only the researcher and faculty advisor will have access to the recordings—which will be deleted upon study completion.
  - (3) There will be no paperwork with your name on it, but paper transcriptions of the interviews will ultimately be made and analyzed. I am personally doing the transcriptions, so no one, other than my faculty advisor will have access to the data. This paperwork will be locked in a cabinet throughout the process and destroyed upon study completion.
- My work with the data will remain on a password protected UNE computer.

- A copy of your signed consent form will be maintained by the principal investigator for at least 3 years after the project is complete before it is destroyed. The consent forms will be stored in a secure location that only I will have access to and will not be affiliated with any data obtained during the project.
- The data and results that come from this study may be used in later studies regarding online graduate students, live meetings, and academic support departments.
- Research findings can be provide to participants upon email request to hmoser@une.edu.

### **What are my rights as a research participant?**

- Your participation is voluntary. Your decision to participate will have no impact on your current or future relations with the University. This study will not impact your standing as a student.
- You may refuse to answer any question asked of you for any reason.
- You may end the interview at any time for any reason.
- If you choose not to participate in the study there is no penalty to you.
- You are free to withdraw from this research study at any time, for any reason. If you choose to withdraw from the research there will be no penalty to you.

### **Whom may I contact with questions?**

- The researchers conducting this study are Henri Moser (principal investigator) hmoser@une.edu; (207)-221-4352 and Marylinn Newell (faculty advisor) mnewell@une.edu; (207)-345-3100.
- If you choose to participate in this research study and believe you may have suffered a research related injury, please contact the individuals above at the noted numbers.
- If you have any questions or concerns about your rights as a research subject, you may call Olgun Guvench, M.D. Ph.D., Chair of the UNE Institutional Review Board at (207) 221-4171 or irb@une.edu.

### **Will I receive a copy of this consent form?**

- You will be given a copy of this consent form.

### **Participant's Statement**

**I understand the above description of this research and the risks and benefits associated with my participation as a research subject. I agree to take part in the research and do so voluntarily.**

\_\_\_\_\_  
Participant's signature or  
Legally authorized representative

\_\_\_\_\_  
Date

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Printed name

**Researcher's Statement**

**The participant named above had sufficient time to consider the information, had an opportunity to ask questions, and voluntarily agreed to be in this study.**

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Researcher's signature

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Date

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Printed name

## APPENDIX D

## CODING SCHEMA FOR FRAMEWORK ANALYSIS

<i>Coding Schema for Framework Analysis</i>		
Finding	Themes/Sub-themes	Code
Benefits	Immediate benefits	IB
	Assistance with assignment	AA
	Assistance with passing class	AC
	Longer-term benefits	LTB
	English practice	EP
	Increased confidence	IC
	Student skills	SS
	Research and writing skills	RWS
Connections	Isolation	I
	Disconnect	D
	Increased access	IA
The Technology	Confidence	C
	Later use	LU
	Opportunities	O
Support Staff	Customer service	CS
	Attitude	A
	Professionalism	P
Session Types	Learning strategies general	LS
	Backward planning	BP
	Reading with a purpose	RP
	Specific online strategies	SOS
	Writing support general	WS
	Incorporating research	IR
	Paper formatting	PF
	Outlining	O
	Content tutoring general	CT
	Leadership	L
	Timing	T
	Quizzes	Q

## APPENDIX E

## SAMPLE MATRIX USED FOR SESSION TYPES FINDING

Participant	LS	BP	RP	SOS	WS	IR	PF	O	CT	L	T	Q
<i>Afia</i>	1	-	1	-	3	1	2	-	4	1	2	1
<i>Fagago</i>	7	3	2	2	11	5	5	1	-	-	-	-
<i>Abasiama</i>	6	2	2	2	5	2	3	-	4	3	1	-
<i>Chandni</i>	9	4	1	4	7	2	3	1	-	-	-	-
<i>Mark</i>	5	1	2	2	12	5	7	-	-	-	-	-
<i>Susan</i>	4	2	1	1	5	1	1	2	-	-	-	-
<i>Talita</i>	11	2	2	7	8	-	-	-	-	-	-	-
<i>Abah</i>	7	7	-	-	7	2	3	2	7	2	2	3

*Notes.* 1. Numbers in each column represent number of participant quotations within the specific theme or sub-theme. 2. Participant names are pseudonyms. 3. The theme/sub-theme headings are as follows: LS: Learning strategies (Academic Coaching), BP: Backward planning, RP: Research practice, SOS: Specific online strategies, WS: Writing support, IR: Incorporating research, PF: Paper formatting, O: Outlining, CT: Content tutoring, L: Leadership, T: Timing, Q: Quizzes

## APPENDIX F

## SUPPORT SESSION TYPE BY PARTICIPANT

<i>Support Session Type by Participant</i>	
Participant	Session Types (Number of meetings)
Afia	Writing Support (5), Learning Strategies (2), Content Tutoring (8)
Fagago	Writing Support (6), Learning Strategies (3)
Abasiama	Writing Support (5), Learning Strategies (3), Content Tutoring (11)
Chandni	Writing Support (12), Learning Strategies (2)
Mark	Writing Support (7), Learning Strategies (4)
Talita	Writing Support (16), Learning Strategies (2)
Susan	Writing Support (4), Learning Strategies (2)
Abah	Writing Support (2), Learning Strategies (2), Content Tutoring (11)

Number of support sessions attended by participants by type. Note: In this writing *Learning Strategies* is synonymous with *Academic Coaching*.