

9-1-2016

Out Of Sync: Analyzing The Paradoxical Impact Of Synchronous Learning In Distance Education

Benjamin David Luce
University of New England

Follow this and additional works at: <http://dune.une.edu/theses>

 Part of the [Educational Administration and Supervision Commons](#), [Educational Leadership Commons](#), [Educational Methods Commons](#), [Higher Education Commons](#), [Higher Education and Teaching Commons](#), and the [Online and Distance Education Commons](#)

© 2016 Benjamin Luce

Preferred Citation

Luce, Benjamin David, "Out Of Sync: Analyzing The Paradoxical Impact Of Synchronous Learning In Distance Education" (2016). *All Theses And Dissertations*. 83.
<http://dune.une.edu/theses/83>

This Dissertation is brought to you for free and open access by the Theses and Dissertations at DUNE: DigitalUNE. It has been accepted for inclusion in All Theses And Dissertations by an authorized administrator of DUNE: DigitalUNE. For more information, please contact bkenyon@une.edu.

OUT OF SYNC:
ANALYZING THE PARADOXICAL IMPACT OF SYNCHRONOUS
LEARNING IN DISTANCE EDUCATION

By

Benjamin David Luce

B.A., University of Southern Maine, 2002
M.F.A., University of Southern Maine, 2004

A DISSERTATION

Presented to the Affiliated Faculty of

The College of Graduate and Professional Studies at the University of New England

In Partial Fulfillment of Requirements

For the Degree of Doctor of Education

Portland & Biddeford, Maine

August, 2016

Copyright 2016
By Benjamin David Luce

Benjamin David Luce
August, 2016
Educational Leadership

OUT OF SYNC:
ANALYZING THE PARADOXICAL IMPACT OF SYNCHRONOUS
LEARNING IN DISTANCE EDUCATION

Abstract

Modern forms of distance education provide students and instructors with the ability to access their online experiences without being limited by time or place. Though this quality is convenient for many, the predominantly asynchronous nature of online learning creates transactional distance that challenges the depth of engagement between instructors and students. The purpose of this phenomenological study was to examine the impact of technology-assisted synchronous transactional interventions on the social construction of knowledge created between instructors and their students in distance education. Research was conducted through a series of interviews with instructors who have used synchronous methods within their online courses through either their own choosing or at the request of their institutions. The study focused only on the instructors' experiences and did not include direct data related to the students' perspectives; the research was also not intended to expose practices from specific colleges or universities. Participants described their thoughts about campus-based teaching and online instruction, and they shared a variety of synchronous practices that they have used in distance education courses. The study yielded significant results about the instructors' motivations for enhancing their courses with synchronous practices, the applications that they used to facilitate

these elements, and the impact on social engagement and learning. However, the interviews also highlighted challenges that the instructors have faced when attempting to use synchronous learning in distance education, including conflicts with students' schedules and institutional policies. Thus, further development of online synchronous learning and the creation of true best practices cannot occur until institutions collaborate with instructors to discover the most effective methods for engaging student in distance education programs.

University of New England

Doctor of Education
Educational Leadership

The dissertation was presented
by

Benjamin David Luce

It was presented on
July 27, 2016
and approved by:

Marilyn Newell, Lead Advisor
University of New England

Ella Benson, Secondary Advisor
University of New England

Carolyn Marcotte, Affiliated Committee Member
University of New England

TABLE OF CONTENTS

CHAPTER 1: INTRODUCTION	1
Purpose & Significance of the Study	2
Problem Statement	3
Research Questions	4
Conceptual Framework	5
Definition of Terms	6
Assumptions, Limitations, and Scope	7
Conclusion	9
CHAPTER 2: LITERATURE REVIEW	10
Evolution of Online Learning and Engagement	11
Technology as a Gateway to Online Engagement	15
Social Engagement in Distance Learning	20
CHAPTER 3: METHODOLOGY	26
Setting	27
Participants/Sample	28
Data	29
Analysis	31
Participant Rights	32
Potential Limitations of the Study	33
CHAPTER 4: RESULTS	35
Analysis Method	36

Results	37
Summary	67
CHAPTER 5: CONCLUSION	70
Qualities of Successful Synchronous Learning	70
Faculty Transitions to Synchronous Models	72
Challenges and Limitations of Synchronous Online Delivery	75
Implications	76
Recommendations for Action and Further Study	80
Conclusion	81
REFERENCES	85
APPENDIX A: INTERVIEW QUESTIONS	89

CHAPTER 1

INTRODUCTION

In recent years, access to higher education has increased substantially, and options for institutional attendance have broadened significantly to allow non-traditional students to attain a college education. However, the past ten years have proven to be especially interesting as technological advancements have given birth to modern forms of online learning and distance education. Thousands of students now engage in some form of online education, and the challenge that educational leaders face during the crucial next ten years is to evolve distance education models from merely being possible to being as engaging as – if not more engaging than – traditional campus-based learning (Lundberg & Sheridan, 2015).

Michael G. Moore's Theory of Transactional Distance (1993) is of particular relevance to this topic. As he explains,

It is the separation of learners and teachers that profoundly affects both teaching and learning. With separation, there is a psychological and communications space to be crossed, a space of potential misunderstanding between the inputs of instructor and those of the learner.

Evolving distance education models should include consideration about the impact of this transactional distance on instructors' ability to effectively engage and teach students. Many online programs are built around predominantly asynchronous learning transactions such as discussion boards and assignment submission and review. The following study seeks to identify synchronous tools that instructors have used in online courses, and the analysis of these techniques will facilitate the creation of online education models that minimize the sense of distance and maximize engagement in the faculty communication and live engagement.

Purpose & Significance of the Study

The purpose of this phenomenological study is to examine the impact of technology and social engagement interventions on the social construction of knowledge created through interactions between instructor and students. Instead of focusing on a specific institutional setting, this study examined a variety of approaches to translating the traditional forms of engagement and knowledge construction in campus-based education to distance learning models. As academics such as Reilly, Gallagher-Lepak, and Killon (2012) have written, at its worst, the transactional distance inherent in online education creates a “me and my computer” sensation; put simply, instructors and students can very easily feel like they are alone in their pursuit of their academic goals because they are not receiving the face-to-face interaction and live feedback inherent in traditional ground education models. Similarly, instructors are prone to the same types of depersonalized distancing from their students and the course content in more static online education models.

Solutions to the isolation phenomenon are wide-ranging, including interventions across three key areas:

- 1) Improvements in course and curriculum design to create a stronger sense of connectivity between the students and the material in which they are immersed (Nandi, Hamilton, & Harland, 2012).
- 2) Enhancements in distance education through the use of existing and emerging technology applications that can connect students across space and also add to the course/curriculum content (DeCesare, 2014).
- 3) Developments in instructor approaches to content instruction, discussion facilitation, and student interaction (Lundberg, & Sheridan, 2015).

This study focused on the third of those three categories of interventions; it examined the impact of specific measures related to the use of technology to create synchronous student-instructor interactions that can simulate the engagement that exists in classroom delivery. The data includes extensive interviews with experienced online faculty who have used synchronous approaches in online programs as either core components of the curriculum or to supplement the existing programmatic model. Key goals of the study were to identify synchronous techniques that instructors have used to enhance engagement with distance education models and to develop a series of concrete best practices in the areas of technology use and instructor intervention.

Problem Statement

The rapid growth of distance/online education models has provided students with unparalleled access to post-secondary education, particularly for adult learners whose personal and professional commitments prevent them from being able to travel regularly to locations for courses (Alcorn, Christensen, Emanuel, 2014). However, the change has forced institutions to consider how best to engage online students, a problem that continues to evolve through new technologies and other opportunities for engagement and retention (Borup, West, & Graham, 2013). Predominantly asynchronous online education models give students the opportunity to access their learning at their convenience, which is a significant benefit for many of these students. Conversely, these forms of e-learning lack some elements of traditional place-based education, most notably the engagement, spontaneity, and community inherent in synchronous learning. Existing literature does not clearly define the impact of the rapidly evolving technologies and synchronous social engagement options for use when working with online students; thus, the goal of this study is to determine the effectiveness of these interventions through instructor testimonials and description of student response, identify challenges to more

widely using synchronous techniques in distance education, and establish best practices for institutions, instructors, and support staff.

As the trend toward distance education continues, colleges and universities will be responsible for ensuring that online students meet the same learning outcomes as campus-based students. Inconsistencies in best practices, learning management systems, synchronous and asynchronous learning, and technology currently inhibit a clear understanding of the optimal approaches to distance education, and as such, student retention in this format is not currently the equal of campus-based education (Hall et al., 2010). The initial assessment of existing literature in Chapter Two examines results of prior studies and synthesizes this knowledge to identify the appropriate focus areas for this study, the methodology of which will be further described in Chapter Three.

Research Questions

The following research questions informed the study and the analysis of the resulting data:

1. What specific elements of traditional classroom-based learning do instructors feel is lost in asynchronous online models?
2. What is the impact of technology interventions such as the use of live video, recorded content, and two-way enhanced communication on students' understanding of concepts presented in live online seminars?
3. How do technology and synchronous interventions positively impact transactional challenges that are unique to the instructor-student dynamic in distance education?

4. How can a better understanding of the impact of technology and social engagement on distance education model guide academic leaders in the creation of evolving online learning best practices?

Conceptual Framework

Initial research for this study focused on the history and evolution of distance learning, including literature from the earliest forms of online education up to more recent innovations. This course of inquiry led the researcher toward a more specific focus on engagement within a variety of distance learning models, and from there, the researcher started to examine social engagement, in general. The existing literature found has proven significant in the development of the theoretical framework, and in turn, the following conceptual framework.

Though various educational theories and research into student learning have contributed to the development of current distance education models, a focus on social engagement theory and the challenges of transactional distance provides a lens through which to better understand how instructors engage students in online education. This perspective will help educational leaders better understand how to enhance distance learning models by using technology to integrate the elements that are specific to synchronous learning. Thus, merging synchronous and asynchronous learning opportunities will facilitate a more engaging and persistent social construction of knowledge in distance education. This phenomenological analysis will lead to the development of new best practice models to drive the evolution of online education.

Definition of Terms

The following terms are relevant to the proposed study and the narrative analysis:

On-ground education. This term refers to courses/programs that include significant learning components that are delivered on campus through traditional classroom sessions.

Online education. This education model includes no campus-based elements and is described as a complete distance or virtual experience for the students and instructors (Alcorn, Christensen, Emanuel, 2014).

Hybrid education. Many institutions use this term to refer to educational models in which students come to campus for a reduced number of on-site classroom hours while also completing weekly discussion boards or other asynchronous tasks (Ituma, 2011).

Asynchronous elements. This term refers to aspects of online or hybrid courses that students complete on their own across a number of days.

Synchronous elements. These live aspects of online courses are characterized by real-time instructor-student interactions. Examples of synchronous aspects in distance education include virtual office hours, peer or study groups, and guest speakers (Gebre, Saroyan, Bracewell, 2014).

Technology interventions. This general term describes all technological enhancements to distance education such as learning management systems, interactive learning content, and seminar platforms (Mellander, 2012). In this study, the most closely examined technology will be the use of interventions that provide instructors with opportunities to work synchronously with their students.

Retention. Most higher education institutions use this term to refer to the persistence of students from time of enrollment through the graduation, and it is often measured through drop-rate percentages (Robinson & Hullinger, 2008).

Student satisfaction. This measurement of student engagement indicates the level of satisfaction with a specific course or program, overall. The most common method for capturing this data is via end-of-term surveys; because this study will focus on the faculty experience, data

about student satisfaction will emerge from instructor-participants' description about the student satisfaction surveys from their own courses.

Assumptions, Limitations, and Scope

This study was based on a few fundamental assumptions, one of which is the understanding that significant improvements can still be made in the realm of distance education best practices and student engagement. However, this assumption is reasonable because of the ongoing evolutionary aspect of educational practices, in general, as well as research that shows the need for improvement in key metrics and measures of performance (Hess, 2014). The study also assumes that most instructors want to improve their ability to work with students in distance learning models and that they desire increased levels of engagement; that being said, not all instructors desire these qualities. Additionally, educational practice should continuously evolve, an idea that informs the foundation of this study.

Another key assumption is that the majority of post-secondary students prefer to feel engaged in their education through a stronger connection to the content, university, and peers. Though this is likely an accurate assumption, some students find the isolation inherent in elements of distance education desirable because their personal satisfaction does not rely on extensive social interaction (Reilly, Gallagher-Lepak, & Killon, 2012). Without specifically collecting data from a large student population, it is difficult to know what percentage of them want more synchronous elements included in their online education. Finally, this study assumes that online/distance education is still considered a new frontier for higher education. Even though these models have existed for a number of years, rapid technological changes have necessitated additional examination of practices; furthermore, many students and prospective

students still view online programs as alternatives to campus-based programs instead of as an equally-viable option for education attainment (Akroyd, Patton, & Bracken, 2013).

The study includes interviews with instructors who have experience using synchronous learning elements in their course delivery. These instructors had extensive experience in ground classrooms, which allowed them to provide insight into the comparison between the two models. Nine instructors were interviewed for this study, and the instructors were identified via solicitation through virtual networking sites such as LinkedIn. Because the search was broad, the instructors have taught for a variety of institutions with several different LMS and technological capabilities. Within this scope, three key limitations presented challenges that were addressed through the study:

- 1) The number of instructors who have used synchronous learning tools in distance education models is unknown. When general solicitation for interviewees returned few results, other methods of outreach were needed to acquire a minimum number of participants.
- 2) Though the diversity of participants in the study benefited the results – i.e. not being bound to a single institution yielded instructors with different experiences – it also naturally presented more variables in details like student demographics, term lengths, course expectations, student support, and learning management systems.
- 3) Interviewing instructors about their use of synchronous tools and technology to increase engagement in distance learning models captured one half of the social creation of knowledge in online education. A follow-up companion study could include similar interviews with students who have experience with synchronous and asynchronous online learning to capture the entire cause-effect of digital innovation.

Conclusion

If distance learning models are going to continue to grow and thrive, educational leaders will need to further develop methods for increasing student engagement in online programs.

Though researchers will approach the topic from a nearly infinite number of potential perspectives, a logical method exists at the nexus of the three elements examined in this literature review – the evolution of online education, the continued use of technology to enhance distance learning, and the social elements that impact student engagement. As seen in the next chapter, the research that has been completed and published over the last decade will inform this study, including the methodology described in subsequent chapters of this dissertation.

CHAPTER 2

LITERATURE REVIEW

The following literature review covers three key aspects that highlight the past and current state of distance education – the evolution of online learning and engagement, the use of synchronous technology as a gateway to engagement, and the social aspects that influence engagement in distance education. Before reviewing new case study results and proposing new models for effective online engagement, it is important to understand current successes and failures while providing instructors and educational leaders with new techniques for interacting with students within the parameter of institutional resources.

Numerous studies in recent years have examined the impact of many factors on student learning in distance education. Chih-Yuan Sun and Rueda (2012) examined the effects of motivational variables such as interest, self-efficacy, and self-regulation on student engagement across three categories – behavioral engagement, emotional engagement, and cognitive engagement. The results showed that asynchronous techniques such as discussion boards increase students' emotional engagement; however, the impact was not the same on behavioral and cognitive engagement, particularly among students with less developed technical abilities. Thus, technology interventions alone are not always a remedy for correcting student engagement problems. Alternatively, other academics such as Wilkinson (2014) have focused on the topic from a sociological perspective to assess the ability of technology to create connections between strangers, a prospect that holds significant benefits in the field of distance education. New models of educational delivery have also caused instructors to consider how they educate students, and recent studies have shown that instructors connect the concepts of strong teaching best practices to high levels of cognitive student engagement (Gebre, Saroyan, & Bracewell,

2014). As the following literature review indicates, further studies that seek to identify the effective nexus of these elements will facilitate the creation of successful distance education models.

Evolution of Online Learning and Engagement

Technological advancements of the last two decades have allowed institutions and other education providers to deliver content to students using methods that extend beyond the confines of the traditional physical classroom. As Bartholet (2013) explained, recent educational and social developments have enabled people to connect in a more personal way through multiple methods, an evolution that continues to debunk the perception of the impersonal nature of distance education that has been discussed by academics such as Hess (2014). Thus, the origins of distance education are inseparably connected to advancements in asynchronous learning management systems (e.g. Blackboard, Moodle, etc.) and synchronous seminar platforms like Adobe Connect. However, some aspects of the topic have histories that predate the specific focus of distance learning. Student engagement, for example, has always been embedded in discussions about education, and the more recent analysis about how to increase engagement using the unique tools available in online education exists as a natural extension to this topic (McNulty, 2013).

Perception of online learning and distance education vary somewhat based on experiences, biases, and theories. Some people see distance education as a supplement to campus-based learning models, as a secondary option to support their predominantly traditional student populations. Alternatively, some institutions prioritize online education as their predominant delivery mode, and thus, defining distance learning becomes a higher priority for academic leaders working within these environments. In the interest of providing a foundation

for the continued analysis of online education, one can define distance learning as an educational delivery model that uses technology to allow students to attend class sessions and complete coursework without needing to participate in campus-based sessions. Writers such as Alcorn (2014), Dray (2011), and Hall (2010) have written extensively about the growth and potential in online education, and many other academic leaders have written about the topic as it has evolved over the past ten years.

Several writers have generated quantitative information in an attempt to define the characteristics that lead to student success in online education. In some examples, the authors developed surveys to gather information about students enrolled in online courses; these results were then analyzed in conjunction with student success in online programs to extrapolate connections between various readiness factors and academic success. In his work, Dray (2011) used survey methods that focused on two broad categories – student characteristics and technological capabilities. Ultimately, the author found that students often responded to the survey based on their personal experiences/orientation as opposed to through a purely academic perspective, which motivated the need for survey revision. Though future studies are needed to better define the results, the study indicated a correlation between several factors and student online success, especially related to technological proficiency. Dray concludes that an effective survey tool would not only provide institutions with important information, but it could also be used as a way for students to assess their readiness for online education. This latter idea is potentially significant, and using self-assessment techniques to allow students to reflect on academic readiness is a way for institutions to design student orientations and preparatory programs to address common areas of deficiency; this methodology could provide a solid foundation for the continued development of online education models (Day, 2011).

Examining the evolution in the quality of asynchronous elements within online courses also yields information that can help educational leaders as they enhance distance learning programs to maximize student potential for success. Nandi (2012) focuses on students' ability to learn from each other through their engagement in these asynchronous elements, a trend that has grown considerably in higher education over the past 5-10 years. Both potential extremes in asynchronous styles – discussions led entirely by students and discussions heavily guided by instructors – fail to provide the strong student success results, a finding that highlights the need for a combination of the two approaches that might generate the highest levels of student achievement. In recent years, educational leaders and instructors have developed a better understanding about how to effectively manage online threaded discussions – in fact, one could argue that social media like Facebook and Twitter have also enhanced the understanding of how people connect and communicate in these forums. As Wilkinson (2014) explained, people are becoming more comfortable with the concept of connecting with strangers – people whom they meet online before or without meeting in person – and educational leaders can utilize this knowledge and info from related studies to incorporate stranger engagement into distance education.

Other writers have focused their work around the inherent benefits of online education and the industry's potential for continued growth. McNulty (2013) explored three current types of online-based education – flipped classroom, blended classroom, and supported distance learning – and briefly explained the benefits of each model. McNulty also wrote about several myths that still exist about online education, including that it is only for adults, that online institutions are not as credible as traditional, campus-based universities, and that virtual learning can only work for purely academic subjects. Many institutions are currently undergoing

significant changes as education continues to shift toward online learning, and extensive current literature examines the still-very-present anxiety toward these new styles among both instructors and students. McNulty's analysis of this concept, though brief, provides a basis for more specific case studies that could more concretely debunk the fear-of-the-unknown myths that still exist about online education.

Similarly, the potential benefits (and drawbacks) of massive open online courses (MOOCs) continues to be a source of debate that has yet to be resolved. Studies about the free courses have revealed several key statistics, including the percentage of students who watch video content in each week of the course, a figure that consistently stays between 60% and 70% (Alcorn, Christensen, Emanuel, 2014). Though this engagement data shows potential promise in the use of MOOCs to supplement – or even eventually replace – traditional university education, only 4% of students enrolled in MOOCs actually complete the courses and earn the accompanying certificates. Thus, completion might not be important if students are learning the information that they need from MOOCs (as evidenced by the engagement rates), and students who attend traditional programs after engaging with MOOC material might be better prepared for their coursework – future studies could examine this potential benefit of open-source online education within the broader higher education field. However, other academics such as Bartholet (2013) present more dubious information that reflects the ways in which MOOCs are not yet achieving the promise that the model could potentially yield because many participants do not complete courses or feel lost within sections that include hundreds or thousands of other students. These challenges point toward a lack of student engagement with the material, cohorts, and instructors.

Finally, the evolution of distance learning coincides with a growing understanding about how people form relationships and connect with each other using virtual platforms, a subtopic that will be further explored in the third sections of the literature review. Recent research indicates that, in order to be as effective as campus-based education, online delivery models will need to utilize technology that enables students to meet learning objectives, provide instructor feedback for students in a timely manner, and foster persistent student-to-student interactions (Gebre, Saroyan, & Bracewell, 2014). Online programs still have both potential limitations and opportunities for building relationships among students and instructors, and though the information about MOOCs that Alcorn (2014) presented highlights the potential benefits of open-source learning, massive online courses struggle to achieve significant levels of online academic connectivity. Hall, Nielson, Nelson, and Bucholz (2010) cite sociological studies that show the human need for creativity and personalized learning. They conclude that the unique accessibility of well-designed online programs allow many students who would otherwise not have the opportunity to form academic relationships and pursue personal growth while meeting the educational goals that the courses intend to deliver.

Technology as a Gateway to Online Engagement

Emerging technologies will continue to provide educational leaders with opportunities to enhance student engagement in online programs and courses. Writing about this concept has increased in recent years, with prominent works being published by DeCesare (2014), Evans (2014), and Mellander (2012). Significant advancements in the quality of video content – asynchronous and synchronous – has also enhanced what can be utilized in online education, but its impact on student learning has not yet been proven. Some people see it as the key to bridging the gap between campus-based learning and online education – especially in emerging hybrid

delivery models – but others do not think that it will produce improvement in student engagement and success. This rapid increase in video and conference-based technology enables the types of personal connections that Wilkinson (2014) advocated as essential to the engagement of connecting with individuals across distance while still fostering personal connections.

Some writers have analyzed how various technology tools have impacted student learning in distance education. Borup (2013) used a case study approach to analyze how four students utilized asynchronous video resources within online courses. Specifically, the students were asked to use video technology to share comments with their peers instead of merely sending narrative feedback. In the study, instructors also used the video format to record feedback for students. The researchers chose students of four different types – an introvert, an extrovert, a low self-regulated student, and an English Language Learner (ELL) student – and they focused on how the video technology impacted their already varied communication patterns. The introverted and extroverted students both reacted positively to the use of video, but the introvert criticized the significant amount of time needed to create each video communication, and the extrovert was less interested in peer videos. The ELL student faced difficulty in creating the videos, a finding that demands significant consideration if an institution seeks to adopt widespread use of the technology. Finally, the low self-regulated student was less engaged with peer content, but she found significant benefit in the instructor videos. This study provided four fascinating narratives and significant information to reflect upon as one considers effective use of video technology in online education. DeCesare (2014) also focused on the use of online videos in various aspects of student and professional learning, specifically how end-users search for video resources and how instructors use them in their teaching methods. In the

relatively new frontier of video use in education, this idea is sometimes overlooked, and educational leaders have started to more actively teach students how to access video information and how to analyze and interpret it in the same way that students analyze text content.

Recently, other leaders have studied the impact that video technology has on distance learning. Evans (2014) examined the effectiveness of videotaped lectures in distance education, particularly in the difference in results when compared to the use of traditional lecture notes or shared presentations (PowerPoint, Keynote, for example). Students in non-video courses indicated that they learned new concepts at nearly double the rate of their peers in the video-enhanced course. In addition, exam scores were consistently higher in the non-video course than they were in the video section. Perhaps most interestingly, students in the non-video course spent about twice as much time engaged in the course content, which could be a result of their need to engage in several more course resources without the ability to watch recorded lectures. When compared to the work of Borup (2013) and DeCesare (2014), Evans' information highlights the wide-ranging opinions (and lack of concrete findings) about the use of video technology in online courses. Because Evans' study focused on only two sections, it does not present irrefutable evidence against using video, but it does bring several thoughts into consideration. The course chosen for the experiment was an introductory class, and it is possible that first-term students do not connect as well with the video supplements as they do with traditional course resources. Alternatively, the content of this particular course might not translate well to recorded video, or the instructor might not be as engaging in video as in-person or in writing.

Ibrahim, Callaway, and Bell (2014) also examined the impact of instructional video on student learning across various learning styles. Specifically, they used pre- and post-tests to

determine if students who watched supplemental instructional videos achieved better test scores in their coursework than peers who did not watch the videos. The findings showed a significant difference – students who engaged in the video content performed better than those who did not. Additionally, students who were able to access learning content in the method(s) that best connected with their preferences – video, text, face-to-face, etc. – achieved greater success in their courses, a finding that emphasizes the potential benefit of customizing education to meet student needs. As the authors indicate, institutions should consider rethinking approaches to their programs that emphasize “one-size-fits-all” models in favor of offering students multiple paths toward the same educational outcomes. Their findings provide information that can be used in redesigning programs, particularly in the versatile hybrid or online environments. Evans’ (2014) findings about the benefit of video technology in the classroom – specifically, the substandard performance compared to non-video courses – directly contrast the work of Ibrahim, Callaway, and Bell, a fact that showcases the variability in the impact of video across different courses, across different universities, and with different best practices. This study also draws potential comparisons to the assertion that student-driven learning in MOOCs, despite the lack of completion, yields similar levels of enhanced engagement that these authors describe in educational models that allow students to access content when they choose to do so through various delivery methods.

Other recent literature has focused on how technology-related innovations have changed the college experience. Fulton (2012) wrote about the benefits of the flipped classroom model based on the results of a 2010 experiment. Driven by financial constraints, teachers at the Byron School System in Minnesota chose to create their own curriculum built around YouTube videos that captured lessons and lectures from different instructors across various content areas. Fulton

highlights ten key benefits of this initiative, including the ability for students to learn at their own pace, the opportunity for instructors to observe students doing homework in class, and the luxury of this type of live/dynamic curriculum. Several of these benefits connect with the core reasons for exploring the topic – student engagement, persistent lessons, technology implementation, etc. – while also advocating for new ways in which students can access online learning content. Similarly, Mellander (2012) advocates for the use of emergent technology techniques in modern education by noting that most students now take a combination of face-to-face and online courses, and he suggests that mixed-delivery programs will become the norm in the future. He shares information about student success in blended/hybrid courses and notes that the modality now yields the highest levels of student achievement at several universities. Mellander concludes that, if provided the tools to succeed, students will connect with the autonomy provided by online or mixed delivery programs. As the other literature in this section of the review also suggests, the increasing ability for students that customize their higher education experience is one of the strongest potential benefits that technology has enabled in the field of online/distance education.

Social Engagement in Distance Learning

Emergent literature and theories have shifted the focus from the benefits of technology on distance student engagement in favor of examining online learning from sociological and personal perspectives. Some of the studies that have contributed to this discussion are directly connected to online education as seen in writing by Ituma (2011) and Peck (2011). Additionally, literature that examines humanistic motivations and interpersonal connections has helped educational leaders consider best practices in fostering student engagement in their learning (Pink, 2009). As institutions and leaders continue to evaluate the engagement potential in

distance learning, considering these social engagement elements will contribute to the development of models of online education that can provide instructors with the opportunity to engage synchronously with their students in methods that mimic campus-based models.

Though his research does not focus specifically on education, Pink (2009) wrote about the benefits inherent in harnessing intrinsic motivation and engagement, concepts that are at the core of many elements of higher education. He shared case studies that portrayed organizations that have minimized the amount of day-to-day direct micromanagement and oversight in their workplaces. These companies humanize and empower their employees to structure their own working days within the parameters of the tasks that they need to complete, and they also foster an environment in which employees are encouraged to test-drive their own ideas and work collaboratively with their colleagues for the benefit of the entire organization. Pink concludes that the three primary elements of true motivation are autonomy, mastery, and purpose, characteristics that the successful companies in Pink's book promote. Mastery and purpose are characteristics that are often included in programmatic/course goals, but autonomy is an essential and sometimes overlooked aspect of higher education, particularly in distance learning. A study about the connection between student intrinsic motivation and academic achievement or retention would potentially yield beneficial results for consideration. The more that students feel like they are able to personalize their education under the guidance of proficient guidance/instruction – as employees at many of the companies in Pink's book have done – the more invested they may feel in their learning, and thus, the more likely they may be to persist through the challenges toward success.

Pardasani, Goldkind, Heyman, and Cross-Denny (2012) examined this humanistic experience in distance education by presenting a qualitative analysis of students' experiences in

online programs. The findings revealed that many students appreciated the increased autonomy inherent in online courses – i.e. they could choose when and how to access the asynchronous elements of the learning – and several students commented on the freedom that exists when they are not told when they have to be on campus to access their education. Additionally, many students complimented the opportunity to learn from other students’ experiences and the depth of knowledge that they received from collaborative discussions with their classmates and instructors. Technology was cited repeatedly as a hindrance to learning, and it is also worth noting that the students in the study were enrolled in a social work course, a subject that potentially translates better to collaborative online learning than some other programs. The authors’ conclusion that distance education possesses certain benefits not possible in face-to-face education is encouraging for the future of hybrid delivery models. In particular, the analysis of the humanistic elements of this study – the connections that students formed with each other through the relative intimacy of virtual discussion boards – may assist in the development of the sociological aspects of the online education programs. This hypothesis connects with the sociological suggestions presented by Wilkinson (2014) and others, as described in prior sections of this review.

Other researchers have examined how students engage with various aspects of online education, particularly asynchronous discussion forums and other virtual resources. Ituma (2011) focuses on the level of student engagement in the online resources present within a predominantly campus-focused university. The study indicates that over half of the students (53%) accessed the learning resources daily, and nearly all of the students (92%) indicated that the online resources enhanced their learning in the course. Ituma concludes that students spend considerably more time accessing the content that most directly applied to the weekly course

material while a much smaller percentage of students choose to access supplemental items (suggested links, optional readings, for example). Because students more frequently engaged information with direct application to assignments and graded coursework, institutions may consider tailoring their online material toward those purposes, particularly in undergraduate programs. Maddison and Mazzolini (2002) also examine student interactions with online course materials with a specific focus on student-instructor engagement on discussion forums. As expected, when instructors were frequently active on the discussion boards, students thought that these instructors were more enthusiastic about the course and materials; similarly, these highly-active instructors were thought to be more knowledgeable about the content. However, the study also showed that instructors who posted frequently on discussion boards also yielded a lower rate of student responses and shorter student responses, overall. Though active online instructors inspired their students to view them as more enthusiastic and knowledgeable about the course content than instructors who let students take the lead on discussions, they also did not generate such a deep level of student interaction in discussion boards. This article is an interesting time capsule view of online education. In 2001, the number of students in online courses was significantly less than it is now, and of course, the general perception and understanding of online learning was that it was less robust and engaging than campus-based models.

Akroyd, Patton, and Bracken (2013) analyzed the impact that instructors have on student engagement in online courses. Using a quantitative approach, the writers examined the connection between instructor background, intrinsic motivation, extrinsic rewards, demographics, and the ability to teach online. Ultimately, they are not able to extract definitive conclusions from the data, but the study yields interesting results, particularly in the strong correlation between institutional support and engagement with online instruction. The article

provided an impressive amount of quantitative information that could be of use as educational leaders develop distance learning models, especially the information that is dedicated to the more specific aspects of the study – the correlation between individual variables and engagement, for example. Peck (2012) also examined instructor-led student engagement by creating an open online forum for students to use in any way they wanted– participation was optional, and students dictated the content of the online discussion threads. Over the course of the term, students became more comfortable with the online interactions, a quality that Peck attributes to the supplemental site’s social networking elements (ability to use informal language, no anxiety about grammar/grading, open discussions about any topics). The contrast between the Maddison and Mazzolini’s (2002) study and Peck’s study is interesting. Whereas Maddison and Mazzolini focused on gathering statistical data to create a profile for how instructors should best approach online interaction with students, the more recent study focused more specifically on the social elements and their connection to education. Peck approached her experiment in a post-Facebook society and tapped into those qualities by creating the optional online forum for her campus students. In addition, supplemental online learning resources like she described in the article are not unlike the supplemental videos that the flipped classroom model could add to course content, as Fulton (2012) described in his article.

Several researchers have examined students’ cognitive and emotional responses to distance education. Oriogun, Ravenscroft, and Cook (2005) analyze the SQUAD theory of student online communication. This guiding technique suggests that students should orient their asynchronous online discussion posts within five distinct categories – suggestion, question, unclassified, answer, and delivery (SQUAD). The authors validated this process by explaining through examples and quantitative analysis that SQUAD theory enhances student online

engagement by motivating students to collaborate, encouraging equitable participation, assisting in the developing of broader knowledge, and fostering cooperative problem-solving skills. Oriogon et al. established a series of qualitative goals that guide best practices – SQUAD, in this case – and the authors structured their analysis on distance education around that concept. As with many of the articles in this review, these researchers write in defense of an educational approach that they use at their own university, but the extensive data transcends this bias, and the approach is a possible method for framing a discussion about the often indefinable topic of student engagement in online education. Reilly, Gallagher-Lepak, and Killon (2012) approached the same issue from an emotional perspective. They present several reasons why students sometimes become disconnected in online courses, including technological difficulties, confusing syllabi or instructions, and feelings of isolation. The results of the study indicated five key emotional themes – aloneness, anonymity, non-verbal communication, trepidations, and unknowns – and the authors point out that most of these emotional factors have both positive and negative connotations for students based on preferred learning styles. Not only did the study yield candid results about student responses to various online modalities, but it also attempted to make connections to social and emotional factors that will influence further research.

Finally, in 2008, Robinson and Hullinger produced some of the early literature about student engagement in online education. At that time, the dominant amount of educational analysis referred to campus-based delivery, and the focus of the study is to provide new methods for assessing the quality of distance education programs. The authors created a series of surveys that they administered to students in the test online courses to measure their level of engagement in a variety of educational elements, including the rigor of the course, the level of interaction with student peers and instructors, and the enrichment of the experience. In almost all examples,

over half of the students surveyed responded between “very little or never” and “sometimes” to the questions, an indicator that online education at the time (at least in this example) was less consistently engaging than it is over six years later. The authors present insight into the level of engagement in virtual models several years ago, and much like the literature in the first section of this review, these sources will prove valuable in creating a comparison between trends during the last ten years as distance education has matured and has become a more viable form of learning content delivery.

Conclusion

Much like any evolving medium, current distance education models have grown from the experiences of instructors and the analysis of researchers who have examined the impact that various approaches have had on students. An understanding of the evolution of online education, particularly the intent and limitations of predominantly asynchronous models, provides important background about the pedagogical gaps that exist in current methods of distance instruction. Additionally, the existing theories and literature about the use of technology in distance education are inseparable from a modality that inherently requires extensive use of these tools in content delivery and engagement; similarly, educational leaders and curriculum designers must understand how well various technologies contribute to or limit course and instructor impact. Other key concepts such as social engagement and transactional distance theories provide additional perspective about feelings of isolation in distance education as well as the elements that are necessary to create effective connections between students and instructors in online programs.

This study was designed through careful consideration of these themes, and the methods used to collect data evolved from related research questions. During the interviews, participants

were asked about their experiences over several years of teaching, which solicited their thoughts about how higher education has changed during the expansion of online programs over the last decade. They were also asked about their experience with various technology tools and their thoughts about how distance education programs should continue to evolve in the future. Most importantly, the participants were questioned about how they used synchronous learning tools in their online content delivery. This topic was the core of the study, and the data that it yielded highlighted some of the gaps in the literature themes, especially in regard to the impact that these methods have had in creating deeper social engagement while also reducing transactional distance. The following chapters outline the methods that emerged from considering the existing literature and summarize that data that emerged from the study.

CHAPTER 3

METHODOLOGY

The purpose of this phenomenological study was to examine the impact of technology-aided synchronous enhancements on instructors' engagement with their courses at a variety of higher education institutions. As academics such as Reilly, Gallagher-Lepak, and Killon (2012) have written, at its worst, distance education creates a "me and my computer" sensation; put simply, students can very easily feel like they are alone in their pursuit of their academic goals because they are not receiving the face-to-face interaction and live feedback inherent in traditional ground education models. Solutions to this phenomenon include interventions across three key areas:

- 1) Improvements in course and curriculum design to create a strongly sense of connectivity between the students and the material in which they are immersed (Nandi, Hamilton, & Harland, 2012).
- 2) Enhancements in the distance education through the use of existing and emerging technology applications that can connect students across space and also add to the course/curriculum content (DeCesare, 2014).
- 3) Developments in instructor approaches to content instruction, discussion facilitation, and student interaction (Lundberg, & Sheridan, 2015).

This study examined the impact of specific measures in the third area, most specifically, the effect of instructor-led synchronous tools and techniques. Key goals of the study were to identify successful synchronous approaches, address challenges that instructors identify when using them, and to develop a series of concrete best practices in the areas of curriculum, course development, technology use, and instructor intervention.

The following research questions informed the study and the analysis of the resulting data:

- 1) What is the impact of technology interventions such as the use of live video and two-way enhanced communication on instructors' perceptions of their ability to effectively present concepts and engage with their students?
- 2) How does technology and synchronous social interventions positively impact the feelings of isolation that students sometimes claim to encounter in distance education?
- 3) How can a better understanding of the impact of technology and social engagement on distance education model guide academic leaders in the creation of evolving online learning best practices?

In order to address those questions, this study examined the impact of technology-enhanced live instructor-student interactions. As described below, this study solicited feedback from instructors across the country who have used a variety of synchronous one-to-one or one-to-many approaches in their online courses. The resulting data facilitated an inventory of practices for further analysis in regard to their impact on student-instructor engagement and active learning. A key goal of the study was to identify the practices that yielded the best results in enhancing instructors' abilities to engage their online students; this development of best practices can then be adapted for use in a variety of distance education programs.

Setting

This study did not seek solicitation from any specific institutions. The participants were the instructors, not the colleges or universities for whom they teach or have taught; thus, the setting within which each of them has taught varied. The disparate settings were institutions that offer, at the least, fully-online educational programs that have been designed with learning

management systems to facilitate student and instructor asynchronous and synchronous interactions. Participants described teaching experience at a variety of institutions, including small community college, mid-sized private schools, and very large public universities. Additionally, the virtual settings where they taught used a variety of learning management systems and applications.

Participants/Sample

All of the participants in this study were instructors who have utilized synchronous techniques in the process of their distance learning instruction. They were chosen through an open solicitation process via the LinkedIn website/application and additional outreach through several higher and distance education listservs. Participants were only screened to meet the requirement of having used synchronous techniques – of their own creation or through their teaching institutions – in their online instruction. They were asked to participate in an interview to probe into the details of their use of these synchronous techniques in their courses; some participants were asked to answer follow-up questions based on their responses and the ensuing analysis.

The following qualities characterize the instructor participant sample:

- 1) *Experience*. Instructor participants were screened based on their years of higher education teaching experience. Participants with varying years of experience provided different perspectives on student engagement in distance education. Most of the instructors had experience with both campus-based and online delivery methods, which allowed them to discuss the challenges inherent in adapting traditional practices and curricula to distance education models.

- 2) *Institution.* This study did not seek solicitation from any specific institutions. Specifically, the participants were the instructors, not the colleges or universities for whom they have taught.
- 3) *Content.* Participants in the study were not screened based on the content that they have taught. Though this quality introduced a variable, it did not impact the findings because the goal was to create a phenomenological analysis of synchronous delivery practices in distance education, regardless of course content or curricula.

The participant sample size for the study was, in part, based on the response to solicitation via LinkedIn. Originally, the goal was to interview ten instructors with experience using synchronous techniques in online courses will be interviewed, but the final study included nine participants. The call for participation went out to instructors in April 2016, and ensuing requests were sent through June; interviews were conducted as responses were received.

Data

As a phenomenological study, the collected data examined the instructor experience in distance education models, particularly as it related to the impact of synchronous tools in these courses. This information emerged from the results of the interviews conducted with the participants as described in the previous section.

The interviews sought responses from instructor participants related to the following elements of distance education (complete interview questions and transcripts of sessions available in Appendix A):

- 1) *Online education engagement.* Instructors were asked to respond to questions about their thoughts related to the level of student engagement with existing distance education models.

- 2) *Advantages and challenges of distance education.* Participants were asked to share their perspectives about the advantages of existing distance education models in comparison to traditional campus-based learning. Additionally, they shared their thoughts about the challenges inherent in predominantly asynchronous distance education methods.
- 3) *Synchronous elements utilized.* As the core of the interview, participants were asked to describe the synchronous tools that they have used in the online teaching delivery. Instructors shared the technology used to facilitate synchronous engagement with their students; they also described the educational structure of these interactions.
- 4) *Impact of synchronous tools.* This data was also integral to the development of this study's analysis. Instructors were asked a series of questions about the perceived impact of the synchronous tools that they used in their courses. Participants were encouraged to share both positive and negative results of these live learning elements.
- 5) *Next steps and ideas.* Participants were asked to share their thoughts about how they would like to continue to engage students through the use of (or without) synchronous tools in their online courses. They were encouraged to consider future ideas, regardless of any specific institution's resources.

The resulting data generated an inventory of practices for further analysis in regard to their impact on student-instructor engagement and active learning. A key goal of the study was to utilize instructor data from the interviews to identify the practices that have yielded the best results in improving student engagement in distance learning, reducing the instructor's sense of isolation/distance, and enhancing their ability to deliver learning content in online education that rivals their ability to do the same in campus-based models.

Data collection was conducted through one-on-one synchronous interviews with instructor participants. These interviews were conducted through GoToMeeting, and all of the interactions – primary interviews and any follow-up sessions – were recorded for transcription and review.

Analysis

The phenomenological data gathered from the participant interviews was analyzed and categorized to identify connections and disparities in the instructors' responses to the questions. This analysis was used to describe how the various tools that the participants have used contribute to the social construction of knowledge in distance education; specifically, this study sought to identify how synchronous techniques used to generate increased instructor-student engagement reduces the faculty's sense of transactional distance in the learning process.

The analysis of the interview data revealed common themes in the following areas:

- 1) *Intent*. The analysis of the interview responses identified common themes about the intended use of synchronous engagement methods between students and instructors. These themes were then connected to the existing literature about isolation and online learning (among other topics).
- 2) *Usage*. Participants' explanations about how they used synchronous tools and how they integrated them into their online content delivery identified commonalities in how they chose to use them to engage their students. This analysis led to the consideration of best practices related to how instructors can best use synchronous tools to enhance their course delivery.

- 3) *Limitations*. Participants identified common limitations in their use of synchronous tools within distance education models. These limitations were used to identify additional gaps and areas for necessary continued improvement.
- 4) *Technology*. Through the interview process, the participants described the technology tools and applications they have used to connect with students using synchronous elements. The data assisted in identifying the most effective tools for this process.
- 5) *Results*. Participants were asked to explain the results of their use of synchronous elements with students in their online courses. A pattern of best practices were considered by compiling the interview data and analyzing the effectiveness of the instructors' approaches.

Participant Rights

All participants had the assurance of full anonymity during their participation in the study. Their participation in the study was strictly voluntary, and they had the option to decline further involvement at any time. Instructor participants also had the right to review the transcription and use of their interviews before publication of the study. Additionally, participants were not expected to share any specific curriculum-related or propriety information that belongs to any of the institutions where they have taught. Thus, the universities were not considered participants, and their Internal Review Boards did not need to be involved in the study proposal.

Potential Limitations of the Study

Many of the potential limitations of this study related to the scope of the proposal and the data limitations that it created. The sample size was relatively small when considering the scope of distance education across the country. Similarly, participation – and thus, data and analysis –

was limited to only the instructors who reviewed and responded to the queries. This limitation ensured that it was impossible to screen participants for their prior success in teaching within online programs; conversely, if this study had been conducted at a single institution, it would have been much easier to identify the highest rated instructors to interview about their synchronous online practices. Therefore, the results need to be viewed through the variable of instructor talent and quality.

Another significant limitation of the study existed in its focus on instructors. Though the study operated under the premise that instructors were able to provide accurate information about their students' responses to the synchronous elements within their courses, it did not also gather information from students about their response to these enhancements. Thus, it is possible that the instructor participants' perception related to the impact of synchronous tools in their courses might not accurately reflect all of their students; in fact, it is unlikely that all students in each of their courses felt the same way about the topic. A follow-up study could potentially examine the student response to synchronous delivery in their online learning.

Finally, the phenomenological nature of this study presented its own limitations. The majority of the data collected from the interviews was subjective and observational; as explained above, this information also derived exclusively from the instructors' perspectives. These interviews yielded interesting and relevant data to be used toward the creation of instructional best practices in distance education models, but it did include quantitative findings. Most notably, analysis about the effectiveness of specific synchronous tools was difficult to irrefutably prove without the support of quantitative data. An additional study focused around cohorts within a single institution could adopt some of the best practices created through this study to assess their quantitative impact on student retention, success, and satisfaction.

CHAPTER 4

RESULTS

Over the course of several weeks, nine participants were interviewed for this phenomenological study. The data captures perspectives about the use synchronous tools in distance education – and the state of online learning, in general – as well as the spread of practices being used by instructors who have dabbled in this emergent field. Study participants volunteered to take part in this research, in part, because they indicated a belief in the need for collection and compilation of this type of data. The participant pool included both full-time and part-time instructors, who teach at massive state universities, small community colleges, and other institutions in between.

The results presented in this chapter represent the themes that emerged from the interviews, including significant findings that were not anticipated within the original ten questions that were pre-written for the study. Responses are presented in summary for each question with particular explanation of the key themes and recurring data. The interview questions (see Appendix A) were designed to solicit instructor information about experiences in both campus-based and online classroom delivery, student engagement in both modalities, social knowledge construction, and most importantly, the use of synchronous tools to supplement distance education instruction, including challenges and limitations of those techniques. The following data includes significant information about all of those topics. Moreover, the research also yielded unexpected information about the management and regulation of synchronous online learning across all areas of higher education.

Analysis Method

The interviews for this study were facilitated through GoToMeeting. All of them were recorded with permission of the participants and the recordings were sent to an external company for transcribing. The transcriptions were then scrubbed to remove conversational data, and they were coded with fictional names to preserve the identities of the nine participants. The specific names of the institutions where they teach or have taught were also removed; instead, they will be presented here through broad descriptions of their size and type – state university, community college, etc. The participants were not asked to speak specifically about practices at institutions where they have taught, and though the interviews yielded significant information about how universities or colleges manage instructor use of synchronous tools, the institutions were not intended to be the focus of the study. It is worth noting, however, that the assurance of identity confidentiality likely enabled participants to share more extensive information about their institutions than they would have if their names and employers were going to be published in this report.

After the recordings were transcribed, the data was organized around the topics presented in the ten questions, which resulted in substantive information about most of the ten intended topics for discussion in the interviews. The data was then analyzed to identify the themes that had emerged from the process. These dominant threads were used to consolidate the information into more concise summaries of each discussion topic that featured the most pertinent data for this report. Particular attention was given to ensuring that contrary opinions and information were included in the analysis. Though this researcher has long supported the use of synchronous tools to enhance distance education models, the goal of this study was to identify the trends and practices being used and provide stakeholders with a perspective about the implications of

current practices and the need for continual evolution. Finally, several key themes emerged from the interviews aside from the intended ten topics. These themes will be further discussed in the concluding chapter of this report.

Results

The interviews for this study included ten pre-written questions that were asked of all participants who were also encouraged to include any relevant information in their responses. This approach resulted in a significant range of content for each of the interview questions. All of the participants have had experience teaching both on campus and online, and they all have a minimum of six years of teaching experience, which was not an intended requirement for participation, but solicitation for the study yielded responses from several highly experienced instructors. The participants represent a diverse sample of faculty with a range of characteristics that include:

- Tenured and non-tenured faculty
- Instructors who pursued education and others who found their way to the profession
- Full-time and adjunct instructors
- Instructors who have taught at a variety of levels
- Active YouTube content publishers
- Instructors who are members of small and large departments
- Faculty across a variety of disciplines – education, literacy, humanities, English, communication, media studies, technology/information systems

The pre-scripted ten interview questions were written to provide a logical progression through the discussions; however, each conversation trended toward a unique topic order based

on the flow of conversation and the additional content that each participant brought to the discussion. Regardless of the discussion order, all participants responded to all questions. For the purposes of this report, the interview data has been organized around the ten questions in the original script with additional themes and implications to be discussed in the final chapter. The results progress through the ten questions and include content from all nine participants.

Describe your experiences with campus-based instruction. What word(s) describes your experiences in that model?

This question yielded a range of responses that significantly reflected the type of university environment in which the instructors have taught. Though the anticipated responses to this question related to the deep engagement of in-person learning, two-thirds of the participants discussed experiences teaching in large lecture halls with dozens of students; instructors used words like *intimidating*, *uninvolved*, *anonymous*, *challenging*, and *lecture* to describe those experiences. Rhonda described herself as awkwardly feeling like “Brittany Spears with a microphone” as she sometimes felt like she was “literally shouting so that the people in the back could hear me.” Similarly, Travis described these lecture hall experiences as *distant*, which appropriately summarizes Rhonda’s concerns about trying to connect with the student who were, in fact, distant from her in large classrooms. Additional conversation with Travis yielded interesting consideration about how the distance created in large lecture halls is not unlike the sense of distance inherent in online education. In his words, “they might as well have been at home sitting with laptops because I felt no more connection to them than I have with remote students.”

Despite these critiques of large campus classes, many of the participants described campus-based education as expected with specific focus on the level of engagement and the

logistical possibilities inherent in face-to-face models. Five of the instructors specifically described being able to engage students in project-based learning in their campus courses. Additionally, all participants talked about their use of common classroom techniques such as hands-on activities, group work, writing prompts, and live discussions. Invariably, participants spoke much more favorably about sections that included twenty-five or fewer students. Rhonda repeatedly described how she “really enjoyed” working on-site because the campus-based instruction closely mirrored the community work that she had done with informal groups prior to transitioning to a more formal higher education position. Others shared similar experiences and described the social engagement quality of being in the same physical space with their students through the learning process—a common and expected theme that emerged from discussion of the campus delivery model.

Though this question yielded responses that predominantly represented expected data—the high level of engagement and pedagogical opportunity in campus learning – the information provided an interesting and important baseline for the ensuing discussion. In particular, the feedback about large lecture classes presented an unexpected direct comparison with the distance element of online education. A few of the instructors who had taught predominantly in this format described their preference for teaching online instead of working with large groups of campus students. Travis, whose *distance* comment most directly forged this correlation, explained that he only teaches online now because of the ability to more easily add a variety of enhancements through technology and his own use of well-produced recorded content. Only one of the participants had not taught at least one campus-based course before teaching online sections; this slight variable did not produce different data of note, but it might be an interesting possibility for future studies on the topic.

Describe your experiences with distance education instruction. What word(s) describe your experiences in that model?

In Jessica's words about the experience of teaching online, "I have a colleague. We talk about this a lot. We're like, 'we don't have to schlep our stuff to campus.'" This comment is humorous, but it is also highly consistent with the responses of most of the interview participants who also specifically mentioned the convenience inherent in teaching online, especially in comparison to their campus-based experiences. For adjuncts, in particular, the luxury of teaching completely from home not only saves time, but it also allows them to reduce the travel costs that face-to-face instruction requires. Additionally, a few of the instructors mentioned safety concerns near campus, which has increased the allure of distance models. Participants echoed these thoughts about their own students, and six of them mentioned that they feel that students generally choose distance education programs because of the convenience that it affords them, especially non-traditional students. However, this convenience also proves a challenge for the use of synchronous elements in online courses, which will be further discussed below.

When asked about her experiences with online delivery, Penelope described herself as a "tweaker." She explained that she feels like she continually tweaks and refines her distance education practices more so than when she taught predominantly at a campus. Four other participants described similar experiences, and they also commented on the increased amount of work that is required to develop and facilitate online courses. Though this dynamic could be coincidental—they were not specifically asked to compare the amount of pedagogical revision between their campus-based delivery and online experiences—it could also relate to the continually emerging best practices in distance education. Two of the instructors described their feelings about learning what they are doing as they teach. Rhonda described herself as a "pretty

good online teacher.” Despite nearly a dozen years of teaching experiences and several years in the online model, she is still “figuring out the best way to do it,” and she acknowledged that higher institutions, in general, are still doing the same thing in regard to the development of distance education best practices.

Several of the participants described online education as *exciting* and *new*, even though they also acknowledge some of the limitations inherent in distance models. Jessica described some of the challenges with her undergraduate students, noting “many of them are not prepared to be online students.” Other participants echoed that assessment by describing the significant amount of time and effort that they often have to invest early in a course to acclimate new students to the process and platform. The same challenge is specifically present when introducing new synchronous elements to otherwise asynchronous courses, which is further discussed below. Conversely, participant experiences with online graduate students were consistently described as productive and engaging. These students tend to have more familiarity with online education models and also more experience with the nuances of collaborative elements such as discussion boards and wikis.

Six of the nine instructors who participated in the interview process explained that they now prefer teaching online. Though the previously mentioned convenience is certainly a factor, the other consistent theme cited by these participants was the *persistence* and *immediacy* that they feel when teaching online. For many, the opportunity to engage with students throughout the course of a week instead of for a few hours on one day, for example, outweighed the limitations that exist when considering how to effectively model concepts and facilitate group work. “It’s how we live now,” said Gary when asked about his experiences with online course delivery. “Everything we do is online, so why not education? It doesn’t make sense to me when

people dismiss it. It's reaching students where they are." Finally, several participants used the word *potential* to describe distance education, a term that reflects the ideal ability to speak the modern student language of learning, as Gary described. The instructors who chose to participate in the study were proponents of online learning, which likely makes them inclined to recognize the potential more than they would lament the challenges.

How do you feel that the level of student engagement in online learning compares to the level of engagement in campus-based learning? What factors most significantly impact any perceived difference between the two modalities?

This question yielded diverse answers that varied based on the participants' consideration of the term *engagement*. For many, the concept described the level of student engagement with the course materials, and without exception, the instructors who participated in this study indicated that online models produce higher levels of this type of immersion. Penelope explained that "it's more evident to me that engagement with the content and the actual material of the class is far greater online. I think partly because it forces that. People have to write out their thinking and really communicate their thinking and actually read the things that they're supposed to be reading." Similarly, many of the participants voiced frustration with the lack of engagement with the content that sometimes plagues campus-based learning. Three of the participants explained that students in campus courses seem to sometimes expect the instructor to supply the course content that they are supposed to consume themselves, which then forces class sessions to feel less dynamic through a lack of broad participation and a need to cover material that should not need to take precious class time.

Perhaps because online courses demand active engagement as part of the core requirements – through discussion boards, peer collaboration, etc. – it is more difficult for

students to hide in these classes. As such, online courses tend to require more of what Travis described as “active engagement” as opposed to the more passive engagement that can occur in a classroom when less engaged students quietly watch the lecture/discussion (at best) or tune-out the live content delivery (at worst). He shared that distance education models that utilize extensive discussion board collaboration naturally require increased levels of communication skills, writing abilities, and self-management. These requirements often prove beneficial to the level of engagement of successful students while also becoming potentially discouraging to students who are not academically prepared or well organized. Addressing these issues is one of the reasons why Travis and several of the other instructor participants in this study chose to add synchronous elements into their courses.

One of the most common challenges that the participants cited with distance education engagement is how to make static asynchronous course elements such as discussion board more engaging for the audience. As Rhonda explained, students engage in campus-based courses, in part, because of “the show.” The effective classroom instructor understands the performance aspects of being in front of the class, and that dynamic engagement, ideally, drives student attendance and participation. Several of the participants have difficulty generating the same type of engagement in asynchronous online courses. Rhonda shared that she has “not yet found a way to make those (online discussions) really that engaging. I think part of it is that people haven’t had a lot of skill or opportunity building up what it means to participate online.” She went on to explain that even the most adept technology users—students and faculty—sometimes lack an awareness of how to participate online, which is a continuing challenge for distance education models. Her pursuit of synchronous video elements have emerged from her attempts to provide the interpersonal engagement that she feels when she is in a classroom with students on-campus;

however, finding times that work to bring all students together in a virtual synchronous environment has been challenging. Other instructors shared the same concerns about providing a truly engaging experience through an online learning environment. Celeste expressed similar issues about her ability to create an engaging and immersive asynchronous online experience.

I don't know about engagement. I think it depends on the student because I've had students give me negative feedback about hating online. I know I've tried every trick to engage them, but we don't know what they're doing on the other side of the screen.

Travis also captured this belief candidly by saying that the stigma about distance learning being a lesser form of education "frustrates me because I think it's only crap if you let it be crap. If the instructor really puts effort into engaging the students, it's every bit as effective as campus education."

Many distance education programs include only asynchronous learning methods – discussion boards, assignments, recorded videos, etc. In his theory of Transactional Distance, Michael Moore indicates that cognitive distance creates a communication space to be crossed that can result in increased levels of miscommunication. Do you feel the impact of this distance from your students in asynchronous of instruction?

Not surprisingly, participants were almost uniformly in agreement about the sense of transactional distance that they feel when teaching in asynchronous distance education programs. Multiple instructors indicated their strong belief that student cannot achieve the same level of social learning through asynchronous methods. When asked if techniques like discussion boards and collaborative wikis assist in reducing the transactional distance, these participants agreed that those elements do not create a less intense sense of distance. Rhonda explained that, though students are interacting with each other through discussion boards, they miss out on the benefit

of the spontaneous learning that occurs during classroom-based education. Additionally, though educators aspire toward models in which students broadly respond to many peers each week during asynchronous discussion work, students more often pick two or three classmates and complete the required number of responses to satisfy the course expectations. Two-thirds of the participants also shared their skepticism about how many of the discussion posts students read each week; despite their encouragement, the instructors fear that their students only read the posts that they need to review to complete their required responses. Thus, online students may only actively engage with a small percentage of their peers, which could be a significant contrast to a classroom discussion that involves all student in real-time.

Rhonda expanded this point by sharing her concern that the limited and distant nature of asynchronous online education does not allow students to fully experience the co-learning journey that they immerse themselves in within the classroom or perhaps through technology-assisted online synchronous techniques. However, a few other participants shared opposing sentiments. They believed that the depth of activity within discussion boards allowed students to share more about themselves and their experience than typically occurs within synchronous classroom discussion that occur during limited time constraints. Similarly, several participants cited the ability for students to become active participants in their peers' learning as a quality that reduces transactional distance. Much like the discussion board analysis, these ideas rely on the thought that students take the time to actively become involved in other students' learning instead of just satisfying the minimum requirements without fully engaging in the process. As Travis said, "online education rubrics and expectation sometimes create distance by driving students toward the minimum and not encouraging investment in the entire group."

A few of the participants in this study have conducted their own research into the concept of transactional distance in online education. Penelope, a well-versed scholar of the topic, indicated her belief that asynchronous learning goes against cognitive and social development. “Poorly designed online programs are built around distance, but that idea defies the notion that learning cannot occur as effectively in a social vacuum.” She further explained that she tries to harness the benefits inherent in group learning and collegial growth mindset when designing the synchronous enhancements to her courses. At worst, Penelope sometimes feels like she is teaching “a bunch of individual independent studies for 25 people” when teaching online courses. This quality captures similar feedback about the lack of student co-learning that other participants described when sharing concerns about how broadly students are engaging with their peers in asynchronous learning models, a theme that pervaded many of the responses to this question.

Please describe examples of synchronous tools and methods (one-to-one or one-to-many) that you have used in your courses (including any technologies used). What motivated you to add them into your instructional practices?

Compiling a catalog of the synchronous enhancements that the participants have made in their courses involved categorizing responses into a number of segments that include:

- Technology or programs utilized
- Techniques and best practices
- Reasons for using synchronous techniques
- Impact of synchronous course enhancements
- Challenges inherent in using these tools

The collection of self-developed synchronous approaches emerged directly from the participants' attempts to find solutions to the concerns outlined here and in the previous questions. In many cases, they approached these interventions without involving the institutions for whom they taught, not out of an attempt to actively defy the norm, but rather as a means to reduce the distance that characterizes most asynchronous online models. They have sought to engage students, to connect them with each other, and to generate a social learning environment akin to campus experiences. Rhonda shared her own motivation for exploring synchronous approaches to online learning. "I had one semester where there was this really crazy interpersonal dynamic between two students. It took more than half a semester to figure out what was going on because I didn't see them interacting. It was one of those things that I knew I could pick up better in a campus class or through at least seeing the live interactions between the students." Rhonda and the other interview participants all agree on one thing – it is impossible and unwise to attempt to replicate the campus classroom dynamic for online models. However, through consideration about the aspects of face-to-face education that are most impactful to students and instructors—effective social construction of knowledge and co-learning, broader student engagement with instructors and peers, and attempts to generate engagement through *the show*—the instructor participants in this study utilized the following technologies and practices to explore the largely uncharted realm of synchronous learning in distance education.

As expected, the instructors who were interviewed for this study have used a range of programs to facilitate their synchronous practices. However, only a couple of the participants indicated that they used tools that were already built into their university's Learning Management System; in both cases, Blackboard Collaborate was used as a forum for live interaction between the instructors and students. Both instructors noted that using Collaborate

included the built-in advantage of technical support that was easily available to instructors and students. In all other examples, the instructors made their own decisions about appropriate external technology tools and applications to employ with their synchronous student engagement.

Several of the participants have used Skype or Google Hangout to collaborate synchronously with their students. These tools provide immediate and relatively easy accessibility to students, and they are both available across the country and even overseas. Both programs are also free to use with few conflicts. Google Hangout was an especially popular option for the participants in this study because students need only create a Google account and have network access – with microphone and camera, of course – to utilize the program. Rhonda shared her effective use of Hangout as a supplement to larger group sessions that she facilitates through Collaborate. At the start of the course, she organized students into small groups of four or five. In addition to having live virtual meetings with the entire class—around 30 students—she required each small group to meet via Hangout to discuss course topics and collaborate on small assignments. The groups then shared some of their discussions during the full-class meetings, much as students often tend to do following group breakout session in campus-based courses. Rhonda shared that actively attempting to replicate this face-to-face dynamic was a significant motivator for her to utilize the synchronous virtual techniques.

Interestingly, the combination of Google Hangout group meetings—not attended by the instructor—and the larger Collaborate session had another unintended positive effect. Much like a campus-based class, the large synchronous sessions proved intimidating for some of the students, which generated participation from only a small group of more comfortable participants. However, students felt much less anxious about the smaller group Hangout

sessions, partly because of the lack on instructor presence. A few weeks into the term, Rhonda noticed that more students were willingly engaging in the Collaborate sessions without being asked to do so, and she credited this growth on the comfort and skills that students built through the weekly Hangout meetings. The improvement in participation was about more than an increased comfort level. As Rhonda explained, “the students were learning how to learn online. We forget that many students don’t have online learning skills in group environments. It’s something we need to facilitate, and the (Hangout) meetings provided that opportunity. By the middle of the term, they were doing it. They were having more substantial conversations. They were listening, and they just seemed to better understand the flow of online learning. It started to feel like a campus class.”

Participants also used a variety of other technology tools to facilitate their synchronous work with students. Video and group collaboration applications like Adobe Connect, WebEx, and GoToMeeting were popular choices among the group. Adobe, in particular, was used by several of the instructors because of the program’s ability to record sessions and share them with the students for later asynchronous consumption. This last point adds another consideration to the use of synchronous work with students. According to three of the study participants, recorded synchronous sessions have an impact on students that extends beyond the typical effective use of videos and other supplemental instructional tools. Brett explained that sharing his archived Adobe Connect sessions is about much more than just making sure that the students are able to consume missed content. “It’s all about peer to peer learning. When the students watch a recording, they see what I am sharing and presenting, sure, but they really also get to experience the engagement that occurs between students and myself.” Penelope echoed those thoughts and also highlighted the benefit of students being able to review recorded synchronous

sessions even if they attended them live. Other participants, however, explained that they had tried Adobe Connect but found it to be less intuitive than other purely video-based conference applications. Though cameras can be enabled for any participants in Adobe Connect, only a limited number of users can have their video feed active at a time, and traditionally, the default use of Adobe is one-way video/audio/presentation with text chatting for end users, a dynamic that four of the instructors agreed does not fully simulate the engagement of an actively engaged classroom.

Several of the study participants expanded the belief that text chatting is not the optimal method for synchronous engagement. Jessica explained that it creates a passive dynamic while also overly reinforcing the power structure between instructors and students. She indicated that optimal synchronous experiences are created when all participants – instructors and students – have access to the same level of communication tools. For example, if an instructor is using video and audio, students should have the ability to easily communicate through the same functions. Jessica even proposed limiting instructor technology if students do not share the same capabilities. To that end, she and three of the other participants described using audioconferencing tools for synchronous sessions with the students. Celeste has used freeconferencecalls.com to easily facilitate group meetings with entire classes of up to 40 students. She liked using the service because it was available at no cost to the students, but she also acknowledged the inherent awkwardness of large conference calls that do not allow the attendees to read body language or other social cues. In her words, “ideally, everyone would have video and audio and it would be great, but it’s often not the case, so we get by with what we have. I really think that any synchronous connection is better than none.” In trying to facilitate synchronous sessions with equal technology for all users, Jessica engaged in text-only group

chats with some of her classes, a model that she believes is more engaging than audio conference calls because, though it minimizes the communication technology, it removed the awkwardness of phone calls while also tapping into the dominant mode of communication for most people.

Two of the study participants described their efforts to create synchronous experiences that combined campus and online students. Rhonda and Brett have used a combination of online video conferencing tools—Adobe Collaborate and Google Hangouts—to allow remote students to attend live campus sessions. The students are able to see what is going on in the classroom through strategically-placed webcams, and microphones allow them to also hear the instructor and fellow students. This method has proven to be an effective way for online students to participate in a synchronous class session, and according to several of the instructors, the remote students have indicated that they feel like they are in the classroom even though they are at home because they see what is going on and hear not just the lecture and discussion but also the ambient sounds that characterize live interaction. However, Brett and Rhonda both described the experience as highly challenging and explained that it requires additional resources and facilitation. Rhonda has used the chat feature in Hangout as a means of “virtual hand-raising;” when students indicate that they have comments, she directs the class to them and ensures that their camera and microphone are enabled. Brett addressed the multitasking element of the delivery method by designating specific students in the classroom as “online advocates.” During the class sessions, these students functioned as the “agent in the room” to monitor the chat box in Adobe Connect and ensure that no comments are missed by cueing the instructor to direct attention to remote attendees. This practice has also worked for some of these instructors in purely online synchronous sessions—almost like a structured turn-taking dynamic—to avoid students talking over each other.

Though the participants in this study described significant positive experiences with these synchronous tools, they also shared concerns about the approach. Structuring conversation through turn-taking assists in facilitation, but as Travis said, “It’s not a real conversation that way. It lacks the spontaneity of classroom engagement and social leaning.” Additionally, every instructor discussed the challenge inherent in any form of synchronous virtual learning, which they unanimously think contributes to the small number of instructors who have pursued these practices. Celeste openly shared that she failed in her first attempts to enhance her online courses with synchronous tools. “I was bad. I used the time for simply lecturing with Adobe (Connect). Student just weren’t engaged. They could get that material just as easily from a video or the course material. It’s a waste of synchronous time, and I didn’t get better at it until I started to think creatively about the best ways to get students to engage with one another.” Celeste also explained that she began to approach synchronous meetings with students as problem-solving sessions, which significantly drove engagement, interest, and attendance. Students began to “engage in the vital conversation that they needed to have with each other” to generate social learning. For Celeste, generating those immersive, spontaneous, and engaging conversations was the reason why she first began adding synchronous sessions to her courses without being asked to do so by her institution.

Many of the participants referenced the lack of training and preparatory materials available for instructors who are interested in adding synchronous elements to their online courses, a tendency that is not surprising given the well-intentioned rogue nature of the instructors who have worked with these tools. Similarly, support for students is equally limited, something that Elizabeth addressed by including supplemental materials with her syllabi that show students what to expect with the synchronous sections as well as technology tips to

facilitate effective access. Another complication is the challenge inherent in scheduling synchronous sessions with groups of students who have enrolled in online programs because of the flexibility of the asynchronous model. Because many of these instructors have been operating outside of their university policies, they have had to address student concerns when they are presented with a synchronously-enhanced course that includes different expectations than the other courses students have experienced at the same institution. Elizabeth discussed the effort needed to work with students to change expectations and find effective times to collaborate. “It’s definitely a lot of work. A lot, especially at first. I enjoy it and believe it’s worth the effort, but I know that it’s one reason why some of the other professors haven’t tried it.” That statement is consistent with other study participants who shared thoughts about their own peers’ lack of synchronous instructional delivery. However, by far, the most consistent reason why the instructors who were interviewed for this study believe that their colleagues have not adapted these practices is fear. Rhonda shared her experiences of trying to train a fellow instructor in virtual synchronous practices. “There’s definitely trepidation, which the institution doesn’t help with the lack of professional development opportunities and support, but it’s also an unknown confidence thing. I told him about recording the sessions, and he said that he didn’t think that he would be good enough at it to make it worth recording.” That final statement has significant ramifications for students, instructors, and institutions.

What impact did you perceive when using synchronous tools with your students? Feel free to share positive results as well as any negative outcomes.

“One thing that I didn’t expect was the coffee shop vibe, especially during smaller group sessions.” Long-time community college instructor Tara used that comment to describe her early impressions about the impact of working with online students in synchronous formats. Like

many of her fellow study participants, she used Google Hangout and initially only focused on bringing small groups of students together for discussions. She explained that the relatively informal sessions began to feel like friends or colleagues meeting at a coffee shop, discussing topics and items with the same sort of low-stakes comfort that one feels in more social settings. “It definitely became a social thing,” she said. “They always addressed course topics that were assigned, but they talked like friends, often opening sessions by catching up and asking about what was going on with each of them like when students arrive at campus before a class.”

Admittedly, Tara did not first engage in synchronous learning with her students with the intent to create social learning—she initially just hoped to use the techniques to facilitate group activities and exploration—but she soon saw this exceptional benefit, and she claimed that the social engagement that emerged from the live sessions made many of the students more personally invested in their classmates, and thus, the course itself.

The other participants also shared several positive perceived impacts that emerged from using the synchronous tools with their online classes. Most commonly, they referenced the accountability and structure that a weekly live session adds to the students’ perception of the course. According to several of the instructors, students who have to attend synchronous sessions feel the need to be more prepared for active participation than they otherwise would, much like weekly campus classes. Undergraduate students, especially, seem to benefit the most from required weekly sessions when compared to graduate-level students. Brett discussed his belief that early undergraduate students, particularly non-traditional students, are not well-equipped for the personal management demands that exist within purely asynchronous distance education models. He referenced the huge numbers of online students who drop during or after their first terms—he did not share specific data, though—and suggested that more structured

synchronous learning opportunities within those early courses have a significant impact on the students' connection to the institution and ability to succeed. Conversely, Tara's students were in a graduate program, which may account for the more mature coffee-shop dynamic when participating in synchronous sessions. For graduate students, the impact seems to be less about helping them learn to be successful but rather more about providing opportunities for unscripted intellectual discourse that also provides the personal social connections that they lack in asynchronous models.

Jessica shared an interesting perspective about the use of video conferencing during synchronous sessions. She explained that the video provided more direct connections between students—when compared to purely asynchronous work—while also preserving an illusion of anonymity that is not present in classroom sessions. Because students within a video conference are in “small boxes,” they tend to feel more comfortable, almost as if the confines of a webcam window provide a sense of safety that is not present in-person. Jessica spoke to this point by saying that “it’s just a little picture so people feel a little bit more anonymous and don’t feel like they are putting themselves out there as much because they think that ‘no one can really see me, I’m kind of in this little box.’” She explained that students tend to participate more broadly in her asynchronous sessions than in her campus courses, and she credited this increased comfort/safety as the key reason. That being said, she also acknowledged the learning curve for students new to synchronous virtual learning, but through significant effort on her part to acclimate them to the model, they often exhibit strong participation by the third week of the course.

Other participants shared additional possible reasons for increased student engagement during synchronous sessions. Many of the instructors pointed out that people now converse

frequently through video, photo, and audio-enhanced social media, so the concept of connecting live across distances is becoming more culturally common. Conversely, purely asynchronous courses that lack this connectivity are “growing increasingly stale like Live Journal before Facebook and Snap Chat existed” in Brett’s words. Celeste shared another interesting point about student happiness and synchronous online education. She explained that students are more frequently choosing online programs so that they can balance their education with other demands and avoid needing to leave their homes or spend time away from family. Celeste believes that when students are able to maintain that sense of feeling “at home” while also connecting synchronously with student peers and instructors virtually, their personal satisfaction and engagement is maximized.

However, other participants in this study provided opposite feedback about connecting with students virtually while they are at home. Gary said that he “can’t say that it’s not a distraction. They are with family or televisions or other distractions and that’s the reality. It’s not always an issue, but it sometimes is.” Other instructors shared similar concerns, citing that they sometimes worry about the negative impact of requiring synchronous elements in their courses because they do not want students to feel like their education is invading the time that they want to dedicate to their home/personal lives. By far, the most commonly shared negative impact on students that the participants described was the problem inherent when students were not expecting to have to attend synchronous sessions in their online courses. Celeste, who shared her initial struggles when she lectured during synchronous sessions, explained how that technique actively disengaged students. “I think that many of them felt like it was a waste of time. Honestly, I had to abandon the meetings part way through that first term because I sensed their frustration.” When asked about the number of students who tend to resist the synchronous

course additions or exhibit frustration about required/graded attendance, Ronda estimated that only 25% of students, at most, seemed to feel that way. She explained that the other 75% clearly appreciate the enhancements and the participation points that they earn for attendance; however, working with the contrarian students has continued to be a challenge for her.

Thus, it is not difficult to begin to understand that adding required synchronous sessions to online courses during a time when they are still not prevalent across higher education is a risky proposition. Successful, creative, and engaging synchronous elements can significantly enhance student learning, as seen through the previously mentioned examples in which instructors generated effective social learning; however, ineffective, static, one-way synchronous methods can quickly seem like annoyances or obligations, which likely distances the students further from the course content and the instructor, an ironic outcome from an approach that specifically attempts to reduce the sense of transactional distance.

Describe how students responded to the use of synchronous enhancements in your courses. Include any knowledge that you have of post-term student survey comments and/or direct feedback that you have received.

Student feedback about courses with synchronous elements reflects the discrepancy between individuals who enjoy the additions to standard asynchronous courses and those students who feel the burden of the additional requirements. Several of the participants in this study shared students' comments about the unexpected synchronous elements in the courses. Penelope indicated that some students reacted with, "Oh, this is a requirement? Okay, if it's a requirement, I'm going to do it, whether I want to be here or not." Gary shared similar student concerns. "Some are like, well, isn't online supposed to be this thing that I do on my own time? This could be really difficult." He also explained that some students fight against the

synchronous format and do not want to be a part of it, a problem that has obvious implications for the overall class dynamic. Gary and several other instructors indicated that they have invested considerable time in trying to accommodate as many students as possible by working around individual's schedules and availability. This point is significant and creates a unique challenge for instructors who have tried to add synchronous elements to their online courses. Without the support and structure of institutional scheduling and policies, the instructors have had to essentially create their own course schedule, something that does not happen with campus-based classes that include structured and required meeting times that are available to students upon registration.

Some of the study participants have attempted to address this issue by holding less frequent synchronous meetings. Brett, for example, changed his practice from trying to meet weekly with his online students to scheduling sessions every other week, and Penelope approached the problem by making the sessions voluntary. Other instructors shared similar approaches to accommodating student schedules, and though they found some success with these techniques, the level of engagement was compromised. When students met less frequently, instructors found it difficult to achieve the same level of continuity and depth of discussion. Brett shared that some students appreciated the biweekly structure of his meetings, but he also acknowledged that students did not become comfortable with the synchronous format until near the end of the term instead of after a few sessions when they met weekly. Penelope faced the same primary challenge with optional sessions that a few of the other participants described; she rarely, if ever, had the entire class attend the synchronous sessions, and often, only a small core group of students participated in the meetings. Though she enjoyed excellent engagement with those students, Penelope was faced with the problem of either replicating the instruction in other

forms for the rest of the students or making the content purely supplemental or supportive (i.e. time for students who would like additional help). None of the study participants indicated that they were able to create true class engagement or broad social learning through experimentation with optional synchronous sessions.

The student feedback that instructors shared about their synchronous enhancements was not all negative. Much like the 75%/25% dynamic that Rhonda described when speaking about the percentage of students who appreciate and enjoy the synchronous elements and those who do not, the participants shared numerous positive responses from their students. Many of the participants explained that students enjoy small group synchronous sessions like the Google Hangout meetings that a few of them have structured into their courses. These students have commented specifically about the “personal connections” they have been able to form with their peers, and in many cases, students who have never experienced synchronous learning in online education were surprised at the level of engagement and immersion. Jessica’s comment best represented this student response. “They love them. They absolutely love them. They get to know each other really well. They always report that they feel like in those group sessions, that’s where they make the connections with people that maybe is lacking.” She also shared that, like several of her fellow study participants, many of the most apprehensive and anxious students at the beginning of the term find that the synchronous elements are much less daunting than anticipated.

Tara explained that she believes that nearly 80% of her online students appreciated and enjoyed the synchronous sessions, a number that actually exceeds the 75% benchmark that Rhonda described about her own observations. Tara also shared that the synchronous learning opportunities provoked strong feelings of community and social engagement within her groups

of students. One of them indicated that, during the course, she did not feel like she was just “working with a heartless computer.” Several participants shared similar feedback, including student comments about enjoying the conversational aspect of synchronous sessions. Instead of completely focusing on course material, as is often the case with asynchronous online content, synchronous collaborative sessions provided opportunities for the same type of personal dialogue that occurs during campus-based courses. Tara also indicated that, as an instructor, this engagement provided additional gratification, adding that the deeper connections with the students made her feel like she actively mentoring them. In her own words, “I think it makes it feel more meaningful and like I’m actually teaching and that kind of thing.”

Do you believe that mixing synchronous and asynchronous methods facilitates a social construction of knowledge similar to campus-based education? Please explain.

Many of the key responses to this question were already captured in the discussions related to the use of synchronous tools and the impact of those methods. All participants described at least some degree of additional social engagement generated through the synchronous engagement; moreover, four of the instructors indicated that, if done well, synchronous distance education could harness the benefits of online learning—the depth of content engagement, persistence of learning, etc.—while also adding the social engagement and knowledge creation that emerges from synchronous pedagogy. For some, this approach is the best possible method for distance learning. Jessica described the need to adapt online learning to more closely resemble the types of instruction that incoming students are accustomed to, especially the models that they experienced in high school. She said that “it can take months or even a year to get someone to be really self-directed in the learning process. Throwing someone into an asynchronous setting, you’re assuming that they are a very self-directed learner. You

can't make that assumption about every learner.” Brett echoed that belief and explained that engagement with an instructor is not the only element that provides students with the confidence to grow as self-directed learners; they also rely on the social learning with peers to model those behaviors and allow them to become students who are well versed enough in online education to succeed without the need for weekly or regular synchronous supplementation. This hypothesis supports the previously discussed belief that synchronous instruction is more crucial for undergraduate and early students, in particular.

Participants also shared additional anecdotal feedback about the social construction of knowledge that synchronous learning interventions generate. Travis strongly advocated for this concept and shared that many students attended optional synchronous sessions in many of his online classes. When asked why he thought that students attended those sessions, he indicated that part of the motivation was academic, but he believes that many of them attended for the social connection and to participate in co-learning with peers. Even students who did not actively participate during the sessions seemed to enjoy the opportunity to learn with their peers, thus creating a stronger group mentality while fostering the feeling of “not being in it alone.” He added that “it’s definitely the social aspect because they could probably get the information through the PowerPoint file that I send out weekly. I think they want to get their money’s worth maybe and just connect with each other.” Some students have asked Travis why other professors do not add similar enhancements to their courses. Finally, Celeste shared that her students often arrive up to thirty minutes prior to her online synchronous sessions. No course-specific learning occurs during those pre-start times; instead, the students socialize, get to know each other, ask questions about their experiences, and connect in a way that is more social than academic. As Celeste described, “I call them early birds. I started making word searches for them and

crossword puzzles. They get to use the virtual pen and collaborate on these activities. It's social engagement and learning even though I'm not teaching yet. Obviously, they wanted to join and connect and chat and use emoticons and all that.”

What limitations have you experienced when teaching online courses? Please describe how the technology or education model hindered your ability to interact/engage with students in ways that you would have liked to.

Despite the variety of approaches to collaborating with students, the participants agreed upon one signification point—the pursuit of using effective synchronous methods with their online students is limited by a number of challenges. As expected, they have faced significant challenges related to the inseparable technology tools required to successfully facilitate virtual synchronous learning and collaboration. This particular problem has manifested itself in a variety of ways for both students and instructors. Students attending online institutions arrive at the experience with a range of technological capabilities, some of which provide students with significant challenges in asynchronous environments; those challenges are heightened in the real-time synchronous environment. Elizabeth indicated that she thought that “when people are hesitant or uncomfortable with technology, they get really frantic.” She has found it challenging to address these issues in the immediacy of a live session, and without additional institutional support, she has sometimes been unable to help students with technology issues, which has had consequences to their immediate experiences and long-term engagement. In an attempt to curb these problems, Elizabeth has integrated low-risk technology activities into the beginning of each course in hopes that the mini lessons would increase student comfort levels prior to the first synchronous sessions.

Rhonda's consistent success with various synchronous techniques has always been tempered by recurring technology or expectation problems. She indicated that she could not remember a single term when she did not encounter significant issues, especially early in the courses. "A lot of my students are nervous early on," she said. "I provide the basic tech support, and I'm happy to do it, but I don't want to. I don't want to be tech support. I feel like that's a lot for me to effectively handle and still successfully teach the course." Travis, an instructor who admittedly did not have positive experiences when teaching large lecture classes at multiple institutions, was critical of the lack of institutional support for synchronous learning and online programs, in general. "The technology and online tools are there, but they are being used to support classroom learning or online classroom repositories. I try to enforce the fact that students need to try to work through their problems and contact tech support, but it's hard when they don't get effective responses." Conversely, Celeste complimented the increasing level of technology and LMS integration in campus-based courses. She explained that many of the students whom she has worked with online already had a strong familiarity with the basic elements of online education—discussion boards, gradebook usage, resources, etc.—which has made it much more manageable for her to devote time to enhancing her courses with synchronous tools.

The emergent theme related to the lack of institutional support continued to influence participant responses to this question. Aside from the general lack of technology support for students and instructors, most of the colleges and universities where the instructors have taught lacked effective internal tools to facilitate immersive synchronous learning. Two of the participants cited positive results when using Blackboard Collaborate, an application that was internal at their institutions, but the rest of the instructors had to seek their own technology

options, which meant that they received no institutional support for those efforts. A few of the participants described the significant time they had to invest into finding the best platform or program. Travis explained that he initially attempted to use a program called Big Blue Button, but he grew frustrated because it was prone to frequent crashes and slow performance. Like some of his fellow study participants, he eventually found more consistent success when using WebEx. Even the most effective applications have provided challenges for instructors. The widely-used Google Hangout and Skype have worked well for pure video meetings, but they are not well equipped for working with large groups or sharing interactive learning activities. Finally, institutional policies and expectations that were created for asynchronous models have naturally created student expectations that challenge the concepts of synchronous delivery. As Gary said, “students come to online education thinking that they can do it whenever they want, pace it however they want. In many cases, policies allow for posting or completing work at the last moment at the end of the week, and some of those students have a hard time being told that they have to meet at certain times and be prepared for those sessions.”

Nearly all participants stated that they are one of very few—if any—instructors at their institutions who have attempted to add synchronous elements to their courses. This lack of participation raises an interesting question: Are instructors avoiding the use of synchronous tools within their online courses because they lack institutional support or are institutions reluctant to broadly adopting these practices because instructors are resistant to them? Celeste indicated that she thinks the latter option is the primary factor that limits the growth of such practices. She explained that many of her peers fear change. They have been teaching the same way for many years, and they are reluctant to adopt new and unproven methods, a resistance that is only exacerbated by their lack of comfort with new technologies. Most of the instructors in this study

explained that they are comfortable with technology and have had intrinsic interest in exploring new teaching tools. Adjunct instructor participants, especially, often lacked the additional time needed to pursue new delivery methods outside of institutional content; similarly, they are more reluctant to add materials from outside of the vetted curriculum. In contrast, Jessica blamed this instructor reluctance and discomfort on the lack of professional development and support from the institutions. “I still complain vocally that we have no tutorials, no professional development at our college. Over 75% of the students at the school take online classes, and there just isn’t enough invested in improving that experience.” She also explained that some of her peers do not feel like they have the time needed to develop their own synchronous techniques in addition to the other tasks that the college requires them to complete every term. “It’s just really sad,” she said. “I feel like I’m on my own.”

How should higher education institutions continue to evolve distance education models to increase the quality of faculty engagement with their students? Simply put, what’s next?

Not surprisingly, many of the instructors’ suggestions for continued change emerged directly from the challenges that they shared in the previous question. Interestingly, a few of the participants compared the need for additional synchronous learning in distance education to the emerging virtual professional environment. Rhonda suggested the institutions should consider adopting more widespread synchronous online immersion because graduates are going to need to learn how to communicate and engage with others in many professions. She explained that she views her work with students through Google Hangout and other platforms as not just social engagement that improves the quality of her courses, but also as a method to prepare them to succeed in their careers. “I think people have to figure out how to be in these environments and engage with people and work with people and share ideas. That’s the way the world is now.”

Others agreed about the need for broad expansion of synchronous learning in online programs, but they also admitted that they have no concept of what steps need to be taken to drive that change, and more importantly, to implement it. In perhaps the most significant understatement of the study, Brett stated that “it’s a real big thing, man. I wouldn’t want to have to figure it all out.”

Celeste shared her belief that institutional leaders are actually trying to encourage the use of synchronous learning in their online programs, and her idea was to incentivize faculty to get involved in teaching and developing these techniques. “People inherently like to be part of something new and impactful,” she said. “Really, we are educators, and we all want to provide an experience for online students that is flexible but also meaningful.” Other participants addressed the same idea and cited the lack of existing best practices as a barrier to further expansion. Brett described it as a “chicken and egg issue. Universities can’t create these models without having best practices and knowing how they work, and most instructors can’t be expected to jump into it without having effective models to follow.” Three of the participants in the study discussed how they have chosen to take it upon themselves to cultivate and share best practices through social and professional media, which has served multiple purposes for these instructors. It has allowed them to connect with professors across the country and world who are attempting similar techniques with their students, something that has proven challenging internally at their institutions. Through these connections, they have shared examples and techniques, and the three participants indicated that they take pride in the knowledge that their creative influence is being felt broadly, especially since they have not received significant institutional support. Another reason for sharing material online is admittedly self-serving. The instructors have essentially been constructing virtual portfolios of their instructional work, which

is difficult to do in the physical classroom without video-capture. Travis explained that the recorded sessions allow potential employers or colleagues to see his live instructional skills instead of merely reading about them or reviewing bullet-point strengths on a resume.

Jessica was another of the three instructors who has actively collaborated and shared material through YouTube and other outlets. As described above, she was very vocal during the interview about her feelings of isolation within her own institution as one of the only instructors who has attempted to use synchronous methods with her students. Her motivation to seek collaboration and validation externally was driven by feeling alone in her explorations, and her most significant recommendation for continued evolution was for institutions to take what she has been doing more seriously and allow instructors like herself to shape change in static online curricula. She explained that a select group of leaders at her university were tasked to examine innovation in online education, but according to her, faculty members were not asked to be active members of the team. "It's very alienating and elitist," she said. "I don't like that. It's not democratic, and it's a terrible model." Jessica implied that it would take a larger group of faculty within an institution who were all pursuing synchronous learning tools to force the approaches to be considered within groups of university leaders. Until then, she plans to continue sharing ideas, material, and energy with others through the social-medializing of her pedagogy. "Faculty are finding each other on the underground. We help people on the underground. It's kind of a movement."

Summary

An interesting thing happened at the beginning of nearly all of the interview sessions. The participants stated that they were thankful that this study was being conducted. They said things like "it needs to happen" or "it's important stuff" and "others need to hear about what we

are doing.” Through the interview process, this sense of isolation that the instructors predominantly felt from their institutions became increasingly apparent. It is important to note that a lack of support for the participants’ synchronous practices is not likely the only factor that drives the feelings of isolation. Faculty at many colleges and universities sometimes feel alienated from the decision-making that occurs within administration and leadership. However, it is likely that the consistent lack of support for these innovations that the instructors see as beneficial to their students creates a trigger for the desire to feel respected and given the proper attention within the culture of their institutions. The phenomenon also highlights several of the concepts presented in Chapter Two of this report, including the inherent feelings of isolation in distance education and the desire for social connections through the learning process.

As the results that were summarized in this chapter indicate, synchronous enhancements added to online courses do seem to have an impact on student engagement. However, these collaborative pursuits do not come without risks because poorly implemented synchronous requirements within courses can have a negative impact on the students. Pedagogical methods for synchronous learning vary as much as the teaching methods that have long been seen in classroom environments. Whereas asynchronous online learning creates a highly standardized experience through discussion boards and other designed activities, instructor-led synchronous virtual sessions more strongly reflect the preferred approaches of the individual instructor. No two participants in this study used identical tools nor did any of them approach the process in the same way. Some of them favored smaller group work through Google Hangout or Skype while others facilitated full-group sessions using online seminar platforms. In nearly all examples, instructors operated outside of the perceived limitations of their institutions’ policies and resources, a practice that resulted in inevitable challenges and common issues when addressing

student expectations about what it means to take online courses. The challenges inherent in fitting these additional elements into institutions that do not fully support the requirements in their policies and admissions discussions likely also has a significant impact on the feedback that they receive from their students. The difficulty that participants shared about working within their institutions was a significant unanticipated theme that was not reflected in the initial ten questions for the instructors.

Finally, Tara's feedback about her experiences with the synchronous elements of her courses—her feelings of being a true “mentor” and “actually teaching”—provokes interesting perspectives about the analysis of the instructors' assessment of the impact of the synchronous elements in their courses (Study Question #6) and the students' own feedback after experiencing those delivery methods (Study Question #7). Though both questions yielded significant amounts of positive feedback about the impact of synchronous methods in online courses, the students' feedback seemed to include a broader array of concerns and negative comments. The discrepancy between instructor and student perception implies that, perhaps, instructors are benefiting more profoundly from the synchronous delivery than their students. Obviously, many students enjoy the synchronous methods, and the creative techniques clearly enhance the development of social learning. However, as Tara mentioned, she felt she was “actually teaching” when delivering synchronous content to her students, and other participants made similar comments. Most of these instructors enjoyed the engagement inherent in campus-based education, and part of their motivation for pursuing synchronous methods in online delivery models might be to recapture the feelings of satisfaction and immediacy that they experienced in the physical classroom. The following chapter presents potential implications of this information and provides suggestions for further study on this topic.

CHAPTER 5

CONCLUSION

The findings of this study were more wide-ranging than anticipated. Though the lack of regulation and support for synchronous online learning emerged as the most significant finding, the participants also shared considerable information about collaborative online practices and the skills needed to transition to teaching in this model. Specifically, the study resulted in findings related to the following three key themes:

- Qualities of Successful Synchronous Learning
- Faculty Transitions to Synchronous Models
- Challenges and Limitations of Synchronous Online Delivery

Qualities of Successful Synchronous Learning

Not surprisingly, most of the participants agreed that students who are organized and adept at self-regulation prove to be most successful in distance education models. Similarly, students who do not delay completing weekly course work until the very end of that unit demonstrate more consistent long-term online success. Among the instructors, one of the most common motivations for integrating synchronous methods into their online courses was to find a way to motivate students to become more proactive and engaged in their connection to the course content and their peers. By adding synchronous meetings each week, instructors require students to review course material earlier in the week in anticipation; similarly, following the live sessions, students sometimes exhibited increased energy toward the synchronous work, which continued to drive participation through the remainder of each week. In this way, these approaches mirror classroom learning by creating a weekly workflow that includes pre-meeting preparation, synchronous collaboration, and then asynchronous engagement for the remainder of

the week. The final element is unique to online education—as opposed to purely campus models—and many of the instructors shared the belief that it provides an additional layer of persistent learning that is not present in ground education.

During several of the interviews, participants discussed the differences between working with graduate and undergraduate students. New students, in particular, have proven paradoxical in these efforts because many of them are the individuals who most benefit from the hands-on motivations and direction that accompanies synchronous learning, but they have also been the most difficult population for many of the instructors to educate in this manner. Unlike graduate students, new enrollees have less exposure to the learning platforms, and usually, far less experience with distance education models. The lack of knowledge about how to be successful online students presents an extra layer of demand for the instructors who often need to provide tutorials for first-term students by demonstrating how to navigate learning managements systems, engage in effective discussion board communication, and submit / review assignments online. Thus, attempting to also supplement these courses with synchronous methods provides an additional unfamiliar complication for these students. Student feedback seems to support this challenge as a number of students in early-term courses shared their concern with these instructors about participating in online synchronous sessions. Conversely, many of the graduate students who worked with the instructors in this study shared a deeper appreciation for the collaborative discussions, which likely reflects their much higher comfort level as students. The lack of institutional support also impacts the challenge in transitioning new students to these models because the synchronous approaches present students with required additional elements in classes for which the admissions and pre-start processes did not prepare them.

A few additional interesting common themes emerged related to the topic of student success in synchronous distance models. New social applications like Skype, Snap Chat, and FaceTime have made modern students well-versed in the phenomenon of instant communication across distances; in fact, several of the participants in the study have used Skype and similar applications to facilitate the synchronous sessions in their courses. It is also likely that the use of these approaches emerged, in part, from instructors' familiarity with social engagement through modern technology along with their desire to capture the collaborative learning that they have experienced in campus-based education. However, two of the participants shared feedback that implied that student familiarity with modern social technology was, at times, a detriment to their work in online courses. Because social media and other online content is so pervasive, the instructors voiced concerns that students subconsciously equate courses with enhanced technology as a distraction in the same way that other online media can prove distracting. It is an interesting perspective, but no direct student feedback has yet to support the theory.

Faculty Transitions to Synchronous Models

Despite these concerns, all of the participants commented extensively on the positive impact that the synchronous learning approaches had on their students. The instructors believe that, for the most part, student engagement increases when they are able to participate in regular online synchronous collaboration. Likewise, all of the participants advocated for the growth of social learning that grew from these sessions. Several of the instructors who had the most success with synchronous methods in their courses effectively merged smaller group collaborative sessions with regular full-class meetings, a technique that allowed for growth in student synchronous skills and comfort. Conversely, lecture-based synchronous delivery proved to be highly unsuccessful. Finally, effective synchronous models in distance education helped

many of the participants in their ability to reduce student anxiety while providing them with a deeper connection to the course and the class community. These qualities continue to drive instructor motivation for adding synchronous tools to their online courses.

Being a change agent for online education practices has proven to be a source of both pride and frustration for the study participants. They discussed the satisfaction that they feel through their efforts to provide innovative engagement for their online students. Similarly, they believe that their work is meaningful and that it has the potential to drive change across the field of distance education. However, the inability, thus far, to create broader change has frustrated some of them. As discussed in Chapter Four, few colleagues at the institutions where the participants have taught have also attempted to adopt synchronous methods in their own online courses. At best, this lack of broader interest in the techniques results in the instructors feeling like they are virtually alone in the pursuit of their methods; at worst, it creates an adversarial relationship between the faculty and the institution. Instructors who have not felt supported in pursuing synchronous delivery approaches for the benefit of their students have begun to develop resentment toward colleges or universities who they believe are not prioritizing resources in areas that most directly provide students with the best possible online experiences. Three of the participants directly described these feelings in responding to the factors that prevented them from being able to work with students in ways that they would like to. It is also important to note that these instructors lack the full perspective of the institutional leaders who have chosen to focus on asynchronous distance education models. Thus, a more effective dialogue between leaders and instructors is needed.

The study results presented unclear data about the stakeholders who most significantly benefit from the addition of synchronous methods to online courses. Not only did adding these

techniques to courses provide instructors with similar feelings of connectivity and personal engagement that they experienced when teaching in campus classrooms, but the practice also provided them with an opportunity to experiment with new approaches when working with their students. For some instructors, this ability to explore new and creative techniques fueled the satisfaction that they derived from teaching. Several of the study participants mentioned the static nature of asynchronous courses, a comment that is only, in part, related to the lack of synchronous collaboration. The lack of spontaneous interaction and synchronous session development in these courses presented some instructors with an overly restrictive teaching environment. They sometimes seemed to miss the energy that exists in live interactions with students, and thus, recapturing that dynamic was one defining element of their use of synchronous enhancements in their student interactions.

This self-fulfillment motivator does not imply that instructors have not chosen to use synchronous delivery tools for the benefit of their students; the interviews provided evidence that all nine participants were passionate about their students' experiences and depth of learning. That being said, the mixed anecdotal feedback from students implies that the instructors' own engagement may benefit more broadly than student engagement, which yielded positive and negative results from the experiments with synchronous learning. Many of the study participants indicated that they think that a percentage of students actually prefer the distance inherent in asynchronous online education. The distance tends to appeal to the introverted students whose satisfaction and learning are not derived most significantly through their interactions with others. Students who prefer the flexibility of distance education also tend to accept the lack of synchronous social connection as part of the process; in fact, some of them have indicated that the distance provides a less intimidating experience when compared to the immediacy of the

campus classroom. Similarly, some instructors across the higher education community prefer the same qualities, according to their peers who participated in this study. For better or worse, this notion about the independent and asynchronous qualities of distance education has become the expected model for most programs.

Challenges and Limitations of Synchronous Online Delivery

The discussions with the nine study participants also yielded descriptions of a variety of the challenges and limitations that they faced when pursuing these approaches with their students. One of the most common issues that they encountered was the difficulty in adding a series of synchronous sessions to courses that have otherwise been designed as asynchronous experiences. Students who did not expect that they would have to attend required sessions at specific times often resisted the more structured nature of these courses. Instructors were then faced with the challenge inherent in making the synchronous sessions optional, which naturally reduced attendance and lowered the broader social learning impact for the entire cohort of students. Instructors have also faced significant challenges when attempting to incorporate external applications and technologies into their synchronous courses. Without full support from institutions and educational leaders, these challenges will likely persist, and instructors will continue to identify their own approaches to dealing with them.

The other most prevalent limitation that the participants cited was the lack of support from institutions, particularly in regard to necessary faculty development. As multiple instructors explained, they have been forced to serve as both teachers and technical support for students in their courses when they have added synchronous learning elements. Some of the participants did not speak negatively about this requirement; these individuals tended to be the more technologically proficient members of the interview pool, and their interest in technology

likely created a degree of personal satisfaction when working with students to address technical issues. However, other instructors openly spoke about not wanting to have to provide technical support for their students, and it is possible that they will cease in their attempts to use broader synchronous elements in their courses if they continue to be without dedicated technical support. The more significant challenge related to institutional support is that none of the universities or colleges for whom the participants have taught offer comprehensive professional development opportunities or training for instructors who wish to pursue utilizing synchronous methods with their online students. Two of the instructors described informal mentoring processes for sharing best practices with colleagues, but the rest of the interview participants explained that they have received no training and have learned the best ways to use synchronous tools on their own. Though this dynamic provides interesting creative think-tank opportunities for the development of innovations for educational delivery, the practices cannot evolve and participation cannot grow without formalized institutional training and development. Thus, the question about how educational leaders should assess, support, and facilitate these synchronous practices—or if they should at all—has emerged as the most profound implication of this study.

Implications

This study began as a faculty-focused examination of the synchronous elements that the instructor participants have added to their online courses. One goal was to determine common themes in the instructors' motivations for pursuing these methods, and another intent was to gain anecdotal feedback about the effectiveness of the experiences. Finally, the intention of this researcher was to gain insight into the best practices that instructors have used in synchronous distance learning so that others could learn from those experiences and further develop the approaches to even better impact students in online programs. The results certainly yielded

significant information related to all of these intentions, and they also provided ideas for numerous related studies that could further explore this phenomenon. However, through analysis of the data, this study transitioned into an exploration about the impact that minimal institutional support for synchronous online learning has on the instructors' motivations, the effectiveness of the experiences, and the development of best practices.

Participants' motivation for pursuing the use of synchronous tools in their online courses included their perceived need for creating more effective engagement and social learning while also capturing some of the collaboration that they felt in classroom-based education. That being said, none of the instructors would likely have pursued their own techniques if their institutions already offered well-developed synchronous curricular models. Additionally, several of the instructors indicated that they have not been asked to participate in any conversations about using synchronous tools in their courses, so they felt the need to create their own enhancements. The participants exhibited a range of feelings about this issue. Some of them stated that they understood why the university had not pursued synchronous methods more broadly, and they were happy to be among the minority who were experimenting in hopes of improving the student experience. However, many others exhibited frustration about the lack of buy-in from their institutions, particularly those instructors who wanted to be more active in the planning of future online delivery methods. This frustration potentially creates distance between institutions and their faculty, and more significantly, the implication of that distance is that instructors could be less inclined to participate in the visions/missions that educational leaders at the institutions want to pursue.

The potential for effectiveness in synchronous online learning is likely limited without full support from institutions. The participants in this study achieved variable levels of success

through their synchronous practices. All of them commented on the increased social learning and engagement that the synchronous enhancements brought to the experiences, and several of them generated sustainable collaborative practices through a mix of small and large group meetings using a variety of technologies. That being said, the participants represent only a very small fraction of the instructors across these institutions. Moreover, significant outreach was required to solicit the nine participants for the study, a challenge that likely reflects the relatively small number of instructors who use synchronous methods with their students. Simply put, it will be impossible for these practices to grow broadly across higher education without being driven by institutional leaders. The underground movement of dedicated instructors who have been using synchronous methods with students affect change on a very small scale, but the approaches would need to expand exponentially to motivate change in the way that the majority of educational leaders choose to design online programs. If only small groups of instructors continue to use these methods in their courses, synchronous distance learning will likely continue to be a niche approach without validation or grounds for expansion.

Best practices related to the use of synchronous methods in distance education do not currently exist. Instead, instructors who use them mostly just experiment with their own techniques and share them occasionally with colleagues through virtual and social media. This final implication is the most significant one that emerged from the study. The problem is twofold. The lack of institutional support for synchronous delivery tools prevents the cultivation of best practices because it significantly limits the number of instructors who are using these methods. Best practices, in general, emerge from examples that have been tested and reviewed and then disseminated to others; this process is not happening at most institutions because instructors are not offered any organized training in the pedagogy of the approach, and leaders

are not driving the collection of best practices. Secondly – and perhaps most importantly – because the synchronous practices that the participants described have been predominantly happening without institutional oversight, no one is reviewing the instructors’ work and methods. Thus, it is impossible for institutions to measure or even understand the effectiveness and quality of synchronous online methods. Similarly, the significant variation in delivery approaches potentially disrupts educational leaders’ attempts to ensure consistent experiences for their students and complicates the ability to maintain regular course or programmatic outcomes. Finally, additional problems for institutions and leaders emerge from the sharing of recorded synchronous content that some instructors have engaged in through YouTube or other applications. The participants shared this content through the need for collaboration—something that they lacked from their institutions—but the implications are significant. Course content that is available online without being vetted or approved by leaders could dramatically impact the security of their programmatic information and the perception of their educational practices, which unintentionally endangers the success and stability of the institutions.

Additionally, many of the external applications, including the widely-used Google Hangout and Skype, do not ensure the privacy or security of their users. Hundreds and thousands of hours of synchronous content is also being recorded and shared online through, at best, internal data warehousing—Adobe Connect, for example, has its own recording archive—and at worst, through public domains like YouTube. However, it is important to note that none of the instructors approached using these unsupervised methods to directly violate policy or university expectations; invariably, they sought new approaches in an effort to improve the experiences for their students, and thus, enhance the institutional outcomes. Several interviewees cited a lack of internal resources to achieve their desired synchronous learning,

which motivated them to explore external possibilities. One participant commented on the “economy of online learning.” Based on his experiences, he believed that many institutions have adopted online models because of the financial need to do so to meet student demand. He added that universities have not yet invested the necessary resources to create robust and engaging online learning platforms and content, so he feels that he owes it to his students to supplement the courses with synchronous sessions and other enhancements.

Recommendations for Action and Further Study

The recommendations for actions based on the findings from this study vary depending on how institutions want to proceed regarding the use of synchronous methods in online courses. Additional studies would need to be conducted to determine the effectiveness of synchronous methods in distance education, especially as they relate to student achievement and outcomes. Thus, broad recommendations about the continued use of these delivery approaches are not possible at this point. However, an effective first step for educational leaders would be to engage in conversations with their instructors who have experimented with the use of synchronous methods in online courses. These discussions would provide institutions with additional perspectives about why some instructors think that such methods are necessary and beneficial for the students’ experiences. Similarly, institutional leaders could provide the faculty with insight into their motivations for using predominantly asynchronous delivery models. More comprehensive research emerging from these conversations could determine the actual impact of synchronous methods, which would provide educational leaders with insight into the impact on all stakeholders—students, instructors, and administrative policy makers. Institutions bear the responsibility of continuing to innovate distance education models to provide increasingly effective experiences for students; if synchronous methods prove to be strong catalysts for this

change, then academic leaders should develop comprehensive training and support for their instructors.

Further studies could provide significant information about the academic impact of synchronous methods in online learnings. Specifically, research regarding four related topics would likely yield pertinent results:

- Faculty Practices – A more expansive study about faculty experiences with synchronous online methodology would provide additional information about the themes addressed in this report.
- Quantitative Results – A quantitative experimental study comparing an asynchronous online course with an identical class taught with synchronous enhancements could help determine the academic impact of these methods.
- Satisfaction Surveys – Assessing the student experience in courses with synchronous elements would examine the other side of the online education transactional dynamic.
- Institutional Research – A study that focuses on institutions and educational leaders could yield information about colleges or universities that already utilize synchronous tools and their perspectives about the use of such methods.

Conclusion

It seems odd to think of any element of education emerging from an underground movement. The connotation of the term invokes images of upstart groups that emerge from within skeptical (at best) or disapproving (at worst) majorities—counter-cultures that have attempted to drive social change or expose the merits of alternative music, for example. A web search for the term *underground movements* yields numerous results that equate the concept with *resistance movements*, an interesting comparison that more clearly aligns members of such

movements in direct opposition to a powerful governing or corporate entity. These groups pursue change through the belief that the current state of affairs needs change for the betterment of themselves or others, which sometimes influences change, but often ends when escalating conflict silences the resistance. Is this conflict destined to be the future of synchronous learning in distance education?

Some would say yes. Jessica's comments about creating a movement through communication with other instructors who have been working with synchronous learning tools reflect her belief that the only way to pursue these approaches is through a counter-culture approach. She is not alone in that belief. Several of the participants in this study also described the difficulty that they have faced in enhancing their courses with synchronous elements within institutions that do not actively support these approaches. As the data from the interviews shows, the lack of institutional support for synchronous online learning—at many colleges and universities—present instructors with numerous challenges that include technology complications, policy limitations, and student expectations. Moreover, only two of the nine participants—Celeste and Gary—stated that they expect institutions to adopt changes in the coming years that will better facilitate synchronous distance education. Most of the other instructors were not optimistic about the prospects for this type of change; in fact, the general tone of the conversations about the topic implied that the participants suspect that the challenges evident in institutional support and faculty adoption will prevent synchronous practices from ever becoming common within online education models.

Prior to engaging in the interviews with instructor participants, the title of this study was “In Sync: Evolving Online Education through Live Engagement.” The original intent was to interview instructors to discover trends in their approach to using synchronous tools in their

otherwise asynchronous online courses. The interviews yielded significant information toward that goal, including many examples of practices that participants have used to connect with their students in a synchronous environment. Additionally, the instructors invariably agreed that enhancing courses with these collaborative methods considerably adds social engagement and learning to the students' experiences, elements that they felt were lacking in traditional asynchronous distance education models. This study also provided potentially useful information about the differences in the ways in which instructors have approached campus-based education and distance learning.

However, the emerging theme that became the most significant outcome of the study was the gap between instructors who want to add these collaborative opportunities to their courses and the approaches that universities are currently supporting—and investing in—models that are overwhelmingly asynchronous in design. The implications of this difference in perspective present educational leaders with significant problems that are inherent in an underground movement of instructors who are currently sharing course content through applications outside of institutional oversight. As all stakeholders consider how best to proceed and provide next-generation online education for students, even the strongest supports of synchronous distance learning need to entertain the thought that, without institutional support, these models might not provide the best options for students. Based on the interviews, instructors and educational leaders are out of sync in their beliefs about the efficacy of these approaches in their online programs.

But the issue is not that simple. Though some of the instructors who participated in this study stated that institutions are to blame for the lack of synchronous methods in online classes, insufficient evidence exists to support the claim that synchronous approaches are the best way to

deliver content in distance education. Conversely, institutions cannot ignore the potential innovations that some of their instructors have tested through these methods, and they should consider the approaches that merit additional examination. Improving the students' online experiences needs to be the central focus and eventual outcome of any conversation around this topic. Thus, individuals on both sides of the debate must be aware of their own biases to consider how to create a more vibrant distance learning experience through either synchronous enhancements or a more dynamic asynchronous experience.

Ultimately, we must ask ourselves if synchronous online learning is the best model for students. That question cannot yet be answered. According to the participants in this study, student feedback is largely divided, and many students still prefer the flexibility and anonymity of asynchronous models. Additional studies will hopefully provide deeper insight into the topic. Until then, underground faculty will continue to develop and share synchronous practices, and in a few years, we can hopefully reflect upon those efforts as an important process of cultivation in the evolving field of distance education.

REFERENCES

- Akroyd, D., Patton, B., & Bracken, S. (2013). Factors that predict full-time community college faculty engagement in online instruction. *Community College Journal of Research & Practice, 37*(3), 185-195. doi:10.1080/10668926.2013.739512.
- Alcorn, B., Christensen, G., & Emanuel, E. J. (2014). The real value of online education. *Atlantic, 314*(2), 58-59.
- Bartholet, J. (2013). Hype and hope. *Scientific American, 309*(2), 53-61.
- Borup, J., West, R. E., & Graham, C. R. (2013). The influence of asynchronous video communication on learner social presence: a narrative analysis of four cases. *Distance Education, 34*(1), 48-63. doi:10.1080/01587919.2013.770427.
- Chih-Yuan Sun, J., & Rueda, R. (2012). Situational interest, computer self-efficacy and self-regulation: Their impact on student engagement in distance education. *British Journal of Educational Technology, 43*(2), 191-204. doi: 10.1111/j.1467-8535.2010.01157.x.
- DeCesare, J. A. (2014). The expanding role of online video in teaching, learning, and research. *Library Technology Reports, 50*(2), 5-11.
- Dray, B. J., Lowenthal, P. R., Miskiewicz, M. J., Ruiz-Primo, M., & Marczyński, K. (2011). Developing an instrument to assess student readiness for online learning: a validation study. *Distance Education, 32*(1), 29-47. doi:10.1080/01587919.2011.565496.
- Evans, H. (2014). An experimental investigation of videotaped lectures in online courses. *Techtrends: Linking Research & Practice To Improve Learning, 58*(3), 63-70. doi:10.1007/s11528-014-0753-6.
- Fulton, K. P. (2012). 10 reasons to flip. *Phi Delta Kappan, 94*(2), 20-24.

- Gebre, E., Saroyan, A., & Bracewell, R. (2014). Students' engagement in technology rich classrooms and its relationship to professors' conceptions of effective teaching. *British Journal of Educational Technology*, 45(1), 83-96. doi: 10.1111/bjet.12001.
- Hall, B. S., Nielson, R. C., Nelson, J. R., & Buchholz, C. E. (2010). A humanistic framework for distance education. *Journal of Humanistic Counseling, Education & Development*, 49(1), 45-57.
- Hess, L. M. (2014). A begrudging, recalcitrant academic observes what she's learning: Distance learning in leadership formation. *Teaching Theology & Religion*, 17(3), 264-271. doi: 10.1111/teth.12210.
- Ibrahim, M., Callaway, R., & Bell, D. (2014). Optimizing instructional video for preservice teachers in an online technology integration course. *American Journal of Distance Education*, 28(3), 160-169. doi:10.1080/08923647.2014.924697
- Ituma, A. (2011). An evaluation of students' perceptions and engagement with e-learning components in a campus based university. *Active Learning In Higher Education*, 12(1), 57-68. doi:10.1177/1469787410387722.
- Lundberg, C. A., & Sheridan, D. (2015). Benefits of engagement with peers, faculty, and diversity for online learners. *College Teaching*, 63(1), 8-15. doi: 10.1080/87567555.2014.972317.
- Maddison, S., Mazzolini, M. (2002). Sage, guide, or ghost? The effect of instructor intervention on student participation in online discussion forums. *Computers & Education*, 40(3), 237-253.
- McNulty, R. (2013). Old flames and new beacons: The luminosity of online learning. *Techniques: Connecting Education and Careers*, 88(1), 40-43.

- Mellander, G. A. (2012). Technology and the college experience. *Education Digest*, 78(1), 65-68.
- Moore, M. G. (1993). Theory of transactional distance. *Theoretical principles of distance education*, 22.
- Nandi, D., Hamilton, M., & Harland, J. (2012). Evaluating the quality of interaction in asynchronous discussion forums in fully online courses. *Distance Education*, 33(1), 5-30. doi:10.1080/01587919.2012.667957.
- Oriogun, P. K., Ravenscroft, A., & Cook, J. (2005). Validating an Approach to Examining Cognitive Engagement Within Online Groups. *American Journal Of Distance Education*, 19(4), 197-214. doi:10.1207/s15389286ajde1904_2.
- Pardasani, M., Goldkind, L., Heyman, J. C., & Cross-Denny, B. (2012). How much does the distance in distance education matter? Our students speak. *Social Work Education*, 31(4), 406-421. doi:10.1080/02615479.2011.573547.
- Peck, J. J. (2012). Keeping it social: Engaging students online and in class. *Asian Social Science*, 8(14), 81-90. doi:10.5539/ass.v8n14p81.
- Pink, D. H. (2009). *Drive: The surprising truth about what motivates us*. New York, NY: Riverhead Books.
- Reilly, J., Gallagher-Lepak, S., & Killon, C. (2012). 'Me and my computer': Emotional factors in online learning. *Nursing Education Perspectives*, 33(2), 100-105. doi:10.5480/1536-5026-33.2.100.
- Robinson, C., & Hullinger, H. (2008). New benchmarks in higher education: Student engagement in online learning. *Journal of Education For Business*, 84(2), 101-109.

Wilkinson, C. (2014). Engaging with strangers and brief encounters: Social scientists and emergent public engagement with science and technology. *Bulletin of Science, Technology, & Society*, 34(3/4), 63-76. doi: 10.1177/0270467614552841.

APPENDIX A

INTERVIEW QUESTIONS FOR INSTRUCTOR PARTICIPANTS

- 1) Describe your experiences with campus-based instruction. What word(s) describes your experiences in that model?
- 2) Describe your experiences with distance education instruction. What word(s) describe your experiences in that model?
- 3) How do you feel that the level of student engagement in online learning compares to the level of engagement in campus-based learning? What factors most significantly impact any perceived differences between the two modalities?
- 4) Many distance education programs include only asynchronous learning methods – discussion boards, assignments, recorded videos, etc. In his theory of Transactional Distance, Michael G. Moore (1993) indicates that cognitive distance creates a communication space to be crossed that can result in increased levels of miscommunication. Do you feel the impact of this distance from your students in asynchronous of instruction?
- 5) Please describe examples of synchronous tools and methods (one-to-one or one-to-many) that you have used in your courses (including any technologies used). What motivated you to add them into your instructional practices?

- 6) What impact did you perceive when using synchronous tools with your students? Feel free to share positive results as well as any negative outcomes.
- 7) Do you believe that mixing synchronous and asynchronous methods facilitates a social construction of knowledge similar to campus-based education? Please explain.
- 8) What limitations have you experienced when teaching online courses? Please describe how the technology or education model hindered your ability to interact/engage with students in ways that you would have like to.
- 9) Describe how students responded to the use of synchronous enhancements in your courses. Include any knowledge that you have of post-term student survey comments and/or direct feedback that you received.
- 10) How should higher education institutions continue to evolve distance education models to increase the quality of faculty engagement with their students? Simply put, what's next?