

Teacher Presence in the Online Classroom and its Impact on Engagement and Successful  
Course Completion

A Mixed-Method Action Research Dissertation

by

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## ABSTRACT

The purpose of this study was to evaluate the effect of virtual office hours in the online classroom on engagement and course completion among criminology students at Arizona State University. The study relied on an action research mixed-method design. The goal of the interventions was to increase the engagement of all members of the class. The study's conceptual framework drew from Albert Bandura's (1977) social learning theory that combines cognitive psychology and behaviorism to describe the learning process within individuals, as well as Garrison, Anderson, and Archer's (2000) Community of Inquiry Framework, which is based on constructivist learning theory, where individuals actively make sense of their experiences (Garrison & Vaughan, 2008).

For the quantitative portion of the data collection, 60 students in my CRJ 305: Gender and Crime criminology iCourse were asked to participate in a pre- and post-intervention survey. For the qualitative portion of the data collection, I collected field notes during virtual office hours and invited all virtual office hour participants to participate in post-intervention interviews. From those who responded to my invitation, I conducted one-on-one interviews.

Once analyzed, descriptive data and self-reporting Question #5 indicated that the intervention—virtual office hours—did have an impact on student engagement and successful course completion. Additional quantitative data collected (mean grade point averages), once compared, suggested that those who participated in virtual office hours overall had a final higher grade point average.

The interview responses and field notes suggested that virtual office hours did have an impact on student engagement and successful course completion by allowing

students to develop relationships, feel more connected, and be more successful. Overall, students found that virtual office hours allowed for a more visual and personal space where they felt comfortable and could develop a relationship with others, the kind of meaningful relationship that needs to happen with online students in order for them to be as successful, if not more so, than in traditional learning environments.

## DEDICATION

This is dedicated to my husband Dave and my girls Maggie and Zoe for their unwavering support throughout this challenging experience.

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I would like to thank the members of my cohort. Without them, this would not have been possible. I would especially like to thank Dr. Gee, Dr. Mertler, and Dr. Marsh who saved me and saw me through to the end!

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## Chapter 1

### LEADERSHIP CONTEXT AND PURPOSE OF THE STUDY

#### **National Context**

Higher education is undergoing a transformation by offering online courses as an alternative to traditional brick-and-mortar course formats. Modern technologies provide an opportunity to learn anywhere, anytime, and at any speed, either formally or informally. Currently, learning is no longer restricted to a single formal setting—instead, it is everywhere (Lehman & Conceição, 2013). For many college students, online courses are more accessible and convenient compared to traditional brick-and-mortar courses. These programs provide access to higher education for students who cannot attend traditional courses due to employment, marital status, family responsibilities, distance, and expenses incurred with traditional education (Hannay & Newvine, 2006). The majority of students who enroll in online classes are those who would otherwise not attend, mostly due to work and family commitments. To meet the growing demands for flexible higher education, online education is evolving as an indispensable mode of delivery and is transforming the learning landscape (Lehman & Conceição, 2013). According to Maki and Maki (2017), online students can and often do outperform their face-to-face counterparts. As such, the demand for distance education has skyrocketed with more than 28% of the U.S. postsecondary student body enrolled in online courses in 2017, up by 3.9% from 2016 (Maki & Maki, 2017).

However, as online education increases in popularity, so do the concerns about its effectiveness and whether it is truly meeting students' academic and career preparation

needs. Researchers have found that the following areas impact student satisfaction with online instruction: interaction among students, quality and timely interaction between student and professor, consistent course design across courses, technical support availability, and flexibility of online courses compared to face-to-face classes (Young & Norgard, 2006). More specifically, one of the greatest challenges for higher learning institutions is that student completion rates in online programs are lower than in the face-to-face programs (DiRamio & Wolverton, 2006; Hoyer, 2006; Stanford-Bowers, 2008; Terry, 2007). According to Lee and Choi (2011), completion rates are the most pressing concern for faculty and university administrators. According to the Department of Education (2011), completion rates for online education range greatly, with anywhere from 20% to 90% of students withdrawing from an online course. According to Burnsed (2010), the national average is 37% of all online students do not successfully complete online classes as opposed to the face-to-face modality where 26% do not successfully complete their courses.

Many scholars and administrators continue to speculate about the factors that contribute to low completion in online programs, including issues related to the students themselves (e.g., unpreparedness or lack of discipline) as well as limitations in the design of the online learning setting (e.g., passive, unengaging, or minimal opportunities for social connections). Research indicates that online programs have a number of social, technical, and motivational challenges stemming from both the learners' and the faculty's perspectives (Bawa, 2016). From the learners' perspective, research has shown that students desire a high level of interpersonal connectivity in their online classes. However,

they often do not experience feeling engaged with their peers or professors (Baker, Chiasson, Mahar, Schroeder, & Terras, 2016). From the teacher's perspective, the fear of a new modality is a common barrier, impeding teacher presence and full engagement in the course.

One of the primary components of effective teaching is the teacher's presence, whether it be online or in person. A teacher's presence in the classroom encompasses the course design, how the class is facilitated, and the directing of social processes. Researchers have found that social presence, especially on the part of teachers, is a necessary component of an active learning program (Dixson, 2010). Therefore, online faculty need to be at the center of supporting student success by maintaining a consistent online presence and engaging students by utilizing various online techniques. Some research suggests that online students are required to spend more time working on assignments compared to those in face-to-face settings and are therefore more engaged with the material (Maki & Maki, 2017). Online students who discuss their learning experience more often with each other tend to spend more time on task and more time engaged than face-to-face students (Maki & Maki, 2017). Despite the fact that online students are technically more engaged with course material than face-to-face students, a number of studies suggest there is still often a lack of engagement with faculty (Maki & Maki, 2017). In face-to-face classes, it is easier to engage students in discussion; however, in online courses, it is difficult for the faculty to determine whether the learner is engaged or not. In most online classes, students review recorded lectures as opposed to

participating in live discussions. In the process, studies have shown that students can become inattentive and not understand important information (Sarder, 2014).

Some critics of online learning contend that online students lack the opportunity to benefit from the learning experience of normal structured dialogue, interaction with peers and faculty, and the sense of community that can only be created in a face-to-face classroom. Or do they? Studies on the topic have come to mixed conclusions; however, as online education continues to evolve and gain popularity, so must online teaching practices. The kind of teaching practices that foster engagement through increased teacher presence are dependent on faculty creativity and the dedication and desire to create online classes that resemble, if not surpass, the brick-and-mortar experience.

### **Situational Context**

As online learning continues to be a growing trend in the U.S., so do the concerns for its effectiveness. As discussed earlier, the low completion rate associated with online learning is one of the greatest challenges facing online educators and administrators (Lee & Choi, 2011), especially considering that the national average for completion rates for online learning is 77% (Burnsed, 2010). Many continue to speculate as to the mitigating factors that contribute to low completion rate of students, including unpreparedness, lack of discipline, lack of engagement, and lack of a social connection, among other factors. Researchers have conducted many studies in an attempt to evaluate the success of online courses. Unfortunately, the research is far from conclusive. While some studies suggest that, overall, learning outcomes are similar to those in traditional classroom courses, a number of rigorous experimental studies have found lower completion rates for online

courses and, of particular concern, even larger gaps in outcomes between at-risk students and those with strong academic preparation than those emerging in classroom courses (Protopsaltis & Baum, 2019).

As Bawa (2016) discovered, online courses have several social, technological, and motivational issues that contribute to students' difficulty in connecting with their peers and their teacher, despite their desire to do so. In contrast, Maki and Maki's (2017) literature review found that many studies indicate online students can and often outperform face-to-face students. Their review indicated that online students were required to spend more time working on assignments and were more engaged with the material than traditional students, ultimately leading to higher achievement and better performance (Maki & Maki, 2017).

Arizona State University (ASU) is one of the nation's largest providers of online education in the postsecondary context. At ASU, online courses are designed and delivered through one of two separate approaches. First, individual schools and departments may choose to offer stand-alone online classes to students enrolled in academic degree programs that also have a face-to-face requirement. ASU's schools and colleges have implemented a variety of internal support structures for these "iCourses." For example, the recently developed Office of Education and Innovation, housed under the Watts College of Public Service and Community Solutions where the School of Criminology and Criminal Justice (the setting for the present study) resides, helps full-time faculty create and administer an online curriculum.

Alternatively, all of the University's fully online degree programs are administered and supported through a separate internal group known as EdPlus. EdPlus is an entity that focuses on the design and delivery of digital teaching and learning modules through various programs. The various programs that fall under EdPlus include, but are not limited to, ASU Online, Global Freshmen Academy, Plus Alliance, and the Starbucks College Achievement Plan. Currently, ASU offers 150 fully online degree programs through EdPlus programs, reaching more than 30,000 students around the world in an attempt to foster a global learning community. Similar to iCourses, courses administered through EdPlus, known as "oCourses," are created, taught, and administered by full-time faculty with support from ASU Online as well as various internal college and school entities (e.g., the Office of Education and Innovation in the Watts College of Public Service and Community Solutions). All EdPlus online courses were historically taught using the Blackboard Learning Management System (LMS). However, beginning in fall 2018, the University migrated to a new cloud-based LMS, Canvas, which is the platform used in the online course that is the focus of this study.

The School of Criminology and Criminal Justice is part of ASU's Watt's College of Public Service and Community Solutions and the setting for this study. The School began offering online education programs approximately 12 years ago. There are two degree programs that rely on a fully online design and do not require students to attend any classes on the University's physical campuses: a Bachelor of Science in Criminology and Criminal Justice as well as a Master of Arts in Criminology and Criminal Justice. Since the inception of the School's online program in 2007, the total student enrollment

increased from approximately 200 students to 1,100 in 2018. A primary challenge of the Criminology and Criminal Justice online program, like many others, has been student completion rates, which are a combination of failure and withdrawal rates.

Approximately 20% of the School of Criminology's online students withdraw from or fail Criminal Justice online classes in any given semester.

I have been a lecturer in the School of Criminology and Criminal Justice since 2013, teaching various Criminology and Criminal Justice courses such as Criminology, Race and Crime, Gender and Crime, and Juvenile Delinquency. I teach a total of eight Criminology and Criminal Justice courses per academic year, in both face-to-face and online modalities. I am currently working more closely with the online division, building online courses for the department. Throughout my action research, I have participated in committees dedicated to providing high quality online courses, have learned effective methods for engaging students, and continue to try new ways to connect with my online students.

During the initial stages of my action research, I relied on observations and conversations with students and other faculty to inform me of the concerns that had been present in our online courses. From the data collected, successful course completion was noted as the most important concern facing our online courses. Throughout my initial research process, students shared that the lack of teacher presence and engagement in our online courses were potential contributing factors to why some of them did not successfully complete their courses.



For the past several years, I have focused on improving successful course completion rates in my online classes by finding ways to impact student engagement in order to provide a model for other online faculty. I concentrated my efforts on increasing my presence through virtual technologies to develop relationships with my students. Ultimately, these efforts will provide other online faculty with data-driven information on specific best practices to increase engagement and ultimately online course completion rates. My goal was to see what virtual technologies were most effective and why. During Cycle 1, I implemented the new online template; during Cycle 2, I introduced the virtual introduction assignment; during Cycle 3, I utilized weekly video announcements; and for my Dissertation Cycle, I relied on weekly virtual office hours.

Halfway through my Dissertation Cycle, the United States encountered a pandemic that closed all life down as we knew it. All businesses, schools, and the majority of operating in-person organizations were no longer allowed to operate in person. Education across the country had to adapt, and the only way to adapt was online learning. Fortunately, my research was being conducted strictly online, so I, unlike so many others, did not go through any transitions.

### **Purpose and Significance of the Study**

The present study sought to improve teacher presence with undergraduate students enrolled in Arizona State University's online Criminology and Criminal Justice program and to better understand how increasing teacher presence in online courses might impact students' engagement and ultimate successful course completion. An active and responsive teacher in an online course can contribute to online students' engagement,

which in turn fosters their success in the course. Ultimately, the goal of the study was to improve students' sense of engagement with myself as the instructor and with other students, so they would be less likely to fail, withdraw, or do poorly in their online course (Baker et al., 2016).

This study uses an action research design that aims to solve an immediate problem through a reflective process. Action research involves systematic inquiry—typically within an academic setting—in which participants, such as faculty and administrators, examine their own educational practice (Mertler, 2014). It is a process in which the evaluation of previous cycles of implemented innovations informs future cycles of research. According to Dickens and Watkins (1999), the cyclical action research process involves four stages: plan, act, observe, and reflect. During the process, an action researcher should rely on colleagues to help inform decision making. The goal is to investigate an existing issue and implement new practices to affect positive change in teaching and students' learning. The ideas that surface from previous cycles serve as the study's innovations, aimed at eradicating the self-identified existing issue.

This study builds on my previous cycles of action research. During these cycles, I employed the following innovations in my 15-week online iCourses: (a) utilized the course template during Cycle 1 (see Appendix A), (b) implemented virtual introduction assignments during Cycle 2 (see Appendix B), and (c) relied on weekly video announcements during Cycle 3 (see Appendix C). For my Dissertation Cycle, I employed weekly drop-in virtual office hours (see Appendix D) offered through Zoom in my CRJ 305: Gender and Crime iCourse.

To evaluate the impact of the innovation, I surveyed students prior to the start of live virtual office hours (see Appendix E) and then surveyed students after the innovation (see Appendix F). During the live virtual office hours, I took field notes on the topics discussed (see Appendix G). Once I submitted final grades, I invited all virtual office hour attendees to volunteer for interviews (see Appendix E) to discuss how the innovation impacted their level of engagement and potential for successful course completion with a grade of a C or better.

My hypothesis, informed by the literature review and conceptual framework described in Chapter 2, was that students who develop a rapport with their instructor, as a result of increased teacher presence, will develop a commitment to successfully complete the course. When students do not build rapport with an instructor, they will not have as strong a commitment to the course, and their efforts will lack inspiration, possibly hindering successful completion of the course.

### **Research Questions**

The following research questions guided the Dissertation Cycle of my action research that occurred in my CRJ 305: Gender and Crime iCourse taught at Arizona State University in the School of Criminology and Criminal Justice during the spring 2020 semester. The research questions addressed how live virtual office hours affect students' engagement and ultimately their likelihood of successfully completing my online courses with a C or better.

- RQ1: How do live virtual office hours impact online students' engagement in a Criminology and Criminal Justice online class?

- RQ2: How do virtual office hours impact online students' successful course completion with a C or better in a Criminology and Criminal Justice online class?

### **Definition of Relevant Terms**

The following terms are used throughout the dissertation and are included to provide further clarity.

**Faculty:** Instructors who teach a minimum of two online courses in any given semester for Arizona State University's School of Criminology and Criminal Justice.

**Engagement:** For the purpose of this study, engagement is considered to be the contact that a student has with his/her instructor and classmates, particularly in terms of teacher, social, and cognitive presence. I hypothesize that the use of virtual technologies in my online courses will engage students more personally, encouraging them to be more actively involved and committed toward successful completion of the course. The engagement is specifically meant to foster a sense of connectedness by building rapport with students, rather than isolation (Baker et al., 2016). Specifically, I examined three constructs related to engagement and defined it based on the Community of Inquiry model (Garrison et al., 2000):

- Teaching Presence: Design, facilitation, and direction of cognitive and social processes for the purpose of realizing personally meaningful and educationally worthwhile learning outcomes.
- Social Presence: The ability of participants to identify with the community (e.g., course of study), communicate purposefully in a trusting environment, and

develop interpersonal relationships by way of projecting their individual personalities.

- Cognitive Presence: The extent to which learners are able to construct and confirm meaning through sustained reflection and discourse.

**Successful Course Completion:** Successful completion of an iCourse with a grade of C or better.

**Virtual Technologies:** For the purpose of this study, virtual technologies are defined as virtual introduction assignment, weekly video announcements, and live virtual office hours where teacher and students meet live virtually to discuss class material and develop a rapport.

### **Organization of the Study**

This dissertation is organized into five chapters. In this chapter, I explained the background and purpose of my action research. I highlight the need for increased teaching presence and how it is hypothesized to impact engagement and ultimately course completion. In Chapter 2, I introduce relevant literature guiding my action research while relying on the fundamental principles of Social Learning Theory, Community of Inquiry, and Constructivism to explain why improving student engagement in an online learning environment might contribute to an increase in course completion. In Chapter 3, I outline the research methodology used to analyze the outcomes resulting from the implemented innovation. In Chapter 4, I discuss the results of my pre- and post-intervention surveys, interviews, and grade distribution for my CRJ 305 iCourse and a previous course without any virtual technologies. The findings will be organized according to the research

questions guiding the study. In Chapter 5, I reflect on my study's results, as well as lessons learned, implications for practice and research, study limitations, study validity, and concluding thoughts.

## Chapter 2

### LITERATURE AND THEORETICAL FRAMEWORK GUIDING THE PROJECT

#### **Introduction**

The physical brick-and-mortar classroom is starting to lose its monopoly as the sole location where academic learning can occur (Nguyen, 2015). According to Sarder (2014), a survey conducted by the U.S. Department of Education indicated that 97% of two-year and 89% of four-year public institutions offer distance learning courses. In addition, according to recent research released by the University of Wisconsin-Madison involving about 7,500 undergraduate and graduate students, an overwhelming 82% of the students expressed a preference for courses that utilize online lecture materials over the traditional classes that do not offer the online learning component (Sarder, 2014).

However, despite increasing popularity and enrollments over time, online courses and programs continue to show diminishing completion rates (Bawa, 2016; Shea & Bidjerano, 2016). Previous research indicates that students in online learning courses are more likely to fail when compared to face-to-face education (Shea & Bidjerano, 2016). When compared to face-to-face classes, online courses have a 20% higher withdrawal rate (Bawa, 2016). Studies have found that completion rates in distance courses have historically been very low, at times approaching rates of 40–50% per course (Sarder, 2014).

As more higher education courses adopt the online modality, the major concern has been the potential loss of the critical interaction between the student and the instructor. Often, lack of interactions or engagement is cited by students as the major cause for withdrawing from a course (Sarder, 2014). In the remainder of this literature

review, I explain how researchers define the concept of “engagement” in online courses. I then summarize what is known about improving student engagement in online courses. Finally, I conclude by discussing evidence on how engagement impacts students’ performance, learning, and other outcomes.

## **Relevant Literature on Engagement**

### *How have researchers defined engagement in online courses?*

Garrison et al. (2000) felt as though engagement involves participation among other members of the class. According to Wenger (1998), engagement is an intrinsic aspect of online learning necessary to foster student persistence. Dixson (2010) claimed that student engagement is a primary component of an effective online teaching program where students feel connected to the material, the instructor, and other classmates. Hrastinski (2008) posited that student engagement is a form of participation that is characterized by joining and taking part in a rewarding dialogue. In the process, the learner feels that he or she is part of a valued interpersonal interaction and is thereby assumed to participate more actively than a learner who does not (Hrastinski, 2008).

According to Hrastinski (2008), there are six levels of learner participation in an online course that define engagement: level one, participation in accessing e-learning environments where students and instructors both participate in activities; level two, participation as writing where students engage in writing assignments with each other; level three, participation as quality writing where students submit a writing assignment to the instructor; level four, participation as writing and reading where students take notes while reading through course information; level five, participation as actual and



perceived writing where students compare notes to submitted text; and level six, participation as taking part and joining in on dialogue with each other about course readings and writing assignments. Level six addresses the level of online participation needed to feel engaged and is characterized by joining and taking part in a rewarding dialogue. In the process, the learner feels more connected and participates more actively.

***What influences student engagement in an online learning environment?***

Research shows that student engagement in online learning environments is mostly dependent on instructor and peer presence. For example, Davies and Graff (2005) found that online learners' participation increased when instructor and classmate presence increased. The study examined the performance and online engagement of 122 students: 70 were male and 52 were female. The students were business majors and were observed for one year while using a Blackboard Learning Management System. The researchers compared students' usage to their module grades and found that the mean proportion of Blackboard usage in interactive areas, such as discussion boards, was consistently highest for students with high and medium passing grades and consistently lowest for those who failed in the modules (Davies & Graff, 2005). Therefore, those students who interacted with others performed better, even in an online environment.

Other research also finds that online learning is best accomplished when learners participate and collaborate with one another (Hrastinski, 2009). For example, in a survey completed by 1,974 online learners at the State University of New York (SUNY) in the spring of 2000, researchers concluded that learning effectiveness was mostly impacted by interactions with instructors and classmates (Fredericksen et al., 2000). When the

students were asked to rank their response to the statement, “Overall, I had a great deal of interaction with my instructor,” the following results were found: 24% of the students “agreed strongly,” 36% “agreed,” 19% “neither agreed nor disagreed,” 13% “disagreed,” and 8% “disagreed strongly.” Therefore, a total of 60% of the respondents felt that their level of interaction with the instructor was very high in the online environment.

Researchers found a significant relationship between the students’ level of satisfaction and their level of interaction with the instructor (Fredericksen et al., 2000).

The SUNY study focused on the social nature of learning online and how when course instructors provided prompt, high quality feedback, students’ satisfaction increased and the data showed higher levels of learning (Fredericksen et al., 2000). They also found that when instructors provided clear expectations of how to proceed in the course successfully, significant correlations were found with high levels of satisfaction (Fredericksen et al., 2000). When students reported high levels of interaction with classmates and high levels of participation in the courses, significant correlations were found with high levels of reported learning (Fredericksen et al., 2000). This study, conducted almost 20 years ago, emphasized the need for the design and administration of online instruction to focus on the social aspects of online learning in order for it to be effective.

Beaudoin (2003) compared several studies and found that students who feel that they are part of a group or “present” in a community will, in fact, wish to participate actively in group activities. According to Beaudoin, teaching presence somewhat fosters the social presence, creating a sense of community. Relatedly, Rourke et al. (2001)

provided an excellent review of some of the techniques that can be used to foster a sense of presence and community including complimenting students, self-disclosure, warmth, and activities that build and sustain a sense of group commitment.

Dow (2008) provided insight into designing online courses to facilitate effective engagement and well-structured interactions to help create a better learning atmosphere, based on the notion that social presence is a predictor of satisfaction with online learning. Dow's grounded theory case study of library and information graduate students indicated that not having a live aspect of an online course was alarmingly detrimental to teacher/student engagement. Students' perceptions of online learning suggest a struggle between their desire for traditional classroom experiences and the outcomes of online classes. Dow concluded that students feel uncomfortable when they cannot see the face of the person with which they are conversing. This, in turn, hinders how they gauge the feelings of the other online peers and ultimately the level of engagement. Therefore, online courses should be designed to foster more visual social interaction between instructors and the learners (Dow, 2008).

Even literature from decades ago claimed that teaching presence is a form of engagement that facilitates a social presence, ultimately impacting the students' presence and participation (Bullen, 1998). Bullen analyzed how students participated and why they were involved in education and online learning communities. Bullen found early on that faculty-initiated engagement, such as weekly video announcements, virtual office hours, etc., impacted the degree of students' participation. The more engaged the online faculty became, the more engaged the students were in that online class.

***What are the outcomes associated with student engagement in an online course?***

**Learning and Academic Achievement.** Engagement is an intrinsic part of learning (Wenger, 1998); thus, student engagement is a primary component of an effective online teaching program (Dixson, 2010). According to Dixson's (2010) research, online learning outcomes are improved through two types of interaction: 1) interpersonal interaction, and 2) interaction with content. This, therefore, means that social learning is a critical component of online learning for students to maximize the benefits of online instruction. Previous research has shown that engagement between online classmates and faculty has a positive effect on college students' perceived learning and academic success (Hrastinski, 2008). Moreover, learner achievement critically depends on learner engagement (Oncu, 2011). According to a study by Davies and Graff (2005), college students who failed in one or more modules in an online course interacted less frequently than students who achieved passing grades, negatively impacting both actual and perceived measures of engagement.

Michael Beaudoin (2001) examined the relationship between student engagement and learning in an online master's degree program offered jointly by the University of Maryland and Oldenburg University in fall 2000. Techniques to encourage social presence and a sense of community were used throughout the course. During the semester, Beaudoin divided his online class into three groups: 1) "high presence," meaning logging more than 1,000 words, 2) "low presence," meaning low frequency of logging on, and 3) "no presence," meaning no log-on in the online course (Beaudoin, 2001). It should be noted that this study did not consider age, gender, native language, or

whether or not this was the respondents' first online course experience. The study found that the mean grades were better for the high-presence students than the low-presence students. As expected, students increased in both the quantity and quality of teacher-student interaction and student-content interaction, and therefore improved student learning outcomes in Beaudoin's online learning environment (Beaudoin, 2001).

Dixson (2010) argued that online courses could be more effective than face-to-face courses as far as students learning from each other. Several researchers have indicated that this potential may be realized through active learning strategies. Such strategies include group discussions and other types of student-student interactions. Among the studies supporting the efficacy of active learning strategies is that of Gayton and McEwen (2007), who found that rapport and collaboration between learners through thought-provoking questions and dynamic interactions were among the most effective instructional models identified by students and instructors. The greater the percentage of the course grade that was based on engagement in the form of discussion, the more satisfied the students were and the more they thought they had learned as a result from the interaction they had had with the instructor and peers (Picciano, 2002). Therefore, students can further develop a commitment to their program and engage in peer-supported communities on matters of their academics (Selwyn, 2009).

In their analysis of 164 studies of cooperative online learning, which included 194 independent effect sizes on academic achievement, Johnson et al. (2000) concluded that cooperation among the online learners had a significant positive impact on their achievement, measured in terms of grades, tests, quality of products, and quality of

performance. In another study that included 82 different measures of learning, the results concluded that the greater the interaction with peers, the more favorable the learning outcome (Astin, 1996).

Most researchers agree that knowledge does not merely exist in an individual's mind, but also in the discourse and interactions among individuals (Hrastinski, 2009). Social relationships tend to bind learners and their experience (Jonassen & Driscoll, 2004). A learner's online participation is dependent upon maintaining relationships with others in the course, which includes both the instructor and fellow students. Online engagement is supported by technological tools and is not synonymous with writing assignments. Participation and engagement are central to learning, and therefore, they are argued to be jointly constituting and inseparable (Hrastinski, 2009). Therefore, if instructors wish to enhance online learning, they need to increase their own presence, which will enhance the learners' online participation and, ultimately, their engagement.

**Course Completion.** The issue of course completion is of particular interest in online education since its inception. Unfortunately, data on course completion of students enrolled in online programs, particularly in comparison to their peers in face-to-face settings, are neither clear nor consistent (Meyer, 2014). However, several theoretical approaches have focused on the study of what generally impacts student success, and all concur that academic and social engagement are critical factors. Classic theories of student retention in face-to-face learning environments stressed the importance of student engagement. According to Vincent Tinto (1987), who proposed the Theory of Student Departure, students who are engaged more with faculty, classmates, and college

organizations will tend to stay enrolled and complete their degrees. When a student's social experience increases, so does the student's commitment to their education (Tinto, 1987). Similarly, Alexander Astin's (1984) Theory of Student Involvement premises that students who demonstrate high levels of psychological and behavioral investment in their academic experiences will be more likely to successfully complete their education.

Engagement is not, however, the only construct that is hypothesized to affect students' outcomes. To complicate matters, minimal inquiry or theorizing has focused on the unique experiences of online students and whether the factors that affect their academic success are different from their peers in face-to-face courses. Research is very limited, and universities are reluctant to publish course completion rates comparing their online students to those attending face-to-face courses on campus. It is becoming clear that engagement in online courses, fostered by teaching, social, and cognitive presence, is more important than it is in face-to-face courses. Online students have fewer opportunities to be engaged with the institution and less time to do so, with greater demands on their time and attention (Meyer, 2014). Therefore, engagement has to be an essential component of higher education online learning.

### **Theoretical Frameworks**

This study draws from three theoretical perspectives: Bandura's (1977) Social Learning theory, the Community of Inquiry framework proposed by Garrison et al. (2000), and the Constructivist School of Thought. In the section below, I summarize key ideas from each that most directly inform how I conceptualized my innovation and how I will approach studying its impact on student engagement and course completion.

## **Social Learning Theory**

Albert Bandura's (1977) social learning theory combines cognitive psychology and behaviorism to describe the learning process in individuals. The theory is based on the idea that we learn from interactions with others in social contexts. According to Bandura, a social context is an environment where students learn from instructors and from each other, through observation, reproduction, and motivation.

Bandura posits that individuals are proactive, self-regulating, organized, and more responsible for their circumstances than they are products of them (Bandura, 1977). Similarly, online learning requires faculty to have a more proactive, self-regulating, and organized approach to their online classroom, thus setting the tone for success. Therefore, online learning faculty are responsible for creating an environment where students can observe faculty reinforcing course objectives, while producing assignments that continue to motivate learning. These efforts are implemented with the goal of positively impacting engagement and successful course completion.

Social learning theory emphasizes that an individual's active involvement in constructing knowledge is based on interpersonal interactions; therefore, learning is a social process where individuals interact with peers. Observations and interactions, in this case, refer to learning from each other by exchanging knowledge and achieving shared understandings, as well as from situations reinforcing cultural values, norms, and policies (Alavi, 2005). The learning benefits of interacting with others include spending extra time integrating and synthesizing concepts and ideas, cultivating critical and active thinking skills, and promotion of problem solving (Alavi, 1994).



Research has been increasingly inspired by social perspectives on learning (Saljo, 2000). Such theories indicate that learning is dialogical, including both social and internal negotiation of meaning (Jonassen & Driscoll, 2004). As opposed to being solely based on experience with the physical world, the construction of understanding and knowledge is seen as a fundamentally social phenomenon (Littleton & Häkkinen, 1999). While there are different perspectives on this process, most theories share a focus on participation as a condition necessary for learning (Jaldemark et al., 2006).

Sociocultural schools of thought share the concept that learners' construction of meaning is mediated by cultural, social, and historical aspects of their world (Hall, 2007). Learners develop new knowledge through social relationships and interactions within their social contexts, while recognizing the value of others during the learning process. Social learning theory proposes that the meaningful construction of knowledge occurs when a learner interacts with other learners to address relevant problems or goals (Hall, 2007). Sociocultural theories tend to place the social environment at the very epicenter of learning, and without social interactions, the "development of the mind is impossible" (Cole & Wertsch, 2001, p. 4). In an online course, faculty typically are responsible for the participation that takes place by personally engaging students on a regular basis through virtual means.

### **Community of Inquiry**

An important component of engagement in an online course involves participation among other members of the class. Garrison et al. (2000) created the Community of Inquiry (CoI) Framework to investigate and enhance online education. The CoI

Framework is based on constructivist learning theory that emphasizes how individuals make sense of their experiences (Garrison & Vaughan, 2008). According to CoI, individuals benefit from a collaborative process that includes others in the construction of knowledge where each learner brings something unique to the process (Garrison & Vaughan, 2008). The process encourages students to explore and question the meaning of the subject matter in a collaborative way. The CoI participants must feel comfortable enough to interact honestly and openly (Garrison & Vaughan, 2008). The CoI consists of three constructs: teaching presence, social presence, and cognitive presence that are interdependent and supportive of each other during an educational experience (Garrison & Vaughan, 2008).

Teaching presence is shaped by the design of the course and by the facilitation of the discourse (Garrison et al., 2000). Teaching presence is what drives social presence and ultimately impacts cognitive presence by supporting every aspect of the CoI. Social presence is considered the ability of participants to interact productively with each other (Garrison et al., 2000). According to Garrison and Vaughan (2008), the subcategories of social presence are open communication, group cohesion, and effective/personal connections. Facilitating open communication as the first level of social presence to promote group cohesion and collaborative learning will lead to effective and personal connections and presumably higher quality learning. Online classrooms were initially considered too one dimensional to facilitate such social presence; however, as technology continues to advance, so do the many dimensions of online learning that can support social presence. Cognitive presence is associated with learning experiences that begin

with a triggering event, leading to perception, deliberation, conception, and action (Garrison et al., 2000). The experience impacts the process of inquiry and ultimately the CoI, where understanding and gaining knowledge is the objective.

### **Constructivism**

During the beginning of the 1990s, constructivist theories on learning gained popularity (Saljo, 2000). These theories maintained that there is no correct meaning of the world that we are striving to understand. It is argued instead that there are numerous ways to understand the world, and there are many perspectives associated with any event or concept (Jonassen & Driscoll, 2004). Constructivist models hold the assumption that the main objective of instructors is to support learners in making meaning from experiences as opposed to transferring knowledge from the instructors to the learners (Saljo, 2000). Constructivist theories have therefore moved away from knowledge transmission models of pedagogy to more active learner-centered models. Constructivism has commonly considered the learner as an individual who learns based on the construction of knowledge through interaction with peers (Edelson et al., 1996).

The majority of recent research on online learning is inspired by social learning and constructivist theories (Dixson, 2010). It is often argued that the constructivist and social learning perspectives are complementary and that the two types of theories inform each other. As a result, scholars have questioned the need to choose between social learning perspectives and constructivist theories (Cobb, 1994). They argued that the socio-cultural perspective informs theories of the conditions for learning, as opposed to

theories developed from the constructivist perspective that focus on what students learn and the processes by which they do so.

The most popular learning design used today is based on a socio-constructivist view of learning and teaching (Hall, 2007). This approach is primarily a constructivist approach that conceptualizes learning as a private process within an individual; however, it includes aspects of sociocultural theories in recognition of the value of others in the learning process. As an extension of the constructivist view, socio-constructivism proposes that the meaningful construction of knowledge occurs when a learner interacts with other learners (Hall, 2007). As Vygotsky points out, knowledge construction is based on previous knowledge and interaction with the social environment (Hall, 2007).

Sociocultural theories tend to place the social environment at the very epicenter of learning, and without others, the “development of the mind is impossible” (Cole & Wertsch, 2001, p 4). Vygotsky proposed that learning is mediated and that experts use tools to mediate learning in the learning process (Hall, 2007). Cognitive development is therefore not a direct result of activity but rather indirect; other individuals must interact with the learner and use mediatory tools to facilitate the learning process (Hall, 2007). The tools are “psychological” in nature, and they are used to express thinking. While the tools include signs, language, texts, symbols, and mnemonic techniques, the most important socio-cultural tool is language, as it is used as a teaching tool and is vital in the development of higher psychological functions (Hall, 2007).

## **Implications**

As more courses in higher education shift to online formats, the major concern is the lack of engagement that students experience and its impact on course completion. The literature suggests that making efforts to establish a sense of community in an online course is among the most effective ways of engaging students and retaining them until graduation (Dixson, 2010). Community in this online sense refers to an environment that is enabled through the interaction and collaboration of the members using various mixed media methods and technologies (Dixon, 2010). The focus of this study will be live virtual office hours that will provide the foundation for building a sense of community. The idea is that virtual office hours will engage students through live communication, building a rapport, and impacting their successful completion of the course.

The previous literature and frameworks summarized in this chapter drive the innovation that is being implemented and serve as a framework for the study's research design. The review of the literature reveals that building relationships between students and instructors is an ideal way of facilitating a highly engaged classroom environment. Social learning theory provides a rationale for the intended outcome where students in my online classes will feel more connected to the curriculum, to me as the teacher, and to each other. Community of Inquiry outlines the necessary components—teaching presence, social presence, and cognitive presence—to facilitate a collaborative learning environment. Social constructivism emphasizes socialization as a necessary component of the learning process. Increasing teacher presence through synchronous, one-on-one interactions will serve as the foundation for fostering increased teacher/student

engagement. The intended result is that students will become more engaged and invested in the course and ultimately complete the course successfully.

The literature and theoretical foundation summarized in this chapter guided all previous cycles of action research. Previous assessment of quantitative and qualitative data through the different cycles has served as a foundation for innovative design and implementation. During the Dissertation Cycle of this project, quantitative and qualitative data will be collected and will provide the empirical data needed to assess the efficacy of the innovations that were implemented during the Dissertation Cycle of the action research project: live virtual office hours.

## Chapter 3

### METHODS

#### **Introduction**

Research has shown that students who feel more engaged with faculty and other students are less likely to withdraw from a course (Baker, 2016). Teacher presence is the foundation of engagement that takes place in an online learning environment. Faculty presence with online students has been a growing concern of mine within my own online courses. Throughout my research, students have said that they did not feel connected to their teacher and other classmates. Effective design, facilitation, and direction of social processes are the defining activities of teacher presence (Dixson, 2010). According to Dixson (2010), several researchers feel that social presence, especially on the part of faculty, is a necessary component of an effective online learning program. As a fully online student as well as a fully online faculty member, I have the unique experience of understanding the challenges of online learning from both perspectives.

#### **Setting**

Arizona State University is the largest public university in the United States, with 103,530 students enrolled in fall 2017. Of these, 31,702 (31%) were enrolled in fully online degree programs administered through EdPlus at the University's Skysong campus. Students seeking undergraduate degrees represented the majority of the fully online population ( $n=24,346$ ; 77%), and most of the online undergraduate students pursued their degrees part time ( $n=14,643$ ) rather than full time ( $n=9,703$ ). According to data reported by the National Center for Education Statistics, ASU's six-year graduation

rate for first-time full-time undergraduate students who initially enrolled in fall 2010 at its Tempe or Downtown campuses was 67%. However, the six-year graduation rate was only 20% for full-time undergraduates enrolled at the Skysong campus. Course completion rates for part-time students were not reported, but the retention rate from first to second year for part-time undergraduates at the Skysong campus was 42% compared to 68% of those enrolled full time.

The School of Criminology and Criminal Justice at ASU has 2,453 students, 25-plus tenure-track faculty, and 75-plus supporting faculty positions: professional practice/clinical professors, faculty associates, lecturers, and instructors. The School offers undergraduate, masters, and doctoral degrees, as well as several certificate programs. Currently, the School offers a Bachelor of Science and Master of Arts degrees online, allowing students from around the world to learn and engage collaboratively about many important criminal justice topics.

In spring 2020, there were 1,144 undergraduates and 200 graduate students enrolled in the online program. The online Bachelor of Science in Criminology and Criminal Justice provides online students with the same curriculum and quality of education offered in face-to-face courses. The online Master of Arts in Criminal Justice program is a professional degree designed to provide criminal justice agency professionals and scholars with coursework in criminology and the operation of the criminal justice system. The program also offers training in research methods and statistics, program planning and management, policy analysis, and program evaluation.



## **Role of the Researcher**

I was the sole researcher, and for the purposes of this action research dissertation study, I considered myself to be an insider since my action research was focused on my online courses. I gathered survey and interview data from my online courses to understand the impact of the innovations. I then assessed the data while relying on my committee to oversee my data analysis. Despite being an insider, I was relatively new to Arizona State University. Shortly after being hired, I began teaching fully online and therefore had not developed meaningful colleague relationships. As a result, it has been challenging to share my enthusiasm about the use of virtual technologies to increase teacher presence. However, through my action research, I am hoping to alleviate any barriers and encourage my colleagues to rely on virtual technologies to further engage their online students.

## **Research Design**

This study relied on an action research design which is a cyclical methodological research process that builds upon change. Action research offers a process by which current practice can be changed toward better practice (Mertler, 2014, p. 13). Over the course of the past three years, I conducted several cycles of research focused on an increase of teacher presence and its impact on student engagement and successful course completion in my online classes. From previous cycles of action research, I was able to determine how to proceed with my innovations. The evolution of innovations and outcomes fostered new ideas for future iterations of research.

For my Dissertation Cycle, I relied on a sequential explanatory mixed-methods action research approach. As noted by Creswell (2005), “in an explanatory mixed-methods design, the educator-researcher first collects quantitative data and then gathers additional qualitative data in order to help support, explain, or elaborate on the quantitative results” (as cited in Mertler, 2014, p. 104). The mixed-methods approach allowed for triangulation of the data collected through quantitative methods and qualitative means.

The quantitative portion of the study relied on a one-group pre-test–post-test design in which subjects were surveyed before and after the innovation in order to explore possible effects of the innovation. The innovation consisted of voluntary participation in online office hours offered once a week to students in my CRJ 305: Gender and Crime 15-week iCourse. I held virtual office hours every Wednesday afternoon through Zoom to discuss course material, career-related advice, internships, and other topics relevant to students who attended. I compared pre-survey and post-survey data to determine the potential impact of virtual office hours on student engagement and on successful course completion with a C or better.

Through its theoretical freedom, thematic analysis provides a highly flexible approach that can be modified for the needs of many studies, providing a rich and detailed, yet complex account of data (Braun & Clarke, 2006). For the qualitative portion of the study, I relied on a thematic analysis of interview data to explore student perspectives on the value of virtual office hours. I took field notes during virtual office hours to track when I met with a student, the duration of the meeting, and the general

topics of conversation. This information helped me describe the kinds of interactions that took place in these meetings. Once grades were submitted, I invited students who participated in virtual office hours to participate in an interview. Three students volunteered to participate in the interview process. I used interview questions as a guide (see Appendix G) but relied on a conversational approach during the interview to allow students to identify important aspects of the course that might not be captured by my questions.

### **Previous Cycles of Action Research**

#### ***Cycle 0***

The purpose of my Cycle 0 study was to conduct an initial reconnaissance to establish whether or not engagement and course completion were an issue for the Criminology and Criminal Justice online program. I conducted two interviews with two colleagues: Dr. Loftus, the School of Criminology and Criminal Justice Academic Program Manager, and Mr. Pratt, the Director of Online Support through the Office of Education Innovation for the Watts College of Public Service and Community Solutions. Both colleagues shared that faculty's ability to promote student engagement is the biggest concern facing the school's online program. Both specifically mentioned that "it is not the activity that generates the engagement of an assignment; it is faculty who foster a feeling of engagement that makes the difference."

#### ***Cycle 1***

During Cycle 1 of my action research, I worked with our program's advising staff and found that a high percentage of students withdrew from classes during the first week

of the semester. Upon review of the criminology online students who withdrew from the previous two semesters, I noted that approximately 44% withdrew during the first week of class, as opposed to the national average of 37% (Burnsed, 2010). I attempted to survey the students who withdrew from at least one course during the fall of 2016. I was able to contact nine students and found that seven out of the nine who withdrew complained that the disorganization of the online class deterred them from remaining enrolled. In the past, faculty were responsible for creating their courses independently. As a result, the uniformity of course organization became a serious concern. According to initial student feedback, a uniform course organizational scheme would reduce student stress when initially logging on to a course. The need to visually organize our Criminology and Criminal Justice online classes in a consistent way became the priority.

My department's administration developed a committee to design an online template for all Criminology and Criminal Justice online courses. The process of designing and implementing the template for all online courses in our department took several months to complete. Subsequently, withdrawal rates decreased during the first week of class to approximately 18%, as opposed to 44% who previously withdrew during the first week. My first innovation then became the course template that is now used in my online courses as well as all online Criminology and Criminal Justice courses moving forward.

### *Cycle 2*

I began to look at our students' perceptions of engagement with faculty and implemented my second innovation: the virtual introduction assignment. I developed a

pre-survey and post-survey with eight questions to measure students' perceptions of online classes and their level of engagement with their teacher and classmates. An overwhelming 77.42% strongly disagreed, disagreed, and slightly disagreed that they saw and heard from their teacher in their online class. The students' most common concerns were time management, one-on-one communication, class organization, asking questions, and lack of contact with faculty.

Considering the changes that had taken place during Cycles 1 and 2, namely the addition of a new online course template and the virtual introduction assignment, I concluded: 1) the newly organized nature of the online template reassured students early on in the semester, resulting in fewer withdrawals during the first week; and 2) based on my observations, students desired an organized course and more contact with faculty. Increased teaching presence then became my priority as a result of my Cycle 1 and Cycle 2 research findings.

### *Cycle 3*

During Cycle 3 of my action research, I implemented a third innovation—weekly video announcements—in my two iCourses: CRJ 305 and 306. I relied on the new course template, virtual introduction assignment, and weekly video announcements to increase teacher presence and student engagement, and to ultimately encourage course completion. I conducted a pre-survey and post-survey to further understand how the innovations impacted the students' perceptions of engagement. I looked at the correlation between the items to determine if there was an association between any variables. I found

correlations among items four, five, and six of the survey indicating a significant relationship between teacher presence and levels of engagement.

The responses related to teaching presence and engagement showed that participants felt their online instructor increased teacher presence by utilizing more engaging activities. More specifically, 32% strongly agreed and 47% agreed that the instructor used a virtual introduction assignment as an engaging activity. Participants further indicated that they felt more connected to their instructor and classmates as a result of the virtual introduction assignment. I concluded that 1) students considered the virtual introduction assignment to be more meaningful and engaging than the weekly video announcements, and 2) building personal relationships is the foundation of engagement.

Good teaching is predicated on the construction of caring relationships built on trust (Rolon-Dow, 2005, p. 196). It has become evident through this action research process and data analysis that teaching presence does positively impact students' feeling of engagement in their online classes. When students feel more engaged, they feel more connected, and they tend to be more committed to their academics. Faculty teaching online courses run the risk of never connecting with their students. By implementing effective engaging activities that foster relationships, students will feel more engaged, be more connected, and ultimately be more successful.

### **Dissertation Cycle**

For my Dissertation Cycle, my final innovation was weekly virtual office hours. I focused on how virtual office hours alone impacted engagement and successful course

completion of a C or better. I offered virtual office hours every Wednesday afternoon through Zoom in my CRJ 305 iCourse during the spring 2020 semester. Virtual office hours were held on a drop-in basis and multiple students could attend at the same time. I relied on the Zoom platform with video as well as audio tools for virtual office hours, and topics discussed included class assignment questions, research writing topics, career and academic advising, and similar student-initiated issues. The objective was to build rapport and foster relationships with students and between students, as well as to understand how these relationships impact engagement and successful course completion.

### **Participants**

During my Dissertation Cycle, I studied 60 students enrolled in my CRJ 305: Gender and Crime undergraduate course offered online in a 15-week format (iCourse) during the spring 2020 semester. From the 60 registered students, five students withdrew as follows: the first withdrawal was in the first week of class, the next two withdrawals were in the fourth and fifth week of class when virtual office hours were beginning, the fourth student withdrew in the 10<sup>th</sup> week of class and had been the first student to participate in virtual office hours, and the fifth student to withdraw was during the 14<sup>th</sup> week of the semester and had not participated in virtual office hours. From the 55 total students remaining after the withdrawals, 24 students participated in the pre-survey, 18 students participated in the post-survey, 15 students attended virtual office hours for a cumulative total of 24 times, and three students participated in the one-on-one interviews.

## **Data Collection Instruments**

Three primary sources of data were used to study my students' experiences with the innovation: survey instruments, field notes, and individual interviews.

### ***Survey Instruments***

Drawing from what I found in the previous cycles, as well as the literature review in Chapter 2, I developed a pre- and post-survey to assess students' feelings of engagement with faculty and classmates, before and after they had the opportunity to experience the innovation, virtual office hours. The overall construct on which the surveys were based was students' perception of the level of engagement in their online experience. The questionnaire included three sub-constructs—teaching presence, social presence, and cognitive presence—as well as questions about course completion. Garrison's (2000) research regarding online instruction influenced the first three sub-constructs, and I developed each item. The first construct, teaching presence, referred to a teacher's level of engagement in the online course. The second construct, social presence, addressed the students' overall social relationships within the course. The third construct, cognitive presence, captured student perceptions of the cognitive dimensions of their learning that occurred as a result of teaching and social presence. The three constructs each were comprised of four items with a six-point Likert response scale with the options of 6 = *Strongly Agree*, 5 = *Agree*, 4 = *Slightly Agree*, 3 = *Slightly Disagree*, 2 = *Disagree*, and 1 = *Strongly Disagree*. The post-questionnaire included an additional three questions to further understand the students experience specifically with the virtual office hours innovation that was offered.



### ***Interviews***

To further understand the impact of the innovation and clarify the quantitative results, I conducted individual interviews. Once grades were submitted, I invited students who attended virtual office hours to voluntarily participate in one 30-minute recorded interview. I explained to the students that their responses would be used to support ongoing improvements in online learning and that they would remain anonymous in any reports of the findings. From the group of students who were contacted, four students responded and three were able to participate in an interview. I relied on a loosely structured interview format, using pre-determined questions but allowing for other questions or topics within the conversation. I conducted interviews virtually through Zoom and recorded the conversations. I transcribed each interview and analyzed the transcripts using an inductive process. More specifically, I followed the process of 1) becoming familiar with the data, 2) generating initial codes, 3) examining the entire set of codes and identifying common themes, 4) reviewing and revising the themes, and 5) creating definitions or focused descriptions of each theme (Braun & Clarke, 2006). The overall goal of a thematic analysis is to identify patterns in the data that are important or interesting and use these patterns or themes to address the research questions (Maguire & Delahunt, 2017).

### ***Field Notes***

During virtual office hours, I took field notes to document the experiences and conversations that transpired. I relied on my field notes to better understand students' perceptions of the course and their experiences. I asked students to share questions they

had about past and future course material, while leading them into conversations about future career goals.

### **Analytic Strategy**

As a reminder, this study attempted to answer two research questions associated with the problem of practice. Quantitative and qualitative data were analyzed to answer both research questions:

- RQ1: How do virtual office hours impact online students' engagement in my Criminology and Criminal Justice online classes?
- RQ2: How do virtual office hours impact online students' successful course completion with a C or better in my Criminology and Criminal Justice online classes?

#### ***RQ1 Quantitative Data***

The first research question focused on whether or not virtual office hours impacted online student engagement. The quantitative data that addressed this research question came from the pre-innovation survey and post-innovation survey administered through Qualtrics. I relied on SPSS to calculate descriptive statistics for both pre- and post-innovation survey data, ran a paired sample t-test to determine if there were significant differences in student perceptions before and after they participated in virtual office hours, calculated the *p*-value to determine statistical significance, and relied on Hedges' *g* to determine the practical significance.

#### ***RQ2 Quantitative Data***

The second research question guiding this study focused on how virtual office hours impacted students' successful course completion of a C or better. I examined the grades of students who participated in virtual office hours and responses to a question on the post-questionnaire that asked students how they were impacted by virtual office hours.

### ***RQ1 and RQ2 Qualitative Data***

For additional insights addressing RQ1 and RQ2, I used one-on-one interviews and field notes to assess students' perceived experiences during virtual office hours. Once grades were submitted, I invited the 15 virtual office hour participants to voluntarily participate in a short interview. From those 15, four students responded and three students were able to participate. I relied on Braun and Clarke's (2006) six-phase analytic framework as my guide for data analysis. I recorded and transcribed the interviews through Zoom and used an inductive analytic process. The interview data were organized, coded, analyzed, and interpreted to generate common themes. Finally, I compared my interview results to my quantitative data, while considering my field notes, to draw conclusions in response to my research questions.

### **Limitations and Threats to Validity**

Some researchers argue that the relationship between the independent variable and the dependent variable can be invalidated by history (Smith & Glass, 1987). In other words, specific events that are not part of the independent variable (virtual office hours) but occur during the same time period may contribute to changes in the dependent variable (level of engagement / course completion). As a result of my action research, my

Criminology and Criminal Justice online courses have gone through tremendous change. Considering the many changes, several confounding variables might have impacted the innovations and ultimately the outcomes.

Mortality is when those participants who complete the study may have different characteristics from those who have withdrawn, potentially threatening the internal validity (Smith & Glass, 1987). Considering that my problem of practice addressed course completion in my online classes, reaching those students who did not complete the course successfully would have been very telling yet was difficult to attain. Without the perspectives of students who did not complete the class successfully, my study may have lacked the needed information to fully understand why students were unsuccessful in my online classes.

My dependent variable was somewhat ambiguous in nature considering it relied on the student's perception of his/her level of engagement. Implementing engaging activities and then understanding the level of engagement students encounter was difficult to measure. Considering that I was measuring students' perception of their engagement, I had to clearly define what levels of engagement were desired. Additionally, relying on a pre-test–post-test intervention methodology posed the threat that survey participants may have learned something, or their perceptions may have changed merely from taking the pre-test.

### **Dissertation Timeline**

Data collection occurred during the spring 2020 semester in my CRJ 305 iCourse. I surveyed the students' pre- and post-innovation (virtual office hours) to understand their

experience and how it impacted their overall engagement and success. I then conducted follow-up interviews to inform my quantitative results (see Table 1).

Table 1  
*Detailed Schedule of Spring 2020 Innovation*

Timeframe	Action	Procedures
February 2020	Conducted a pre-survey using Qualtrics.	<ul style="list-style-type: none"> <li>Developed an electronic survey through an online survey tool (Qualtrics) and administered pre-innovation.</li> </ul>
March – April 2020	Implemented virtual office hours and required students to attend twice.	<ul style="list-style-type: none"> <li>Employed virtual technologies to increase teacher presence and impact student engagement.</li> </ul>
Late April 2020	Conducted a post-survey using Qualtrics. Analyzed survey results.	<ul style="list-style-type: none"> <li>Administered quantitative post-test survey.</li> <li>Conducted quantitative analysis.</li> </ul>
May 2020	Conducted qualitative interviews.	<ul style="list-style-type: none"> <li>Administered qualitative interviews.</li> <li>Conducted qualitative analysis.</li> </ul>
June 2020	Analyzed interview results. Assessed findings and finalized Chapters 4 and 5.	<ul style="list-style-type: none"> <li>Summarized findings for Chapter 4.</li> <li>Summarized the conclusions for Chapter 5.</li> </ul>

Despite increasing enrollment percentages from earlier years, online courses continue to show a decrease in students' successful course completion rates (Bawa, 2016). According to Bawa (2016), there is a 20% higher withdrawal rate in fully online programs when compared to traditional classes. Based on my experience, advocates of online learning continue to attempt to address successful course completion, while those opposed feel successful course completion is an inherent condition of online learning that

cannot be eradicated. My goal for my action research was to examine the impact of increasing teacher presence, through live virtual office hours, on student engagement and successful course completion.

In an effort to enhance the level of engagement between students and faculty in our online classes, the School of Criminology and Criminal Justice must consider how all online faculty can employ new techniques to engage online learners more effectively. We can no longer ignore the fact that there are students on the other side of our computers who need our guidance and inspiration in order to become successful learners and leaders. Through my action research cycles, we have discovered that as the Criminology and Criminal Justice online program continues to grow, so does the need for better visually organized classes and engaging innovative practices to truly improve students' learning experiences and promote their success.

## Chapter 4

### DATA ANALYSIS AND RESULTS

#### **Introducing the Analysis**

This study examined the impact of virtual office hours on student engagement and course completion in an online class. The study used a sequential explanatory mixed-methods action research approach that relied on quantitative pre- and post-questionnaires and qualitative field notes and follow-up interviews. The quantitative and qualitative results are outlined in the following chapter and organized around the following two research questions.

- RQ1: How do virtual office hours impact online students' engagement in a Criminology and Criminal Justice online class?
- RQ2: How do virtual office hours impact online students' successful course completion with a C or better in a Criminology and Criminal Justice online class?

For RQ1 quantitative statistics, I relied on SPSS to calculate 1) descriptive statistics for those items in the pre- and post-survey; 2) a paired sample t-test on each construct—teaching presence, social presence, and cognitive presence—to determine if there were significant differences in student perceptions before and after the virtual office hours innovation; 3) the *p*-value to determine statistical significance; and 4) Hedges' *g* to determine the effect size or practical significance. RQ2 focuses on how virtual office hours impacted students' successful course completion with a C or better. I relied on final grades for students who participated in virtual office hours and a self-reporting question on the post-questionnaire that asks students how they were impacted by virtual office

hours. Finally, I conclude my discussion of each research question with qualitative findings derived from interviews and field notes to better inform my quantitative results.

### **Participants**

Based on the information I collected from the pre- and post-surveys, I organized and reported all demographics. According to my results, of the 60 students in the course, 24 (40%) completed the pre-survey and 18 (30%) completed the post-survey. Of these respondents, only 10 (6%) completed both surveys. Of the 10 students who responded, nine were female, one was male, five participants were white, four were Hispanic or Latino, and one was African American. Of the 10 participants, nine were full-time students between the ages of 18 to 24 and had taken an online class before. The remaining one student was part time, had not taken an online class before, and was between the ages of 25 to 29.

### **Impact of Virtual Office Hours on Engagement**

#### ***Research Question 1 Quantitative Results: How do virtual office hours impact online students' engagement in a Criminology and Criminal Justice online class?***

**Descriptive Statistics.** I relied on quantitative data collection procedures to address this research question by administering a pre- and post-intervention questionnaire. The questionnaire used a Likert scale where the scale for all items were 6 = *Strongly Agree*, 5 = *Agree*, 4 = *Slightly Agree*, 3 = *Slightly Disagree*, 2 = *Disagree*, and 1 = *Strongly Disagree*. I used Qualtrics to distribute the questionnaire and collect responses. Once all responses were collected, I downloaded and cleaned the data using Excel. I removed all the unnecessary columns related to students' personal information



and columns not relative to the research. I then processed descriptive data (means and standard deviations) using IBM Statistical Package for the Social Science software (IBM SPSS Statistics 26) for each item and construct on the pre- and post-questionnaire for the 10 respondents (see Table 2). Descriptive statistics are used to summarize information about variables in a sample or population, as you will see in below (Kaur et al., 2018).

Table 2

*Descriptive Statistics for Pre- and Post-Online Learning Questionnaire; Constructs and Items*

Constructs and Items	Pre-Score		Post-Score	
	M	SD	M	SD
<b>Teaching Presence</b>				
1.1 The instructor keeps course material well organized	5.90	0.32	5.80	0.42
1.2 The instructor clearly communicates course objectives	5.83	0.42	5.70	0.48
1.3 The instructor uses virtual technologies to keep students engaged	5.40	0.52	5.60	0.70
1.4 The instructor provided feedback in a timely manner	5.40	0.52	5.30	1.25
Mean Average	5.60	0.45	5.60	0.71
<b>Social Presence</b>				
2.1 I felt comfortable conversing with other students in the course	5.00	0.82	5.00	0.94
2.2 I felt the assignments fostered a personal connection between students	4.70	0.82	4.50	1.51
2.3 I was able to form relationships with some course participants	4.20	1.61	4.20	1.75
2.4 Developing relationships gave me a sense of belonging	4.20	1.22	4.00	1.49
Mean Average	4.52	1.11	4.40	1.42
<b>Cognitive Presence</b>				
3.1 I felt motivated to explore content related questions	4.80	0.79	5.00	0.94
3.2 Assignments fostered a deeper understanding of the course material	5.30	0.67	5.20	1.23

3.3 My relationships in the course helped me understand fundamental concepts in this course	4.30	0.95	4.20	1.93
3.4 I have a deeper understanding of the main course topics because I feel more connected to the course	4.80	1.03	4.90	1.66
Mean Average	4.80	0.86	4.80	1.44

*Note.* The scale for all items in the table is 1 = Strongly Disagree, 2 = Disagree, 3 = Slightly Disagree, 4 = Slightly Agree, 5 = Agree, 6 = Strongly Agree.

After analyzing and comparing the means and standard deviation, I found that, under the construct of teaching presence, participants were in general agreement that the instructor typically was well organized, communicated course objectives, provided timely feedback, and used virtual office hours to keep students engaged. Overall, the pre-intervention mean of 5.6 ( $SD=0.45$ ) was consistent with the post-intervention with a slight increase in the standard deviation. For the construct of social presence, overall participants experienced a slight decrease in social presence where the mean decreased from a 4.52 ( $SD=1.11$ ) to 4.40 ( $SD=1.42$ ). More specifically, it appears that there really was not that much change between pre and post scores indicating virtual office hours did not necessarily have an effect on students' social presence aspect of engagement. Lastly, the final construct—cognitive presence—also had similar outcomes pre- and post-intervention, implying that virtual office hours did not have an effect on the students' cognitive presence.

Once I completed analyzing the descriptive data of the 10 participants' pre- and post- intervention responses, I found through Question #3 on the post-survey that five students had attended virtual office hours and five did not attend virtual office hours. I

then analyzed the mean and standard deviation for each construct of those who attended virtual hours to those participants who did not attend (see Table 3).

Table 3

*Mean Scores on Constructs for Students who Attended and did not Attend Virtual Office Hours*

Constructs	Attended				Not Attended			
	Pre-Score		Post-Score		Pre-Score		Post-Score	
	M	SD	M	SD	M	SD	M	SD
Teaching Presence	5.65	0.38	5.85	0.33	5.60	0.49	5.35	0.90
Social Presence	4.55	0.85	4.85	1.35	4.52	1.41	3.85	1.70
Cognitive Presence	4.60	0.65	5.45	0.76	4.80	1.02	4.20	1.70

*Note.* The scale for all items in the table is 1 = Strongly Disagree, 2 = Disagree, 3 = Slightly Disagree, 4 = Slightly Agree, 5 = Agree, 6 = Strongly Agree.

Prior to the innovation, the two groups had similar pre-score means for all three constructs. For those students who attended virtual office hours, overall mean scores increased for each construct, while overall mean scores decreased for those students who did not attend virtual office hours, indicating that virtual office hours possibly did have an impact on those who attended. Most notably, cognitive presence increased from a mean of 4.60 ( $SD=0.65$ ) pre-survey to 5.45 ( $SD=0.76$ ) post-survey, suggesting that virtual office hours had an overall impact on the students' cognitive presence.

I then decided to take a closer look at each construct to see if any other noticeable differences existed among the items. In Table 4 below, it is shown that the pre- and post-scores for those students who did attend did not change very much for each item. There was a slight increase in Item 3 and 4; however, it was very slight. Conversely, a slight

decrease is seen in three out of the four items for those students who did not attend virtual office hours.

Table 4

*Descriptive Statistics Pre- and Post-Online Learning Questionnaire for Students who Attended and did not Attend Virtual Office Hours; Specific Items Teaching Presence Construct*

Items	Attended				Not Attended			
	Pre-Score		Post-Score		Pre-Score		Post-Score	
	M	SD	M	SD	M	SD	M	SD
Item 1.1 The teacher keeps course material well organized.	6.00	0.00	6.00	0.00	5.80	0.44	5.60	0.54
Item 1.2 The teacher clearly communicates course objectives.	5.80	0.44	5.80	0.44	5.80	0.44	5.60	0.54
Item 1.3 The teacher uses uses virtual technologies.	5.40	0.54	5.80	0.44	5.40	0.54	5.40	0.89
Item 1.4 Teacher provides feedback in a timely manner.	5.40	0.54	5.80	0.44	5.40	0.54	4.80	1.64

*Note.* The scale for all items in the table is 1 = Strongly Disagree, 2 = Disagree, 3 = Slightly Disagree, 4 = Slightly Agree, 5 = Agree, 6 = Strongly Agree.

After a thorough assessment of the data, I concluded that the lack of virtual office hours might have negatively impacted those students who did not attend. I could assume that if they did attend virtual office hours, they would have had more positive post responses.

Upon taking a closer look at the social presence construct, I found that there was a slight increase for three out of the four items for those who attended and a decrease in all four items for those students who did not attend. Additionally, students who attended virtual office hours had pre- and post-responses that fell somewhere between “Slightly Agree” and “Agree” with a post-mean of 4.40 ( $SD=1.78$ ) that they were able to form relationships with course participants. In contrast, those students who did not participate in virtual office hours slightly disagreed with a post-questionnaire mean of 3.20 ( $SD=2.04$ ) that they were able to form relationships with course participants. Despite the variance of both groups’ responses, overall, those students who did not participate in virtual office hours felt as though they were not able to form relationships in the online class (see Table 5).

Table 5

*Descriptive Statistics Pre- and Post-Online Learning Questionnaire for Students who Attended and did not Attend Virtual Office Hours; Specific Items Social Presence Construct*

Items	Attended				Not Attended			
	Pre-Score		Post-Score		Pre-Score		Post-Score	
	M	SD	M	SD	M	SD	M	SD
Item 2.1 I felt comfortable conversing with other students in the course.	4.80	0.44	5.20	0.83	5.20	1.09	4.80	1.09
Item 2.2 I felt the assignments fostered a personal connection between students.	4.60	0.54	5.00	1.00	4.80	1.09	4.00	1.87
Item 2.3 I was able to	4.40	1.51	4.40	1.78	4.00	1.87	3.20	2.04

form relationships.

Item 2.4									
Developing relationships gave me a sense of belonging.	4.40	0.89	4.80	1.78	4.00	1.58	3.40	1.81	

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*Note.* The scale for all items in the table is 1 = Strongly Disagree, 2 = Disagree, 3 = Slightly Disagree, 4 = Slightly Agree, 5 = Agree, 6 = Strongly Agree.

Finally, those who participated in virtual office hours agreed with a post-mean of 4.80 ( $SD=1.78$ ) that the relationships formed gave them a sense of belonging. In contrast, those students who did not participate in virtual office hours initially slightly agreed that the relationships formed provided a sense of belonging with a pre-questionnaire mean of 4.00 ( $SD=1.58$ ) and then slightly disagreed at the end of the semester that the relationships developed, or lack thereof, gave them a sense of belonging with a mean of 3.40 ( $SD=1.81$ ).

Finally, I decided to take a closer look at the cognitive presence items since this is where I found the greatest change in perceptions (see Table 6).

Table 6

*Descriptive Statistics Pre- and Post-Online Learning Questionnaire for Those Students who Attended and did not Attend Virtual Office Hours; Specific Items Cognitive Presence Construct*

Items	Attended				Not Attended			
	Pre-Score		Post-Score		Pre-Score		Post-Score	
	M	SD	M	SD	M	SD	M	SD
Item 3.1								
I felt motivated to explore content related questions.	4.60	0.54	5.40	0.89	5.00	1.0	4.60	0.89
Item 3.2								
Assignments	5.00	0.70	5.80	0.44	5.60	0.54	4.60	1.51

fostered a deeper understanding of course material.

Item 3.3

My relationships in the course helped me understand fundamental concepts in this course.	4.20	0.83	4.80	1.30	4.40	1.14	3.61	2.40
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Item 3.4

I have a deeper understanding of the main course topics because I feel more connected to the course.	4.60	0.54	5.80	0.44	5.00	1.41	4.00	2.00
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*Note.* The scale for all items in the table is 1 = Strongly Disagree, 2 = Disagree, 3 = Slightly Disagree, 4 = Slightly Agree, 5 = Agree, 6 = Strongly Agree.

For cognitive presence, overall students slightly agreed to agreed that they felt motivated to explore content related to questions, assignments fostered a deeper understanding of the course material, and that they had a deeper understanding of the course topics because they felt more connected to the course. However, those students who attended virtual office hours agreed that they felt that their relationships in the course helped them understand fundamental concepts (Item 3.3) with a post-questionnaire mean of 4.80 ( $SD=1.30$ ). In contrast, those students who did not attend virtual office hours slightly disagreed with a mean of 3.61 ( $SD = 2.40$ ) that their relationships in the course helped them understand fundamental concepts.

**Paired sample t-tests for each construct for all participants.** In order to determine whether or not my innovation had a statistically significant impact on student engagement, I relied on a paired sample t-test to compare the means of each construct

pre- and post-innovation through the use of a questionnaire for all 10 participants as shown in Table 7 below.

Table 7

*Paired T-test for Each Construct for all Participants*

Constructs	Pre-Score		Post-Score		t	p
	M	SD	M	SD		
Teaching Presence	5.62	0.26	5.60	0.22	0.33	.761
Social Presence	4.52	0.39	4.42	0.43	1.73	.182
Cognitive Presence	4.80	0.40	4.82	0.43	-0.33	.761

According to the paired sample t-test results for all participants, the teaching presence construct results of  $t(3)=0.33, p=.761$  indicated no evidence of statistical significance between the pre-questionnaire ( $M=5.62, SD=0.26$ ) and post-questionnaire ( $M=5.60, SD=0.22$ ) with a  $p$  value of greater than 0.05. Therefore, the results of this t-test indicate that there is not enough evidence to suggest a significant change in teaching presence as a result of the intervention.

The social presence construct yielded similar results with a paired sample t-test result of  $t(3)=-1.73, p=.182$  indicating no evidence of statistical significance between the pre-questionnaire scores ( $M=4.52, SD=0.34$ ) and post-questionnaire scores ( $M=4.42, SD=0.43$ ) with a  $p$  value of greater than 0.05. The results of this t-test indicated that there is not enough evidence to suggest a significant change in social presence as a result of the intervention.



In the final construct, cognitive presence, again the paired sample t-test results of  $t(3)=-0.33, p=.761$  indicating no evidence of statistical significance between the pre-questionnaire scores ( $M=4.80, SD=0.40$ ) and post-questionnaire scores ( $M=4.82, SD=0.43$ ) with a  $p$  value of greater than 0.05. Therefore, the results of this t-test also indicate that there is not enough evidence to suggest a significant change in mean scores for the cognitive presence construct as a result of the intervention.

**Paired sample t-tests for each construct for those who did attend virtual office hours.** I then took a closer look at the significance of the impact of the intervention on each construct for those students who did attend virtual office hours. I conducted a second paired sample t-test to compare the means of each construct pre- and post-intervention in Table 8 below.

Table 8

*Paired T-test for Each Construct for Those who Participated in Virtual Office Hours*

Constructs	Pre-Score		Post-Score		t	p
	M	SD	M	SD		
Teaching Presence	5.65	0.30	5.85	0.10	-1.73	.182
Social Presence	4.55	0.19	4.85	0.34	-3.00	.058
Cognitive Presence	4.60	0.33	5.45	0.47	-6.75	.007

Upon analysis, I found that the paired sample t-test results of  $t(3)=-1.73, p=.182$  indicated no evidence of statistical significance between the pre-questionnaire scores ( $M=5.65, SD=0.30$ ) and post-survey scores ( $M=5.85, SD=0.10$ ) for the teaching presence construct with a  $p$  value of greater than 0.05. Therefore, the results of this t-test indicate

that there is not enough evidence to suggest a significant change in teaching presence as a result of the intervention.

The social presence construct paired sample t-test results of  $t(3)=-0.300, p=.058$  indicated that there was not enough evidence to indicate that there was a significant difference between the pre-survey scores ( $M=4.55, SD=0.19$ ) and post-survey scores ( $M=4.85, SD=0.34$ ). Additionally, considering the  $p$  value of .058 for the social presence construct, there is not enough evidence to assume that pre- and post-scores are significant. Consequently, the results of this t-test indicate that there is not enough evidence to suggest a significant change in social presence as a result of the intervention.

In contrast, the cognitive presence construct paired sample t-test results indicated strong evidence with a t-test results of  $t(3)=-6.75, p=.007$  that there was a significant difference between the pre-survey ( $M=4.60, SD=0.32$ ) and post-survey ( $M=5.45, SD=0.47$ ) as a result of the intervention. With a  $p$  value of less than 0.05, I concluded that the change in results from the pre- and post-scores were significant and may be a result of the intervention.

**Paired sample t-tests for each construct for those who did not attend virtual office hours.** In order to determine whether or not my innovation had a statistically significant impact on engagement, I relied on a paired sample t-test to compare the means of each construct pre- and post-intervention for those students who did not attend virtual office hours (see Table 9).

Table 9

*Paired T-test for Each Construct for Those who did not Participate in Virtual Office Hours*

Constructs	Pre-Score		Post-Score		t	p
	M	SD	M	SD		
Teaching Presence	5.60	0.23	5.35	0.37	1.99	.141
Social Presence	4.50	0.60	3.85	0.72	6.78	.070
Cognitive Presence	5.00	0.49	4.20	0.49	5.65	.011

During my final analysis of the paired sample t-test, results of  $t(3)=1.99, p=.141$  indicated no evidence of statistical significance between the pre-questionnaire scores ( $M=5.60, SD=0.23$ ) and post-survey scores ( $M=5.35, SD=0.37$ ) for the teaching presence construct with a  $p$  value of greater than 0.05. Therefore, the results of this t-test indicate that there is not enough evidence to suggest a significant change in teaching presence as a result of the intervention for those students who did not attend virtual office hours.

The social presence construct had similar results with the paired sample t-test results of  $t(3)=-6.78, p=.070$  indicating that there was not a significant change in the mean pre-questionnaire scores ( $M=3.60, SD=0.56$ ) and post-questionnaire scores ( $M=3.85, SD=0.72$ ). Consequently, considering the  $p$  value of .070 for the social presence construct, there is not enough evidence to assume that pre- and post-scores are significant and therefore find no significant change.

In contrast, once again, the cognitive presence construct paired sample t-test results of  $t(3)= 5.65, p=.011$  indicated that there was a significant difference between the pre-questionnaire scores ( $M=5.00, SD=0.49$ ) and post-questionnaire scores ( $M=4.20,$

$SD=0.49$ ), considering the  $p$  value of less than 0.05. Considering the overall mean score decreased from  $M=5.00$  to  $M=4.20$ , I concluded that those students who did not participate in virtual office hours were negatively impacted.

**Hedges’  $g$  for each construct for those who attended virtual office hours.**

Considering the small sample size, it is difficult to interpret statistical significance. According to Deziel (2020), when results are based on small sample sizes, the research may have less conclusive results, and whether or not this is an important issue depends ultimately on the size of the effect. In order to determine practical significance and the magnitude of the effect, I relied on Hedges’  $g$  to determine the practical significance of the intervention for those students who did attend virtual office hours, as shown in Table 10 below. Hedges’  $g$  suggests that  $d=0.2$  be considered a “small” effect size,  $d=0.5$  represents a “medium” effect size, and  $d=0.8$  a “large” effect size (Cohen, 1988).

Table 10

*Hedges’  $g$  for each Construct for Those who Participated in Virtual Office Hours*

Constructs	Pre-Score		Post-Score		t	Hedges’ $g$
	M	SD	M	SD		
Teaching Presence	5.65	0.30	5.85	0.10	-1.73	0.80
Social Presence	4.55	0.19	4.85	0.34	-0.300	0.98
Cognitive Presence	4.60	0.32	5.45	0.47	-6.755	1.90

According to my results, all three constructs had a large effect size post-intervention implying that virtual office hours possibly had a sizeable impact on students’ teaching presence, social presence, and cognitive presence. Cognitive presence had the largest effect size with a *Hedges’  $g$* =1.90, coinciding with previous results that virtual

office hours had the largest impact on participants' cognitive presence. However, it is important to note that my sample size was small, making it difficult to draw strong conclusions about the size of the effect, since it can be influenced by the variation within groups.

***Research Question 1 Qualitative Results: How do virtual office hours impact online students' engagement in a Criminology and Criminal Justice online class?***

**Qualitative Interviews.** I invited the 15 virtual office hour participants to participate in my post-survey follow-up interview (see Appendix G). Initially, four students volunteered to participate, however, three were actually able to participate. Interviewee 1 attended virtual office hours three times over the course of the semester to discuss graduate programs and his future in the Air Force, and ultimately finished class with a 95/A. Interviewee 2 also attended virtual office hours three times to discuss assignments, law school options, share that she met another student on campus, and to interview me for a class project, ultimately receiving an 93/A-. Finally, Interviewee 3 participated in virtual office hours once to discuss her research paper and my study abroad program.

Interviews were approximately 30 minutes long and were recorded and transcribed through Zoom. I used an inductive thematic analysis to further understand my qualitative results in an attempt to shed more light on the quantitative results and answer both of my research questions. According to Braun and Clarke (2006), thematic analysis is a method for identifying, analyzing, organizing, describing, and reporting themes found within a data set.

After familiarizing myself with the transcriptions, I identified 23 preliminary codes in order to categorize my content. I clustered the codes into four themes related to virtual office hours and their impact on engagement in the online course. These four major themes were “visualization,” “personalization,” “comfort,” and “relationship,” and they can be found below in Table 11, along with theme-related components and assertions.

Table 11

*Themes, Theme-Related Components, and Assertions from Interviews*

Themes	Theme-Related Components	Assertions
Visualization	Face-to-Face Communication Fast Visual Feedback Real People Experience Engaging	The face-to-face communication students experienced during virtual office hours was more engaging than other online experiences.
Personalization	Facial Expressions Put a Face to a Name Hear Tones in Voices Understand Personalities	Virtual office hours allowed students to develop a more multidimensional awareness of other students and the instructor.
Comfort	Comfortable not Embarrassed Seek Clarification Easier Encouraged to Engage Became Easier to Use	Virtual office hours became an easily accessible comfortable space for students to seek clarification.
Relationships	Way to Engage with Others Became Familiar Relate with Others Felt Connected Able to Build Relationships Showed Teacher Cares	Virtual office hours became a familiar way to engage the instructor and other students, where students felt more connected and relationships formed.

**Visualization.** Assertion 1: *Face-to-face communication allowed for fast visual feedback with real people experience that was more engaging than other online experiences.*

The theme-related components that led to this assertion were (a) face-to-face communication, (b) fast visual feedback, (c) real people experience, and (d) engaging. The “visualization” theme illustrated the affinity the students found when participants could visually see each other. The aspect of visualization was a key component of the connections made. Interviewee 1 said that the virtual office hours “made me feel more engaged because I get one-on-one with the professor, not like other online classes.” While Interviewee 2 explained how virtual office hours made her realize, “Oh, these are real people and I engage better with people, I’m a communication major.” Interviewee 2 went on to explain that she enjoyed virtual office hours because she was “able to approach the professor and ask questions in real time which was the same experience as being in class or in person.”

The experience of virtual office hours fostered a more engaging experience, which allowed students to have a deeper connection to the material. As Interviewee 1 explained, attending virtual office hours allowed him to “get deeper into a specific subject that we learned in class.” While Interviewee 2 said, “It kind of made the course more engaging in the way that it wasn’t the same every week and showed me that the teacher was engaged.” Interviewee 3 added, “Virtual meetings encouraged me to engage with my instructor and get more insight about the assignments.” For these three students,

as the visualization increased between instructor and students, the learning experience became more engaging as a result of the visual components of virtual office hours.

**Personalization.** Assertion 2: *Virtual office hours allowed students to see facial expressions, put a face to a name, hear tones of voice, and understand personalities.*

The theme-related components that contributed to this assertion were (a) facial expressions, (b) put a face to a name, (c) hear tones of voice, and (d) understand personalities. The “personalization” theme subtly surfaced as an important aspect of virtual office hours, according to the interviewees. Interviewee 1 explained, “In virtual office hours, you’re able to hear each other’s tone and see each other’s facial expressions and get a feel for each other personally.” Unfortunately, personalization is an unfamiliar component of online learning, and as Interviewee 1 explained, “In virtual office hours, you’re able to not only hear the tone in the instructor’s voice but also see facial expressions.”

Personalization is when the instructor reveals aspects of their personality that the students can understand and students respond by sharing aspects of their personality. As Interviewee 2 explained, “I was able to put a face to a name and start to understand better what they were saying in other assignments.” Interviewee 3 added that virtual office hours gave her “insight about how I could better understand the teacher and others who attended.” The live aspect of virtual office hours allowed these students to get to know each other, and the instructor, in a more personal and intimate way. For instructors, personalization then can become the beginning of forming a relationship with our online students.



**Comfort.** Assertion 3: *Virtual office hours became a comfortable space for students to engage and seek clarification. The more they used virtual office hours, the easier it became.*

The theme-related components that comprised this assertion were (a) comfortable not embarrassed, (b) seek clarification easier, (c) encouraged to engage, and (d) became easier to use. The “comfort” theme refers to the increase in self-assurance the participants’ felt once they attended virtual office hours. Ultimately, their increase in self-assurance led to an increase in comfort level, which led to them returning to virtual office hours to ask more questions. Interviewee 2 went on to explain, “I think virtual office hours lowers the barriers that we have in an online class and I felt more comfortable reaching out to the teacher once she knew me.” Interviewee 3 also “felt pretty comfortable using virtual office hours and because it was on an ongoing basis, I was more comfortable using it on an ongoing basis.”

As students became more comfortable using virtual office hours, they relied on it more than email as a way to seek clarification. Interviewee 1 explained that he was less stressed because “I knew virtual office hours would be available every week where I could easily log on and ask questions.” Interviewee 2 added, “I definitely felt more comfortable using office hours and that encouraged me to engage more in what I was learning.” As a result of feeling comfortable, the students who relied on virtual office hours seemed to have a more deeply engaging experience with the instructor and the material.

**Relationship.** Assertion 4: *Virtual office hours became a familiar way to engage and relate to others. Students felt more connected, were able to build relationships, and felt the instructor cared.*

The theme-related components associated with this assertion were (a) way to engage with others, (b) became familiar, (c) relate with others, (d) felt connected, (e) able to build relationships, and (f) showed teacher cares. The “relationship” theme summarizes the outcome of using virtual office hours, according to the interviewees. Interviewee 2 explained that virtual office hours “were a way for me to engage others in the class and feel more connected.” Interviewee 1 said, “I became familiar with other students in class and ran into some of them on campus that I knew.” Interviewee 3 shared, “By going to virtual office hours, I was able to relate to others better and feel more connected.”

Additionally, Interviewee 2 explained how virtual office hours is where “you get to talk to your professor and that showed me that my professor cares about my success.” Finally, Interviewee 3 added that she “learned more through virtual office hours and felt more engaged by going.” Building relationships with our online students is challenging just by the very nature of the modality. At least for some students, opportunities to interact in a synchronous video conference format helped reinforce the belief that their instructor wanted to provide support and, in addition, gave them opportunities to “meet” classmates similar to how they might see each other in a face-to-face class.

**Qualitative Field Notes.** According to Schwandt (2015), field notes are intended to add to an understanding of the culture, social situation, or phenomenon

being studied. I relied on field notes to gather mostly descriptive and reflective information during virtual office hours. My field notes outlined descriptive data, such as date and time of meetings and discussions topics that took place with the 15 students who participated. Among the 15 students, 10 students attended once, one student attended twice, and four students attended three times, spending on an average of 15 to 30 minutes in virtual office hours. I also included reflective information and anything unique about students, such as volunteer experience, interests, future goals, personality, etc. (see Table 12).

Table 12

*Field Notes During Virtual Office Hours*

<u>Participant / Date</u>	<u>Descriptive</u>	<u>Reflective</u>
Part 1	2/24 Struggling in class Essay #1 and #2 discussion First-generation college Homeless	Grateful for the contact Good comprehension Distracted Strength
	3/16 Still struggling Living in the dorm Wants to withdraw Plan to graduate on time	Grateful Sounds more settled Thoughtful Relieved
Part 2	2/25 Writing assign feedback Discussed flexible due dates Worried but doing really well	Respectful Concerned Dedicated
Part 3	3/4 Essay feedback Federal employment	Genuine Dedicated
	2/24 Essay feedback Honors program	Enthusiastic Consistency
	3/25 TEDTalk Superior Court internship Met Part 13*	Engaged Eager Engaged
Part 4	2/26 Essay feedback ROTC/Pilot slot pending	Respectful Determined

	3/25	Exam 2 question	Eager to learn
	4/15	Didn't get slot Discussed options	Disappointed Enthusiastic
Part 5	2/27	Essay feedback	Genuine
	4/10	Met student from class*	Engaged
	4/15	Wants to interview me	Fun and dedicated
Part 6	2/26	Essay feedback	Kind, friendly
Part 7	3/4	Essay feedback Internships Connected with Internship Office	Discouraged Not working out Excited
Part 8	3/11	Falling behind Essay #2, DP #2, Exam #2 Discussed a plan Caught up	Overwhelmed Concerned Grateful Finished with a B-
Part 9	3/18	Essay feedback Study abroad	Eager to learn Interested
Part 10	3/18	APA format	Respectful
Part 11	3/25	Essay feedback Met part #4*	Enthusiastic Engaged
Part 12	4/1	Feedback Concerned but doing really well	Humble Dedicated
Part 13	2/5	Study abroad	Interested
	3/25	Interview prep	Dedicated
	4/8	Grad school	Enthusiastic
Part 14	4/10	Falling behind Discussed a plan	Concerned Followed through
Part 15	4/15	Missing 3 assignments Discussed a plan	Overwhelmed Grateful = Grade = C

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*\*Those students who participated in virtual office hours and then met outside of class*

My field notes provided a record of events and reflection that was useful throughout the course. After reading through my field notes, I felt that the most memorable encounter was my first virtual office hours participant in CRJ 305. This particular student was struggling with a place to live the first month of class and the unstable nature of his situation contributed to his decision to withdraw. During his difficult decision and the withdrawal process, the student maintained contact and stated, “I am so grateful that you reached out and suggested virtual office hours. This has been so helpful during this difficult time”. Despite his unfortunate outcome with CRJ 305, our virtual office hour discussions kept him focused and encouraged him to do well in his remaining three classes. I was able to reach out to ASU support and provide options for stable housing. Most importantly, our discussions kept him on track for graduation. Technically, the fact that he withdrew from CRJ 305 would be considered a negative outcome; however, I would disagree.

Participants seemed to thoroughly enjoy virtual office hours and were able to recognize each other outside of class as a result. In fact, Participants 3, 5, and 11 intentionally attended virtual office hours to share with me that they had met students outside of class. Participant 3 said, “I have never recognized any of my classmates from my online classes before, that was so cool.” Virtual office hours made it possible for students to visually see each other, allowing for a unique personalization to happen that fostered relationships similar to one that would take place in a face-to-face class—the kind of relationship that is essential for teachers to truly impact their students in a way that facilitates engagement between all members of the group.

## The Impact of Virtual Office Hours on Successful Course Completion

*Research Question 2 Quantitative Results: How do virtual office hours impact online students' successful course completion with a C or better in a Criminology and Criminal Justice online class?*

**Successful Course Completion Outcomes.** In order to address Research Question 2, "How do virtual office hours impact online students' successful course completion with a C or better in a Criminology and Criminal Justice online class?" I summarized the responses of those students who attended virtual office hours to Survey Question 5; this question asked them to indicate how virtual office hours had affected their course engagement and achievement. The responses are presented in Table 13 below. Students could check yes to as many items as they deemed true for them.

Table 13

*Responses to Questions 5 on Post-Survey for Those Students who Attended Virtual Office Hours*

<u>Item</u>	<u>Yes n/%</u>
Improved my success on course assignments	5/100%
Helped me feel more connected to other students	1/20%
Helped me feel that the instructor cared about my success in the course	4/80%
Increased my engagement in the course	3/60%
Increased my chances of overall successful course completion	4/80%

According to student self-report, all participants felt as though virtual office hours improved their success on course assignments and 80% felt as though virtual office hours

increased their chances for overall successful course completion. While only one student felt more connected to other students during virtual office hours, 80% said that virtual office hours made them feel the instructor cared about their success in the course and 60% said that it increased their engagement overall in the course. As a result, virtual office hours provided an opportunity for all students to be engaged in a way that helped foster their success.

According to the overall grade point average, out of the 55 students who completed the course, 2 = A+, 9 = A, 8 = A-, 9 = B+, 8 = B, 6 = B-, 4 = C+, 7 = C, and 2 received an EU grade totaling 53 students who finished the course with a C or better. More specifically, students who attended virtual office hours ended the semester with a mean of 83.3%, while students who did not attend virtual office hours had a mean score of 82%. The implication is that virtual office hours did have an impact on students' overall success in the course for those students who attended.

***Research Question 2 Qualitative Results: How do virtual office hours impact online students' successful course completion with a C or better in a Criminology and Criminal Justice online class?***

**Qualitative Interviews.** For Research Question 2, I looked at the students' responses to Interview Question 7: "How do you think the virtual office hours affected your ability to pass the course, and by 'pass,' I mean finish with a grade of C or higher?" All three participants felt as though the lack of virtual office hours in their class would not necessarily cause them to fail; however, participation in virtual offices did lead to improved course performance. As Participant 1 said, "I think I would have still passed the

class, but it allowed me to obtain a higher grade because I was able to get feedback in person.” Similarly, Participant 2 responded, “I felt more comfortable reaching out to the instructor during virtual office hours which helped me improve overall.” Finally, Participant 3 summed it up by saying, “I know I did better overall because of the one-on-one feedback during virtual office hours and it showed me that the instructor cares.”

### **Summary of Findings**

This chapter described the quantitative and qualitative data and findings related to the impact of virtual office hours on student engagement and successful course completion in an online class. The quantitative data consisted of a paired pre- and post-questionnaire. Once analyzed, descriptive data and Self-Reporting Question 5 indicated that the intervention—virtual office hours—did have an impact on students’ engagement and successful course completion. Additional quantitative data collected (mean grade point averages), once compared, suggested that those who participated in virtual office hours overall had a higher final grade point average.

The qualitative data consisted of interviews with those who participated in virtual office hours and field notes taken during virtual office hour meetings. As a result of my analysis, the interview responses generated four major themes related to virtual office hours and their impact on engagement in the online course: “visualization,” “personalization,” “comfort,” and “relationship.” The field notes further clarified that students found virtual office hours to be an exciting option to engage their online instructor and classmates, an engaging option to seek clarification, gain insight about



future goals, and form relationships that foster success. Virtual office hours is an option most students are not familiar with in an online course.

The interview responses and field notes suggested that virtual office hours did have an impact on student engagement and successful course completion by allowing students to develop relationships, feel more connected, and be more successful. Overall, students found that virtual office hours allowed for a more visual and personal space where they could develop a relationship with others. This is a relationship that needs to happen with online students in order for them to be as successful, if not more so, than in traditional learning environments.

## Chapter 5

### DISCUSSION

The demand for online university courses in recent years has led many academic institutions to expand their online programs and course offerings. However, with the convenience of attending online courses, students also experience difficulties that are unique to taking and completing courses outside of traditional frameworks. For example, students enrolled in online courses may rarely or never have personal contact with their instructor or professor. The purpose of this mixed-method action research study was to better understand the impact of increased teacher presence on engagement and course completion in one of my online courses.

This chapter contains a more detailed discussion of the study's results, as well as the lessons learned, implications for practice and research, study limitations, and concluding thoughts. As a reminder, the study addressed the following two research questions:

- RQ1: How do virtual office hours impact online students' engagement in a Criminology and Criminal Justice online class?
- RQ2: How do virtual office hours impact online students' successful course completion with a C or better in a Criminology and Criminal Justice online class?

#### **Discussion of Quantitative and Qualitative Results**

Overall, in a class of 60, 15 students attended virtual office hours; some students attended more than once, for a total of 24 visits. Through both the quantitative and qualitative data, I found that virtual office hours did have somewhat of an impact on

student engagement and overall successful course completion. As students attended virtual office hours, relationships formed and students felt more engaged, were more invested in the course, and consequently were more successful. However, more specifically, the results indicated that virtual office hours did not necessarily have an impact on students' perceptions of teaching presence, nor social presence, but did have a significant increase on engagement, ultimately impacting their perceptions of cognitive presence.

### **Discussion of Results in Relation to Theoretical Perspectives**

The review of the literature suggests that building relationships between students and instructors is an ideal way of facilitating a highly engaged classroom environment. Social Learning Theory, Community of Inquiry, and Constructivism all posit that learning is shaped by social interactions. Social Learning Theory is based on the idea that we learn by observing others. Constructivism states that we construct knowledge as we experience and reflect on life, building on experiences. The Community of Inquiry framework draws on both theories to describe a more detailed process of creating a more meaningful learning experience through the development of teaching, social, and cognitive presence (Garrison et al., 2000).

The Community of Inquiry defines the three constructs as follows. Teaching presence is the design, facilitation, and direction of cognitive and social processes for the purpose of realizing personally meaningful and educationally worthwhile learning outcomes. Social presence is the ability of participants to identify with the community (e.g., course of study), communicate purposefully in a trusting environment, and develop

interpersonal relationships by way of projecting their individual personalities. Cognitive presence is the extent to which learners are able to construct and confirm meaning through sustained reflection and discourse (Garrison et al., 2000).

As the results of this study have shown, students were not necessarily impacted by virtual office hours regarding their perceptions of teaching or social presence. However, changes in cognitive presence appeared to be statistically significant and practically significant despite the small sample size. It is important to consider that participant pre-questionnaire responses indicated that students agreed the course's teacher's presence was apparent through the "design, facilitation, and direction" prior to the intervention, and therefore, these factors would not lend much impact. Additionally, social presence requires a trusting environment to develop and might not have been feasible to enhance during a limited time frame of a few minutes once a week for 10 weeks.

After reflecting on my outcomes, it made sense that cognitive presence was impacted the most considering that it relies on the constructing and confirming of meaning through sustained reflection and discourse (Garrison et al., 2000). Cognitive presence items asked the students whether they felt motivated to explore content, whether they developed a deeper understanding of the material, whether their relationships in the course helped them understand the concepts, and whether they had a deeper understanding of the main course topics as a result of feeling more connected.

Overall, I would conclude that the intervention—virtual office hours—was the one opportunity for students to become motivated and discuss course topics, allowing for a deeper understanding of the material, while developing relationships with others in

order to help facilitate their learning. Several participants chose to return to virtual office hours and therefore were able to experience a more meaningful, impactful experience, ultimately, leading to a more successful outcome.

The three perspectives that outline my framework all have similar underlying notions: that the basis of all learning derives from relationships to each other. For me, this was an ideal way to assess student engagement since I strongly believe that our relationship with each other is how we construct knowledge and a deep understanding of all aspects of life. Forming relationships is the oldest form of constructing knowledge, and as we head into an advanced future faster than we had expected, we must remember to stay connected to each other, for it is in each other that we truly find all the answers.

### **Discussion of Experience of Implementing the Action**

Overall, this has been a very long process, but despite its many challenges, there have been so many wonderful outcomes. I found some of the research process very exciting and some aspects not so much. For example, I struggled with writing effective survey questions and realized early on the complexity of the process. I found myself intimidated by the amount of quantitative statistics, despite my previous experience with SPSS. However, I found new ways to organize the data that would be less overwhelming. Consequently, I was more drawn to the qualitative methods, analysis, and outcomes considering my lack of previous experience. I never truly correctly coded before and found something very methodical about coding and theme analysis that was very intriguing. Looking back on the entire process, I find that the analysis of both quantitative data and qualitative data to be an exciting exploration of inquiry.

During the process of this inquiry, online classes in my department went through a transformation. As a result, the department has created comprehensive online curricula that offers all kinds of technologies along with an awesome team of technology colleagues. Being a part of this evolution and continued assessment and improvement has taught me so much about the actual building of online courses—good ones. Outside of teaching, I develop programs for incarcerated youth; watching programs grow and being part of the process is very rewarding to me, almost as rewarding as teaching.

### **Discussion of Limitations**

The most impactful limitation for this study was the small virtual office hours participant sample size. The sample size directly influences research findings, and very small samples undermine the internal and external validity of a study (Faber, 2014). Looking back, there was a disconnect between the pre-survey, intervention, and post-survey, considering that 24 students responded to the pre-survey, 18 post survey, but only 10 students responded to both, and among those 10, only five students attended virtual office hours. The small sample size does not allow for a thorough representation of the total population of the course participants and therefore is not as valid as one would like.

### **Discussion of Implications for Practice and Research**

As Mertler (2014) stated, action research offers a process by which current practice can be changed toward better practice. As a result of my action research, the Criminology and Criminal Justice online courses have gone through a positive change toward better practice. Online classes have now become a desired modality for most, and

the results of this study will be beneficial to those faculty who have not tried alternative methods to engage students.

Moving forward, it would be important to replicate the study with the intention of achieving a larger sample size. A larger sample size will provide more valid and reliable data on the impact of virtual office hours on student engagement. This additional information will provide faculty with more detail about what engaging opportunities impact online students in the most effective way. Continued future iterations of this research could include the use of newer, more cutting edge technologies for engaging students, such as virtual classroom activities where students interact collectively to solve problems.

Considering our current challenges with face-to-face social gatherings due to the global pandemic, it is vital that we provide more opportunities to engage students. As a result of increasing engagement in an online format, relationships will naturally form that can have an everlasting, positive effect on students. Education as we know it might become a more virtual experience indefinitely in the future. Research on and implementation of alternative engaging methods, through action research, will contribute to continued change.

### **Personal Lesson Learned**

Prior to this experience, I was not familiar with action research; however, I quickly realized that the outcomes, whether good or bad, would become extremely useful for future iterations. Action research is truly about change—specifically, well-researched change based on successful research practices and failed research practices. Like the old

saying goes, we learn from our mistakes, and in this case, mistakes and failures are in many ways also considered successes.

What I learned is that when a student withdraws, as Participant 1 did, it is not necessarily a failure per se, but an opportunity to reach out and help a student navigate stressful circumstances. In an online class when a student withdraws, especially early on, instructors are not necessarily aware of the withdrawal taking place. Virtual office hours provided an opportunity for Participant 1 to meet in a face-to-face format to discuss his circumstances and consider solutions. From this experience, I feel as though virtual office hours might have had the most impact on Participant 1, despite his need to withdraw.

The entire process allowed me to truly see the impact virtual office hours had on my students, as opposed to assuming what they would be. Each student had a somewhat different experience that led them to their overall satisfaction with the class. They each had different reasons for attending virtual office hours and different reasons for continuing. What I found most exciting about the whole experience is that some students actually connected and met on campus. I will often think about those students, hoping that they remained friends as a result of this study.

### **Closing Thoughts**

The Criminology and Criminal Justice department online course shells needed effective updating, thus becoming the catalyst for my problem of practice and the present study. Lack of course organization and teacher presence were the identifiable issues that propelled this action research project into motion, and as a result, I am now seeing how



connecting with students online in real time has impacted them and their success in my online classes.

I am dedicated to continuing my action research and convincing others that online learning is here to stay, especially given the current circumstance of a global pandemic. It will behoove us to continue to improve our methods for engaging students online while gathering the data to truly understand what is most effective. Considering my outcomes, I will focus my efforts on how to effectively increase teaching presence, social presence, and cognitive presence by creating a comfortable environment for online students where they can form relationships and learn from each other. We must continue to have relationships with our online students, for they are the future.

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APPENDIX A  
ONLINE COURSE TEMPLATE



Online Course Template:

Employed initially in two 15-week iCourses that I taught during Cycle 1. Employed in all Criminology and Criminal Justice online courses during Cycle 2 and beyond.

Objective:

The online course template created visual and navigation consistency between Criminology and Criminal Justice online courses.

APPENDIX B  
VIRTUAL INTRODUCTION ASSIGNMENT

Virtual Introduction Assignment:

Employed in Week 1 of a 15-week iCourse during Cycle 2

Introduction Assignment:

- 1) Each student posted a prerecorded video introducing themselves to other classmates.
- 2) The introduction included background information, academic goals, career goals, something of interest, etc.
- 3) Each student viewed and responded to five other classmates for a 25-point assignment.

Objective:

- 1) Build rapport between classmates
- 2) Foster connections and common ground so that students begin to get to know each other

APPENDIX C

WEEKLY VIDEO ANNOUNCEMENT

Weekly Video Announcement:

Employed weekly in my 15-week iCourse during Cycle 3

Announcement:

I video recorded myself at the beginning of every week discussing important announcements, prior week's assignment general feedback, and the expectations and due dates of the upcoming assignments.

Objective:

- 1) Build rapport with students
- 2) Continue to reinforce expectations
- 3) Motivate students to stay on task

APPENDIX D

LIVE VIRTUAL OFFICE HOURS

Live Virtual Office Hours:

Offered on Wednesdays during a 15-week iCourse during my pilot semester.

I will continue to offer Live Virtual Office Hours on Wednesdays over the course of the 15-week semester during spring 2020. I will invite students to attend twice through a 5-point extra credit assignment.

Objective:

- 1) Develop a rapport with students
- 2) Discuss previous writing assignment feedback
- 3) Answer any questions the student might have, especially about research topics
- 4) Discuss career goals and provide guidance

APPENDIX E

ONLINE LEARNING QUESTIONNAIRE PRE-SURVEY CONSENT FORM



Arizona State University  
Criminology and Criminal Justice Program  
Online Learning Questionnaire Pre-Survey Consent Form

Dear Students:

My name is Claudine DeCarolis and I am doctoral student in the Mary Lou Fulton Teachers College (MLFTC) at Arizona State University. I am working under the direction of Dr. Elisabeth Gee, a faculty member in MLFTC. We are conducting a research study on the effects of engaging activities in online learning. The purpose of this survey is ultimately to understand what virtual online activities are effective and which are not effective.

We are asking for your help, which will involve your participation in an electronic survey about your degree of beliefs about engagement in your online classes. In particular, we want to understand your perspective on the activities that help you to be engaged in your online courses. We anticipate the survey will take about 10 minutes for you to complete.

Your participation in this study is voluntary. If you choose not to participate or withdraw from the study at any time, there will be no penalty whatsoever. Your choice to participate or not participate will not affect your position or your standing in class.

You will need to be 18 years old to participate. The benefit to participating will potentially impact student's experience with online learning. Results will also inform future iterations of this work and therefore, the potential to enhance the experiences that are provided to our students in the online environment. There are no foreseeable risks to your participation.

Your responses will be anonymous. Results of this study may be used in reports, presentations, or publications; however, your name will not be known. If you have any questions concerning this study, please contact the Dr. Elisabeth Gee at [elisabeth.gee@asu.edu](mailto:elisabeth.gee@asu.edu) or Claudine DeCarolis at [claudine.decarolis@asu.edu](mailto:claudine.decarolis@asu.edu).

If you have any questions about your rights as a participant in this research, or if you feel you have been placed at risk, you can contact the Chair of the Human Subjects Institutional Review Board through the ASU Office of Research Integrity and Assurance at (480) 965-6788.

Click on the survey link in your email to consent and participate in the study.

Thank you,

Claudine DeCarolis, Doctoral Student  
Elisabeth Gee, PhD, LSC

### Online Learning Questionnaire Pre-Survey

Please answer the following questions by selecting the best answer that describes your online experience in CRJ 404 / CRJ 306 prior to being exposed to virtual technologies in this course. You can skip over any questions that you do not want to answer.

Questions:	Strongly Agree	Agree	Slightly Agree	Slightly Disagree	Disagree	Strongly Disagree
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**Teaching Presence: Design / Organization / Facilitation**

The next four items ask about your experiences with your CRJ 305 professor's approach to designing, organizing and teaching this course.

The instructor keeps course material well organized	6	5	4	3	2	1
The instructor clearly communicates course objectives	6	5	4	3	2	1
The instructor uses virtual technologies to keep students engaged	6	5	4	3	2	1
The instructor provides feedback in a timely manner	6	5	4	3	2	1

**Social Presence: Relationships / Group Cohesion / Trust between members in the class**

The next four items ask about your relationship with other students and your professor in your CRJ 305 online course.

I feel comfortable conversing with other students in the course	6	5	4	3	2	1
I feel the assignments foster a personal	6	5	4	3	2	1

connection between  
students

I have been able to form relationships with some course participants so far	6	5	4	3	2	1
---	---	---	---	---	---	---

Developing relationships give me a sense of belonging	6	5	4	3	2	1
---	---	---	---	---	---	---

Cognitive Presence: Exploration / Integration / Resolution with course material

The next four items ask about your understanding of the material in your CRJ 305 online course.

I feel motivated to explore content related questions	6	5	4	3	2	1
--	---	---	---	---	---	---

Assignments foster a deeper understanding of the course material	6	5	4	3	2	1
--	---	---	---	---	---	---

My relationships in the course help me understand fundamental concepts in this course	6	5	4	3	2	1
--	---	---	---	---	---	---

I have a deeper understanding of the main course topics because I feel more connected to the course	6	5	4	3	2	1
---	---	---	---	---	---	---

### Self-Reporting Questions

1) Have you taken an online class at ASU before?

- Yes
- No

2) If so, how many times \_\_\_\_\_ (drop down menu with options 1-10)

### Demographic Questions

1) What gender describes you?

- Male
- Female
- Other (please specify) \_\_\_\_\_

2) What is your race/ethnicity? (Check all that apply)

- Hispanic or Latino
- American Indian or Alaska Native
- Asian
- Black or African American
- Native Hawaiian or Other Pacific Islander
- White
- Other (please specify) \_\_\_\_\_

3) What is the highest degree you have earned?

- High school diploma or GED
- Associate Degree
- Bachelor's Degree
- Master's Degree
- Doctorate Degree
- Other (please specify) \_\_\_\_\_

4) Please select your current major at ASU (choose one):

- Criminology
- Social Work
- Psychology
- Other (please specify) \_\_\_\_\_

5) Please select whether you are a full-time or part-time student at ASU (choose one):

- Part-time
- Full-time
- Other (please specify) \_\_\_\_\_

6) Please indicate your age group:

- 18-24
- 25-29
- 30-34
- 35-39
- 40-44
- 45-49
- 50-54
- 55-59
- 60-64
- 65+

Thank you for participating in my survey to improve online learning engagement!

If you have any questions or concerns regarding this survey, please do not hesitate to contact me directly at [claudine.decarolis@asu.edu](mailto:claudine.decarolis@asu.edu) or 914-474-2826.

If you have any questions about your rights as a participant in this research, or if you feel you have been placed at risk, you can contact the Chair of the Human Subjects Institutional Review Board through the ASU Office of Research Integrity and Assurance at (480) 965-6788.

APPENDIX F

ONLINE LEARNING QUESTIONNAIRE POST-SURVEY CONSENT FORM

Arizona State University  
Criminology and Criminal Justice Program  
Online Learning Questionnaire Post-Survey Consent Form

Dear Students:

My name is Claudine DeCarolis and I am doctoral student in the Mary Lou Fulton Teachers College (MLFTC) at Arizona State University. I am working under the direction of Dr. Elisabeth Gee, a faculty member in MLFTC. We are conducting a research study on the effects of engaging activities in online learning. The purpose of this survey is ultimately to understand what online activities are effective and which are not effective.

We are asking for your help, which will involve your participation in an electronic survey about your degree of beliefs about engagement in your online classes. In particular, we want to understand your perspective on the activities that help you to be engaged in your online courses. We anticipate the survey will take about 10 minutes for you to complete.

Your participation in this study is voluntary. If you choose not to participate or withdraw from the study at any time, there will be no penalty whatsoever. Your choice to participate or not participate will not affect your position or your standing in class. You will need to be 18 years age or older to participate.

The benefit to participating will potentially impact student's experience with online learning. Results will also inform future iterations of this work and therefore, the potential to enhance the experiences that are provided to our students in the online environment. There are no foreseeable risks to your participation.

Your responses will be anonymous. Results of this study may be used in reports, presentations, or publications; however, your name will not be known. If you have any questions concerning this study, please contact the Dr. Elisabeth Gee at [elisabeth.gee@asu.edu](mailto:elisabeth.gee@asu.edu) or Claudine DeCarolis at [claudine.decarolis@asu.edu](mailto:claudine.decarolis@asu.edu).

If you have any questions about your rights as a participant in this research, or if you feel you have been placed at risk, you can contact the Chair of the Human Subjects Institutional Review Board through the ASU Office of Research Integrity and Assurance at (480) 965-6788. Click "continue" below if you consent to participate in the study.

Thank you,

Claudine DeCarolis, Doctoral Student  
Elisabeth Gee, PhD, LSC



## Online Learning Questionnaire Post-Survey

Please answer the following questions by selecting the best answer that describes your online experience in CRJ 306 after being exposed to virtual technologies in this course. You can skip over any questions that you do not want to answer.

Questions:	Strongly Agree	Agree	Slightly Agree	Slightly Disagree	Disagree	Strongly Disagree
<b>Teaching Presence: Design / Organization / Facilitation</b>						
The next four items ask about your experiences with your CRJ 305 professor's approach to designing, organizing, and teaching this course.						
The teacher keeps course material well organized	6	5	4	3	2	1
The teacher clearly communicates course objectives	6	5	4	3	2	1
The teacher uses virtual technologies to keep students engaged	6	5	4	3	2	1
The teacher provided feedback in a timely manner	6	5	4	3	2	1
<b>Social Presence: Relationships / Group Cohesion / Trust between members in the class</b>						
The next four items ask about your relationship with other students and your professor in your CRJ 305 online course.						
I feel comfortable conversing with other students in the course	6	5	4	3	2	1
I feel the assignments fostered a personal	6	5	4	3	2	1

connection between students

I was able to form relationships with some course participants	6	5	4	3	2	1
--	---	---	---	---	---	---

Developing relationships gave me a sense of belonging	6	5	4	3	2	1
---	---	---	---	---	---	---

Cognitive Presence: Exploration / Integration / Resolution with course material

The next four items ask about your understanding of the material in your CRJ 305 online course.

I feel motivated to explore content related questions	6	5	4	3	2	1
---	---	---	---	---	---	---

Assignments fostered a deeper understanding of the course material	6	5	4	3	2	1
--	---	---	---	---	---	---

My relationships in the course helped me understand fundamental concepts in this course	6	5	4	3	2	1
---	---	---	---	---	---	---

I have a deeper understanding of the main course topics because I feel more connected to the course	6	5	4	3	2	1
---	---	---	---	---	---	---

### Self-Reporting Questions

1) Have you taken an online class at ASU before?

- Yes
- No

2) If so, how many times have you taken an online class? \_\_\_\_ (drop down menu with 1-10)

3) Did you attend virtual office hours in this course?

- Yes
- No

If yes, please answer the following:

4) How many times did you attend? \_\_\_\_\_ (drop down menu with 1-10)

5) Attending virtual office hours \_\_\_\_\_ (check all that apply)

- Improved my success on course assignments
- Helped me feel more connected to other students
- Helped me feel that the instructor cared about my success in the course
- Increased my engagement in the course
- Increased my chances of overall successful course completion

### Demographic Questions

1) What gender describes you?

- Male
- Female
- Other (please specify) \_\_\_\_\_

2) What is your race/ethnicity? (Check all that apply)

- Hispanic or Latino
- American Indian or Alaska Native
- Asian
- Black or African American
- Native Hawaiian or Other Pacific Islander
- White

- Other (please specify) \_\_\_\_\_

4) What is the highest degree you have earned?

- High school diploma or GED
- Associate Degree
- Bachelor's Degree
- Master's Degree
- Doctorate Degree
- Other (please specify) \_\_\_\_\_

5) Please select your current major at ASU (choose one):

- Criminology
- Social Work
- Psychology
- Other (please specify) \_\_\_\_\_

6) Please select whether you are a full-time or part-time student at ASU (choose one):

- Part-time
- Full-time
- Other (please specify) \_\_\_\_\_

7) Please indicate your age group:

- 18-24
- 25-29
- 30-34
- 35-39
- 40-44
- 45-49
- 50-54
- 55-59
- 60-64
- 65+

Thank you for participating in my survey to improve online learning engagement!

If you have any questions or concerns regarding this survey, please do not hesitate to contact me directly at [claudine.decarolis@asu.edu](mailto:claudine.decarolis@asu.edu) or 914-474-2826.

If you have any questions about your rights as a participant in this research, or if you feel you have been placed at risk, you can contact the Chair of the Human Subjects Institutional Review Board through the ASU Office of Research Integrity and Assurance at (480) 965-6788.

APPENDIX G

ONLINE LEARNING INTERVIEW QUESTIONS CONSENT FORM

Arizona State University  
Criminology and Criminal Justice Program  
Online Learning Interview Questions Consent Form

Dear Students:

My name is Claudine DeCarolis and I am doctoral student in the Mary Lou Fulton Teachers College (MLFTC) at Arizona State University. I am working under the direction of Dr. Elisabeth Gee, a faculty member in MLFTC. We are conducting a research study on the effects of engaging activities in online learning. The purpose of this interview is ultimately to understand what online activities are effective and which are not effective.

We are asking for your help, which will involve your participation in an interview about your knowledge, attitudes, and beliefs about engagement in your online classes. In particular, we want to understand your perspective on the activities that help you to be engaged in your online courses. We anticipate the interview will take about 30 minutes for you to complete.

We are also asking your permission to record the interview. Only the research team will have access to the recordings. The recordings will be deleted immediately after being transcribed and any published quotes will be anonymous. To protect your identity, please refrain from using names or other identifying information during the interview. Let me know if, at any time, you do not want to be recorded and I will stop.

Your participation in this study is voluntary and you need to be 18 years or older to participate. If you choose not to participate or withdraw from the study at any time, there will be no penalty whatsoever. Your choice to participate or not participate will not affect your position or your standing in class.

The benefit to participating will potentially impact the student's experience with online learning. Results will also inform future iterations of this work and therefore, the potential to enhance the experiences that are provided to our students in the online environment. There are no foreseeable risks to your participation.

Your responses will be confidential. Results of this study may be used in reports, presentations, or publications; however, your name will not be known. If you have any questions concerning this study, please contact the Dr. Elisabeth Gee at [elisabeth.gee@asu.edu](mailto:elisabeth.gee@asu.edu) or Claudine DeCarolis at [claudine.decarolis@asu.edu](mailto:claudine.decarolis@asu.edu).

If you have any questions about your rights as a participant in this research, or if you feel you have been placed at risk, you can contact the Chair of the Human Subjects Institutional Review Board through the ASU Office of Research Integrity and Assurance at (480) 965-6788.

Lastly, your verbal agreement indicates your consent to participate.

Thank you,

Claudine DeCarolis, Doctoral Student  
Elisabeth Gee, PhD, LSC



### Interview Items for Students

- 1) Which activities that were part of CRJ 305 were most helpful to learning the material?
- 2) Which activities did you find most engaging where you felt connected to the instructor and/or other classmates?
  - a) Help me understand what made this particular class activity engaging.
- 3) What aspects of the course, if any, especially encouraged you to engage with your instructor?
- 4) What aspects of the course, if any, especially encouraged you to engage with your classmates?
- 5) I'm interested in understanding your experience with the live virtual office hours. Did you use the virtual office hours and if so, how did you feel about utilizing this kind of virtual technology?
- 6) Considering the live virtual office hours how did the experience make you feel? Did you feel more engaged or less engaged and why?
- 7) How do you think the virtual office hours affected your ability to pass the course (by "pass," I mean finish with a grade of C or higher)?
- 8) What activities could be added to or used instead to make online class(es) more engaging to help you learn material/information in the course?
- 9) Do you have any other comments or questions?

APPENDIX H

IRB APPROVAL



APPROVAL: MODIFICATION

[Elisabeth Gee](#)  
[Division of Educational Leadership and Innovation - Tempe](#)  
480/965-4284  
[Elisabeth.Gee@asu.edu](mailto:Elisabeth.Gee@asu.edu)

Dear [Elisabeth Gee](#):

On 1/27/2020 the ASU IRB reviewed the following protocol:

Type of Review:	Modification / Update
Title:	Teacher Presence in the Online Classroom and its Impact on Engagement and Successful Course Completion A Mixed Method Action Research Dissertation
Investigator:	<a href="#">Elisabeth Gee</a>
IRB ID:	STUDY00011302
Funding:	None
Grant Title:	None
Grant ID:	None
Documents Reviewed:	<ul style="list-style-type: none"><li>• Interview Questions, Category: Consent Form;</li><li>• IRB for DeCarolis Dissertation.docx, Category: IRB Protocol;</li><li>• Post Survey, Category: Consent Form;</li><li>• Pre Survey , Category: Consent Form;</li></ul>

The IRB approved the modification.

When consent is appropriate, you must use final, watermarked versions available under the “Documents” tab in ERA-IRB.

In conducting this protocol you are required to follow the requirements listed in the INVESTIGATOR MANUAL (HRP-103).

Sincerely,

IRB Administrator

cc: Claudine DeCarolis  
Elisabeth Gee  
Claudine DeCarolis