Encouraging Student Persistence Through Increased Social and Instructor Presence:

A Video Feedback Approach

by

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ABSTRACT

Research suggests there is no significant difference in outcomes for online learners and on-campus learners. Several decades of online learning have also consistently demonstrated online students are less likely to persist than those students attending on campus. The Community of Inquiry (CoI) framework describes social presence, teaching presence, and cognitive presence as components of a quality online learning experience, and research links these three constructs to student retention. Using the lens of the CoI framework, this mixed methods action research study sought to increase social presence and teaching presence in asynchronous online courses at Davenport University using embedded video feedback mechanisms, in support of student persistence and retention. The Community of Inquiry survey instrument was used to quantitatively measure the changes in social presence and teaching presence between courses with and without the video feedback mechanisms. Qualitative research interviews were conducted to probe for meaning and a greater understanding of both student and instructor experiences in the courses. Results of the study indicated small but significant gains in teaching presence, but other quantitative measures showed no changes with the introduction of the videos. Qualitative analysis suggests that students who watched the instructor videos reported higher levels of teaching presence for several subconstructs of teaching presence and social presence. However, the qualitative analysis also suggested that many students did not watch the instructor videos, and thus did not benefit from any increased presence. Student discussion response videos yielded similar results qualitatively, with benefits demonstrated by those students who watched the videos but none by those who abstained.

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CHAPTER 1

INTRODUCTION

Larger Context

The late twentieth century saw tremendous change in the landscape of higher education. From the birth of the World Wide Web in 1992 to the deployment of the first fully online degrees in 1999, the pace of change was rapid and unceasing (Harasim, 2006; Moreira, 2016; Richardson et al., 2016). At its onset, online education showed great promise to provide educational access to geographically disparate students that could be as effective as face-to-face learning (Harasim, 2006; S. J. Jones & Long, 2013). Doubts persisted and debates raged, throughout the early twenty-first century as to the effectiveness of online courses leading researchers to examine their effectiveness as a learning modality (Derouin et al., 2005; S. J. Jones, 2013; Xu, 2011; Xu & Jaggars, 2011). A growing body of research has demonstrated no significant difference between online and face-to-face learning when measuring student outcomes, suggesting online education is a viable means to deliver education (Allen et al., 2004; Griffith et al., 2021; Idrizi et al., 2021; S. J. Jones, 2013; Karr et al., 2003; Kelleher & O'Malley, 2001; Nguyen, 2015). In addition to demonstrating its effectiveness as a modality, online education has also expanded educational access for disadvantaged students, rural students, working adults, and other groups for whom campus access is a challenge (Aslanian et al., 2019; Bailey et al., 2018; Vignare & Geith, 2013).

Since 2004, the number of American students enrolled in at least one online course has grown, from 15.1% to 43.1% in 2016 representing just under 8.4 million students (U.S. Department of Education, National Center for Education Statistics, 2018).

Students cite a myriad of reasons for selecting online courses including the convenience of fitting online coursework into their busy schedule, ability to balance careers and personal lives, and increased opportunities for students who do not live near a college campus (Aslanian et al., 2019; Lake, 1999; Lee & Choi, 2011; Liu et al., 2009). Another factor that may impact a student's decision to take online courses is a false belief that online courses will be less rigorous and thus easier to complete (Sublett, 2019). The age of the student also influences their choice to take online courses as adult learners with work or family obligations are more likely to select online courses than face-to-face alternatives (Diep et al., 2016; Gardner et al., 2021; Huntington-Klein et al., 2017).

As students have sought online courses, so too have universities invested in the growth of online programs. Schools observed the changing demographics of higher education and saw online education as a market to boost flagging enrollment and revenue streams (Bailey et al., 2018; Kirk, 2010). Some schools classify themselves as open access institutions, with a focus on ensuring as many students can attend college as possible instead of those students who meet selective admission requirements (Mullin, 2017; Pratt, 2017). These institutions view access to education as a defining characteristic, and approach online education as an approach to increase access for all students in the communities they serve (Arizona State University, n.d.; Goodman et al., 2019; Hachey et al., 2013; Indiana University, n.d.; Our Story, n.d.; Southern New Hampshire University, 2022). Envisioning a world where "all qualified high school graduates have access to higher education, regardless of financial, geographic, political, and personal circumstances," (University of the People, 2015) the Internet provides open access universities a vehicle to pursue their mission. Still other schools view online

education as a means to bring diverse views to bear, seeking to give learners "an edge in growth and goal attainment" (Davenport University, 2016).

The expansion of the Internet and rise of online programs provided a powerful tool to expand access to education. However, regardless of the motivation for expanding their online offerings, the growth of online enrollments also introduced an array of new challenges for both learners and institutions. Online modalities brought about new requirements at universities for training of faculty in the use of technology, development of online teaching best practices, increased demands on information technology infrastructure, and new staff dedicated to web-based instructional design (Kessler, 2016; Nelson, 2013; Ranieri et al., 2018; Wolf, 2006). For students selecting online courses, new requirements included the purchase of laptops, tablets, and broadband Internet for home use (Kobus et al., 2013; Reisdorf et al., 2020). The growth in technology requirements exacerbated a digital divide between students with means and those without, threatening the promise of increased access, and challenging schools to find solutions to help students persist through their online programs (Wilkin et al., 2017).

Despite the myriad challenges, growth has continued unabated. Facing increased online enrollments and increased resource needs to build online programs, Universities must determine how to measure the success of their online programs. Common metrics used to define success include fall-to-fall retention of students within a program, student persistence from semester-to-semester within an academic year, completion rates of courses, six-year graduation rates, and attrition (Boton & Gregory, 2015; Central Michigan University, 2018; Lee & Choi, 2011; National Center for Education Statistics, 2019; Stewart & Carpenter-Hubin, 2000). By any of these common success metrics,

universities seeking to improve academic program success will seek to retain more students in order to preserve revenue streams with minimal new investment, as well as a means to improve other indicators such as graduation rate (Tinto, 2012). From a college and departmental perspective, student retention helps make a program viable in the long term. From an institutional perspective, student retention represents one of the most important means of preserving or improving a university's bottom line (Tinto, 2012; Trout, 2020).

As program completion and those measures building up to it are critical to a university's overall success, terms like retention and persistence have gained importance. In some cases, these terms are defined in parlance specific to a given school. Retention and persistence are used interchangeably by researchers, but often to describe different concepts. For example, Tinto (1993, 2012) describes retention as the antithesis of student departure or attrition and discusses the retention of students from an institutional perspective. Persistence is often described similarly, but from a student perspective, describing the act of staying in school (Tinto, 2017). As this study was conducted at Davenport University, the terms used herein are defined using the vernacular common to that institution. Persistence describes students who stay at an institution for consecutive semesters while retention describes students who stay with a university year-over-year, often described as fall-to-fall retention indicating a student that stays with a school for more than one academic year.

Student retention rates for online programs vary from 5% in Massively Open Online Courses (MOOCs) to over 60% at other schools (Aslanian et al., 2019; Simpson, 2013). Nationally, online programs have consistently lower persistence rates than the

higher education industry overall which sees student persistence rates of over 79% for all academic years since 2006-07 (National Center for Education Statistics, 2019, 2021). Several online programs demonstrate persistence at higher levels than their campus-based programs. Bailey et al. (2018) reported persistence rates of 58% for students taking online courses versus 49% for exclusively campus-based students at Houston Community College where student completion rates were increased for online programs when higher enrollments meant more courses met minimum headcounts and proceeded without cancellation. Furthermore, Houston Community College invested in support services for online learners to improve their readiness for success in college, and online. At the University of Central Florida students who enrolled in online programs, graduated one semester sooner than their campus-based counterparts, again because it appears that more course availability leads to quicker progression through a degree, and support services constructed to engage students at key moments, ensured continued progression through programs (Bailey et al., 2018). Similar results have been observed at urban community colleges who invested in increased support services for online students (Hachey et al., 2013). However, research continues to show that students are less likely to persist and complete programs if they take their entire degree program online, with attrition rates ranging from 30%-40% (Bawa, 2016; Hachey et al., 2013; Seery et al., 2021). For example, at Tyler Community College in Texas, where online courses have been offered for 18 years, completion rates for online students are 58% while their campus-based counterparts average a 71% completion rate (Carr, 2000). Challenges with online student persistence have remained consistent despite increased technology availability, and the

arrival of synchronous online delivery (Harasim, 2006; Huntington-Klein et al., 2017; Lake, 1999; Simpson, 2013).

Three hypotheses emerged to explain the disparity in persistence and retention between face-to-face and online learners. First, there was a belief that attrition of online students occurs for the same reason as traditional courses, but with increased dropout rates due to the higher average age of online students. Second, while teaching and learning remains a focus for online college programs, the other helpful campus supports are absent in the online environment at many schools, contributing to higher dropout rates (Simpson, 2013). Third, differences in the experience of online education, specifically the lack of direct contact between instructors and students could be the primary driver of attrition (Carr, 2000). This third hypothesis forms the basis for this study. That is, does increasing instructor presence in asynchronous online courses have any impact on student persistence?

Local Context

Davenport University is a private, not-for-profit, masters-degree granting institution in Grand Rapids, Michigan serving roughly 7,000 students (Institutional Research, 2019b). It has operated in various forms since its founding in 1866 and its entry into the online education marketplace parallels the rise of the market in general; offering its first online courses in 1999 and conferring its first online degrees in 2003 (Brown, 2016). Retention of students via persistence from semester to semester is a central concern for all schools, including Davenport University.

Davenport University uses the Kaplan-Norton Balanced Scorecard method to manage operational performance, collect data about institutional outcomes, and plan for

the future. The Kaplan-Norton Balanced Scorecard method of operational performance management calls upon organizations to select and monitor a small set of metrics, which together form a balanced scorecard for overall performance (Kaplan & Norton, 1996). Kaplan-Norton Balanced Scorecards are characterized by the concept that each measure has an equivalent impact on the organization's overall performance (Kaplan & Norton, 1996). The methodology encourages leaders to look beyond financial measures, and consider the customer's perspective, as well as capacity and process-related perspectives when developing the list of measures to be used (Camilleri, 2021). The resulting list of measures forms a set of Key Performance Indicators (KPIs) and represents the Balanced Scorecard (BSC) for the organization. Each metric on the BSC is measured periodically, changes are reviewed, targets are set, and actions are planned to seek improvement.

The Davenport University Balanced Scorecard (DUBSC) includes the Key Performance Indicators (KPIs) that university leadership believes to be the most important metrics leading to the University's overall success. Leadership, with approval from the Board of Trustees, has selected student satisfaction and overall student retention as two of the KPIs for their Balanced Scorecard, alongside overall enrollment, employee satisfaction, employer satisfaction, workforce diversity, operating return on revenue, giving (funds raised by the advancement team), graduation rate, graduate satisfaction, and employment rate of graduates (Davenport University, n.d.-a). Targets are set, and data is subsequently gathered and evaluated on an annual basis. Progress toward targets is used to build strategic priorities for the coming year. The University established a year-over-year retention target of 75% for the overall university to be achieved by the end of 2020 (Davenport University, 2015). The University met this goal when retention of 77% for

the overall student body was reported for 2019 up from 66% in 2010 (Institutional Research, 2019b). Moving forward, the University's Vision 2025 document identifies a goal of 81% retention to be achieved by the end of the 2024-25 academic year (Davenport University, 2020).

As the Dean of Davenport University's Global Campus, I am responsible for overseeing online students' timely progress toward graduation. I have a very personal attachment to helping encourage students to progress toward graduation. Davenport classifies students as "degree-seeking" when they indicate degree completion as a goal, as opposed to taking a single course, or enrolling in courses as part of a corporate training curriculum. Because not all students that start at the University may have graduation as their ultimate goal, Davenport only measures retention rates for those students that indicate they are seeking a degree. Hence, this study focuses on this same population of students. My disappointment every time a student leaves the University without graduating is a motivating factor to seek improvements in our online offerings. I am reminded of a student who drove two hours to a "Meet the President" event at our Lansing campus just to explain that her online studies had gone well, but she felt disconnected from the school, wasn't sure where to seek assistance, and was considering dropping out. Stories like this are consistent with the literature on feelings of alienation and isolation for online students (Lake, 1999; Phirangee, 2016; Putulowski & Crosby, 2019; Rovai & Wighting, 2005; Stoytcheva, 2021). This story also serves to highlight the need to improve University processes and procedures, as well as the institutional support that students require in order to progress toward graduation. In this particular example, we were able to connect with the student, and they ultimately finished their accounting

degree, went to work, and returned to Davenport University a year later to start an employer-funded Master of Accounting (MACC) degree. There are hundreds of other students who have dropped out of Davenport over the past five years, and most of them have not communicated why they left on our exit-survey. While efforts are underway to improve response rates via phone and email surveys, dropouts have thus far been resistant to reconnecting. During the COVID-19 pandemic, 30% of online dropouts between Fall 2019 and Winter 2020, representing 64 dropouts, did not provide a reason for their exit from Davenport University (Institutional Research, 2020a) indicating that they had not spoken to anyone about their reason for departure. From a personal and professional standpoint, I would like nothing more than to create solutions that keep more students progressing toward graduation. While the retention rate for online undergraduate students has risen from 64% to 69% during the past five years (Institutional Research, 2020c) there is clearly more to be done.

Online students comprise roughly 40% of Davenport University's student body with over 2,500 students taking all of their coursework online (Institutional Research, 2019b). Performance indicators including student satisfaction, course evaluations, and the results of a proprietary online instructor certification program demonstrate the solid performance of online faculty and student services. For the Global Campus, which houses online learning at Davenport University, student satisfaction among online learners outpaces the University average as a whole by a slight, but statistically significant margin (Institutional Research, 2020b). Likewise, Davenport University's course evaluations, referred to as Student Evaluation of Teaching (SET) scores, are high for online courses as well. With an average score of 5.2 out of 6.0 for the 2018-19 school year on a Likert-

esque scale, online students report satisfaction at parity with campus-based courses that showed the same score (Institutional Research, 2019a). Despite parity with face-to-face courses, open-ended comments from online students are telling. They mention a lack of connection with their peers, and with their instructors as reasons for dissatisfaction (Institutional Research, 2019a). For undergraduate online students, fall-to-fall retention is lower than the university average by several percentage points. For students enrolled in Fall 2020, the university average for undergraduate retention was 77% while online students retained at 69% (Institutional Research, 2020c).

Davenport's challenges with online student retention, including the focus on the lack of teaching presence and social presence in courses, is consistent with observations across the higher education landscape. Research shows specific negative impacts in retention for online courses while other studies demonstrate factors similar to those identified at Davenport University, including isolation and lack of support services, for student attrition in online courses (Bawa, 2016; Paulsen & McCormick, 2020; Seery et al., 2021; Xu & Jaggars, 2011). Because these factors are consistent across multiple universities, retention of online students remains a valid area for continued research. This study hypothesizes that despite high levels of satisfaction, instructor presence, and social presence are important factors affecting online student satisfaction, and thus student retention.

Problem of Practice

While Davenport University's 69% retention rate, and the gap between online retention and campus-based retention of 8%, aligns with available national data (Aslanian et al., 2019), University leadership has identified the gap between online and campus-

based student retention as a focus area for improvement. The gap in retention rates between online and campus-based students at Davenport University persists across colleges and programs, between new students and transfer students, and even across age brackets (Institutional Research, 2017, 2019b, 2020c). Because retention is tied to Davenport University's overall performance through the balanced scorecard, retention has already been identified as a critical metric for the university's overall success. This is, in part, because retention is a primary driver of revenue for the university, with student tuition representing the majority of the university's budget. Furthermore, the mission of the university is to help students advance their careers, and failure to complete a degree, or attrition, undermines this mission (Davenport University, n.d.-b). Thus, the lower retention rate for online students is worthy of analysis and improvement to the extent feasible.

At Davenport University, various initiatives to reduce attrition have been deployed, including a student early-alert system, attendance-taking, peer mentoring, and wellness services. Despite these efforts, some students leave the institution. When this happens, students who stop attending classes receive an exit survey to investigate their reasons for stopping. The data from this survey identifies a number of situations where students struggle and eventually drop out of their online courses. Financial reasons are the most common and appear as the largest challenge facing students who drop out in all semesters for which data was available to review (Institutional Research, 2020a). Other factors related to online courses themselves include feelings of isolation, lack of connection with their instructors, the rapid pace and high workload of seven-week three-credit online courses, lack of understanding about how to succeed in the online modality,

confusion about the course design itself, and difficulty with overcoming challenges in the learning material, all of which are consistent with the literature on student attrition (Bawa, 2016; Boton & Gregory, 2015; Burke, 2019; Institutional Research, 2017, 2020a).

One common thread across Davenport's exit-surveys is a lack of engagement with instructors, academic advisors, and the learning management system (LMS), all of which are cited as "Academic Reasons" or "Personal Reasons, Non-Financial" in the data (Institutional Research, 2020a). Financial drivers for attrition are consistent with the literature which shows that while reasons for dropping out are unique to each student, financial factors are often cited as a primary cause (Jung et al., 2017; Lee & Choi, 2011; Willging & Johnson, 2009). During the early stages of the pandemic, a survey of Davenport University students who had transitioned to fully-online instruction highlighted challenges with student-instructor interaction in the online modality. 48% of students indicated they were less than moderately satisfied with the interactions with their instructors despite 69% of students saying their instructors were available for meetings in a timely manner (Elgammal, 2020). The same study noted that students in online courses during the pandemic reported dissatisfaction with student-student interactions, with only 36% indicating moderate satisfaction on this measure. While Davenport has not yet researched the reasons for these challenges with student satisfaction, it may be that their communication strategy that relies heavily on email is at odds with student preferences for face-to-face communication (Swanson et al., 2018). While online learning cannot provide a traditional face-to-face interaction, the availability of synchronous video and other modes of interaction provides an avenue for innovation at Davenport University.

Davenport University has chartered several initiatives over the past 10 years to address student satisfaction and retention in online courses, including standardizing the course templates in the LMS, a virtual orientation targeted to the needs of online students, an instructor certification program to ensure consistent instructional methods in online courses, and the inclusion of weekly introductory videos in course modules. During the course of these initiatives, retention for online students grew to 69% and student satisfaction increased to 6.0 on a 7.0 Likert-esque scale, but the gap in retention rates between on-ground and online courses has not narrowed substantially, and no specific research was conducted to tie the growth in retention to the initiatives deployed (Institutional Research, 2020b, 2020c). While retention at the university overall has improved, and satisfaction with online courses is high, the gap between face-to-face and online retention represents the problem of practice for this dissertation study.

Previous Cycles of Action Research

Action research is an approach whereby practitioners, at the grassroots of an organization, study existing theory and literature to learn about a problem they are facing in their workplace context (Mertler, 2020). Practitioner-researchers then propose solutions to the problem through a cycle of data collection, action, and reflection (Creswell & Guetterman, 2019). The reflection process includes the creation of plans for another cycle of research, giving action research a cyclical nature that invites iteration and continuous improvement. The focus on reflection and cyclical improvement represents a toolset to challenge the status quo from within the workplace context, and the inclusion of an innovation or intervention are delivered to spark positive change that can be improved upon over time. The cyclical nature of action research ensures an

iterative approach to improving the problem of practice, with changes to the innovation or intervention appearing in each cycle of research as the data collected inform future cycles. To that end, action research studies are especially appropriate for resolving complex problems that involve schools and universities (Larrea, 2019).

I completed two cycles of action research prior to this study. Cycle 0 provided an opportunity to learn more about the factors contributing to challenges with online student retention at Davenport University. Cycle 1 gave me a chance to test out an innovation based on increasing student interaction in the online classroom. Both early cycles helped to hone my focus on the problem of practice and determine which facets of the retention pathway from recruitment to graduation would be my focus for future cycles of research, including this dissertation. The findings summarized below informed the selection of research questions for the current cycle of action research.

Cycle Zero — Reconnaissance

My goal for Cycle 0 was to develop some background knowledge on the reasons online students persist from semester-to-semester. The worldwide COVID-19 pandemic presented some challenges in recruiting participants, but because I was seeking online students, it was possible to interview several students, an advisor and two faculty members to discuss their observations about the nature of persistence from semester to semester. In order to uncover and understand the factors that impact academic persistence for this group of students, this cycle of research was framed by the following research questions:

1. What factors contribute to online student attrition and retention at Davenport University?

2. What factors in online coursework at Davenport University contribute to student-instructor and student-student engagement?

This cycle of action research depended upon unstructured qualitative research interviews to probe the phenomenon of student attrition and retention in online courses at Davenport University. Four participants were purposely recruited to provide a variety of perspectives on the phenomena underlying the research questions. The participants were two faculty members, an academic advisor, and a student, all of whom were interviewed via video conference. The unstructured interviews provided flexibility to discuss issues with each of the participants that applied to their role at Davenport University and allowed me to explore their unique perspectives. While each interview was unique, I used a set of standard questions to start the interview (see Appendix A). Faculty and advising participants were asked about their general experiences with online teaching, prior to being asked specific questions about student engagement and attrition. The student interview began with a discussion about why the student took courses online before asking questions about dropouts and student engagement in her classes.

Follow-up questions delved into the various factors surrounding student attrition and retention from the viewpoint of the participants. The questions varied to ensure the verbiage used matched the participant's role and common language. For example, when discussing engagement with the student, I asked “Which online instructors made you feel more connected to the school and what did they do to make you feel that way?” When seeking similar opinions about teaching presence from faculty, the question was asked differently: “Tell me about how you engage with students in online courses.” The unstructured nature of the interviews allowed for greater exploration of differing

perspectives of the participants and ensured that the various roles of the participants were considered appropriately.

Cycle 0 findings. Three primary themes emerged from the interviews, which were coded using a descriptive coding methodology: Communication frequency, social presence, and teaching presence. The frequency of communication between instructors and students was discussed by all four study participants. While it was not the most frequently mentioned theme, it was one theme that tied all four interviews together. Faculty saw it as an approach to engage their students in an asynchronous environment where other options were less available, ensuring student engagement on a frequent basis. The advisor used frequent and consistent communication to ensure students had clarity of expectations. The student I interviewed commented that infrequent communication could be a driver of attrition in online students because they felt abandoned and isolated without support from faculty. Her hypothesis is consistent with literature on teaching presence, described by Garrison et al. (1999) as "the binding element" (p. 96) in ensuring the formation of community in online courses. Lack of teaching presence contributes to the feelings of alienation and isolation in this student's example from her own online coursework at Davenport University:

> I had an instructor who, I don't know if she got fired, I wouldn't doubt it. But she took five to six days to answer [emails]. Okay, when you have seven days to complete your assignments, that is way too long. Not even close.

Social presence was the second most common theme in the interviews, mentioned in different ways by three of the four participants. Increased social presence is correlated with motivation, and motivation is linked to student retention and attrition (Reio & Crim,

2013; Simpson, 2013; Tinto, 2017). To that end, the interview participants discussed various forms of social interaction and engagement which I combined during a second coding pass to denote the overall theme of social presence. Discussions about students interacting with each other, isolation, group project frustrations regarding student personalities, and a student's desire to have more frequent and immediate conversations with her classmates all spoke to an opportunity to leverage social interactions and personalities in online coursework. For faculty members, the concept of social presence was about building better relationships with their students to drive their motivation to continue through the course and into future semesters. A faculty member noted in her interview:

> It just really surprised me how much students would share with you. Sometimes too much. I felt, especially in those early years, like it allowed me to make a one-on-one connection with every student in the class, which I didn't even get in a face-to-face environment.

From a student perspective, the notion of social presence also emerged as a theme whereby student personalities, and a student's desire to have more frequent and immediate conversations with her classmates all spoke to an opportunity to leverage social interactions and personalities in online coursework. In describing an improved version of group projects, it was clear one student felt she had not been able to engage with other students in the class. She proposed a way to get to know her classmates better and also lamented the need to read the majority of instructor-student communication:

> I think what would be cool to students is to have more video like this interview. Yeah, collaboration instead, you know, how they know their group project team

better. Even the instructor like face-to-face, but no, you have to read everything right now. So, I don't know.

Cycle 0 participants delivered foundational information about student persistence and retention at Davenport. Namely, the lack of engagement with their instructors and the lack of engagement with each other emerged as central themes, which ultimately led me to consider the Community of Inquiry Framework (Garrison et al., 1999) and its focus on teaching presence, social presence, and cognitive presence as a foundation for future cycles of action research. In considering possible approaches for innovation in future cycles, I reflected upon ways to bring more students together in online environments, outside the confines of their sections of a course. One potential solution would be the creation of an online Community of Practice that spanned multiple courses, in an attempt to build more social presence among a larger population of students. I considered opportunities to address teaching presence through the same vehicle and prepared Cycle 1 to test out some of these ideas.

Cycle 1 – Group Projects and Multi-Course Engagement

Cycle 1 provided an opportunity to utilize the findings of Cycle 0 to approach the problem through a small-scale deployment of an innovation aimed at building better social and cognitive presence in group projects. The innovation was informed by the CoI framework (Garrison et al., 1999) and the findings of Cycle 0 suggesting that both instructor's teaching presence and a lack of social connection with students in group projects were negatively impacting student experiences in the courses. In order to further understand the factors that impact academic retention and attrition for online students, Cycle 1 of this action research study focused on the relationship between student

engagement, social presence, and group work in asynchronous online marketing courses. The study had the following research questions.

1. How and to what extent do cross-course student-to-student interactions in an online learning community improve student engagement?
2. How and to what degree does improved student engagement translate to reduced mid-semester dropout rates in undergraduate online marketing courses?
3. How does improved student engagement lead to an increased expectation of retention among online undergraduate students?

Cycle 1 was a mixed methods action research study that reviewed web meta-data from Davenport University's LMS before and after the use of a small-scale innovation meant to drive up student engagement. I brought groups of students from various courses (MKTG320 and MKTG324) together to work on their group projects in a common web-based learning community with a goal of fostering better collaboration and engagement with the curriculum and each other. In addition to the review of metadata, I interviewed students about their impressions of the group project innovation, as well as its likelihood of helping them to feel more connected to the course and each other. Finally, I asked them questions about their future semesters, to uncover any trends related to persistence.

Cycle 1 innovation. To facilitate constructive discussions and discourage sharing of actual gradable work, assignments were altered to ensure that students worked on similar concepts without working on the same exact topic between groups. An online community was built into the Davenport University Blackboard Learn system so that students could interact with each other, and their extended group projects, in a shared

space. The intent of the online community was to encourage students to act as a Community of Practice, with common goals, shared knowledge, and interactions designed to encourage belonging (Wenger, 1999). By providing both alignment of tasks and a shared space for learning, the goal of the Cycle 1 innovation was to encourage enhanced social presence for students who already met many of the traits of a community of practice as defined by Wenger (1999).

In working within the shared online space, which I called the Panthers Paw after the school's athletic mascot, MKTG320 students conducted competitive market research in a field of their choosing with a focus on digital presence of the brand. For example, students researching a car company were tasked with explaining how the car company presented itself in digital marketing, from website messaging to advertisements and social media posts. MKTG324 students conducted social media audits of any company they liked that had an active social media presence on at least three major social networks. The analysis focused on how brands used social media to present themselves. For example, students studying outdoor clothing brands saw some companies focus on sharing messages of conservation and activism, while others talked more about product features and fashion. Projects were loaded and stored on the Panthers Paw where students from both courses could review the work and interact with any group members from the other course. The intention was to encourage organic interactions between the groups and increase the amount of time students spent interacting with their courses.

Cycle one findings. This study examined the relationship between a student's grade in the course and other successful outcomes that predict retention. Data was gathered from the Blackboard Learn LMS, using the Analytics4Learn data warehouse.

The fields that I collected were Enrollment Status, Student Grade %, Course Accesses, Interactions, Course Items Accessed and Submitted Items (see Table 1). Continuous measurement variables were selected because they could be observed during the semester, allowing for post-innovation measurement mid-semester. These variables were converted to weekly averages to allow for more consistent observation over varying lengths of time. I analyzed data from prior to the innovation by looking at two years of historical data as well as post-innovation data from sections taught during the study. I conducted bivariate correlations for each variable compared to the student's grade in the course to garner some understanding of the relationship between variables of engagement and overall student performance. Pre-innovation data did not show a significant correlation between any of the engagement variables and final student grade. Post study data did show weak but significant correlations between course accesses per week and student grade percentage ($p<0.05$, $r=0.271$) as well as interactions per week and student grade percentage ($p<0.01$, $r=0.296$). Finally, I conducted an independent samples *t*-test to compare the means of the two quantitative data sets for course accesses per week, interactions per week, and final grade percent but I was unable to reject the null hypothesis based on the significance values of $p>0.05$.

Table 1

Engagement variables for Cycle 1 analysis

Field	Frequency of Measure	Field Definition

Enrollment Status	Once per semester	Whether or not a student remains enrolled at Davenport University
Student Grade %	Continuous	The student's % as a fraction of points offered to-date within a semester
Course Accesses per week	Weekly	The number of times a student has logged into a given course as converted to a weekly average
Interactions per week	Weekly	The number of times a student has interacted with material within the online course as converted to a weekly average
Course Items Accessed per week	Weekly	The number of items (e.g., assignments, PDFs, etc.) that a student has accessed within a course shell as converted to a weekly average
Submitted Items	Continuous	The number of items a student has submitted through the Blackboard course shell. This is typically assignments like papers, quizzes, and discussion posts.

Synthesis of the qualitative and quantitative data in this mixed methods study ultimately focused on the qualitative interviews, where analysis provided more definitive results. Interviews were coded using a grounded interpretation approach wherein, I coded transcribed interviews in a line-by-line method, followed by categorization and thematic

analysis of the categories and codes (Charmaz, 2014). During this process I kept memos to ensure that I could stop to consider the meaning I was attributing to various codes, as well as to ensure I was consistent in applying the codes. Line-by-line codes were kept alongside the transcript, while categories and themes were denoted in a codebook kept in a spreadsheet showing the hierarchy between themes, categories and codes.

While Cycle 1 contained both qualitative and quantitative data, the qualitative interviews were ultimately more helpful in seeing how students view their path toward graduation and the likelihood of dropping out mid-semester. The quantitative data provides a foundation for reviewing the thematically coded interview data, as well as a numeric analysis of the level of interaction and engagement in the course using the innovation. Because mid-semester dropout rates are typically two or fewer students per semester per course section, future cycles will focus on the intermediary steps that lead to retention or attrition, utilizing a path model (see Figure 1) to describe the benefits of increased social presence and student engagement.

Cycle 1 did not show any changes in engagement, drop-out rates or expectations of retention. Students uniformly indicated a strong desire to finish their degree and progress toward graduation. However, it was clear that factors related to group projects and instructor presence impacted their expectation of retention negatively. One student discussed feeling disengaged from school altogether (despite a stated preference for asynchronous online courses) which directly related to her concerns that she would not retain in the future. After a semester of struggling to communicate and connect with her instructor, she noted "I scheduled the day after classes started because I was just like, trying to convince myself to go back at all." While she indicated a strong desire to finish

her degree, it was clear that her feelings of isolation, struggles with group projects specifically, and lack of connection with her instructor had almost led to her departure from the University. The other students I interviewed expressed similar frustration, specifically with their group projects, however some were able to find ways to succeed. Another student mentioned that communication through more than one means was helpful:

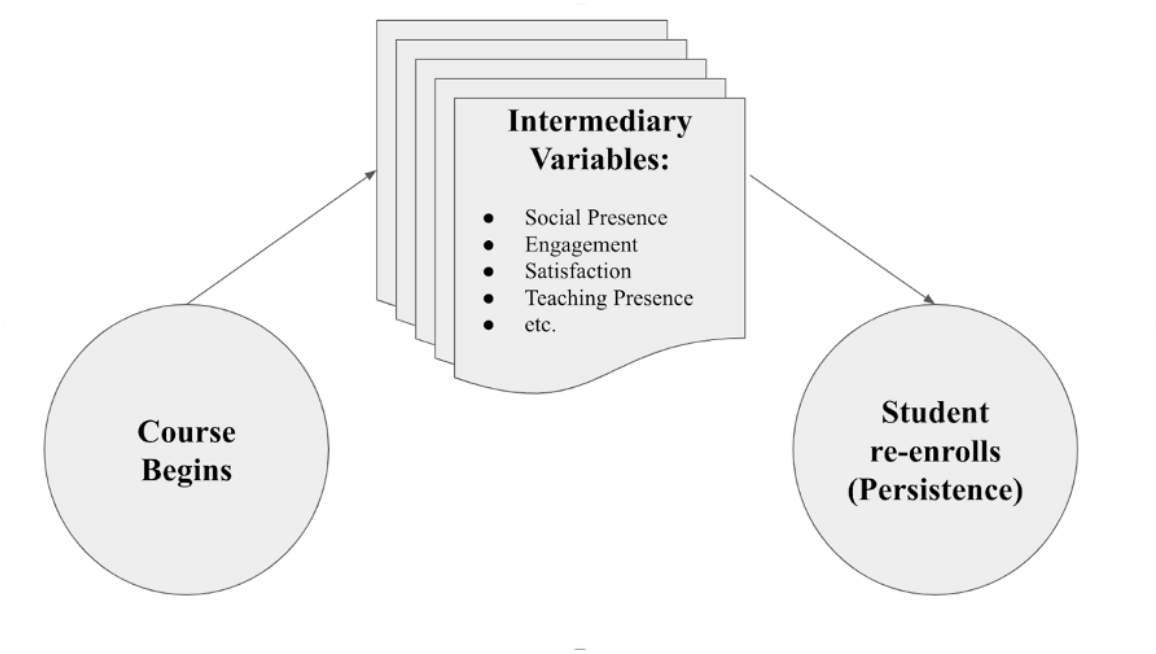
> Generally, a combination works. I don't ever try to communicate over, you know, just one platform. That's not going to work. But a mixture of mostly group chat over text message. Um, and their Google Meet, or the Collaborate session and Blackboard. Or Google Docs if you really can't be on video. Anything like that. Any collaborative type thing I absolutely make full use of.

As a college administrator, I was left wondering why such a complex solution would even be required if instructors and students were communicating effectively with each other.

Students who were interviewed for Cycle 1 gave the online Community of Practice positive reviews for its design attempts at getting them in contact with more students, including those from other sections and courses. While the quantitative data does not suggest the Community of Practice deployed in this cycle of action research had an impact on the likelihood a student would retain throughout a course, it would appear that the students interviewed for this study were struggling in part with the very issues the innovation sought to alleviate. This cycle of action research did not provide evidence that the Community of Practice in its current state improved the likelihood of students finishing their courses or retaining for future semesters.

Figure 1

Example of a Path Model for Student Retention



Dissertation Cycle Plan

In this cycle of action research I focused on a path model (see Figure 1) and researched the impacts of my innovation on the intermediary variables that can be measured before a student has dropped out, as opposed to retention and attrition which are measured after the student has already decided to continue or stop their educational journey. As I will demonstrate in my literature review, selecting intermediary variables that positively impact retention will allow me to focus on those elements of the path model that can be measured and affected in a single semester course. By narrowing the focus of my research questions and focusing specifically on the elements of the Community of Inquiry framework, I sought to produce more definitive findings.

Previous cycles of research also suffered from a lack of diversity in the participants. Convenience sampling was used in order to secure volunteers from the

limited audience available during the global pandemic. Because of the need to recruit participants, I felt compelled to accept the assistance of those who volunteered. Perhaps in some situations this might result in a typical sample, but in Cycle 0, for example, the four students I spoke with are all relatively high achieving students with 3.0 or above GPAs, full-time jobs, and an excitement about the subject matter. Purposeful sampling would have ensured a diverse sample of students with varied academic profiles but was not a feasible approach for this study. Given the short-duration of Davenport University's seven-week courses, and the resulting short window to recruit volunteers from a study body of working adults who are hesitant to take on additional tasks, I may be required to rely again on convenience sampling. Regardless of the methodology for sample selection, the goal was, and will continue to be, a diverse and representative set of students to interview for the qualitative portions of future cycles of mixed methods action research.

Research Questions

Given the focus on retention and narrowing the gap between campus-based student retention and online student retention at Davenport University, and the relationship between student satisfaction, presence in courses as variables in the path model of student retention (see Figure 1), a study of the impact video feedback from instructors, and student-to-student video discussions can have on teaching presence and social presence in asynchronous online courses was justified. Such a study may help leaders plan to improve student experiences online which in turn, could improve persistence and retention metrics for the university's balanced scorecard. Given my access to course designs, and my oversight of online course sections, I have a unique opportunity to explore innovations that enhance the student experience across Davenport

University. My goal with this study was to embed video in courses both as an instructor feedback tool and a student-to-student feedback tool in a manner that is time-efficient for instructors and improves teaching and social presence in online courses. Such an approach was be constructed through the lens of Bandura's (2005) Social Cognitive Theory, Tinto's (2017) model of student motivation and persistence, and Garrison et al.'s (1999) Community of Inquiry framework. With these frameworks in mind, I conducted an action research study framed by the following research questions:

1. How and to what extent does augmenting text feedback with instructor videos affect a student's perception of teaching presence and social presence in online asynchronous undergraduate courses?
2. How and to what extent does including video feedback as part of student discussion assignments affect student perceptions of social presence in online asynchronous courses?
3. How do instructors perceive the expanded integration of video feedback impacts their presence in asynchronous online courses?

CHAPTER 2

REVIEW OF SCHOLARLY & PRACTITIONER KNOWLEDGE INFORMING THE STUDY

Growth in online education has been matched with an increasing number of studies about student habits, outcomes, struggles, and challenges in this modality. While online learning has played a part in doubling the number of students with access to college (Tinto, 2012), there is still some disagreement as to the effectiveness of online learning compared to in-person classes as well as the proper approach to building student engagement in this continuously growing modality (Idrizi et al., 2021; Tight, 2020). As recently as 2008, there was still debate on the definition of online learning and how to research its effectiveness (Andrews & Haythornthwaite, 2008). Despite some underlying uncertainty about how to frame research on online learning, the factors critical to higher education as a whole provide guideposts for how to evaluate the effectiveness of an online program. Tinto (2006) notes that student retention remains "one of the most widely studied areas in higher education" (p.1) and has been for over 40 years. Fifteen years after Tinto's remarks little has changed in this regard: Retention still represents a critical area of study for colleges seeking to improve student success and their own institutional financial stability (Burke, 2019; Hovdhaugen et al., 2013; Ruffalo Noel Levitz and Civitas, 2020). More specifically, there have been extensive studies on the lower rates of retention among online students over the past 20 years (Bailey et al., 2018; Boton & Gregory, 2015; Chen et al., 2020; Lake, 1999; Seery et al., 2021; Simpson, 2013). At Davenport University, online students retain from fall-to-fall at a rate of 69% while campus-based students retain at a rate of 77% (Institutional Research, 2020c).

These numbers were consistent through the COVID-19 pandemic, with 2019 retention rates of 68% for online students and 76% for the university overall (Institutional Research, 2019b). While the 8% gap in 2019 and 2020 aligns with long term national averages (Aslanian et al., 2019; Bawa, 2016), Davenport University leadership identified closing this gap between online and campus-based retention rates as a focus area for improvement.

This study investigated the teaching presence and social presence of undergraduate students in asynchronous online courses at Davenport University through the lenses of Social Cognitive Theory (Bandura, 2005), and the Community of Inquiry framework (Garrison et al., 1999). Specifically, the study focuses on the foundational notion that while students are agents in their own learning, the complex socio-cultural web in which they live (wherever that may be) is also central to their cognitive development. Furthermore, the Community of Inquiry framework provides an online-learning-focused framework for describing a quality online learning experience for students, aligned with principles from Bandura's (2005) social cognitive theory. Investigating the means by which the facets of the Community of Inquiry framework can be altered in online courses, and how these alterations impact student engagement, satisfaction, and ultimately retention is the focus of the study and this literature review. The chapter is organized with an examination of each theory, beginning with Social Cognitive Theory wherein intentionality, self-regulation, social modeling and self-efficacy are each reviewed. The chapter then progresses to an examination of Tinto's model of motivation-based student retention, and the Community of Inquiry framework. The chapter concludes with a discussion of the implications for online student retention,

as well as a brief discussion of how the Community of Inquiry framework provides a foundation for using video (both recorded and synchronous) to explore student retention at Davenport University.

Social Cognitive Theory

Social Cognitive Theory grew from constructivism during the second half of the twentieth century, and was originally titled Social Learning Theory (Bandura, 2011; Schunk, 2012). The theory weaves concepts of self-agency and self-regulation from constructivist paradigms together with an understanding that our environment, and the social structures in which learning occurs, are drivers of behavioral change and learning (Bandura, 2005; Boekaerts et al., 1999; Mertens, 2015). The theory rejects the stimulus/response-driven focus of behaviorism, opting instead for a social context-driven approach to learning and development while maintaining the constructivist notion that learners are at least partially responsible for building meaning in the world they inhabit (Bandura, 2005).

Central to the application of Social Cognitive Theory to learning is the relationship between educational goals and motivational goals, both which are achieved through a combination of personal processes, behavioral processes and social/environmental processes (Pintrich, 2004; Schunk, 1989; Schunk & DiBenedetto, 2020). While motivation itself is theorized to be an internal process, the relationship between the motivation and external social factors is supported in the literature, lending support to those seeking to apply Bandura's (2005) theory to learning and education (Maddux & Kleiman, 2016; Schunk, 2012; Schunk & DiBenedetto, 2020). Within the general application of Social Cognitive Theory to learning, several key concepts of Social

Cognitive Theory provide a baseline for investigating online learning and this action research study specifically.

Intentionality and Self-Regulation

Central to social cognitive theory is the idea that people "form intentions that include action plans and strategies for realizing them" (Bandura, 2005, p. 9). A focus on the future state and the ability to formulate a strategy to achieve that desired future implies learning is a deeply personal process with a desired outcome that is related to the context in which the person resides. Outcomes exist within the world we inhabit, not merely in our minds. While the goal itself and the plan to achieve it both begin as concepts, they serve as more concrete guides to learners seeking knowledge, and aid in motivation to achieve goals (Bandura, 2005; Schunk, 1989). The interplay between motivation and decisions made in support of that motivation illustrates the importance of intentionality, wherein a student seeks to accomplish goals with intentional action (Pintrich, 2004).

Related to intentionality in that it resides within the person, self-regulation refers to the idea that people can control their own behaviors by acting on their intentions (Bandura, 2011; Boekaerts et al., 1999; Pintrich, 2004). Bandura (2001) states "self-regulative means they make desired things happen" (Bandura, 2001, p. 3). Thus, self-regulation describes the means by which intentionality becomes real, shaping the environment in which humans exist. As a component of social cognitive learning, self-regulation is critical because it represents an intersection between metacognitive processes and the realization of those processes in context. While self-regulation is an

individual learning process, it occurs amidst social norms and messages, providing an intersection between self and society (Paris & Winograd, 1990).

While self-regulation is largely an internal process, it does have social components. Social comparison describes the process by which learners compare their performance to others, forming opinions about their own abilities, adjusting goals, and judge the attainability of goals based on what they observe in the environment around them (Schunk, 1989). Social comparison can negatively lead to anxiety and cognitive overload, or it can help learners grow their self-efficacy through observations of success that appear attainable. This study deals with asynchronous online learning where the concepts of self-regulation and intentionality are positively correlated with student achievement (Bradley et al., 2017). Therefore, this study assumes that students learning in an asynchronous environment will perform better and be more likely to retain if the learning environment encourages improvements in self-regulation and increases in intentionality. The instrument utilized, aligns with the Community of Inquiry which makes similar assumptions about online learners.

Social Modeling and the Creation of Environment

Social cognitive theory differentiates itself from metacognitive theories because of the social components of the theory. Observational learning, later retitled social modeling, provides a framework for describing how behaviors and thoughts are shaped by those modeled in a social setting (Schunk, 2012; Schunk & DiBenedetto, 2020). The concept of modeling is more than mere imitation and consists of four subprocesses: attention, representation, translation, and motivation (Bandura, 2005). Unlike behaviorism, which focuses upon stimulus-driven behavioral change, the translation step

of social modeling describes the means by which individuals analyze and interpret the behavior they are witnessing through their own goals and aspirations, resulting in motivation to make a change (Bandura, 2005). Social Cognitive Theory stipulates this process as key to human learning, including changes to motivations, modulation of social responses, and even the definition of reality (Andersen & Przybylinski, 2018; Bandura, 2011).

Social modeling and the environmental facets of social cognitive theory provide an intersection between cognition and action, between imitation and creation of new environments, and between the concept of a desired future and its realization. The actual development of new environments is an iterative process, comprised of cyclical improvements as learners compare their conception of an ideal future to the reality they have created (Bandura, 2005). The feedback loop that drives this iterative process is social in nature, as social norms and feedback provide the information that allows learners to make these comparisons (Bandura, 2001; Schunk, 1989; B. Zimmerman, 1990). In the context of online learning, this suggests that the presence of other individuals, be they instructors or other students, can help to provide the social feedback loop that drives improvement. An online environment that allows for social modeling should be superior to one that does not.

The process of social modeling requires observation, but not physical proximity. The pervasiveness of the internet in the 21st century means diffusion of modeled behaviors occurs rapidly across the world, between different cultural contexts and across land borders that would have slowed the process in previous generations (Bandura, 2011). Libraries, museums, universities and social organizations provide the materials for

attention, representation, and translation. All that remains is the ability of a learner to self-regulate and create their desired future state. The internet places a premium on self-regulation, allowing those who practice this skill to rapidly expand their understanding of the world, while those who do not may fall behind (B. Zimmerman, 1990).

Agency

Social Cognitive Theory reaches beyond personal agency, and focuses on three facets of agency, including individual agency, proxy agency, and collective agency (Bandura, 2005, 2011). The discussion of self-efficacy, in which individuals exercise agency over their actions based in part on a belief of their ability to be successful, is a much-discussed facet of agency in Social Cognitive Theory (Pajares, 1997). Self-belief and individual agency, certainly play a role in asynchronous online learning where learners are often alone and must look inward for motivation. Proxy agency describes a situation in which individuals without the means to deliver their own success campaign to have others deliver the outcome on their behalf (Bray et al., 2001; Shields & Brawley, 2006). Finally, collective agency refers to a shared belief that a group can achieve an outcome working together (Bandura, 2000), which has direct application to how online learners can collaborate to make meaning in their coursework (Stroupe et al., 2018; Yang et al., 2020; Zhang et al., 2021). For the purposes of this study, students working on course discussions may exhibit all three forms of agency, but self-efficacy and collective agency will be the lenses through which I analyze student behavior because they most closely align with the Community of Inquiry framework which is discussed below.

Social Cognitive Learning: Retention, Motivation, and Online Learning

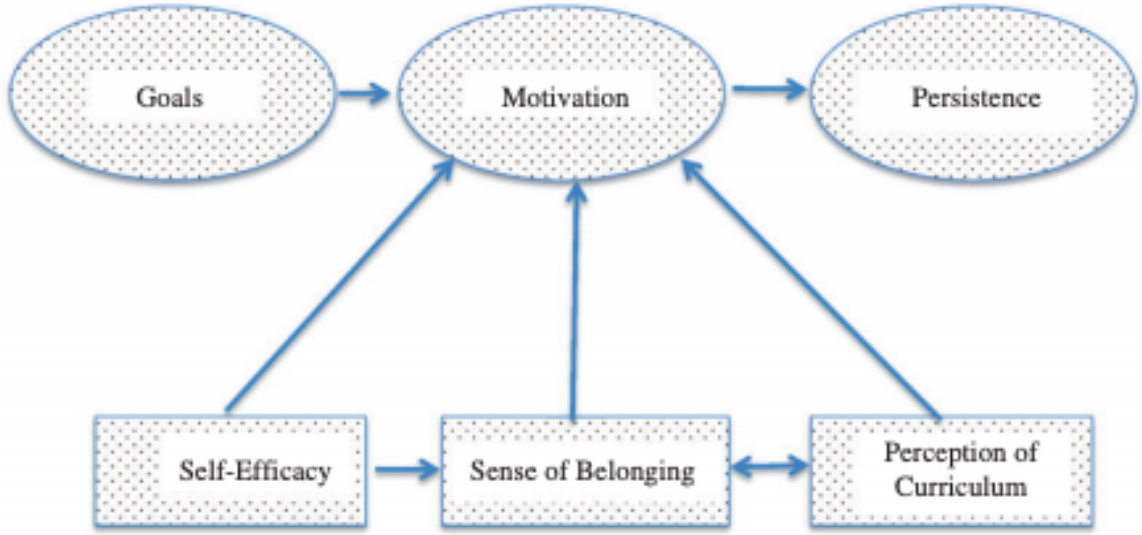
Research into student retention is widespread and has been conducted through a variety of lenses that relate to or directly support social cognitive theory. While his original model of student dropout was largely based on the notion of integration, Dr. Vincent Tinto has more recently shaped his research to focus on student motivation and self-efficacy (Tinto, 1975, 2017). Tinto's model of student motivation and persistence (see Figure 2) posits a social-cognitive approach to why students stay in college and finish their courses or degrees. Tinto (2017) provides several factors that influence a student's retention in college, all of which are socially influenced and personally translated, demonstrating his model's social-cognitive roots. Dr. Tinto discusses how students set specific goals (beyond merely completing college), some of which may not align with institutional priorities. For example, a desire to finish school at a different institution than where they began is a valid student goal that represents persistence and motivation for educational attainment. Their goals may also be more aligned with career attainment than educational advancement (Tinto, 2017). These differing goals, result in different translations of the same social modeling, and will certainly impact how students perceive their college experience. In Tinto's model, a student's self-efficacy beliefs directly impact their motivation as well, contributing to their belief about whether or not the goals they have set are attainable.

Social Cognitive Theory also provides an interesting lens for the analysis of online learning environments and student retention. The ease with which social connection and communication can be omitted or lost in an online environment places special importance on building it into online courses (Drouin, 2008). The perception of community in an online environment can be enhanced through increased interaction

between students and instructors, as well as between students themselves, furthering the likelihood that social modeling can occur in service of student goals (Drouin, 2008; Stoytcheva, 2021). A sense of community for college learners has been correlated with improved student satisfaction (Rovai, 2002), which in turn links to increased retention (Rovai & Wighting, 2005). Thus, a linkage between student retention and learning in a socially cognitive manner is established. This study therefore presumes a linkage between social cognition, a sense of community, and increased persistence and retention rates.

Figure 2

Tinto's model of student motivation and persistence



From "Through the Eyes of Students," by V. Tinto, 2017, *Journal of College Student Retention: Research, Theory & Practice, 19*(3), p. 256.

Critiques of Social Cognitive Theory

Bandura's Social Cognitive Theory (2005) is not without criticism. Specifically, Bandura's (2005) inclusion of self-efficacy as a driver of behaviors, improvements and

goal attainment has brought criticism from several fronts. Perceptual control theory posits a potential negative impact wherein self-efficacy narrows the gap between perception of ability and actual performance, thus slowing potential growth (Powers, 1991). Several studies demonstrating a negative relationship between believed ability and actual performance in a learning setting certainly call into question some facets of the self-efficacy component of Social Cognitive Theory. Researchers adhering to the perceptual control theory described a loss of motivation to improve performance when individuals believe (falsely even) that their existing abilities are already acceptable, or when measured across time rather than individuals (Vancouver, 2012; Vancouver et al., 2002; Vancouver & Kendall, 2006). Bandura (2012) himself even notes that self-efficacy belief cannot operate alone to improve performance, observing that an incorrect assessment of one's abilities can result in failed actions.

Critiques of self-efficacy aside, when taken as a whole, Social Cognitive Theory provides an ample theoretical basis for analyzing the performance of students in a learning setting. Bandura's (2005) focus on modeling, social meaning-making, and self-efficacy combine to provide a framework that lends itself especially well to the investigation of learning in modalities where one or more of these faces is difficult to observe. With Social Cognitive Theory as a baseline, the addition of an online-specific framework bolsters the theoretical basis for this study.

The Community of Inquiry framework

The linkage between social learning, and online coursework is provided by a different theoretical framework. In the early 1900s, John Dewey proposed a shift of

thought in the classroom from the dissemination of knowledge to practical inquiry (Lipman, 2003). C.S. Pierce actually coined the term community of inquiry in the late 1800s despite being largely ignored by the literature and focused exclusively on scientific communities (Lipman, 2003). Near the end of the twentieth century, Wenger (1998) discussed Communities of Practice and defined them as groups of people working in collective learning and pursuit of field-specific knowledge. The concept of a group of people working together on a common practice, with commitment to a domain of expertise defines a community of practice broadly (Wenger, 1999). At a more education-specific level, the concept of community (not of practice, but of inquiry) became a study topic for researchers at the University of Athabasca in Alberta in 1997 (Garrison, 2020). In what appears to be a blending of Dewey's inquiry-based education, Pierce's communities of inquiry, Wenger's communities of practice, and the emerging online learning platforms that were gaining popularity at the time, the Community of Inquiry framework was born in 1999 (Garrison et al., 1999).

The result of the research at Athabasca was the seminal paper defining the Community of Inquiry framework in the context of online education (Garrison et al., 1999). The Community of Inquiry framework outlines the intersection of three forms of presence in a classroom: cognitive, social, and teaching presence. The three work together, both online and on campus, to represent the core facets of a community of inquiry.

Cognitive presence is the degree to which participants "are able to construct meaning through sustained communication" (Garrison et al., 1999, p. 89). Cognitive

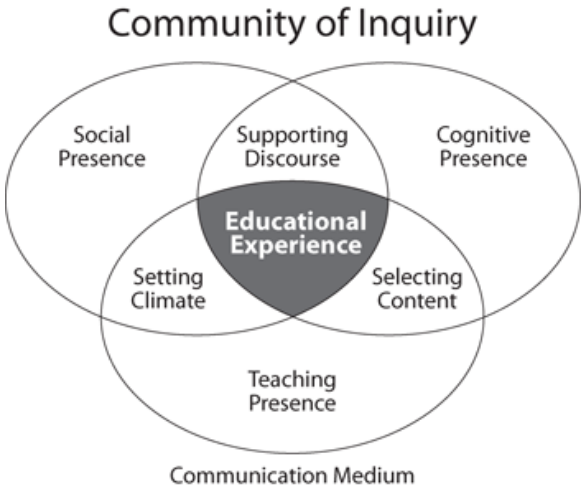
presence is a foundational element of critical thinking, and as such is a central goal of higher education (Garrison et al., 1999). Reflection and integration are central to cognitive presence, allowing learners to build their own meaning during and increase knowledge (Fiock, 2020).

Social presence represents the expression of self in the learning environment and represents the projection of emotions, openness and realness (Garrison et al., 1999). Garrison et al. (1999) saw this as largely a support function for cognitive presence, focusing on building trust to enable better communication and the development of personal relationships among learners and leaders (Maddrell et al., 2017). The trusting, social environment supports critical thinking and cognitive presence, enabling the Community of Inquiry to construct knowledge (Garrison, 2017). A common thread across examinations of community (both physical and virtual), is the formation of cognitive and/or emotional connections between participants, regardless of where they may be physically located, and social presence is how the Community of Inquiry framework reconciles this community need in a computer-moderated environment (Fiock, 2020).

As early as 2000, research into the importance of social presence in online learning was being conducted with Bandura's (2005) Social Cognitive Theory as the framework for observation (Tu, 2000). Identified as a means for avoiding the isolation and alienation common in online courses, social presence has been seen as an important factor in enhancing online student experiences both from a satisfaction standpoint, and for overall learning performance (Ramlatchan & Watson, 2020; Wei et al., 2012).

Figure 3

Community of inquiry framework



From "Critical Inquiry in a Text-Based Environment: Computer Conferencing in Higher Education," by D.R. Garrison, T. Anderson, and W. Archer, 1999, *The Internet and Higher Education*, 2, p. 88, Copyright 1999 by Elsevier Science Inc.

The third and final form of presence in the Community of Inquiry framework is teaching presence. Garrison et al. (1999) presented this as the glue that validates the entire framework. Teaching presence includes both the design and facilitation of the educational experience. While the educational design function is typically the domain of the teacher, facilitation in online courses is typically shared between teacher and students (Garrison, 2017). In this manner, the term teaching presence can refer to both instructors and students alike (Garrison, 2017).

The three forms of presence described by the framework intersect to portray a "worthwhile educational experience" (Garrison et al., 1999, p. 88) within a Community of Inquiry. Depicted in Figure 3, the intersection points out how to encourage the three

forms of presence, as well as how they align to create the student experience in an online course. Measurement of the presence of Community of Inquiry elements in education is conducted using the Community of Inquiry survey (Arbaugh et al., 2008). This instrument was validated at multiple institutions across Canada and the United States of America (Arbaugh et al., 2008; Shea & Bidjerano, 2009). The Community of Inquiry survey (CoI survey) contains 34 questions which measure the level of teaching, social and cognitive presence from the student's perception, measured on a 5-point Likert scale (Arbaugh et al., 2008). This study will rely upon the CoI survey to collect quantitative data about teaching, social and cognitive presence in asynchronous classes.

Community of Inquiry: Supporting Research

Given the challenges with creating social presence in online courses, it is perhaps no surprise that some research about student retention through the lens of the Community of Inquiry framework seems to focus on creating social presence (Boston et al., 2019; Glenn, 2018). Glenn (2018) reports that students learn more effectively "when they feel safe and respected" (p. 381). A myriad of solutions exists for instructors seeking to build trust and authenticity in online courses. Social presence that drives risk-free expression and collaboration is a key indicator of success (Garrison et al., 1999). The instructor's role in building social presence for the class falls in the intersection between teaching presence and social presence as indicated in the Community of Inquiry framework model (see Figure 3). Garrison et al. (1999) describe this as setting the climate. Glenn (2018) offers suggestions such as welcome activities, encouragement and student feedback to help set the various modalities to be used in an online course. These activities combined

can help add “the human touch to asynchronous” online courses and increase social presence (Glenn, 2018, p. 381).

Boston et al. (2019) studied “over 28,000 student records” (p. 3) and determined that social presence was the most impactful Community of Inquiry element in driving student retention online. By examining the results of the Community of Inquiry Survey, Boston et al. (2019) concluded the student-reported value of social interaction on the web accounted for over 18% of retention-related variance in student behaviors from semester to semester. While the study cautions against using this data to draw conclusions about retention for blended learning, or for students taking some courses online and some on campus, the results are encouraging for researchers and administrators seeking to improve student retention for their fully-online students (Boston et al., 2019, p. 13).

The Community of Inquiry framework is not without criticism. Some research has suggested a “lack of empirical evidence to support the framework’s central claim” (Maddrell et al., 2017, p. 245) that working to improve teaching, social and cognitive presence can lead to better student outcomes. Maddrell et al. (2017) used the Community of Inquiry Survey to study student perceptions of learning and relate them to teacher-assessments. Their study concluded that there was “no relationship between the Community of Inquiry composite score and any of the three instructor-assessed learning outcome measures” (Maddrell et al., 2017, p. 245). Of specific interest to this study, there is an emerging body of research that suggests more commonality between presences. For example, teaching presence in online courses is now observed through the presence of social connections between teacher and student (Armellini & De Stefani, 2016). Another

critique focuses more on the relative importance of each form of presence within a Community of Inquiry.

While the Community of Inquiry framework was developed to address text-based asynchronous online learning (Garrison et al., 1999), the framework has been deployed and used to measure presence in other modalities, including blended and synchronous online video courses (Szeto, 2015). In the synchronous and blended environments, Szeto (2015) found that teacher presence was more important than cognitive or social presence in predicting student outcomes. Szeto (2015) presents several reasons for the dominance of teaching presence in blended and synchronous learning, but they are potential topics for future research, not results of the study. As this study focuses more on student satisfaction and likelihood of persistence, these critiques, while potentially important in studying the Community of Inquiry framework itself, are not problematic for the use of the framework as a lens for analysis.

Video-Based Online Instruction

Because this study focuses on using video to enhance teaching and social presence in online courses, a specific review of the literature surrounding video-based instruction is warranted. Students prefer multimedia inclusion in their courses, and its inclusion in online courses is a widely accepted best practice (Mandernach, 2006). However, the research is mixed when assessing whether videos (instructor-produced or otherwise) actually improve student learning outcomes. Some researchers point to the lack of significant difference between students in courses making use of videos and those without (Mandernach, 2009; Pang, 2009). However, some of the same research suggests

that while quantitative results did not reveal differences in student learning outcomes, but concurrent qualitative research illustrated student preferences for video instruction, and student beliefs that the videos helped them complete their courses more successfully (Mandernach, 2009, 2015). Advances in video technology and the ability to rapidly and easily produce content for use in online college courses represents an unexploited approach to improving online courses through better instructor materials and student collaboration (Laaser & Toloza, 2017). Laaser and Toloza describe the use of video in terms that is inherently compatible with both Bandura's (2005) Social Cognitive Theory, and Garrison et al.'s (1999) Community of Inquiry framework.

As video has transitioned from a medium requiring production studios and expensive equipment to the domain of nearly-ubiquitous cellphones, the discussion in literature has shifted from whether or not video helps students learn, to whether the cost (to faculty in time and workload) is beneficial enough to warrant the creation of said videos. Videos generally have a shorter usable lifespan than printed materials (Alharthi et al., 2019; Brame, 2016; Choi & Johnson, 2005). Furthermore, videos require substantial resources on the part of the instructor. Research suggests videos that demonstrate content or preferred student behaviors via screencast have a longer lifespan (and thus require less workload to refresh over time) than videos using other formats including static slideshows with audio voice-overs, and videos of real-life events filmed on-location (Espino et al., 2021).

Implications

Social cognitive theory describes learning as a self-regulated process based on social modeling driven by goals and action plans to attain those goals (Bandura, 2005). Tinto (2017) provides a model of student persistence based on the desire to succeed, a self-regulating goal-action pairing as described by Bandura (2005). The Community of Inquiry framework describes the need for social presence and teaching presence to ensure a quality online learning experience (Garrison et al., 1999). When taken as a whole, these three learning theories present students as self-regulating agents, constructing meaning in conjunction with other students and their instructors. Meanwhile, the literature on the use of video in online courses suggests that embedding multimedia in online learning can improve student satisfaction, often at a high cost in instructor effort and time (Espino et al., 2021; Laaser & Toloza, 2017; Pang, 2009). For institutions of higher education providing online courses, this suggests the need for a cost-effective means of video instruction in online courses that minimizes instructor resources while still encouraging teaching and social presence. Such a solution would improve student satisfaction (Laaser & Toloza, 2017) which in turn should improve student persistence and course completions (Tinto, 2017).

In order to build such a solution, we must consider the social modeling that would occur on campus and how to replicate some of it in the online space. Furthermore, there are cultural considerations for students in asynchronous online courses as they could live in very different cultural and environmental contexts. The challenge in an online environment is finding a method of modeling that allows students to construct knowledge as described by Bandura (2005) without direct access to the social norms and messages of a college campus. The Community of Inquiry framework provides such a tool, with its

focus on the interplay between cognitive, social, and teaching presence in the online classroom (Garrison et al., 1999).

For this study, the prevalence of online learners at Davenport University provides several opportunities to introduce the Community of Inquiry framework and extend the literature surrounding the benefit and relative weighting of social, teaching, and cognitive presence in online classrooms. Specifically, "studies need to be conducted to test whether uploading professor-produced videos" (Glenn, 2018, p. 391) improves student perceptions of teaching presence. In addition, if as suggested by Boston et al. (2019), social presence is more important than teaching or cognitive presence for online student retention, an opportunity exists to investigate those findings at Davenport University through the use of videos produced by students engaging with each other.

CHAPTER 3

METHOD

This chapter explains the methods and procedures utilized in this concurrent mixed methods action research study. It provides a brief contextual introduction and a restatement of the research questions, followed by a review of the study's purpose. Subsequently, this chapter reviews the setting at Davenport University, my role as the researcher, and the participants involved. I discuss the innovative use of video as both an instructor-to-student and student-to-student feedback mechanism, and then I review the instruments, data sources, and analysis methods. I conclude the chapter with a review of the timeline used to implement the innovation.

To address the retention rate gap between face-to-face and online students at Davenport University, this study attempted to improve the teaching presence and social presence capacity of online courses at the university by deploying video as an asynchronous tool for feedback and interactions between students and their instructors. Increased perception of social presence has been demonstrated to improve student satisfaction which in turn improves student retention (Drouin, 2008; Glenn, 2018; Hobson & Puruhito, 2018; Simpson, 2013; Tinto, 2017). Similarly, teaching presence, as described in the CoI framework, includes the design and organization of the course, as well as activities like direct instruction that may be less common in asynchronous courses (Yildirim & Kilis, 2019). Embedding video as a communication mechanism between students and as a feedback tool for instructors may introduce more opportunities for students to be seen as real people, which may be uncommon in a text-based, asynchronous environment (Boston et al., 2019; Richardson et al., 2017). The innovation

described herein was designed to streamline the process and time commitment of instructor-produced videos while still providing the expected benefits. Previous courses at Davenport University successfully used individual video feedback and video-based assessments. However, instructors reported difficulty keeping up with the workload (Ward, personal communication, April 15, 2020a, personal communication, April 15, 2020b). Balancing instructor workload with the impact of videos on presence in online courses is central to this innovation.

Grounded in the action research methodology, this study utilized a concurrent mixed methods approach, with consideration given to how these data points connect to the CoI framework. Data collection and analysis relied upon quantitative survey data, qualitative research interviews, and researcher field notes. From a procedural standpoint, action research provides an applied method of research where educators examine their own practice, seeking to improve their outcomes and professional practice (Mertler, 2020). The key characteristic of action research is its cyclical process of planning, deployment, and reflection (Mertler, 2020), wherein each cycle allows the action researcher to reflect on the problem, data, analysis, and plan for a future cycle (Plano-Clark & Creswell, 2015). In action research, cycles are conducted sequentially, and each cycle concludes with action plans for the next. Beyond merely solving problems, action research is typically characterized by an innovation or intervention that has not been tried before (Creswell & Guetterman, 2019). In this study, the focus on video as a driver of social presence and teaching presence was framed by the following research questions:

1. How and to what extent does augmenting text feedback with instructor videos alter a student's perception of teaching presence and social presence in online asynchronous undergraduate courses?
2. How and to what extent does including video feedback as part of student discussion assignments alter student perceptions of social presence in online asynchronous courses?
3. How do instructors perceive the expanded integration of video feedback impacts their presence in asynchronous online courses?

Setting

The Donald W. Maine College of Business (MCoB) at Davenport University (DU) enrolls roughly 3,500 students across all programs (Institutional Research, 2019b). As the largest college at DU, the MCoB represents roughly 50% of the overall enrollment at DU. DU has been teaching online since 1999 and conferred its first online degree in 2003. The school is located in western Michigan in Grand Rapids, but the Global Campus enrolls students from all 50 states and abroad. Global Campus instructional designers are responsible for ensuring the quality and consistency of online courses, while faculty from each discipline are responsible for the coursework deployed. Most online courses are offered in both a synchronous and asynchronous format, with the asynchronous format accounting for 86% of online enrollments in 2021 (Institutional Research, 2021).

Five asynchronous online courses were used in this study, all of which were delivered in the seven-week accelerated format. The selected courses provided access to students early in their academic careers when attrition and drop-out at common at Davenport University (Institutional Research, 2019b, 2020b). These 200-level courses

(see Table 2) contain discussion boards as major components in the student experience, while the CoI framework provides the lens for observing alterations to social presence and teaching presence due to the video feedback innovation. As foundational courses in the MCoB, these courses are offered to a wide variety of students pursuing numerous majors.

Most asynchronous, online courses at Davenport University, including those selected for this study, run in a seven-week, accelerated format using a standardized course template developed collaboratively by a team of instructional designers within the Global Campus and faculty within the academic department that owns the curriculum within a given program. Davenport University uses the Blackboard Learn LMS to deliver online courses, as well as manage grades and assessments for face-to-face courses. As the platform for online student interaction and content delivery, Blackboard Learn software delivered the video feedback to students, regardless of how the instructor recorded it. Because all courses use a standardized template, videos were posted in up to three locations within the course. The announcements section allowed instructors to post overview videos describing the tenor of the discussion each week, while the discussion boards allowed students to provide each other feedback. Finally, the feedback section of each assessment rubric enabled instructors to provide specific one-on-one feedback to individual students in a confidential manner.

Table 2

Selected courses for innovation deployment

Department	Course Code	Course Title

Marketing	MKTG211	Marketing Foundations
Business	BUSN210	Professional Ethics
Management	MGMT211	Management Foundations
Legal Studies	LEGL210	Business Law Foundations
Finance	FINC235	Financial Analysis for Business Managers

Role of the Researcher

As the Dean of the Global Campus, I am responsible for the quality and consistency of online course delivery at Davenport University, a role which clearly informs the study and provides a level of control over the changes deployed in courses. In addition to course modifications, I have access to data within Blackboard Learn related to course rosters and student activity, including how often students log in, which items in a course are accessed, and how long students spend using Blackboard Learn. Because I did not teach the courses involved in this study, I was a non-participant observer of student participants, but I was available to assist instructors who struggled with the technology during the study. I performed four primary tasks within the study, all of which impacted student experiences despite my status as a non-participant. First, I built the CoI survey into courses to gather data and administer it through the Blackboard gradebook. Second, I functioned as the gatherer and analyst for the collected survey data. Third, I conducted field observations and gathered field notes within the Blackboard Learn courses. Finally, I conducted qualitative research interviews with students and instructors to delve further into their experiences with the innovation in their online courses.

My role as Dean also introduced some potential bias to the research. While instructors do not report to me, my role as an academic leader could have influenced how specific instructors approached their participation in the study. Instructors seeking to please leadership may be more enthusiastic, and instructors fearing increased workload of a broader deployment may participate less. Furthermore, the act of purposefully selecting instructors whom I deemed likely to succeed in this effort may have introduced an unnatural likelihood for success that I could have mitigated by recruiting instructors with varying comfort levels with video and technology. To account for this bias, I used qualitative research interviews to explore each instructor's beliefs about the viability of the innovation and the difficulty of implementing the deployed changes.

Participants

The study included three groups of participants. At the conclusion of the Fall-2 session, 72 students who did not have access to the innovation were recruited by posting a Blackboard Announcement of the IRB-approved consent form. These students were surveyed to establish a baseline score for teaching presence and social presence in the five courses listed in Table 2. At the conclusion of the Winter-1 session, I recruited 68 students with access to the innovation using the same methodology. These students were surveyed to see if the social presence and teaching presence values from the CoI survey instrument were different from the Fall-2 participants. Five instructors taught the selected courses, and I convenience sampled 7 students from the Fall-2 cohort and 16 students from the Winter-1 cohort to participate in qualitative research interviews. The sampling procedure is explained below.

Instructor Participants

Instructors participated in the qualitative research interviews and created video feedback for students, which they loaded into Blackboard Learn. I did not teach any of the five selected courses, so I purposefully recruited instructors from each of the academic departments represented by the selected courses. These instructors implemented the innovation within one section of the selected courses and assisted in the administration of the survey. As part of my purposeful recruitment strategy, I approached veteran instructors who participated in the original design of the selected courses, and who have consistently high course evaluation scores. This approach supported the aims of the study by ensuring the videos would be deployed successfully with minimal training. Future iterations of action research could study how this approach to video instruction is adopted by less technically savvy instructors. The CoI framework, and studies of its validity, point to the importance of teaching presence in student development and their experiences in online courses (Dempsey & Zhang, 2019; Garrison et al., 1999; Szeto, 2015). Thus, the selection of instructors who have participated in the overall design of the courses represents another means to access teaching presence. Each selected instructor selected taught each selected course in the Fall-2 and Winter-1 sessions, ensuring continuity of data collection for the study.

In one Winter-1 section, the instructor opted out of participation early in the process. While students volunteered to participate from this section, without exposure to the innovation, I decided to exclude that population entirely. Interviews with those students were removed from the study, and their survey data was not included in the quantitative analysis contained herein.

Student Participants

I administered the survey as an assignment with an opt-out option for students who did not wish to participate. The sampling frame consisted of students enrolled in each selected section (see Table 2) and aimed to collect surveys from as many students as possible to form the sample. Data collected in Fall-2 formed a baseline of quantitative data to describe the levels of social and teaching presence in the courses taught. The Fall-2 instructors taught new sections of the same courses in the Winter-1 session in January 2022 with the innovation in place. Thus, the Winter-1 survey was administered to students who experienced the innovation. In this manner, student participants were sampled into two different groups: fall students who did not have exposure to the innovation and completed the CoI survey (n=72) and winter students with exposure to the innovation who completed the CoI survey (n=68).

I recruited students using convenience sampling for qualitative research interviews during each session, with seven students interviewing in the fall and 16 interviewing after the innovation was deployed in the winter. I conducted interviews for the fall cohort in December 2021 at the conclusion of the Fall-2 session. I then conducted interviews for the winter participants in late February 2022 at the conclusion of the Winter-1 session. While this method did not guarantee a specific cross-section of students, it enabled me to interview students with a variety of experiences and backgrounds. I interviewed every student who volunteered for a total of 23 students.

Student interview participants were recruited using a Blackboard Announcement of the IRB-approved consent form with a link to an appointment sign-up form. Those students who volunteered ranged from high achievers to those struggling to finish their courses, but I did not identify their academic performance prior to the interviews and

questions examined their different (and similar) experiences in the online courses. Social cognitive theory describes modeling as a contributor to learning, and self-agency as the ability of individuals to "form intentions that include action plans and strategies for realizing them" (Bandura, 2005, p. 9). Because these courses occur prior to the declaration of majors and prior to the natural cohorting that occurs when students begin to specialize, I had access to students with a variety of academic goals and pathways, providing a broad set of experiences to analyze. To this end, interview questions probed for insight on how students view their academic journeys, whether they have specific goals, how social and teaching presence manifested in their courses, and how they perceived their participation as contributing to the shared cognition within the courses. The student interview protocol is provided in Appendix C.

Innovation Design

Davenport University has offered online classes since 1999, largely focusing on asynchronous discussion boards, group projects where each team member contributes a portion of the work, and individual reading and writing activities. In the last five years, the addition of instructor videos to asynchronous courses — especially weekly introductory videos — as well as the growth of fully synchronous online courses has allowed the school to increase video usage in attempts to amplify student and instructor engagement in the online space. However, the use of video has not been programmatic, and it has not been personalized to individual students as an instructor-to-student vehicle for feedback. Furthermore, video has not been used consistently as a tool to explicitly drive teaching presence. During the last five years, sporadic efforts have been made to use student-to-student videos as a means of conducting asynchronous discussion

assignments. While discussions remain an integral part of courses across the university, students frequently report that they are a frustrating aspect of online learning and lack true peer interaction, suggesting that the current implementation fails to meet standards described in the CoI framework (Drouin, 2008; Garrison et al., 1999; Institutional Research, 2020b; Yildirim & Kilis, 2019). While student satisfaction is high, the attrition gap between online and on-campus students persists, and leadership has identified closing this gap as a strategic priority for the next five years.

The innovation described herein uses the CoI framework as the lens through which to examine social presence and teaching presence in online courses. The CoI survey (see Appendix B) measured differences in social presence and teaching presence between students with and without the video feedback innovation described herein. The innovation consists of three forms of video that were deployed into courses. Students provided peer feedback on discussion boards via video, and instructors provided tutorial videos, along with written feedback on existing assignments, to assist students. I also provided instructors with weekly round-up videos that were personalized to their course sections and designed to conclude discussion boards. Each video type is described below.

Student Video Feedback

I asked students who participated in discussion forums of the selected courses to provide video feedback in lieu of text-based discussion board responses. While the initial posts were still written, responses were provided through video (or audio for students without cameras). Students were asked to provide substantive feedback referring explicitly to at least one item from the assignment and weekly objectives of the course.

As with written discussion assignments, students were asked to extend the discussion by building on previous posts and by posting original ideas related to the topic at hand. The rubric for the video responses was altered to focus on video content versus word count, which was common for written responses. I did not change other grading criteria from previous iterations of the course to ensure the assignments did not alter the learning objectives for each assignment and to minimize extra work for the instructors.

Instructor Video Feedback

Over the past decade, instructors were asked to provide personalized video feedback, and students were asked to record entire assignments as videos. Instructors described grading 30 videos, each 3-5 minutes in length, as “overwhelming” and “more time consuming than reading text assignments" (Ward, personal communication, April 15, 2020a). Similarly, producing video feedback for individual students, challenges with recording, careful verbiage selection, avoiding mistakes (that could be misinterpreted by students who received this feedback as part of a grade), and re-recording five-minute videos for 27-30 students were described in similar terms. While Davenport University has not researched the effectiveness of these from a CoI perspective, the extensive work required of an instructor to produce and analyze the videos suggested the need for a more efficient and less overwhelming way to introduce video as a presence-building tool.

As part of this study, I asked instructors to provide feedback in two forms. First, at the conclusion of weekly discussion board cycles, I asked instructors to record a summary video post about student comments and responses, providing instruction and guidance to conclude the discussions. To augment the presence-building nature of the videos, I asked instructors to refer to students by name when referring to their comments

from the discussion board. This approach required only a single video from instructors, rather than 27-30 individual videos, which was an important change from the university's previous attempts at personalized video feedback. Despite requiring less production time than individualized videos, the approach still sought to help establish teaching presence and social presence in the courses. Timely feedback from instructors has contributed to teaching presence (Kovanović et al., 2019; K. P. Swan et al., 2008), and placing it at the end of the week after student discussions have concluded, attempted to meet this criterion. Similarly, the use of students' first names and specific aspects of their comments also contributed to building social presence in the courses.

Embedded tutorial videos interlaced with personalized text feedback were the second method of video feedback. I asked instructors to provide personalized text feedback to students in the rubric and Blackboard Learn grading system as they have in the past. However, in addition to the personalized text feedback, instructors also embedded links to pre-recorded videos displaying best practices and/or congratulating students on a job well done and asking to use their submission as an example. Pre-recorded example videos were less than 60 seconds long and illustrated a single concept from the assignment through a screen capture or description of an example. These videos showed the instructor's face and specifically addressed a common aspect of the assignment while being general enough to apply to multiple students. This approach speaks directly to teaching and social presence. The feedback was provided directly to students and customized to individually assist them with the work, which represents direct instruction, a key component of teaching presence (Garrison et al., 1999; Szeto, 2015; Yildirim & Kilis, 2019).

I assisted each instructor with individualized training sessions prior to the start of the semester. The training session included help with video creation in Kaltura capture, guidelines for duration and content of the videos, and techniques for embedding the videos into course materials. At the conclusion of pre-semester training, I provided the training content in a Google Drive folder shared with participating instructors. A second, brief training review was provided collectively to the participating instructors at the conclusion of the first week of their semester to ensure the first weekly wrap-up-and-intro video was created and posted successfully. I was also available to provide on-demand support to participating instructors as needed, which included several technical support calls during the semester to assist with video production challenges.

The direct connection between myself and the instructors implies that research interviews conducted with the instructors themselves may be biased by their understanding of the research I was conducting and of teaching presence in online courses. While there was potential for bias in their answers, their opinions about presence in the courses provided tremendous value to the study as I sought to understand how and when video feedback and interactions alter student perceptions of social and teaching presence. Finally, I purposely sampled the instructors participating in this cycle of action research for their high comfort level with technology and their willingness to try something new with their students. This sample of instructors, while not typical of all instructors, provides a means to test this innovation with the highest odds of instructor compliance and participation.

Survey Deployment

Designing and deploying the innovation into the selected courses required me to build the assignment housing the COI Survey into the common course template. Constructing the COI Survey as an LMS-compatible survey object allowed me to deploy it into the Fall-2 course templates midway through the semester, upon receiving approval for this study. The new course templates, with the COI survey as a Week 6 assignment, were also created for the Winter-1 session to ensure other facets of the course template were identical to the Fall-2 session. Davenport utilizes a common course template methodology, so other elements of the course were predesigned for both sections of each course in the study, ensuring consistent experiences for students. My second task was administering and scoring the COI survey instrument in the Fall-2 and Winter-1 sessions. By deploying the survey into courses as a Blackboard survey object, I was able to track who completed the survey, track who opted out, and ensure results were kept anonymous and confidential.

Instruments and Data Sources

This study was conducted using a concurrent mixed methods research design. I gave priority to the quantitative data, but qualitative research interviews and field notes helped illuminate the quantitative findings. While Cycle 0 was entirely qualitative, Cycle 1 deployed a similar concurrent mixed methods design to the one used in this dissertation cycle of research. This cycle concurrently collected quantitative survey data, field notes, and interview data. Quantitative data were collected using the COI Survey (Arbaugh et al., 2008), which was administered at the conclusion of Fall-2 2021 to students whose courses did not change and at the conclusion of Winter-1 2022 to students whose courses included the embedded video. I triangulated quantitative and qualitative information to

build a deeper understanding of how the incorporation of video into online courses impacts student experiences, as seen through the lens of the COI framework.

CoI Survey Instrument

The quantitative data in this study was collected using the COI survey instrument developed in 2007 and validated to varying degrees in the years since (Abbitt & Boone, 2021; Arbaugh et al., 2008; Boston et al., 2019; Dempsey & Zhang, 2019; Richardson et al., 2017; Shea & Bidjerano, 2009; Szeto, 2015). The instrument contains 34 questions (see Appendix A), all measured using a standard Likert-type scale (1=strongly disagree, 5=strongly agree). The questions are divided into constructs, each measuring one presence from the COI framework. The teaching presence construct has 12 questions measuring three subconstructs: design and organization of the online course, facilitation, and direct instruction. The social presence construct has nine questions measuring three subconstructs: affective expression, open communication, and group cohesion. The cognitive presence construct consists of four subconstructs: triggering event, exploration, integration, and resolution. To calculate values for each construct, I summed the Likert-type scale values and calculated a mean yielding higher values indicating stronger presence.

I administered the instrument at the conclusion of the Fall-2, seven-week session to students who had not experienced the embedded video innovation. In the following session (Winter-1), I administered the same survey to students who had experienced the innovation at the conclusion of their courses. Other facets of the selected courses were kept as consistent as possible by using the same Blackboard Learn course template, same instructors, identical learning outcomes, and identical readings and assignments (other

than the feedback impacted by the video innovation). In previous studies, principal component analysis was used to analyze and validate the results of the COI survey instrument (Arbaugh et al., 2008). In this study, I used independent samples *t*-tests to analyze the data. The independent samples *t*-test provides a means to review Likert-scale data, like the COI Survey, despite the fact it is not truly on a continuous scale (de Winter & Dodou, 2010).

Qualitative Research Interviews

I recruited students from each course to participate in qualitative research interviews. The questions focused on developing an understanding of their perceptions of social and teaching presence in their online courses and how those factors impact their likelihood of persisting in future semesters at Davenport University. I interviewed students, using familiar terms, to investigate the social presence, teaching presence, and cognitive presence constructs of the COI framework. While the interview protocol guided the interviews (see Appendix B), the focus of the research interviews was to explore observational field notes and the presence-based reflections of a student's experiences in their courses. For this reason, the semi-structured format was used to get answers in the student's own words and allow for the emergence of "lively, and unexpected answers" (Brinkmann & Kvale, 2015, p. 157). Sample interview questions are included in the protocol provided in Appendix B, along with questions such as "Did you feel the video feedback from the instructor helped you to better understand their perspective?" As described by Brinkmann and Kvale (2015), follow-up questions were key, so while the list in Appendix B provides some guidance, the interviews strayed from standardized questions as dictated by the situation.

I followed similar guidelines to interview instructors participating in the study. Questions focused on the viability of the innovation to help drive improved social presence for students and teaching presence for the instructors (see Appendix C). As with student interviews, I used a semi-structured format to allow for flexibility in the topics covered. In this case, the interviews also helped me delve into instructor beliefs about how the use of video can explain any changes in the COI Survey data. While the survey provided information about changes in social presence and teaching presence, the qualitative interviews with instructors and students helped explain why those changes may have occurred.

Student and instructor interviews were coded using two passes. I started with in vivo coding when reviewing transcribed data. This method of coding is described as a primary method for interview data because it preserves the actual words of the participant, allowing their lived experiences to drive the coding and analysis (Saldaña, 2021). Preserving their words in my codes ensured their voices were present in the later stages of the study. While performing in vivo coding, I assigned codes to any phrases hinting at a deeper meaning or feeling expressed by the participant. This often meant more than one code appeared with a single sentence. In addition, I often attributed one code to a group of sentences that formed an opinion or observation in the transcription. Before I started my second pass at coding, I employed the transitional strategy described by Saldaña (2021), in which I grouped in vivo codes by theme and categorized them. In this study, those categories were related to how students and instructors felt or described something in the interview (e.g., Discussion Board Negativity). This helped themes

emerge, which I used in the subsequent coding pass while seeking alignment with the COI Framework.

I employed a modified form of focused coding in my second cycle of coding. I selected this method because it was compatible with the grounded theory approach (Charmaz, 2014) and is mentioned by Saldaña (2021) as compatible with in vivo codes. During the focused coding process, I found analytic memo writing helpful as my codes began to elicit deeper meaning from the text and require some explanatory writing. My second-pass coding approach was to align the categories and themes from the in vivo coding with the constructs and subconstructs of the COI Framework. The coding schema I deployed is reflected in Appendix E and Appendix F.

In the absence of using a second coder, I was concerned about inter-coder reliability. To ensure I was applying the COI Framework codes consistently across interviews, I returned to the interviews that I had already coded while working my way through the final student interviews to review how I had coded. It was clear that my choices remained consistent. Similarly, upon completion of the entire coding process, after a delay of 10 days, I returned and re-coded two student interviews and one of the instructor interviews. My selection of codes was consistent with those assigned during the initial pass. The use of a standardized coding schema for COI Framework elements assisted in establishing this consistency. Prior to using the in vivo codes to build COI Framework coded elements, I was able to review numerous examples of how other researchers had used the COI Framework to code their own interviews. This approach presented me with enough examples to help me perform the coding consistently.

Specifically, the work of Garrison (2017), Andersson et al. (2001) and Shea, Vickers et al. (2010) provided significant guidance in coding the interviews for the COI Framework.

Qualitative Field Notes

Gathering qualitative information about student experiences in an asynchronous course was key to ensuring I could triangulate actual behaviors in class with the student perceptions provided in the COI survey instrument and qualitative research interviews. I collected field notes by observing asynchronous interactions and watching the submitted videos within the LMS. I gave special attention to the nature of the video feedback provided by instructors and students. Referring to each other by name in an effort to improve social presence, for example, indicated an opportunity to include a discussion of this approach in the qualitative research interviews. After each observation within the asynchronous courses, I coded field notes by indicators of each type of presence from the COI framework.

In the COI framework, teaching presence is evidenced in the nature of the course design and organization, the ability of the instructor to focus discussion, delivery of direct instruction, and leadership delivered during the course (Garrison et al., 1999). However, more recent research also suggests that teaching presence need not be exclusively centralized in the faculty or instructor leading the class. Instead, some teaching presence manifests between students when they are engaged in social cognition (Dempsey & Zhang, 2019). Because teaching presence can be observed in areas beyond direct instruction and course design, my observations and field notes devoted special attention to the cognitive interactions between all members of a course (both students and the instructor).

Field notes and observations also sought indicators of social presence and cognitive presence. Social presence could be demonstrated through emotional expression (e.g., emoji use), expressions of personal belief, spontaneous formation of collaborative online relationships, evidence that students identify with the course materials through affirmative statements of agreement or disagreement, or even complimentary text comments in posts (Joksimović et al., 2015; Richardson et al., 2017; K. Swan & Shih, 2019). Example indicators of cognitive presence include a sense of puzzlement, students exchanging information, evidence of the formation of new ideas (and their application), and the linkage or synthesis of concepts (Garrison et al., 1999). While this cycle of the study did not seek to measure changes in cognitive presence, recognizing it as a separate construct from social presence and teaching presence (and coding it as such in field notes) helped guide the qualitative analysis.

Timeline and Procedure

Most asynchronous online courses in the Donald W. Maine College of Business at Davenport University run in a seven-week, accelerated format allowing for two sessions per semester or six sessions per year. I used this calendar to my advantage by gathering the initial survey data at the end of the second fall session (Fall-2) in December 2021. Then, I deployed the innovation and gathered data related to its impact on courses in the first winter semester session (Winter-1) in January and February 2022. While courses conclude at the end of February, I conducted interviews and analysis after administering the survey to allow for clarification of interview questions and scheduling of interviews. Table 3 lists the layout of the study by date and also demonstrates how the study aligned with the seven-week format of Davenport University's online academic calendar. The

actions are summarized by phases (i.e., Plan, Act, Observe, and Reflect) present in action research studies (Ivankova, 2014).

I concluded data gathering with the final set of qualitative research interviews in March. I interviewed instructors after they turned in final grades just after spring break in 2022. Participating students self-scheduled their interviews using Calendly software. I also provided myself time to reflect upon the study immediately following the data gathering and initial analysis. Reflection is a critical component of an action research study (Ivankova, 2014; Mertler, 2020), and while this study resulted in a dissertation, I wanted to ensure I was well equipped to continue further cycles of research into social presence and teaching presence in asynchronous courses.

Table 3

Dissertation Cycle Timeline and Procedural Summary

Calendar Dates	AR Phase	Procedural Summary
September 1-15, 2021	Plan	• Recruit instructors to teach courses with innovation deployed to online course templates
September 15 - October 31, 2021	Plan	• Build online course templates to include embedded video feedback innovation
November 29, 2021	Act	• Deliver initial online course templates including the innovation to each section

		taught in the Winter-1 session for instructor review.
November 29, 2021 - January 9, 2022	Act	• Train instructors on the expectations of the study
December 10-18, 2021	Observe	• Distribute CoI survey to students enrolled in Fall-2 courses
December 18-22, 2021	Observe	• Interview Fall-2 participants
January 10, 2022	Observe	• Seven-week Winter-1 session begins; observe courses and take field notes • Implement assignments with embedded video feedback throughout the seven-week session
February 1-6, 2022	Observe	• Recruit students to participate in qualitative research interviews
February 19-26, 2022	Observe	• Distribute CoI survey to students enrolled in Winter-1courses
February 19 - March 6, 2022	Observe	• Analyze CoI survey results to help drive interview questions • Conduct qualitative research interviews with students

March 7-28, 2022	Observe	• Conduct qualitative research interviews with instructors
After March 28, 2022	Reflect	• Code and analyze interviews • Review findings • Develop plans for future cycles • Reflect

Fostering Change

This cycle of action research represents significant changes to courses that have been taught in previous semesters. I asked faculty, as participants in the study, to alter their teaching behaviors while producing videos, which carried a risk of burnout or non-compliance with the guidelines of the study. Thus, a change management approach was warranted, even at the small scale of this five-course deployment. Periodic meetings with the five involved faculty ensured they could share progress toward integrating the video feedback into their courses and provided peer support for video recording best practices. In addition to observing these faculty meetings for evidence of best-practice sharing and collaborative opportunities, I observed for evidence of short-term wins (e.g., the initial successful addition of tutorial videos to assignment feedback in Blackboard). Searching for and celebrating short-term wins fosters change, however small (Kotter, 2012; Kotter & Cohen, 2002; Weick, 1984). Because this approach was new to the involved faculty, a focus on change management helped motivate them to participate in the study throughout the seven-week session.

CHAPTER 4

ANALYSIS AND RESULTS

This chapter presents the results of the mixed methods action research study. Quantitative results from the Community of Inquiry Survey are presented first, with an analysis of the changes in social presence and teaching presence after the introduction of embedded videos in asynchronous online courses. The survey was provided to students in the Fall-2 session (pre-innovation) and Winter-1 session (post-innovation) at the end of their courses. The quantitative data collected demonstrates the conflict students had about discussion boards. While they articulated improvements in the qualitative interviews, the independent samples *t*-test shows no significant changes between the pre-innovation and post-innovation groups for overall perceptions of social presence, and only marginal gains in teaching presence. Following the quantitative analysis, a qualitative review of student interviews and instructor interviews is presented to directly answer the research questions that frame the study. For all three questions, assertions are organized into subsections based on social presence and teaching presence; supported by quotations from participations (both students and instructors).

Quantitative Data

Quantitative data was collected from students during weeks 5 and 6 of each seven-week accelerated online session. Participants in the pre-innovation and post-innovation surveys were both given the CoI survey which measures the three types of presence described in the CoI framework (Garrison et al., 1999; Maddrell et al., 2017; K. P. Swan et al., 2008). The pre-innovation survey was returned by 77 participants from 5 sections of coursework. The post-innovation survey was returned by 73 students from 4

sections of coursework. One instructor did not participate in the innovation, so 13 students were surveyed in the post-innovation period who did not participate in the innovation. Data for students who did not participate in the innovation were removed from the data set.

The Community of Inquiry Survey measures social presence, teaching presence, and cognitive presence as described in the original CoI framework (K. P. Swan et al., 2008). Within each type of presence described, the survey provides a set of questions to measure a specific subconstruct of the given presence. When administering the survey, I discarded surveys that were not completely filled out, ensuring that all subconstructs had the same number of responses. Social presence is comprised of three subconstructs: affective expression, open communication, and group cohesion. Teaching presence is comprised of three subconstructs: design and organization, facilitation, and direct instruction. Those subconstructs are depicted in Table 4, along with the number of questions used to measure the subconstruct.

Table 4

CoI Survey Presences and Subconstructs

Presence	Subconstruct	Number of Questions
Teaching Presence	Design & Organization	4
Teaching Presence	Facilitation	6
Teaching Presence	Direct Instruction	3
Social Presence	Affective Expression	3

Social Presence	Open Communication	3
Social Presence	Group Cohesion	3

Quantitative Data Reliability

To assess the reliability of the data collected, I computed Cronbach's α for each construct, and sub-construct. Values over .700 can be used to assume that the questions are strongly reliable and measure the same thing (Salkind & Frey, 2020). In examining the overall constructs of social presence and teaching presence, separately from the subconstructs I gave myself the opportunity to use subconstruct data individually, as well as the overall constructs. Both constructs of social presence and teaching presence had high values of internal reliability (.900 and .956 respectively). For teaching presence, the overall Cronbach's α was .956 and for Social Presence overall, the Cronbach's α was .900. Subconstructs of teaching presence had very high Cronbach's α values with direct instruction at .854, facilitation at .934, and design and organization at .893. Subconstructs of social presence were slightly less convincing with group cohesion at .720, affective expression at .795, and open communication at .916. Because the Cronbach's α reliability scores for the constructs and subconstructs were also all over the .700 baseline, I judged that the data was acceptably reliable and measured what it claimed to measure.

Independent Samples t-tests

Independent samples *t*-tests were used to compare the quantitative values for social presence, teaching presence, and each of their subconstructs. In order to do this comparison, I summed the Likert-esque scores for each subconstruct and construct and divided by the number of questions in that construct to arrive at the mean score for each

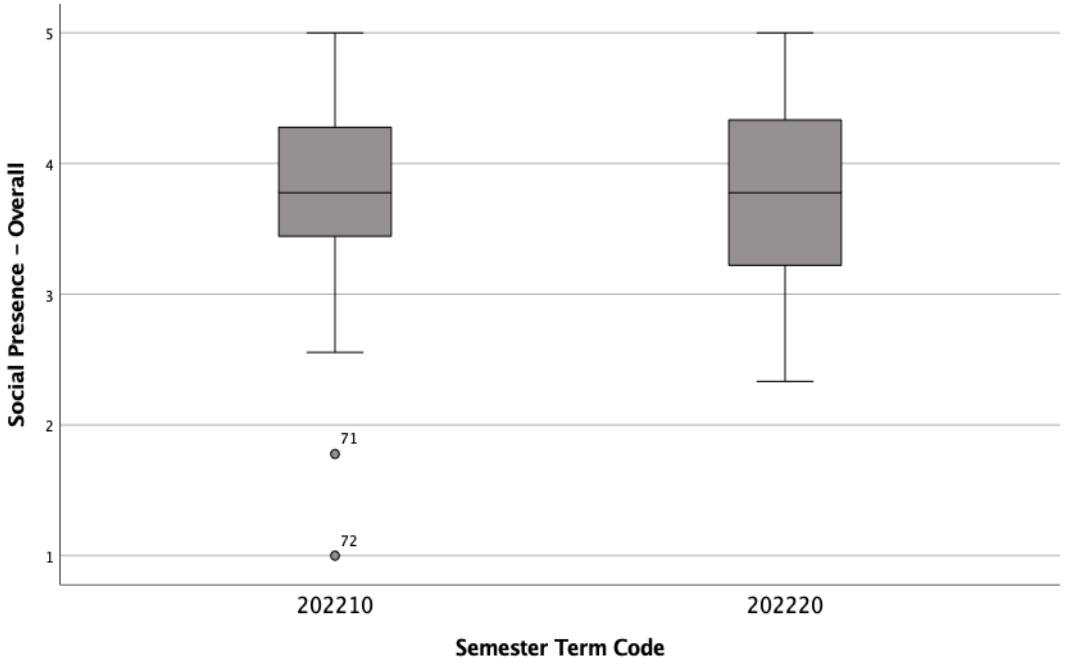
subconstruct construct. Each construct is presented here with its own analysis. In most cases, there was no significant change between the pre-innovation and post-innovation survey groups. Direct instruction, a single subconstruct of teaching presence, showed significant gains in teaching presence with $t_{(127)}$=-2.078, p<.05. However, with a mean difference of only 0.3 in this case, even the statistically significant result has little practical effect on the social presence scores from the CoI survey. Regardless of the lack of significance, the quantitative data is shared below for social presence, teaching presence, and each of their subconstructs.

Social Presence. Questions 13-22 of the CoI survey measure social presence and its three subconstructs. For social presence as a whole, I conducted an independent samples *t*-test to see if the pre and post groups had statistically significant differences in student perceptions of social presence in their courses. Before conducting the *t*-test, I checked for outliers in the data by creating a box plot of the social presence scores for each participant. Figure 4 demonstrates that the data are symmetrically distributed, with few outliers and relatively consistent variance between the pre-innovation group (202210) and the post-innovation group (202220).

Following the box plot review, an independent samples *t*-test was conducted for the social presence data. The 68 participants who participated in the video innovation (M = 3.80, SD = 0.73) compared to the 72 participants in the pre-innovation group (M = 3.76, SD = 0.69) demonstrated no significant difference in the social presence scores, $t_{(138)}$ = -0.36, p = .36, despite the slightly higher values for the mean of the video-enabled participants.

Figure 4

Boxplot of Social Presence Survey Responses



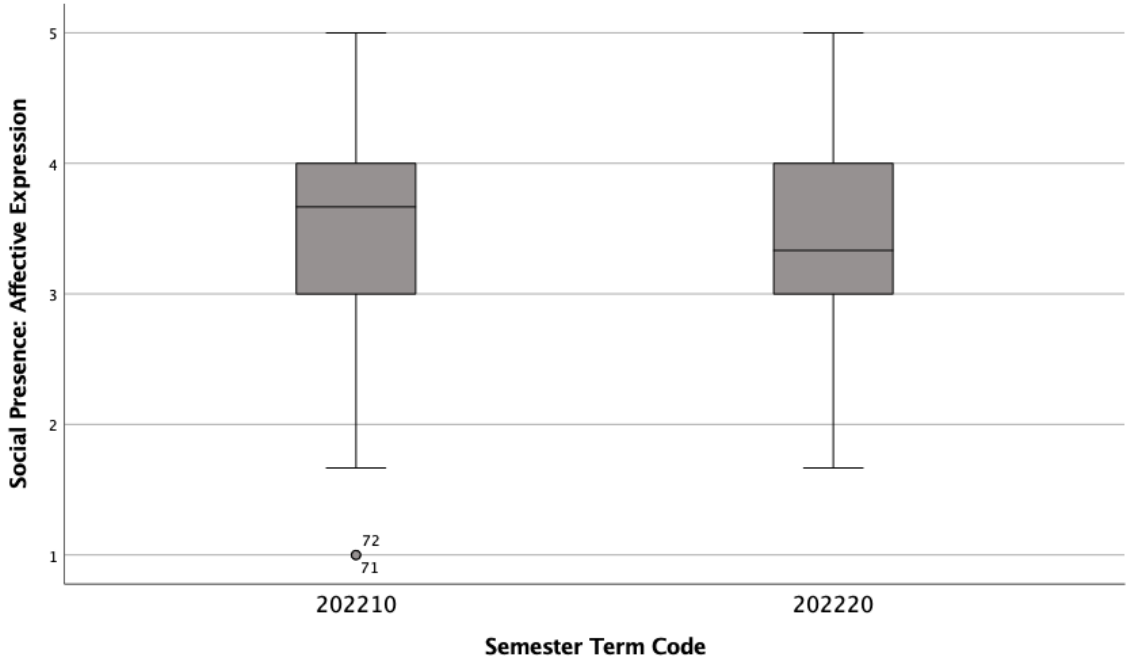
Affective Expression. Questions 14-16 of the CoI survey measure the affective expression subconstruct of social presence. For this data, I conducted an independent samples *t*-test to see if the pre and post groups had statistically significant differences in student perceptions of affective expression in their courses. Before conducting the *t*-test, I checked for outliers in the data by creating a box plot of the affective expression scores for each participant. Figure 5 demonstrates that the data are symmetrically distributed, with few outliers and relatively consistent variance between the pre-innovation group (202210) and the post-innovation group (202220).

Following the box plot review, an independent samples *t*-test was conducted for the affective expression data. The 68 participants who participated in the video innovation (M = 3.51, SD = 0.88) compared to the 72 participants in the pre-innovation

group (M = 3.47, SD = 0.82) demonstrated no significant difference in the social presence scores for affective expression, $t_{(138)} = -0.26$, $p = .40$, despite the slightly higher values for the mean of the video-enabled participants.

Figure 5

Boxplot of Affective Expression Subconstruct of Social Presence Survey Responses

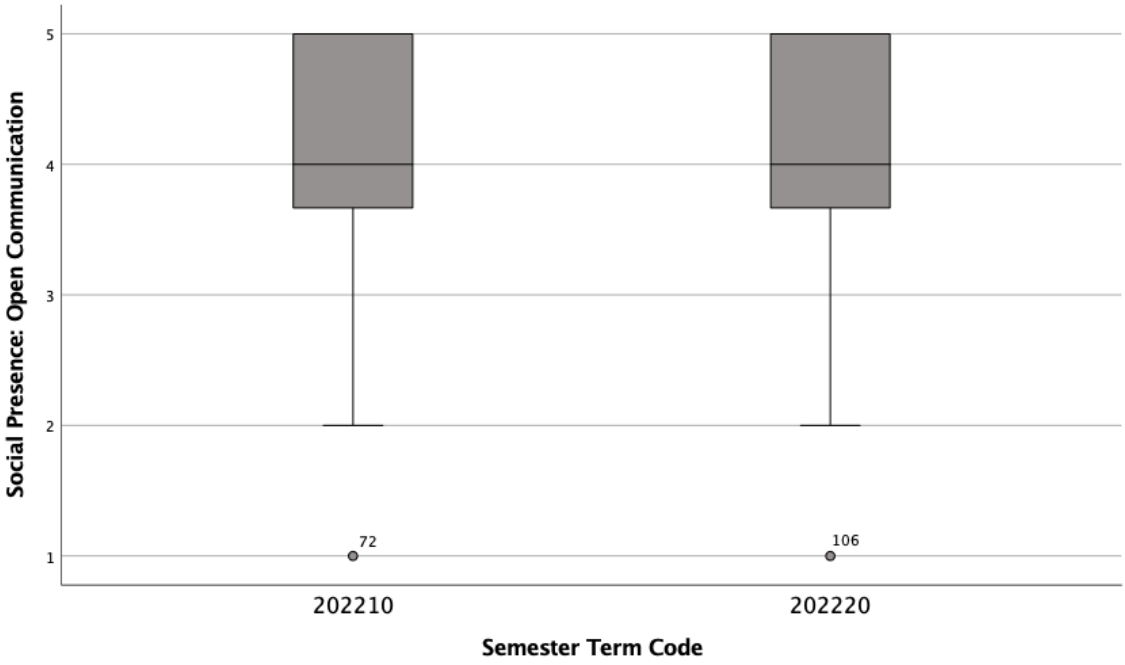


Open Communication and Interaction. Questions 17-19 of the CoI survey measure the open communication and interaction subconstruct of social presence. For this data, I conducted an independent samples *t*-test to see if the pre and post groups had statistically significant differences in student perceptions of open communication and interaction in their courses. Before conducting the *t*-test, I checked for outliers in the data by creating a box plot of the open communication and interaction scores for each participant. Figure 6 demonstrates that the data are symmetrically distributed, with few

outliers and relatively consistent variance between the pre-innovation group (202210) and the post-innovation group (202220).

Figure 6

Boxplot of Open Communication Subconstruct of Social Presence Survey Responses



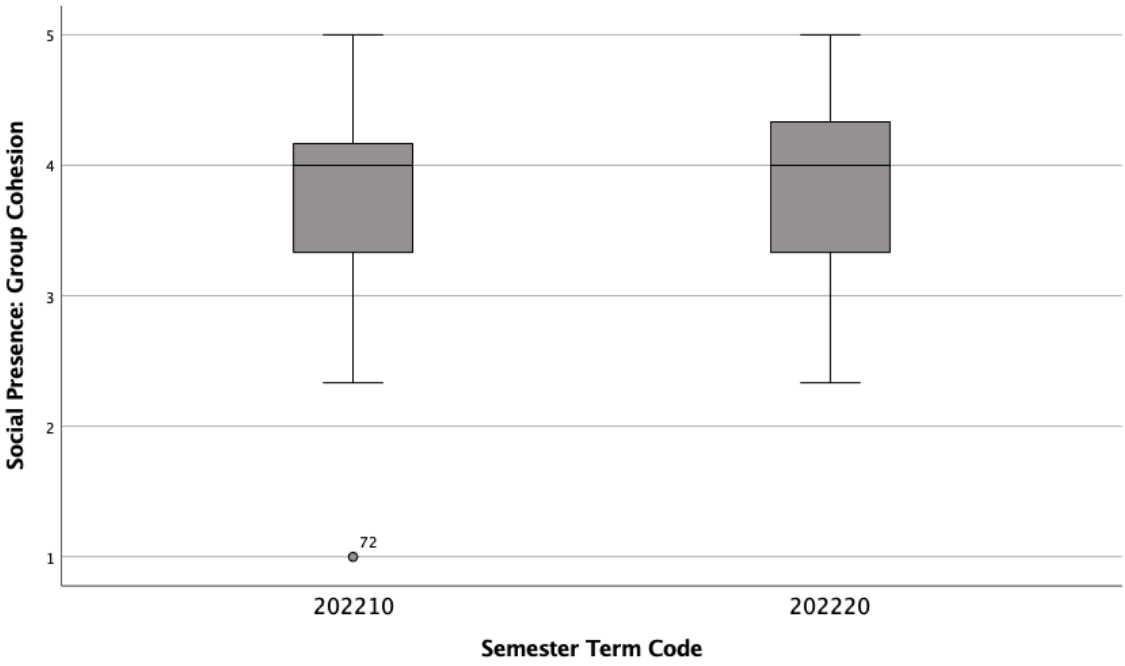
Following the box plot review, an independent samples *t*-test was conducted for the open communication and interaction data. The 68 participants who participated in the video innovation (M = 4.07, SD = 0.91) compared to the 72 participants in the pre-innovation group (M = 4.03, SD = 0.81) demonstrated no significant difference in the social presence scores for open communication and interaction, $t_{(138)} = -0.22$, $p = .41$. As with the affective expression data, the slight difference in the means of the two groups did not rise to a practical difference or a statistically significant one.

Group Cohesion. Questions 20-22 of the CoI survey measure the group cohesion subconstruct of social presence. For this data, I conducted an independent samples *t*-test

to see if the pre and post groups had statistically significant differences in student perceptions of group cohesion in their courses. Before conducting the *t*-test, I checked for outliers in the data by creating a box plot of the group cohesion scores for each participant. Figure 7 demonstrates that the data are symmetrically distributed, with few outliers and relatively consistent variance between the pre-innovation group (202210) and the post-innovation group (202220).

Figure 7

Boxplot of Group Cohesion Subconstruct of Social Presence Survey Responses



Following the box plot review, an independent samples *t*-test was conducted for the group cohesion data. The 68 participants who participated in the video innovation (M = 3.83, SD = 0.76) compared to the 72 participants in the pre-innovation group (M = 3.77, SD = 0.75) demonstrated no significant difference in the social presence scores,

$t_{(138)} = -0.47$, $p = .32$. As with other social presence subconstructs, the slight increase in means did not represent statistical significance.

Social Presence Quantitative Conclusion. All three subconstructs of social presence had statistical pre and post data that resembled the overall social presence data. Namely, while there were very small gains in the mean scores reported by students, we could not reject the null hypothesis. For that reason, we cannot say that the addition of videos statistically impacted the social presence in the courses for all students. The qualitative analysis that follows will demonstrate where and how social presence and teaching presence were improved for some students substantially, as well as which subconstructs showed the most improvement.

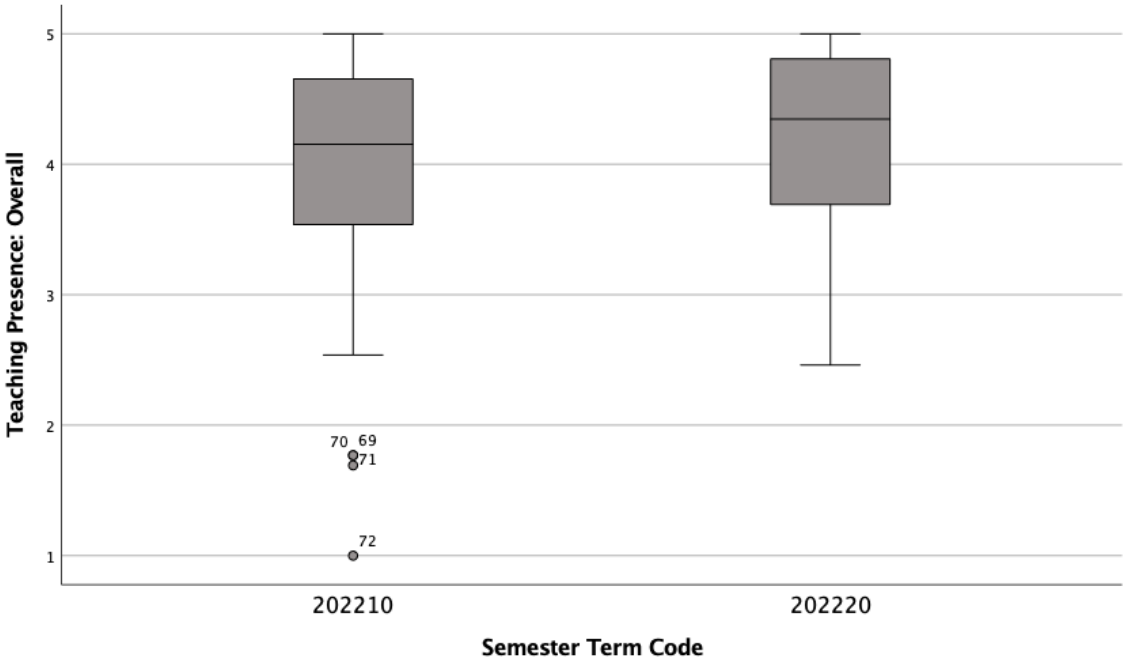
Teaching Presence. Questions 1-13 of the CoI survey measure teaching presence and its three subconstructs. For teaching presence as a whole, I conducted an independent samples *t*-test to see if the pre and post groups had statistically significant differences in student perceptions of teaching presence in their courses. Before conducting the *t*-test, I checked for outliers in the data by creating a box plot of the social presence scores for each participant. Figure 8 demonstrates that the data are symmetrically distributed, with few outliers and relatively consistent variance between the pre-innovation group (202210) and the post-innovation group (202220). I considered omitting case 72 as it is the lowest scoring data point. However, given the other points with an overall mean of less than 2.0 I decided to keep case 72 in the data.

Following the box plot review, an independent samples *t*-test was conducted for the teaching presence data. The 68 participants who participated in the video innovation ($M = 4.19$, $SD = 0.69$) compared to the 72 participants in the pre-innovation group ($M =$

3.96, SD = 0.86) demonstrated a significant difference in the teaching presence scores, $t_{(138)} = -1.657$, $p < .05$. This statistically significant positive difference in the means of the video-enabled participants represents a measure where adding the videos to courses did make a difference in how students perceived teaching presence in their courses.

Figure 8

Boxplot of Teaching Presence Survey Responses

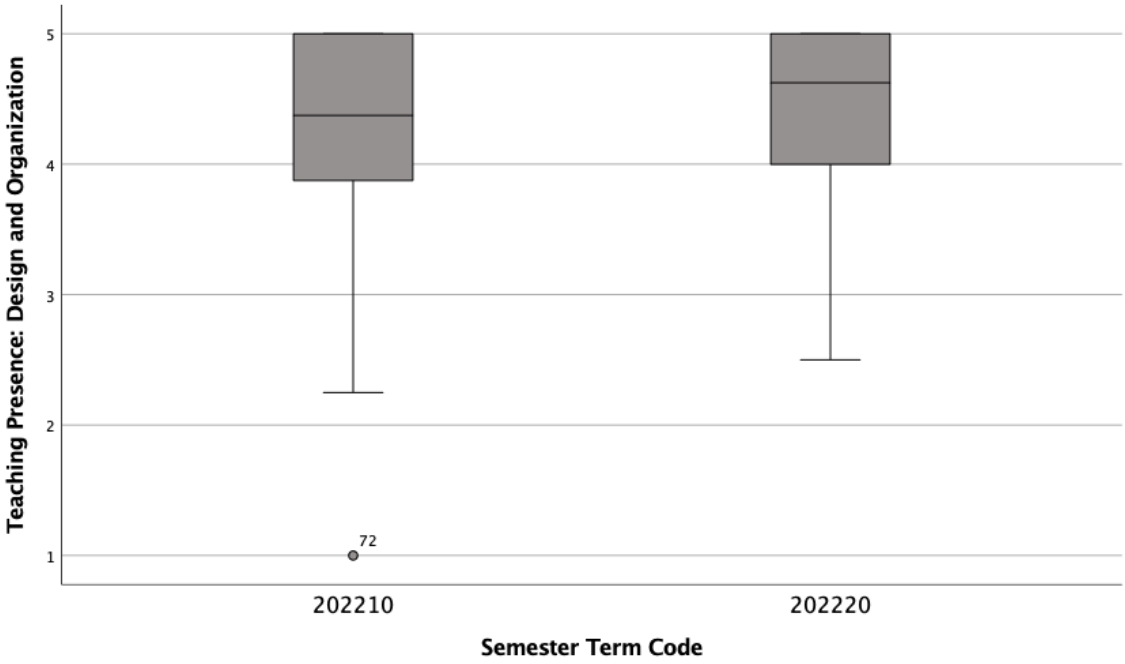


Design and Organization. Questions 1-4 of the CoI survey measure the design and organization subconstruct of teaching presence. For this data, I conducted an independent samples *t*-test to see if the pre and post groups had statistically significant differences in student perceptions of design and organizational teaching presence in their courses. Before conducting the *t*-test, I checked for outliers in the data by creating a box plot of the design and organization scores for each participant. Figure 9 demonstrates that the data are symmetrically distributed, with few outliers and relatively consistent variance

between the pre-innovation group (202210) and the post-innovation group (202220). As noted above, case 72 remains an outlier in the data. For this subconstruct, the case is a lone outlier, but as noted earlier I decided to keep this data in the set.

Figure 9

Boxplot of Design and Organization Subconstruct of Teaching Presence Survey Responses

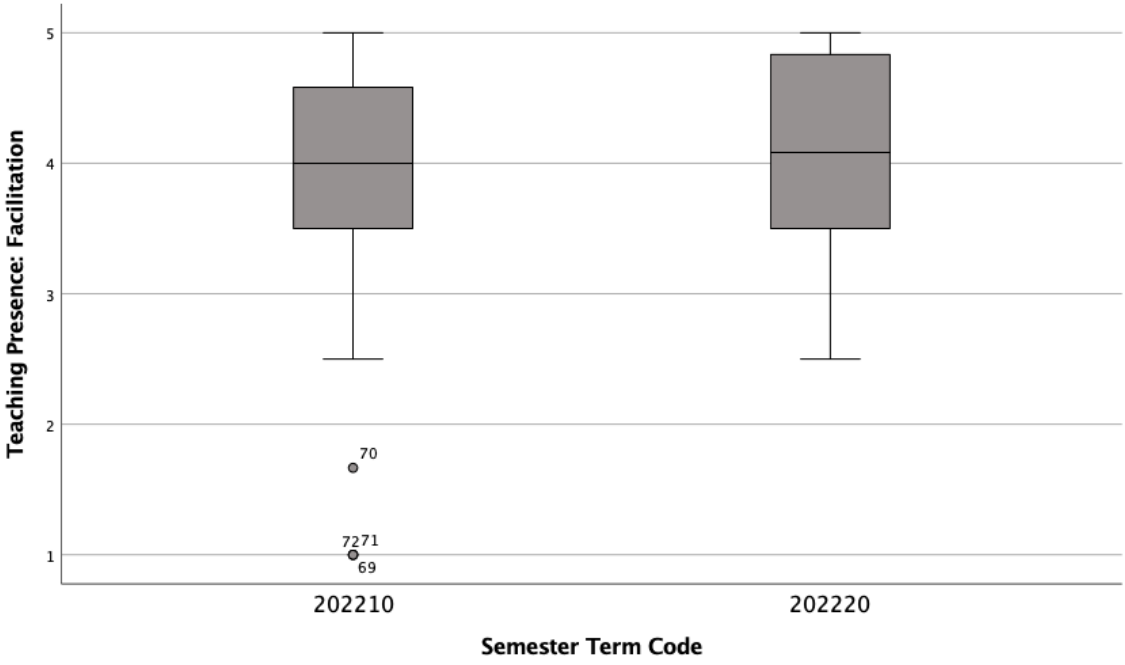


Following the box plot review, an independent samples *t*-test was conducted for the design and organization data. The 68 participants who participated in the video innovation (M = 4.40, SD = 0.69) compared to the 72 participants in the pre-innovation group (M = 4.20, SD = 0.80) demonstrated no significant difference in the design and organization scores, $t_{(138)} = -1.623$, p =.053. The one-sided p value does not meet the criteria for significance in this situation.

Facilitation. Questions 5-10 of the CoI survey measure the facilitation subconstruct of teaching presence. For this data, I conducted an independent samples *t*-test to see if the pre and post groups had statistically significant differences in student perceptions of teaching presence via facilitation in their courses. Before conducting the *t*-test, I checked for outliers in the data by creating a box plot of the facilitation scores for each participant. Figure 10 demonstrates that the data are symmetrically distributed, with few outliers and relatively consistent variance between the pre-innovation group (202210) and the post-innovation group (202220). Unlike other subconstructs, there are several cases that fall to the bottom of the scoring scale. In this particular subconstruct, case 72 no longer appears as an outlier.

Figure 10

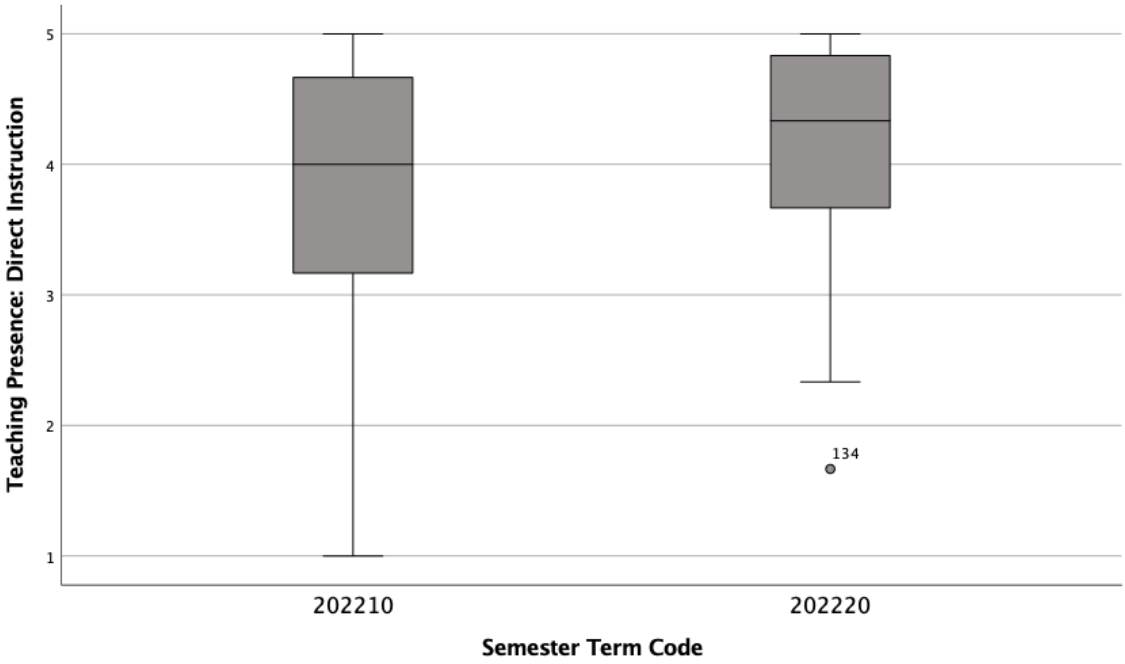
Boxplot of Facilitation Subconstruct of Teaching Presence Survey Responses



Following the box plot review, an independent samples *t*-test was conducted for the facilitation data. The 68 participants who participated in the video innovation (M = 4.04, SD = 0.78) compared to the 72 participants in the pre-innovation group (M = 3.87, SD = 0.94) demonstrated no significant difference in the facilitation scores, $t_{(138)} = -1.203$, p =.115. In this particular subconstruct, the lack of significance is clear.

Figure 11

Boxplot of Direct Instruction Subconstruct of Teaching Presence Survey Responses



Direct Instruction. Questions 11-13 of the CoI survey measure the direct instruction subconstruct of teaching presence. For this data, I conducted an independent samples *t*-test to see if the pre and post groups had statistically significant differences in student perceptions of teaching presence via direct instruction in their courses. Before conducting the *t*-test, I checked for outliers in the data by creating a box plot of the direct instruction scores for each participant. Figure 11 demonstrates that the data are

symmetrically distributed, with few outliers and relatively consistent variance between the pre-innovation group (202210) and the post-innovation group (202220). Unlike other subconstructs, there are no cases that appear as outliers in the data.

Following the box plot review, an independent samples *t*-test was conducted for the direct instruction data. The 68 participants who participated in the video innovation (M = 4.18, SD = 0.75) compared to the 72 participants in the pre-innovation group (M = 3.85, SD = 1.08) demonstrated a statistically significant difference in the direct instruction scores, $t_{(138)} = -2.08$, p =.02. The difference in means of .32 and the statistically significant changes do suggest that direct instruction teaching presence was impacted for most students in a manner that was practically significant as well.

Teaching Presence Quantitative Conclusion. Teaching presence data showed more variance among its subconstructs than social presence data. Both the overall data and the direct instruction subconstruct showed significantly increased means for the students that participated in the video innovation, but the largest difference was .3 for the student observations about direct instruction. As the qualitative data will show in the subsequent section, direct instruction was a focus for students that were interviewed as well. Namely, while there were very small gains in the mean scores reported by students for the facilitation subconstruct, as well as the design and organization subconstruct, those gains were not statistically significant. While we can say that the addition of videos statistically impacted the teaching presence in the courses, the gains were small. The qualitative analysis will put these observed phenomena in context, demonstrating how the addition of video helped some students perceive more teaching presence.

Qualitative Data

Qualitative data collected for this study included interviews conducted with the participants in the study as well as field notes. Interviews with students focused on their perceptions of presence in their courses. For students interviewed prior to the innovation, questions were asked about their connection with the course, other students, and their instructor. For those students who participated in the video-enabled courses, I asked questions about their perceptions of teaching presence, social presence, and their perceptions of the videos as a tool for learning. I also interviewed instructors who participated in the study, speaking about their perceptions of effort, presence, and value of the innovation's various components. Because I did not spend time explaining the concepts of presence as laid out by the CoI framework, I focused instead on how instructors and students interacted with the courses, using terms from the CoI framework without the labels themselves.

I coded seven pre-innovation student interviews, sixteen post-innovation student interviews, and five instructor interviews. Table 5 depicts the length and quantity of interviews used in the qualitative portion of the study. All interviews were initially coded using in vivo coding to identify the key phrases in the interviews. Following that, I used the constant comparative method of review and coding to apply a second pass at coding for topics that aligned with the Community of Inquiry framework, cycling between new data and previously-reviewed data to ensure my definitions and codes were being applied consistently (Creswell & Guetterman, 2019). To code for social presence, I used work that built upon the original presence indicators published in Garrison's (1999) original study (Garrison, 2017; Garrison et al., 1999; Shea, Hayes, et al., 2010; K. Swan & Shih, 2019). The social presence coding schema is presented in Appendix E. The coding

schema I used to observe teaching presence (Appendix F) is based on the original codes used by Garrison et al. (1999) in observing teaching presence as well as more recent research conducted by leaders in the field (Anderson et al., 2001; Garrison, 2017; Garrison et al., 1999; Shea, Hayes, et al., 2010; Shea, Vickers, et al., 2010). Notably, Shea, Vickers, and colleagues (2010) added a fourth construct, assessment, to previous coding schemas, replacing the diagnosing misconceptions indicator from Garrison and colleagues (1999) direct instruction category.

Table 5

Qualitative Interviews Analyzed

Interview Type	n	Words Transcribed	Recording Duration (h:m:s)
Instructors	5	33,263	2:41:29
Students (Pre-Innovation)	7	36,661	2:43:28
Students (Post-Innovation)	16	81,814	6:51:14

I was also able to collect observational field notes during the innovation phase of the study. These notes provided comparative context between sections and instructors and allowed me to center my thoughts about each observation rather than trying to remember what I had seen in other sections. While the field notes themselves are not quoted here, they were used to help frame the qualitative study, establish the coding schema for qualitative analysis, and provided me with memories to refer to while writing this

dissertation. Furthermore, the field notes were integral in validating student recollections of events in their asynchronous online courses by comparing their interview quotes with my own observations from class.

Qualitative Analysis for RQ1

RQ1: How and to what extent does augmenting text feedback with instructor videos affect a student's perception of teaching presence and social presence in online asynchronous undergraduate courses?

Instructor videos were integrated into courses in two ways. First, at the conclusion of a weekly discussion board cycle, instructors were asked to record a summary video post, speaking specifically about student comments and responses and providing instruction and guidance that concluded the discussion. In practice, this video also included an introduction to the upcoming week to encourage students to view the concluding remarks. Instructors typically posted the videos on the second day of the new week following each discussion, and videos were 3-7 minutes in length depending on the instructor and the depth of review provided about the previous week's discussions.

The second type of instructor video consisted of reusable best-practices video clips embedded in assignment rubrics on the LMS alongside personalized text from the instructor. Personalized text established a direct connection between the student and the instructor, while reusable best-practice snippets provided a video approach to improving student performance without obliging instructors to record multiple, individually targeted videos for each of the 25-28 students in their courses. This approach sought to balance the expected benefits of individualized video instruction with instructor time requirements.

While coding the interviews with students, and instructors, I paid close attention to their impressions of the use of videos in these courses. Several themes emerged that could be categorized within the social presence and teaching presence facets of the CoI framework. These coded themes are discussed below and align with the CoI framework constructs used by other researchers in qualitative analysis (Armellini & De Stefani, 2016; Caskurlu, 2018; Shea, Hayes, et al., 2010; Shea, Vickers, et al., 2010). Before I examine how students perceived changes in teaching presence and social presence in the video-enabled courses, I share some brief observations about the lack of presence in the same courses, taught before the videos were introduced.

Student Perceptions of Presence Before Video Deployment

Interviews with students in the fall semester, before the deployment of the video innovation showed misgivings about teaching presence and social presence in asynchronous online courses. While the terms social presence and teaching presence were not used in the interviews, the concepts of humanizing online courses and shaping the learning experience through instructor guidance were discussed. Students noted that while instructors were available to assist, the primary means of communication seemed impersonal. “We're emailing each other, which is fine, but I don't know, that communication isn’t great. There's still something missing” (Student 2, personal communication, December 15, 2022). The observation that it felt like communication was lacking, despite adequate response times and content, points to a lack of social presence. While emails came and went on time, and the content was helpful, students indicated a lack of human interaction in their courses. Student 4 summed up the feelings of these participants with regard to the social presence of other students in their courses:

> I honestly felt like I didn't get to know any of my classmates at all, just because you know, during week one of a Global Campus course you might have your introduction discussion board and that's about it. Then you guys just kind of move on and that's it. Like we never get conversation going or we're never just reaching out to help each other. (Student 4, December 22, 2022)

Students also noted that while the asynchronous online courses were convenient for their schedules, instructors seemed invisible and students felt alienated, even assuming the intent was for them to learn directly from the texts without instructor participation. "I know we're supposed to be learning, like strictly from our book during the online courses, but I really wouldn't mind a lecture every week you know? Just like a brief 'what the main points are' of the topic that you're looking at" (Student 3, personal communication, December 16, 2022). This quotation points to a lack of teaching presence in some online courses, an opinion that was shared by several of the students I spoke with prior to deploying the video innovation.

Instructor Videos: Teaching Presence Themes

Teaching presence in the CoI framework refers to how the instructor, even in a completely asynchronous environment, can shape the learning experience for students (Akyol & Garrison, 2008; Dempsey & Zhang, 2019; Garrison et al., 1999). Because the focus of teaching presence is on the impact of the instructor, subconstructs focus on how instructors impact the learning beyond their actual presence in a classroom. Subconstructs of teaching presence include design and organization of the online course, facilitating discussion, direct instruction of students, and assessment of student learning. There are also subconstructs that exist in the overlap between teaching presence and social presence

depicted in the CoI framework diagram (see Figure 3). These include building a positive rapport and engendering a sense of belonging, both of which speak to the mix of human emotions and presence in the course, and structure provided by the instructor. The overlapping subconstructs are presented alongside teaching presence in this section.

Direct Instruction. Direct instruction refers to sharing content and material directly from instructor to student. In asynchronous online courses, this often refers to written text or audio/video content provided by an instructor (or other expert) that specifically addresses content in the course. Direct instruction was the most impacted subconstruct of teaching presence according to students who were interviewed. In addition, all students indicated a desire for more of this form of content in their online courses indicating that this student group saw direct instruction as the most important, and often most lacking, form of instructor contribution to their online courses.

Among the students who viewed them, the feedback best practice videos were seen unanimously as a form of beneficial direct instruction. Students appreciated the personal tone and preparation of the videos. Students also recognized and appreciated the time that had gone into their preparation. Student N observed "I feel like the effort a teacher puts back into just responding to you with a video in their face and not just typing I feel like it's a lot of work" (personal communication, February 24, 2022).

Furthermore, students saw the specific videos that addressed errors or common mistakes as helpful because they were short and targeted. Most of the best practice videos were under 2 minutes in length, which appears to have helped students to see them in a positive light.

> Most weeks she did like her video of the course layout of that week. And then there was some extra videos of extra information that wasn't from the book that she gave us too. She explained like some, like, terms a little bit more. So that was really helpful, as well. (Student E, February 23, 2022)

The weekly summary and intro videos were also seen as a form of direct instruction, but only when they contained specific materials that helped students to understand the discussion wrapup. In one course specifically, Instructor T was mentioned by several students as having provided added value in their weekly wrapups of the previous week's discussion. They "did Marketing Avenue posts each week to go with the videos. They're the first professor that I feel that really went out of their way to provide us with those extra resources which I thought was really nice" (Student K, personal communication, February 23, 2022).

The weekly videos also provided an impetus for students who felt they did not fully understand material to come forward and ask for assistance. Student D noted that the weekly video helped them see where they were struggling and set up a one-on-one meeting with their instructor for further assistance.

> I was glad that she did it after the assignment was submitted. She actually did a video, okay, she broke down how she was going to grade and what she was looking for and resources that we can use moving forward. She provided great feedback within the rubric assignment with tips and tricks to get better. (February 23, 2022)

Design and Organization. Design and organization speak directly to how a course is organized, including in this case how students were able to find and watch

videos. With regard to the weekly summary and intro videos, all instructors posted them as announcements in the course shell. Students paid special attention to the weekly videos in this course, because they were filmed specifically for their course as opposed to reusable videos filmed at some time in the past. “I really like both of those options because it doesn't sound like it's a, just, like a pre-recorded message” (Student J, personal communication, February 23, 2022). The importance of timely videos filmed for these specific classes was consistent with the literature on video instruction (Alharthi et al., 2019) and was a key design consideration for improving teaching presence in these courses.

For the students who watched the feedback best practice videos, the results were similar. The design of embedding the videos in the rubric alongside personalized text feedback resulted in students feeling that the instructor had taken the time to communicate with them directly. The design of the videos in this course clearly improved teaching presence in the eyes of students who watched the videos.

> So, she shared videos every single week, if I'm not mistaken. So that was, that was nice, because, you know, we got, I got to hear her voice, hear her talk about the topics and the things that we were gonna discuss in the in the week. So, I mean, I felt, I felt comfortable enough. You know what I mean? Because now I see her face and I see her face often and I feel like yeah, that's my instructor. That's my professor. (Student B, February 28, 2022)

Students who did not watch the videos, however, saw no benefit to the design or organizational teaching presence of their courses. Students who skipped the videos, did not spend time reading over the announcements, and ignored the feedback in the rubrics

did not benefit from an increase in teaching presence. The videos required students to actively click them to get the benefit of increased teaching presence. Those who did not click, clearly did not see an increase in presence, and also did not think they were missing any key components of the course. For those students, online learning was more transactional and isolating.

> I kind of peruse through the announcements. I don't really read them word for word. And honestly, I didn't click on any of the videos. I mean, if I was having issues with something or was unclear, I mean, I would go to that I guess, but that didn't come up for me this semester. (Student F, February 24, 2022)

Because viewing announcements was not required, and reviewing instructor feedback was also an optional activity, increased teaching presence driven by design and organization of the course was only realized for those students who took the initiative to click videos and review assignment feedback. Their perceptions of what was required of them in an online course meant that they saw interacting with videos as an unnecessary step in their educational journey this semester.

Facilitation. A key component of online courses is driving students to discuss and explore materials and concepts with students. In asynchronous courses at Davenport University much of this is accomplished through discussion-style activities, including text-based discussion boards and other asynchronous tasks that require students to make and defend assertions. The facilitation subconstruct of teaching presence refers to the role an instructor plays in guiding the discussion, as well as their ability to focus discussion on the concepts and learning outcomes desired for the course or activity at hand (Caskurlu, 2018; Garrison, 2017; Maddrell et al., 2017).

This subconstruct of teaching presence appeared through the instructor videos posted each week reviewing the previous week's discussion and introducing the material for the coming week. Students recalled specifically that they had been directed to reconsider specific items or topics. In addition, several students noted the way that their instructors helped tie together controversial and challenging topics in the weekly videos that were posted after student discussions had concluded for the week.

> There was some controversial topics. There was some personal … we went a little off skelter with a few things and she didn't judge. She just asked us to think about what we were thinking and what are we able to do, to be a better business professional down the road. (Student A, February 24, 2022)

In addition, by helping students see how to complete their work, and how to succeed, videos were a key tool in helping students build relationships and see their instructors as participants in the online learning process. Facilitation often took the form of helping students better understand methods and strategies for learning. In quantitative lessons especially, students appreciated the help understanding how to successfully address complex assignments.

> I liked how Instructor V, she probably almost, like, every day, she does a little announcement. There's some weekly videos of an outline of a graph she wanted us to do. And she explained how to do that. She explained how to find that. So, I really appreciated her help with those because if I wasn't able to find them, I would have failed. She explained it and broke it down for us which was awesome. (Student E, February 23, 2022)

Assessment. Assessment as a subconstruct of teaching presence refers to the ability of students to consume and understand assessment information in an asynchronous course. The feedback best practice videos were the sole means of enhancing the assessment subconstruct of teaching presence in the courses during this study. While several students noted the best practices videos as helpful for assessment, the general understanding of those videos was that they were more helpful as direct instruction aids than they were as assessment aids. Comments like those of Student F point out the utility of the videos but also demonstrate that a student saw them as instructive, not assessment aids. “She pointed out the things that she liked within the work that I had and pointed out improvements, or maybe there was a topic that I missed, that I didn't discuss enough” (personal communication, February 24, 2022). However, the same student also appreciated the improved presence of their instructor in the course, even when the videos did not have an impact on the assessment subconstruct. “She showed me that she actually read what I was writing, and I liked that” (Student F, personal communication, February 24, 2022).

Building positive rapport. The ability of instructors and students to build a positive rapport within asynchronous online courses exists at the overlap between social presence and teaching presence in the CoI framework (Garrison, 2017; Garrison et al., 1999). In a community of inquiry, the rapport is between students and also in the student-instructor relationship. Videos directly contributed to positive rapport between students and their instructor in the courses studied. Every student that watched their course videos indicated this was a key facet of the videos for them. The belief that their instructor was a helpful participant in their course went the furthest in impacting positive rapport. “They

kind of wanted to figure out how to change and kind of get engagement. That class was probably one of the best classes I've had in recent times" (Student A, personal communication, February 24, 2022).

In addition, the focus on how to be successful in the course, and how to have a good communicative relationship with instructors was a factor in building a positive rapport between students and the instructor. Students noted the benefits of seeing their instructors' faces and understanding their body language as key components to helping build a positive student-instructor relationship.

> To me, they're helpful because, like, using the one that Instructor L put up, you can see their face, you can see kind of some of the things that they're talking about. And you can actually follow along as they're reading through the syllabus, you can actually say pay attention to this. It made a big difference for me. (Student A, February 24, 2022)

For some students, the positive rapport building also helped them be more confident that they would build positive relationships with their instructors. Student D specifically noted that their long time away from college left them unsure how to interpret instructor feedback and comments. The videos helped build a positive rapport between the student and the instructor, as well as assisted the student with confidence related to college readiness. The transformation the student went through with how they interpreted the instructor's feedback and demeanor changed entirely after watching a single weekly video.

> The one thing that I guess kind of was solved in this course was because of the weekly videos and everything. From reading I was like oh my gosh, she's so

> stern. She's no-nonsense. She's not going to understand whatever. But it was the body language. Actually seeing her… It's like okay, you do care about me. You know, you, you are, are my professor. I know you have a job to do but you actually care about my success. Awesome. It is so much easier for me to email to get an answer after seeing that. (Student D, February 23, 2022)

Of interest, the videos had no discernible impact on creating a positive rapport between students. While instructors modeled positive tones of conversation and indicated how they wanted students to interact with each other, students did not see the instructor videos as contributing in any way to their student-student relationships. In spite of the lack of impact on student-student rapport, the videos very clearly impacted the teaching presence through increasing positive rapport between instructors and students.

Instructor Videos: Social Presence Themes

Social presence in the CoI framework refers to the ability to be seen as a human in a course, despite the isolated nature of asynchronous learning, and to see other participants in the course (both instructor and students) as humans as well (Joksimović et al., 2015; Maddrell et al., 2017). Subconstructs of social presence refer to the various means by which the instructor videos presented class participants as humans. For example, when instructors refer to other students in videos by name, the notion of those students as human contributors to the course should be reinforced. This presents a contrast to how the videos were analyzed for their impact on teaching presence. Four subconstructs of social presence were evident in the interviews with students. Affective expression, openness and interaction, building a positive rapport, and a sense of belonging are all reviewed in this section based on the answers provided by students

during their interviews. Social presence driven by student-to-student interactions is addressed by RQ2, so that is not covered until further in this chapter.

Sense of Belonging. A sense of belonging is fostered in a community of inquiry in the overlap between social presence and teaching presence. A well-designed course with an engaged instructor who helps humanize the participants can engender students' sense of belonging that in turn helps improve performance (Shea, Vickers, et al., 2010; K. Swan & Shih, 2019). To that end, the videos produced by instructors helped those students who were unsure they belonged in college to feel seen and more prepared to attend class. Similarly, students who reported concerns about the asynchronous online learning modality reported feeling more confident about their coursework.

> And then I got that one assignment where I did really bad… during the meet and greet, you know, and I kind of explained to her, like, I don't know that I can really do this. I don't know if online classes are for me. And she gave me her insight and she gave me some tips and she pretty much told me if you take what I have given you, I think you'll do great in the course. And I pretty much applied everything that she mentioned in all of my assignments moving forward, and I got pretty good grades on them. (Student D, February 23, 2022)

Affective Expression. In the CoI framework, affective expression refers to those communications between participants that allow for the use of humor, emotion, informality, and forms of expression that are not tied specifically to the course materials (Garrison, 2017). In the instructor videos, affective expression manifested itself humor and personal anecdotes incorporated in the weekly summary and intro videos. Students were attuned to this method of making the videos easier to watch and mentioned how

much they enjoyed understanding more about their instructor's expertise on subject matter, as well as understanding more about their personalities. It was in this manner that the weekly videos directly impacted social presence in the courses and allowed students to weave their own personal anecdotes into their understanding of the other participants in their course. In the following example, Student K observed affective expression from Instructor T.

> I really felt like she just she knows her stuff. Like it came across as that she was absolutely just an expert in the field of marketing. That she knows what she's talking about, and she definitely did as the semester rolled on. (Student K, February 23, 2022)

The best practice videos that were incorporated into the rubrics of written assignments did not seem to impact social presence in any way. Students saw them as direct instruction that improved teaching presence, but not as social presence tools. I attribute this to the very content-specific nature of the best practice videos, as well as their extremely short duration. Each video focused on a specific best practice, which meant that instructors opened the video with a very brief introduction of the topic, communicated the best practice, and concluded the video all within one to two minutes. Students interpreted this as content-based direct instruction and not social presence.

Openness and Interaction. Openness and interaction represent the facets of social presence that involve discussion between parties. Agreement, disagreement, consensus-building, and appreciative comments also fall within this subconstruct (Shea, Hayes, et al., 2010). In the case of instructor videos, the agreeable tone and mentions of specific students in the weekly videos did have some impact on student perceptions of

social presence. While examples of this subconstruct abounded in courses where videos were used, the impact on social presence seemed to be tied more to other behaviors than direct observations of openness or approachability. Students reported open and approachable instructors when discussing weekly videos but did not associate that approachability with their notions of social presence. They did, however, find approachable instructors to be highly effective. For example, after explaining how Instructor E provided intro videos that helped make them seem more human in the course, Student C noted how open and approachable Instructor E was in other aspects of the course as well. “In written assignments and discussion board topics they have been really good. When you went on to the discussion board, they’d usually challenge you a bit on it to get you kind of thinking of the other side and it was the same way in the rubrics" (Personal communication, February 23, 2022). The student in this situation was predisposed to find their instructor open and transparent due to the videos they’d watched earlier in the semester despite the discussion board feedback being in a written format.

Instructor Videos: Conclusion

The instructors’ weekly videos quite clearly impacted teaching presence and social presence in the courses where they were used. Students who watched the videos reported consistent teaching presence gains from videos that they perceived as direct instruction, as well as building positive rapport. The results for facilitation were less consistent, but the weekly videos still stood out as tool that clearly impacted all the subconstructs of teaching presence. When examining social presence related to the weekly videos, the results were less obvious. Students described the benefits of seeing their instructors on screen and being able to read body language, but they often used

words that were more aligned with teaching presence subconstructs than social presence. For that reason, my conclusion is that the weekly instructor videos had a direct impact on teaching presence but only a limited impact on social presence.

The best practice videos had limited impact on both social presence and teaching presence. Students who watched the videos did report that they were helpful, but it was clear the number of students watching the videos was substantially fewer than those who interacted with the weekly summary and intro videos posted by instructors. One subconstruct of teaching presence, direct instruction, was highlighted by students as a benefit of the best practice videos. Aligned with the quantitative data that showed some slight gains for teaching presence in the direct instruction subconstruct, I conclude that the videos were helpful with that subconstruct but nothing more. Given student interest in direct instruction enhancement in asynchronous courses, the best practice video approach merits further research and will be discussed further in Chapter 5.

Qualitative Analysis for RQ2

RQ2: How and to what extent does including video feedback as part of student discussion assignments affect student perceptions of social presence in online asynchronous courses?

In the courses studied, student discussion boards were modified in the courses to include a call for video feedback responses to initial posts. Initial posts were still in the text format, to ensure APA formatting and citation were preserved. Students were asked to use video for their peer-responses, mention peers by name in their responses, and ensure that the responses still met the academic criteria and standards normally used for text posts (including a requirement that students cite sources to further the discussion).

Prior to the deployment of the videos in courses, I interviewed six students from the Fall semester. These interviews discussed the same concepts and subconstructs of social presence as the post-deployment student interviews providing a qualitative view into how discussion boards fostered (or inhibited) social presence prior to the deployment of the innovation. Interviews were then conducted with sixteen students after the video intervention to qualitatively assess whether video-embedded discussion boards helped encourage the formation of a Community of Inquiry via growth in social presence. While the term social presence was not used in interviews with the students, I did ask questions about specific subconstructs of social presence, especially given its role as a significant predictor of course performance and student retention (Liu et al., 2009; Richardson et al., 2017). Qualitative interviews suggested that most students had a positive opinion of the video posts, expressing a preference for producing and viewing videos relative to the standard text responses from other courses (and before the deployment of the innovation).

Student comments about discussion boards overall suggest that the assignments and activities contained in the discussions are not meeting the goals of building social presence in online courses. While adding video improved matters, most students expressed some dissatisfaction with discussions when questioned how discussion boards affected learning and group cohesion. When questioned about whether or not discussion boards helped courses build group cohesion, nearly every student expressed skepticism. A review of how the videos altered social presence in courses is provided in this section, with analysis of each social presence subconstruct observed.

Student Video Discussion Themes: Social Presence

Student participants in this action research study were unfamiliar with the term social presence and its relationship to online courses, but their answers to my questions about the various sub-constructs of social presence indicated a deep understanding of the value of humanizing an online course. Students understood why affective expression in an asynchronous environment could help them get to know their classmates (even if the words "affective expression" were never uttered in an interview response). Students understood the value of group cohesion and had strong opinions about the various ways in which they had experienced (or failed to experience) cohesion in their own classes. A qualitative analysis of each observed subconstruct of social presence is provided herein. Where student opinions varied within a given construct, analysis is provided to reconcile the differences. Students with numeric identifiers (e.g., Student 3) were interviewed prior to the innovation deployment. Students with alphabetical identifiers (e.g., Student C) were participants in the innovation cohort.

Affective Expression. In the CoI framework, affective expression is observed when informal communication occurs between conversation participants (Caskurlu, 2018; Garrison, 2017). Affective expression is characterized by expressions of emotion, values and beliefs, the use of humor, and self-disclosure (Garrison, 2017; Garrison et al., 1999; Shea, Hayes, et al., 2010; K. Swan & Shih, 2019). Discussion boards at Davenport University are typically structured to place value on analysis, cited research, and displays of critical thinking. The peer responses typically assigned as part of a discussion board assignment provide a chance for students to interact with each other directly (but still asynchronously) by responding to specific posts. Changing the responses to video had a direct impact on the affective expression observed in the online courses. Prior to the

inclusion of video responses, students were uniformly certain that there was almost no affective expression in their courses, or that the affective expression displayed was insincere. Student 1 summed up their feelings about communication and connection in discussion board succinctly. “To be completely honest, it sucks. Okay. The problem with a discussion board is a lot of times it feels like you're talking to yourself” (personal communication, December 15, 2021).

The video approach to discussion did change how students recalled the discussion boards that they participated in. While they still expressed disdain for the tool as a whole, their responses displayed far more sincere affective expression when they were produced as videos. Furthermore, the video responses allowed for actual connections between students that had not been observed in the pre-innovation participants. Student B easily and immediately recalled interactions with a specific classmate in their discussion board. The affective expression of the initial responses led to a deeper learning connection between the Student B and the material, as well as connections that went beyond the academic nature of the course. This example demonstrates how the video responses, and affective expression within the responses, helped students form connections with each other that went beyond the curriculum, and increased social presence in the class.

> Yeah, yeah. I remember her name is XXXXX because it had to do with a question on prejudice and discrimination regarding how to teach kids, young children, profound and deep concepts like prejudice and discrimination. And she's an older African American woman. So, you know, I read her, her perspective. And she mentioned about how she has two sons that are now grown and sometimes they even still come to her with questions or comments about discrimination and

> prejudice that they've experienced in their own lives. Just being able to connect with her sure, in a way by listening to her perspective, I felt like we really connected. (Student B, February 28, 2022)

In every course studied students noted the affective expressions shared in the introductory discussion board post, which asked students to respond to classmate introductions as videos in a manner similar to how they would be posting videos in the coming weeks' discussion assignments. The informal nature of an introduction post allowed for substantial affective communication within the courses, helping to foster social presence early in the semester. Several examples are presented here to demonstrate how the introduction post impacted students' perceptions of social presence in the course.

> Oh, yeah, one girl answered me back, she sent a little video, and then, like, we talked about, the things that we have in common and stuff like that. It was really cool to hear that. (Student E, February 23, 2022).

> The first one was the introduction kind of get to know everybody, what you're doing where you were from. We talked about course projects, kind of what we wanted to improve on is in managerial skills than the rest. We're talking about the concepts within the text and learnings before we got to them. (Student F, February 24, 2022).

In both examples, the students noted that the informal communication in their introductory discussion post facilitated a connection and discussion beyond a mere introduction. Furthermore, students were demonstrating that the video discussions allowed them to talk about the course concepts, even when that was not part of the assignment. Finally, students recognized that instructors, who also participated in

discussion boards with the same approach (video responses) were also contributing to the social presence in courses through affective communication. Student G observed their instructor in a video introduction, noticed the passion for the subject-matter, and expressed feelings of connection with their instructor due to the video introduction post in the discussion.

> I think the, the very first introduction one I learned that she was really interested in the subject that she was teaching because she talked about how interesting it is. We had to give an example of an ethical issue we heard about or were a part of in the past. So, I really liked that I got to get a feel for her. When you talk to people, they give their opinions, and you get an idea of who they are. So that was really exciting at the start of the class. I felt like I knew what she was all about. (Student G, February 24, 2022).

Group Cohesion. Group cohesion describes the interconnectedness of group members in an online course. In the CoI framework, group cohesion is marked by personal greetings and salutations, the use of classmates' names in posts and other non-salutative mentions, the use of group pronouns (e.g., we, ours), as well as group reflections, and social sharing about group members within the group (e.g., wishing a happy birthday to a group member within a group setting) (Garrison, 2017; Shea, Hayes, et al., 2010; K. Swan & Shih, 2019). At Davenport University, group cohesion is most commonly fomented through group projects. That said, some group cohesion can be seen in discussion board settings as well, especially in the courses that used videos for discussion responses. As with affective expression, students uniformly saw the videos

helpful in building better relationships within their courses, demonstrating some evidence of group cohesion throughout the interviews I conducted.

Several students explicitly mentioned the benefits of seeing each other in videos (as opposed to text discussions with profile picture). “You get to know them because you get to see them speaking. As you’re replying back in discussion, you kind of would key in on certain people and you can read how they are by how they post their videos” (Student A, personal communication, February 24, 2022). The group cohesion encouraged by body language and visual aspects of video communication spilled out of the discussion boards into other facets of the course as well. Students who had positive impressions of watching video discussions also noted that they felt more comfortable starting a FaceTime group chat as part of their group project.

> I tried to setup a group FaceTime so we could all meet each other. Just because I felt like once we’d actually seen each other in the discussion, we were more likely not to screw them over in the group project. (Student O, February 24, 2022)

Openness and Interaction. Openness and interaction as a social presence subconstruct describes those interactions between students (or with the instructor) that involve agreement, disagreement, asking further questions, compliments, expressions of appreciation, and offers of personal assistance or advice (Shea, Hayes, et al., 2010). In seeking evidence of this subconstruct of social presence, I asked students to describe how they interacted with each other in the video discussion posts, and whether or not that method helped with open communication.

Students discussed mixed feelings about how much actual interaction and openness the video responses provided. While the subconstructs of affective expression

and group cohesion were easy to observe, students had very few examples of going beyond getting to know each other and entering the realm of interaction as defined by Shea et al. (2010) and Garrison (1999). Specifically, while students were quick to identify the benefits of seeing each other on video, the most common example of interaction, which I coded as "compliments and appreciation," was repeatedly referred to as an insincere (but expected) opening to every single discussion response regardless of whether it was text or video. "'Great post, Student X' is how people start every post. It doesn't matter if they're typing it or recording it" said Student A (personal communication, February 24, 2022). Similar sentiments were unanimously expressed by other students regardless of how they felt about the videos as a tool.

One exception to this rule was students who were older and returning to school for the first time in several years. I had three students participate in the study who had been out of school for at least 10 years. These students all noted that they felt some initial trepidation about sharing personal information in the discussion. In all three cases, the videos posted by their classmates appeared to ease some of their concerns and allowed them to interact with other students in a transparent manner.

> I just talked. So, what I would do is, I would go through all of the discussions, and I would find one that I thought that I could relate a little bit more to … and I would pull up that article or pull up that discussion. I basically would hit record and I'd say 'Hi, my name is Student D, just responding to your discussion about sustainability. I think it's really awesome that you mentioned Company A and social responsibility. I read an article about this" and I would explain what I

wanted to add. It was just like a free flow. I didn't really do a script. (February 23, 2022)

Other older students who had been out of the classroom for lengthy periods expressed similar methods, and all of them referred to initial misgivings about the videos as a platform. Misgivings overcome, this group of students generated the most evidence that video can provide a platform for openness and interaction as defined in the CoI framework. While other students did not express similar benefits for this subconstruct, the strength of the affective expression and group cohesion they reported still suggested improved social presence in their discussion boards.

Building Positive Rapport. A subconstruct that exists in the overlap between social presence and teaching presence, building a positive rapport speaks to the need for a positive learning environment for students. Asynchronous online courses were roundly criticized for lacking any rapport by students I interviewed prior to the introduction of videos in the study courses. “But that's another thing about these courses. I don’t feel like there… I just don't feel like there’s enough to spark any real conversation” (Student 2, personal communication, December 15, 2022). This observation, pointing to a lack of any social presence in discussion boards prior to the introduction of videos, was reflected by four of the six students I interviewed before introducing the video innovation.

In the semester using the video discussions, some students did not report any new developments in terms of the feeling of positive rapport in class. Others, however, were effusive in their praise for the difference between the rapport of a text-based discussion and a video. Student H had a plethora of positive feedback that reflected what other students said (in fewer words) when they noted the following:

> I've always liked doing the video responses. I feel like it's a more genuine response. Even if people are reading off a script they wrote, they wrote it themselves … I usually just wing it myself because I feel like that's the most genuine way to do it. I 100% prefer the video response over typing it out. (Student H, February 24, 2022)

While Student H discussed the authenticity of the posts, they were also describing a generally positive view of watching videos as well. The positive rapport they observed can be seen in other student responses as well. Student C also spoke to the authenticity and ease of interpreting the message when responses are recorded:

> It's obviously not face-to-face but it's, it's almost there. You can see people's emotions and what they're actually trying to talk to you about, rather than just reading a text. Like texting people, you can kind of say something to somebody, they can take it a whole other way, because they're not seeing how you're saying it yourself. So, I've always liked doing the video responses best. (Student C, February 18, 2022)

Of particular interest in the interviews about rapport was that no students had opinions about the type of video, the production value, the informality of the recordings, or the professionalism of their instructors or classmates in the videos. I reviewed the videos posted by students and nearly all of them were informal, filmed on a cell phone, casual dress, and in a non-professional location. Instructors spent time wondering and worrying about how their videos would be interpreted based on different settings, but students were completely unaware (or unconcerned) by those matters when producing

their own videos. Their comments were almost entirely focused on removing confusion based on the ease of interpreting someone's intentions when their message was recorded.

> I think when you're, when you're just writing it out there's no … it's a lot more difficult to interpret right and people will…People can put their own bias or exert their own bias on to what they're reading based on how they're interpreting it and it could be. (Student C, February 18, 2022)

Sense of Belonging. In the case of the CoI framework, the notion of belonging shows as a subcontract in the overlap between social presence and teaching presence. For student participants posting videos in discussion boards, the sense of belonging was evidenced in the growth of social connections outside of the discussion boards. This was not the most common subconstruct observed, but those students who discussed the sense of belonging as an outcome of their video discussions had very strong feelings. Student A, for example, talked about connections built in their single seven-week course leading them to decide to walk at graduation:

> … and so, I got to know some of my classmates this term. I know this sounds bad, but I've been in and out of school for a while. I was not going to walk for graduation. But since I've talked with these individuals, I've been kind of in and out of classes with them. But this semester with the videos has been great. Now I, told the wife, I think I'm gonna walk! You know, I worked hard for this. And I got to meet some people this semester. So, I now know some of these students I need to meet them personally, you know what I mean? (Student A, February 24, 2022)

While Student A's experience is certainly an outlier in terms of impact, the notion that videos helped students feel like they belonged in class, working together, was a common thread. Nearly every student interviewed mentioned feeling more connected to their classmates as a result of seeing their faces on videos. This result suggests improved social presence in the course directly tied to the use of video as opposed to text (or audio, which is often posited as an acceptable alternative to video posts).

Qualitative Analysis for RQ3

RQ3: How do instructors perceive the expanded integration of video feedback impacts their presence in asynchronous online courses?

Instructors deployed the video innovation in this action research study to their asynchronous online courses. They functioned as both my partners in deployment and participants in the study, as the third research question sought to examine their own impressions and experiences with the changes to the online courses. Instructors were asked to produce their own videos, using the Kaltura video suite which is integrated with Davenport University's Blackboard Learn LMS. Instructors were trained in the methods prescribed by the innovation to ensure a consistent student experience. However, as with any group of college faculty, the specific courses were still conducted with some differences among instructors. To ensure consistent results and reliable analysis, interview questions with instructors were focused specifically on their perceptions of how the changes prescribed by the innovation impacted teaching presence and social presence in their online courses. Because the same instructors taught the same courses before implementation of the embedded videos, they were also asked to consider differences in the CoI constructs observed before and after the innovation.

Instructor Perception: Teaching Presence

Teaching presence describes instruction, facilitation, setting the learning environment in an asynchronous course, and the instructional design and organization of the course itself (Anderson et al., 2001; Caskurlu, 2018; Garrison, 2017; Garrison et al., 1999). In this action research study, the primary means to alter teaching presence in courses were the videos provided by the instructors themselves. There were weekly discussion wrapup videos (that also included a preview of the coming week's materials) as well as best-practice snippets that were recorded by instructors and provided as part of personalized textual feedback in written assignments. While coding the results, themes emerged in line with the subconstructs noted in the CoI framework itself.

Subconstructs of teaching presence, as observed and reflected upon by instructors participating in this action research study are provided herein. When instructor observations were unanimous across course sections, I have noted them as such. When there were conflicting opinions, I have provided those along with my analysis and interpretation of their observations. In all cases, the instructors noted similar outcomes regarding their own teaching presence in the courses. The differences centered around the magnitude of the impact the use of video had, and which students the instructors believed it benefited. Some noted that the videos were beneficial to teaching presence in the course as a whole, but others felt teaching presence only changed for students who interacted with the videos. Upon coding and analysis of the interviews with instructors, I organized codes into themes and then categorized the themes based on the subconstructs within the broader definition of teaching presence (and social presence).

Direct Instruction. Instructors unanimously agreed that direct instruction was enhanced through the use of videos. In the context of this action research study, direct instruction referred to the best-practice snippets in which instructors demonstrated or described concepts directly in videos, and to the components of weekly wrapup videos. In all cases instructors linked the sharing of content from the course materials to improving student experiences. When I discussed their videos with the instructors, their first comments were always about the direct instruction benefits (or potential benefits) of video in the asynchronous classroom. Upon further probing, it was clear that some of these perceived benefits were due to the innate comfort instructors have in the role of class expert, disseminating information. Direct instruction aligns with traditional teaching roles, and its presence in an online classroom made instructors feel that their work was helping students directly, by delivering content that was important to students. In particular, Instructor L noted, "content that's explained by an instructor over video would be more valuable than text" (personal communication, February 28, 2022).

I also asked instructors to interpret how direct instruction was delivered in their videos. Of particular interest here was how they could incorporate the best practice snippets (which were reusable videos) and still preserve the goal of personalized feedback in their assignment rubrics. Instructor E described a prompt-by-prompt review process as such:

> I went prompt by prompt and thinking about the general feedback that I would get right you know, so just in general, what are the common errors and common patterns that we see? And so, I tried to do one or two, I forget how many questions there were in that assignment that they had to answer at four or five. So,

> I tried to do one for each and then kind of like a couple overall, best practices, just kind of here's how you should write a paper. (May 8, 2022)

This approach to providing reusable videos alongside personalized text feedback was central to how instructors saw themselves providing direct instruction in their courses. The reusable videos required some time to produce but could be used for multiple students. The effort required to provide this form of direct instruction in their online courses was deemed valuable if students engaged with the videos, but that level of engagement was still a topic of debate. Instructor E described the effort to create best-practice videos as follows. “That took more time, right? Because that was like a lot of going through the textbook and trying to pull out specific information for the students and their most common errors” (personal communication, May 8, 2022). As to the level of engagement and whether or not the students were watching the videos, Instructor V summed it up as “I would be skeptical if they’re not reading my written feedback, that they’re going to actually look at the videos I’m providing” (personal communication, February 28, 2022).

When asked to further highlight why and how direct instruction improved their presence in their online courses, instructors spoke about getting students to engage with the material before assignments were due, answering questions before they arose, and ensuring students had ample time to review the material and ask further questions before work was completed. Instructor L again noted:

> ... in those sessions I review the assignments … you know, just kind of an overview so everybody can find everything. I review all the assignments, so I make sure that every week, everyone has a chance to understand the material. If

you don't understand something it's on you because I've reviewed it, recorded it, and given you time to ask questions. (February 28, 2022)

While instructors were unanimous in their agreement that direct instruction was enhanced with the use of videos, instructors were concerned about ways to maximize the student viewership of their videos, both as a way to guarantee a positive return on the time invested in producing them, and in seeking to ensure students received the benefits of direct instruction in the courses. Instructor E spent some time during our conversation wondering how to maximize the number of her students that took advantage of the videos on offer. She wondered if "having a prompt in there that they have to watch it in order to respond to it and get whatever points might be associated with it" would increase viewership of the videos, and thus improve student performance (personal communication, March 7, 2022). Instructor V concurred with the need to maximize viewership, noting "mini-lectures on the are more beneficial" (personal communication, February 28, 2022) than other forms of video communication when seeking to improve the instructor's presence in an online course.

Design & Organization. Embedded weekly videos improved teaching presence specifically through improved design and organization of materials. This subconstruct of teaching Presence describes the initial design and presentation of the online course (Anderson et al., 2001). As with direct instruction, instructors were comfortable understanding this concept because their workplace context at Davenport University involves working with an instructional design team to design and organize course templates for nearly every online course taught. In this case, the instructors spoke

specifically about the design of the weekly videos prescribed by this action research study, and the organization of how the videos were delivered in their courses.

The design of the videos included a wrapup of previous week's discussion posts as well as a preview of topics and content for the upcoming week. In addition, the videos were linked to Blackboard Learn Announcements which ensured they were delivered via email to all students in the course and placed in the content feed that students see when logging in to view their course. The mere nature the content was delivered via video also had some benefits in the eyes of Instructor L. "Because it's recorded, sometimes some of the students would go back and watch pieces of the video as well. They wanted to review something about the assignment, or the discussion. It becomes reference material at that point" (Instructor L, February 28, 2022).

When asked how to maximize the teaching presence value of their weekly videos, instructors discussed the benefits to students, some of whom reported being able to focus on videos more effectively than written text. Regarding the weekly review and preview videos, Instructor L mentioned that she felt students were skimming readings while paying better attention to videos:

> I liked the videos for doing that rather than reading because I think if you hear it, it's a different way and rather than reading it, I think that it's harder to miss something. If you're listening, rather than reading like your students will skip over because they, they just when they're reading, they're just quick reading. (May 8, 2022)

In contrast to this observation, Instructor E provided her weekly announcements in both text and video formats because that gave students the option "to either watch it

and they were getting the same content even if they just read the announcement" (personal communication, March 7, 2022). The concern for Instructor E, as well as Instructor V was whether or not students actually watched the videos. While they received no substantive feedback specifically regarding the videos, Instructor V did note that she received unexpected (and unprecedented) thank-you notes from students after her class. She hypothesized that the videos encouraged her students to envision her as a person, and thus more readily approach her with feedback of this nature.

> So, I did get three students that made a point to send me an email, either right at the end of week seven are right at the end of class to say they really enjoyed the class, and they appreciate what they learned. That is unusual. (March 7, 2022)

Instructors also saw the inclusion of student videos in discussion boards as central to the design and organization subconstruct of teaching presence in their courses. Instructor E discussed the benefits of having students post their videos before viewing others to assure they did independent work. "I think having that capability of Blackboard to lock it until, so they can't see what the other students have said, I think has helped with a little bit more than creativity and uniqueness in their responses. So, I think that has been helpful as a learning tool" (personal communication, May 8, 2022). This observation, while unique to Instructor E, calls attention to the role instructors play in interpreting the guidelines of the video innovation for this study, and how their individual choices impacted the teaching presence for their courses.

Facilitation. Anderson et al. (2001), described facilitation in online courses as those activities that encourage discourse between students, motivate students to engage in active learning, and encourage development of social learning. In this regard, there is

overlap with how the CoI framework defines social presence as well, with a focus on the discourse and social aspects of learning in online courses (Garrison, 2017; Joksimović et al., 2015). Instructors observed that the weekly summary videos and the best practice feedback videos were viable means to further discussion and facilitate progress through the course for students. However, the videos did not directly impact social learning in the course. While the videos themselves were not published in a manner to request direct interaction from the instructors and students, they were helpful in ensuring students knew about discussion activities in the coming week. In addition, the videos helped set expectations for student behavior and activities in classes, explaining how certain assignments should be completed, and demonstrating best practices for use later in other written assignments and discussions. The weekly summary and intro videos specifically helped ensure students understood what a quality discussion post looked like, as instructors called attention to specific quality posts during the reviews.

> These videos are making sure, they're reiterating, 'This is what we did last week, this is why we did it, this is what you did well.' They're also saying 'Hey, this is what's coming up this week.' That gives students some targets, whether it be an upcoming collaborative exercise or ensuring they record their own videos for discussion by a certain day. Plus, I could call their attention to how I liked the discussion posts to be set up, whether they were video or written, ensuring that students were prepared to get decent grades. (Instructor L, February 28, 2022)

One point of disagreement among instructors was the nature of how the weekly summary and intro videos actually improved facilitation within the course. Specifically, there were questions about whether or not the content itself was the driver of facilitation,

or whether the delivery of that content via video was the driver. Instructor E believed that the content itself was important, but expressed concerns about viewership, observing, “They could just read that, right?” (Personal communication, March 7, 2022). In contrast to that skepticism, Instructor V believed the social and teaching presence of being visible on camera added to their ability to help encourage discourse in the course.

> I enjoyed creating the weekly welcome video, and I will take that as a practice going forward. I think it's important for the student to see me as the instructor who — I am not just what's written. I really enjoyed that. I didn't think I would. (Instructor V, February 28, 2022)

Assessment. The best practice videos embedded with written assignments were identified by instructors as tools that contributed to the teaching presence in courses as assessment tools. However, their observations of the videos’ ability to improve teaching assessment were mixed. As with the weekly summary and preview videos, instructors were unsure which students took the time to watch the videos, and believed that students who most needed the assistance of the videos may have been the ones most likely to ignore them. Speaking specifically to the best practice videos embedded in written assignment feedback, Instructor V expressed some dismay about student opinions about communication, and the likelihood they would watch the videos provided.

> I was skeptical in providing the [best practice] videos in that I just didn't feel students would take advantage of them. In my course there's minimum two announcements per week, there's lectures, there's assignment tips. I just looked at my course feedback from my last session. It says there's lack of communication and the instructor is not in the classroom. So, I would be skeptical if they're not

reading the written feedback that they're not actually going to look at those videos either. (Instructor V, February 28, 2022)

In those cases where the videos were helpful, instructors appreciated the ability to improve assessment within courses by demonstrating specific topics and areas in which students could improve their written assignments. Instructor E "went prompt by prompt and thought about the general feedback … what are the common errors and common patterns" to provide reusable best practice videos while providing individualized text-based feedback (personal communication, May 8, 2022). They observed that this approach still required substantially more effort than the other forms of video introduced for this study. This increased effort combined with the mixed results regarding teaching presence suggests that further refinement would benefit the best practice video approach to building teaching presence.

So that took more time, right? Because that was, like, a lot of like going through the textbook and trying to pull out specific information for students and feedback. In those I was trying to drive them back into the chapter, where to find this information and try to give them the answers that I was looking for. Helping them find them in the text. That took a couple hours start to finish. So that was definitely more hands on. (Instructor E, March 7, 2022)

Instructors did note that students who were already successful in the class tended to respond to the best practice videos positively, improving teaching presence and impacting assessment. Instructor T observed that their successful students referred directly to the videos in their feedback at the end of the semester. "They said thank you for the videos, we noticed that you provided feedback in our papers and also the video so

thank you for that" (personal communication, March 2, 2022). In those cases where students actually viewed the best-practice videos they were helpful, but instructors were consistent with concerns that the increased effort of the best practice videos, coupled with the lower perceived viewership (due to the videos being embedded in rubrics) suggest the best practice videos may have not been impactful enough to justify the effort required to provide them as an assessment tool.

Creating the Learning Environment. The creation of a learning environment was coded as a teaching presence indicator based on previous work examining the teaching presence constructs within a Community of Inquiry (Shea, Hayes, et al., 2010; Shea, Vickers, et al., 2010). In the case of the video intervention, the creation of a learning environment was seen as a key benefit of the videos by instructors. Specifically, when creating the videos, instructors discussed the methods and type of videos that best contributed to teaching presence in their courses. Impromptu videos filmed on laptops or cellphones, without production values and extensive preparation were seen as more authentic, leading to more engaging presence with students. Authentic videos, regardless of their purpose, were seen as enhancing both social presence and teaching presence compared to videos produced over multiple takes with scripted content. "I wasn't trying to go overboard to make sure that it looked like perfect lighting. I think for our purposes here it was good to just be casual. I'm a real person talking to you from my office" (Instructor E, March 7, 2022).

Several instructors also noted that this approach required some forethought. They cited a historical reliance on having a professional background in their videos, showing an office, or their degrees behind them to set a tone of professionalism. While that

approach was traditionally expected, instructors felt it may erode the authenticity of the videos as well as the appearance that the videos were filmed in the current semester, another key to creating impactful videos (Espino et al., 2021; Laaser & Toloza, 2017). Creating a learning environment that conveyed current videos, as well as informal engagement improved teaching presence for the instructors interviewed. In describing the casual approach, they took to creating their weekly summary videos, Instructor L noted:

> Basically, I jotted down some notes on what I wanted to review from the previous week, what I'm looking forward to in the next week or into the future, and I jot down some notes and then I just do the video. So, it's not as difficult for me. I'm not one that has 50 or 100 takes, I'm just like, Ok, that's my video today. So, in that case, you know, it wouldn't take it doesn't take, me any longer than the written one. (May 9, 2022)

The weekly introduction and summary videos also served to model for students what a video should look like when they were asked to produce their own videos as part of the discussion boards. Students followed the cues of their instructors and produced videos that were casual in nature as well. Occasionally this was problematic, but the majority of students modeled what they saw from their instructors. Instructor T observed the quality of the videos from students and attributed some of their quality to the modeling in the weekly instructor videos.

> I think it was, it was very good quality and on the majority of the videos. There were a few where I couldn't hear the person or there was a lot of background noise. I don't know what was going on in the room that they were using

> [laughter], but for the most part, the videos were pretty good quality. (March 2, 2022)

Similarly, Instructor L noted that the student responses were often better than their own written responses, which they attributed to the learning environment set through the weekly intro and summary videos.

> The other thing I found interesting is the video responses to the discussion board. Sometimes they were better than their discussion question answer. I'm setting the climate, okay, and here were all these students doing all these amazing videos when they were responding. (February 28, 2022)

Instructor Perception Themes: Social Presence

Social presence in online courses is correlated with course completions and successes (Liu et al., 2009; K. Swan & Shih, 2019). Instructors also intuitively believed this correlation to exist and expressed a desire to improve the group cohesion and affective communication in their online courses. During the study, instructors observed two key subconstructs of social presence through the use of videos in the courses used for this action research study. Affective expression was seen as instructor videos allowed for the building of relationships and rapport with students. Openness was observed in the ways that instructors felt seen by their students in courses. This section of the results provides an analysis of how instructors observed these constructs in their courses, and how they felt the video innovation being studied impacted the social presence of their courses.

Affective Expression. In the CoI framework, affective expression is observed when informal communication occurs between parties in a course (Caskurlu, 2018;

Garrison, 2017). Instructors felt the weekly summaries and feedback videos provided a venue for affective connections between instructors and students. Similar to the analysis of teaching presence, however, instructors felt strongly that the affective expressions, and resulting gains in social presence, only applied to those students who participated in creating videos, watched the videos posted by the instructors each week, and engaged with the best practice videos provided in written feedback on their assignments. All instructors expressed a concern that students who struggled in the course were also not engaging with video materials and thus did not benefit from improved social presence. However, for those students that did engage, instructors felt the videos improved social presence through increased affective expressions between students and between the instructors and the students. When asked if the videos helped her get to know the students, Instructor T said "absolutely. I think there's a connection there for me and the student, as well as student-to-student, and I do think that's very helpful" (personal communication, March 2, 2022).

Openness and Interaction. Instructors saw the weekly summary and preview videos as a method to create a human presence in their asynchronous courses. Openness and interaction as subconstructs of social presence include referring to other members of the class by name, quoting the work they have done (or referring to it in a video), as well as expressing agreement or disagreement (Shea, Hayes, et al., 2010) in a manner that will be seen by other individuals. In the case of this study, instructors reported more openness among students as a result of the weekly summary and intro videos. They felt that the videos allowed for more social presence in their courses, as well as encouraging students to interact in videos as well.

Despite initial skepticism about the value of the videos in helping encourage social presence in their courses, instructors reported improvements in the interaction and engagement of their students as a result of the videos they posted. Instructor E began the study skeptical that video would be helpful in building any improved presence in her course. “A lot of people don't like being on webcam. It's a different technology. It's a little bit more work trying to figure out how to work the Kaltura and everything. So, I think, you know, maybe the ROI on it just isn't worth it to them” (personal communication, March 7, 2022). However, while Instructor E still has misgivings about the weekly best practice videos (and the student discussion videos), they ultimately saw improved social presence from the weekly summary and intro videos. “I think it was a valuable exercise for me. I can see the value in it for students … seeing my face, that I’m not just like some shadow behind the computer” (personal communication, March 7, 2022).

Instructor V also noted improved social presence in their course based on the weekly videos posted to the announcements channel in the Blackboard Learn course. Of note in this case was Instructor V’s observation that the weekly videos were enjoyable to produce, despite their initial misgivings about the concept, because they believed the videos were being watched and used by students as part of their learning.

> I enjoyed creating the welcome to the week video, and I will take that as a practice going forward. I think it’s important for the student to see me as the instructor who I am, not just what’s written. I really enjoyed that. I didn’t think I would. (Instructor V, February 28, 2022)

RQ3 Conclusion. Instructors perceived increased teaching presence and social presence in their courses due to the weekly videos that mentioned students by name, wrapped up the previous week's discussion and previewed the coming week's content. Such videos were most effective when they included direct instruction, were posted to the Announcements section of Blackboard Learn, and encouraged students to see the instructor as a human being in their course. Results were mixed for the best practice videos embedded in feedback rubrics with instructors noting the lack of engagement for some students, especially those who struggled most with the assignments. There were some positive signs with the best practice videos as a tool for assessment, but instructors also noted the increased work required to produce the videos, and the questionable utility when they were viewed infrequently.

CHAPTER 5

IMPLICATIONS AND DISCUSSION

I conducted this study using a concurrent mixed methods approach focused on the CoI framework. I sought to investigate the relationship between video as a feedback and relationship-building mechanism and perceptions of social presence and teaching presence in asynchronous online courses. In this study, the following research questions framed the focus on video in seeking to improve social presence and teaching presence:

1. How and to what extent does augmenting text feedback with instructor videos affect a student's perception of teaching presence and social presence in online asynchronous undergraduate courses?
2. How and to what extent does including video feedback as part of student discussion assignments affect student perceptions of social presence in online asynchronous courses?
3. How do instructors perceive the expanded integration of video feedback impacts their presence in asynchronous online courses?

To address these questions, I utilized survey data, qualitative interviews, and field notes gathered during observations of asynchronous courses. Two samples of students were recruited independently, each taking the same five courses from the Donald W. Maine College of Business at Davenport University during different semesters. In the fall semester, the sample of students (n=72) was administered the CoI survey to gather quantitative data before the implementation of the video innovation. In the winter semester, I surveyed a second independent group of students (n=68) with the same survey after they experienced the video feedback innovation. I also interviewed students from

both the fall (n=7) and winter (n=16) participant groups to delve into their experiences with the videos and impressions of presence in their online courses. The third research question was solely qualitative in nature and required me to interview the five participating instructors about their experiences integrating the videos into their courses and about how the practices impacted presence in their courses.

Integration of Quantitative and Qualitative Data

Triangulating quantitative survey data, qualitative research interviews, and researcher field notes provided the basis for the findings presented in the previous chapter. I used qualitative analysis throughout this qualitatively driven mixed methods study to arrive at its primary findings about how and why videos impact social presence and teaching presence in asynchronous courses. In turn, I used quantitative data to determine to what extent these observations could be found in the larger sample of survey participants compared to the small set of students interviewed. Using complementary mixed methods is called "complementarity," and this method is used for studies in which the research questions require both qualitative and quantitative forms of data to sufficiently answer the questions (Plano-Clark & Creswell, 2015).

Social Presence

Complementarity is evident in the social presence results for both instructor videos (RQ1) and student videos (RQ2). Qualitatively, the interviews revealed that students who watched the videos perceived some improvements in social presence. Similarly, students who did not prefer video or did not have time to watch the videos did not report improved social presence. The mixed results from the qualitative data were reflected in the quantitative data in which social presence and its subconstructs all

appeared to have minimal changes in the pre- and post-innovation groups. To that end, the data complement each other. Without the qualitative data, I might have concluded that videos do not impact social presence. That said, merely reviewing the qualitative data would have led me to the conclusion that videos impacted social presence for most students because most interviewed students reported some benefits. Using both sets of data led me to the conclusion that students who watch videos find them impactful, while many students choose to avoid the videos and thus do not report improved social presence.

Teaching Presence

Mixed-method analysis of teaching-presence data related exclusively to RQ1, where instructor-provided videos were embedded in announcements and written-assignment rubrics. In this situation, the direct instruction subconstruct of teaching presence showed improved teaching presence — in the qualitative discussion with students and the quantitative survey data. As with social presence data, the quantitative data supported the qualitative findings by demonstrating a statistically significant increase of means between the pre- and post-innovation groups. The benefit of mixed methods in this case was the ability to measure the magnitude of the impact. Interviews demonstrated that students felt they benefited from direct instruction included in videos, and field notes made it clear the videos contained direct instruction. The survey data provided evidence that, while the improvements were statistically significant, the increase was only 0.3 on a 5-point Likert-esque scale. To that end, I was able to conclude that the magnitude of the improvement was muted because not all students watched the videos.

Discussion of Findings

This study existed at the confluence of theory and practice. The CoI framework provided a theoretical background, while the use of video was a concrete change to online courses at Davenport University. This section ties the theoretical foundations of the study to the results and provides a basis for discussion of implications beyond the study.

Research Question 1

> *How and to what extent does augmenting text feedback with instructor videos affect a student's perception of teaching presence and social presence in online asynchronous undergraduate courses?*

Students in asynchronous classes highly valued seeing their instructors as real people. Asynchronous online courses represented a barrier to students who often saw their courses as impersonal and isolating. The videos helped students who watched them see their instructors as actual human beings, resulting in changes to their descriptions of their online courses. Student D noted the difference between text and verbal communication when they stated they "can read a text message, and it sounds so much different than what a person is actually, verbally trying to say." (Personal communication, February 23, 2022). Furthermore, the inclusion of an instructor through video allowed for direct instruction in a visual format, which students agreed improved the teaching presence of their courses.

Bandura's Social Cognitive Theory discusses the creation of a learning environment and the social modeling component (Bandura, 2005). The concept of social modeling includes a framework for describing how behaviors and thoughts are shaped by those modeled in a social setting (Schunk, 2012; Schunk & DiBenedetto, 2020). Without

modeling and social connections, cognition is an individual pursuit. Social modeling and social presence are inexorably linked given their focus on connections between human beings in the pursuit of knowledge. In the asynchronous courses I studied, students and their instructors could connect a variety of manners, including through weekly announcements, assignment feedback, and recorded content. Students in this study viewed video interactions with their instructors as the means to provide social presence that enabled stronger connections with their instructors. Student G summarizes their feelings about seeing instructors on video by highlighting the personal information shared: “She talked about herself on video for us, which was great. She was able to give more detail about herself, where she came from, her background … it was just more personable — more of a relationship” (Student G, personal communication, February 24, 2022). Despite theory suggesting text works similarly (Drouin, 2008; Garrison et al., 1999), students did not identify text as helpful in understanding or getting to know their instructors — perhaps because the text was viewed as an assigned reading, which is analogous to a textbook. Student C emphasized this by comparing their instructor’s two textual announcements per week to textbook readings: “I generally feel like this, this class is more just a series of textbook readings and then answering questions” (personal communication, February 18, 2022).

These results begged the question: Why did videos need to be current and personalized to the class (or even the student) in order to achieve social connection? To answer this question, we turn to Brame (2016) who studied the use of videos in Massively Open Online Courses (MOOCs) and Choi (2005) who studied how context-based videos improve student motivation. Brame’s suggested approaches included

incorporating content and questions specific to the students watching the video, as well as clues and references to current events that signaled to students the video was recently filmed. The preference for recently produced videos may be linked to a desire to connect with people, as opposed to consuming pre-recorded videos or lectures. A video that refers to classmates by name and discusses events that happened in the past few days, mimics many of the features of a personal conversation. This notion would be an interesting research project for future cycles of action research around videos in courses.

Research Question 2

> *How and to what extent does including video feedback as part of student discussion assignments affect student perceptions of social presence in online asynchronous courses?*

Students express a number of interesting struggles related to asynchronous courses. On one hand, the most maligned components for student participants of this student were the discussion boards and the group projects. On the other hand, these same students all recognized the inherent need to learn with their peers, and students who participated in interviews specifically reported improved social presence in their discussion boards. The introduction of human interaction via asynchronous videos may have improved the social presence of their discussion boards, but the students did not seem to connect that improved social presence to their entire courses. They viewed the discussion boards as stand-alone items within their online courses rather than an integral component that helped sew together the various concepts of their readings and writing assignments.

Bandura (2005) speaks to the link between social modeling and social learning in his social cognitive theory. CoI theorists speak about how social presence improves the online learning experience (Caskurlu, 2018; Maddrell et al., 2017; K. Swan & Shih, 2019). Certainly, the participants in this action research study would agree with these assertions. Videos in discussion forums clearly helped some students recognize more connections with their classmates, humanized the interactions, and improved social presence in their online experience. However, just as many did not find the videos ultimately helpful, and even those that enjoyed the production and consumption of videos did not always recognize any gains in social presence. Some students enjoyed video because they perceived it as a superior learning tool, or an easier tool to work with in compiling their thoughts for a post, without seeing it as a way to connect with their classmates.

To understand why student experiences differed so widely, we turn to Tinto's (2017) model of student persistence and motivation. Tinto mentions that the sense of belonging is a component of motivation for students who are motivated to persist with their college studies. While social presence aligns with the sense of belonging, motivation has other components. Merely improving social presence or ensuring that students see one another (on video), may not be enough to impact motivation. Tinto's model also includes perception of curriculum and self-efficacy as components of motivation.

Reflecting upon the interviews I had with students before and after the innovation, I believe one reason I did not see greater gains in social presence for the post-innovation group was because merely switching to videos did not improve a student's perception of (or engagement with) the curriculum. In fact, students who reported the greatest

frustration with the textual nature of discussion boards were also the students who felt the videos did little to help. This points to a disconnect between the students' expectations for their courses and the reality of discussion boards, regardless of modality. It also suggests social presence alone cannot improve discussion boards as a class tool for students who reported them to be frustrating.

One other component that may have contributed to some students not seeing video as a social-presence driver could be the subconstructs of social presence. To observe social presence, I had to look for affective expression, group cohesion, open and interactive communication, the construction of a positive rapport, and a sense of belonging in the discussion video posts. Video on its own does not guarantee those components will appear in discussion posts. In fact, some posts definitely did not include those components, and students reflected upon this in their interviews. Student K recalled one video response to their discussion that felt scripted and eroded the authenticity of the video, saying "it was just her dictating what she had written out, so I don't find that useful" (personal communication, February 23, 2022).

A key difference between student video posts and instructor video posts was the level of training beforehand. In video meetings before deployment, I explained to instructors what I wanted them to include in their videos, why we were including those components, and what the goal was for those components. In contrast, students were invited to use videos for their discussion posts without much guidance. Future cycles of action research should consider giving students more background information about the goals for introducing videos to their discussions, as well as some guidance about what to include in a video to improve connections.

Research Question 3

How do instructors perceive the expanded integration of video feedback impacts their presence in asynchronous online courses?

Instructors and students agreed that direct instruction improved as a result of instructor-provided videos. This was a key intersection point for instructor and student perceptions of teaching presence. Direct instruction provides several approaches to improving an online community of inquiry, from providing content directly to students to providing posts and instruction that stimulate shared cognition and social presence (Anderson et al., 2001; Caskurlu, 2018). Instructor videos in this study aligned with Caskurlu's observation of direct instruction as sharing materials and expertise, but did not align with the additional components mentioned by Anderson et al. when they include "postings that stimulate social process with a direct goal of stimulating individual and group learning" (p. 7). To that end, future iterations of instructor videos would benefit from direct attempts to improve shared cognition among students and social presence in the courses.

The other subconstructs of teaching presence were not universally supported. Design and organization, facilitation, assessment, and creating the learning environment are all key to the COI framework and were observed with mixed results by the instructors in the study. I attribute some of the mixed results to the nature of the instructors who participated in the study. During the purposeful sampling phase of the study, I selected instructors with considerable online teaching and course development experience to maximize the likelihood videos would be successfully created and loaded to courses. The course development experience they possessed meant they were familiar with the means

to design and organize courses, assess student progress, and facilitate discussions using existing asynchronous tools. The variance can be explained by the variability in deployment and video content. Instructor L included direct instruction in the design and organization of their weekly summary and introduction videos, which is where they observed improved teaching presence in that subconstruct. Instructor E, in direct contrast to this approach, used weekly videos to review what students would cover in the coming week, without providing the actual content. While this activity would qualify as direct instruction by the original COI Framework definition (Anderson et al., 2001; Garrison et al., 1999), student participants viewed non-content video instruction to be of equal value to text, whereas students uniformly appreciated video presentations of content.

Instructors were less sure about the merit and potential for videos to improve social presence. The primary reasons for their uncertainty were motivation of students to engage with videos, and the belief that too many students viewed their online work as transactional and had no interest in social presence-building. The CoI framework, supported primarily by Bandura's (2005) suggests that the learning experience would benefit from finding ways to incentivize or encourage students to engage and build social presence regardless of whether they prefer it or not. To that end, future cycles of this study should engage instructors in the theoretical constructs of the CoI framework and seek alignment between their classroom knowledge, and the benefits to be realized if they are successful in improving social presence.

Limitations of the Study

The nature of this action research study led to several limitations that must be considered when interpreting the results. Future research in this vein, as well as future

cycles of action research based on this study, should consider these limitations and seek to mitigate them to the best extent possible. Some of the limitations stem from my own role in the study, while others are more related to the setting at Davenport University and the design of this action research study.

Interviewer Bias

Interviewer bias describes a bias that arises in interviews related to the position of the interviewer or relationship between interviewer and interviewee. Interviewees may provide answers to questions based on how the interviewer asks them, perhaps unintentionally telegraphing an expected answer (Waterfield, 2018). The nature of this action research study, where I designed and tested an innovation with a goal of improving behaviors, introduces a potential for interviewer bias. The concern in this case would be that my style of questioning, or even the wording of my questions, could influence how people answered. In addition, this bias could be problematic if I was asking questions that made it apparent which answer was expected. Asking students if a particular form of video improved social presence or if seeing their instructor on screen helped them in some way would provide the expected answer within the body of the question. This form of questioning would lead to answers that essentially restated the content of a question, providing a problematic bias in the interview responses.

To mitigate this risk, I asked open-ended questions beginning with phrases like "how did you feel about," as opposed to asking questions requesting a yes or no answer. Furthermore, to ensure I heard a participant's opinion in full, I asked follow-up interview questions, seeking both sides of any issue. When a student indicated they enjoyed a video post, I asked them why they enjoyed it, following with a question about what facets of the

video they found frustrating. By always probing for both sides of the opinion, I feel I was able to avoid telegraphing a specific preference for one answer over another.

Social Desirability Bias.

As the Dean of the Global Campus at Davenport, one of my greatest concerns was the potential for social desirability bias. Social desirability bias occurs when participants in a study provide the answers they believe others best perceive (Krumpal, 2018). Instructors who participated know who I am and understand my leadership role at the university. With this particular group of participants, I was concerned they would tell me answers they felt improved their potential for favorable professional treatment. In a similar vein, students may have also known who I was when they volunteered or felt answering positively about their online courses would be perceived positively by their instructors. This study could have also introduced social desirability bias in the form of students answering positively in survey questions or interviews to support their instructors.

To mitigate the risk of social desirability bias in the interviews, I opened every instructor and student interview by explaining that my role in the process was as a doctoral research student and all results would be completely anonymous. I specifically explained to students that their comments were anonymous and ensured their instructors would not see the specific feedback collected. Likewise, I explained to instructors that I would not share their comments or statements with anyone else at Davenport University. These approaches seemed to put interview participants at ease. I used the same exploratory strategies to ask follow-up questions to ensure I had a full picture of someone's thoughts.

The nature of action research is that both social desirability bias and interviewer bias are potentially present. Because action research describes a process in which the practitioner is also the researcher, some mitigation strategies are not available. However, researchers seeking to investigate social presence and teaching presence through the use of video could also consider studying participants and courses in a context other than their own workplaces. That approach would immediately mitigate concerns about having a dean interview faculty members.

Course Duration

This action research study examined standard asynchronous online courses at Davenport University, all of which are only seven weeks long. Because the constructs of social presence and teaching presence are based on interaction and communication, I expect they would appear over time and more strongly in a full-semester course. Some studies indicate that a CoI forms later in a semester or over longer periods of time (Akyol et al., 2009; Akyol & Garrison, 2008) but studies are limited on the relationship between time and development of a community of inquiry in online courses. Social presence within the COI framework is based on the notion of personal relationships, which require time to develop, so I am concerned the seven-week courses played a major factor in the development (or lack thereof) of social presence in the asynchronous environment.

I did not have options to mitigate this limitation given the schedule at Davenport University. Instead, I consider the duration of courses a potential topic for future study. Researchers, including myself, who wish to improve social presence in online courses and programs may wish to study innovations spanning multiple semesters, ensuring participants are exposed to the changes for longer periods of time. Researching the

relationship between time and the development of social presence would be particularly interesting for future cycles of research related to the video innovation deployed for this study.

Sample Size

The design of this action research study limited the number of student and instructor participants available as a sampling population from which to recruit participants. Thus, the sample sizes of pre-innovation (n=72) and post-innovation (n=68) students were relatively small by statistical standards. While the statistical power of a small sample size does not approach that of larger surveys, action research as a pursuit supports studies occurring in the workplace of the practitioner-researcher (Mertler, 2020) so this limitation to statistical power cannot be mitigated from a quantitative perspective without growing the sample size and considering other research designs. Future researchers seeking to quantitatively investigate the utility of video in helping form CoIs online could consider pursuing large groups of students across entire programs or colleges.

Instructor Sampling Methodology

Selecting instructors familiar with video-technology and online-teaching experience helped maximize the likelihood of consistent video deployment in courses. However, this approach also inhibited generalizing the study results as the instructors selected were not representative of the entire population. Furthermore, by selecting full-time instructors rather than adjunct instructors, RQ3 only helps describe the impressions of instructors whose primary profession is teaching. In spite of this limitation, the approach maximized the chances instructors would successfully and consistently deploy

the innovation. RQ1 and RQ2 focused on student impressions and ensuring that students had a consistent experience across courses was critical to the study.

Student Sampling Methodology: Survey

My method for selecting students for surveys ensured I received a number of students from all five courses that participated in the study. However, because the population was only several hundred students, my sample of survey participants was not guaranteed to be representative of the entire undergraduate student body. I was willing to accept the risk of the limited sampling frame because, due to its focus on practice, I saw action research as a methodology that accepted the selection of a limited population. Future researchers seeking to have a more representative sample would need to ensure the innovation they were testing could be made available to any students who volunteered to participate. This approach would allow the sampling frame and population to be congruent, thus enabling the researcher to deploy sampling methods resulting in a more representative sample.

In addition to the limited sampling frame, I recruited students by making an announcement in their classes, which predisposed students who read the announcements to signing up. This limitation likely created a sample that outperformed the whole population, but I did not collect data to prove this supposition. Furthermore, the anonymous nature of the survey actually prevented me from correlating the academic performance of students who took the survey with the entire sampling frame. As the goal of this study was to examine how students interpreted presence in their courses, I viewed the omission of students who did not engage with announcements as acceptable. Those students, I reasoned, might have less to say about presence as they did not engage with

the basic text announcements in their courses. For researchers seeking to measure other factors (e.g., overall student engagement), a more representative sample would be critical.

Student Sampling Methodology: Interviews

As with the survey sampling methods, the convenience sampling method I used to recruit participants for the qualitative portion of this study brought limitations. Chief among these is the question of which students were most likely to sign up for interviews to discuss their impressions of online courses. As the sample size for qualitative interviews is relatively small to begin with, I did not concern myself with numeric representation of the whole population. That said, a more concerted approach to ensuring I gathered a variety of student perspectives would be helpful in a study seeking to generalize its results. In addition to prospects of generalization, a more representative sample of students for the interviews would ensure I was able to fully gather all perspectives. Given the short duration of the courses, a more purposeful sampling method would have been difficult to implement, so I accepted the risks associated. I focused instead on reviewing the interview transcripts — coding them and searching for themes — with this sampling bias in mind.

Implications for Practice and Future Cycles of Action Research

The purpose of this study was to determine the effectiveness of instructor videos and student-to-student videos in improving social presence and teaching presence in asynchronous courses. Several implications are specific to this action research project and imply modifications for future cycles to ensure continued improvement in social presence and teaching presence. Other implications could be implemented independently of the

action research contained herein but would undoubtedly benefit the Global Campus at Davenport University.

First, the interviews with students and instructors demonstrated that multimedia is a powerful tool for building presence in asynchronous classes. However, the survey results and interviews both helped highlight that the benefits of using video in courses only helps students who take the time to engage with the tool. Uncovering ways to improve multimedia engagement among the students who were resistant to the video innovation would help improve social presence and teaching presence for them. To pursue that approach, a cycle of action research exploring why those students did not engage would be helpful, followed by strategies designed to increase engagement.

An examination of group projects in asynchronous courses is merited as a cycle of research or a project of its own. This mainstay of asynchronous learning at Davenport was uniformly disliked by students and considered less helpful at building group cohesion and workplace skills than intended by curriculum designers at Davenport. Students consistently provided negative answers to interview questions about its merits as a fomenter of group cohesion. When I explored the nature of social presence in group projects, most students agreed they had not worked together with others but had done work on their own and hastily compiled it at the end of the assignment window. Researching how the university can more effectively build group cohesion through redesigned group projects or how group projects can be replaced by other activities that might be more successful in building group cohesion would benefit students, course designers, and instructors alike.

A third implication is examining means to improve social presence and teaching presence despite the short duration of seven-week courses. Ensuring we use the same tools across multiple courses, perhaps even entire programs, when seeking to improve social presence and teaching presence would be a strategy worthy of exploration. Outside the bounds of this study, several students who did not volunteer to participate in the interviews reported challenges with the Kaltura Capture software used to record and share videos. Consistent use of the same tools should mitigate these challenges over time and might increase the number of students who engage with the videos, thus improving social presence and teaching presence for that group of students.

In a related implication, having further understood the value of social presence specifically, I would like to find a way to cohort students in some of our online programs or in groups of commonly enrolled first-year courses. Social presence clearly requires time to build, and knowing that the seven-week accelerated courses at Davenport University make this difficult, helping students to build relationships across semester boundaries and between courses would almost certainly help build social presence within that specific cohort. This would fall well outside the realm of this action research study but impact my workplace context, nonetheless.

Finally, instructor interviews revealed I needed to better explain what I was trying to accomplish by increasing social presence in their courses. Instructors understood the value of teaching presence without much discussion and were a fount of ideas for how I might continue to seek improved teaching presence in the future. However, several of my interview participants expressed skepticism or resistance to the idea that time spent building social connections outside of curricular materials would benefit student retention

and persistence. Better communication about the nature of social presence, tips for building it, and the importance of it might allow instructors to help uncover new approaches to building social presence in their courses.

Implications for Other Research Interests

The CoI framework provides a variety of approaches for improving the online learning experience. While this study focused on the use of video in asynchronous courses, several other research opportunities presented themselves over the course of data collection and analysis. From group projects to including synchronous sessions in asynchronous courses, a variety of means to improve teaching presence and social presence were apparent at the conclusion of this project.

Perhaps most importantly, further study of the nature of teacher presence as a humanizing force in asynchronous courses is warranted. While the COI framework provides a useful lens through which to examine the online educational experience, I suggest the teaching presence construct does not sufficiently account for the presence of the actual instructor on screen, in emails, or other forms of communication. While the direct instruction construct of teaching presence provides a means through which to observe the impact of a teacher delivering content directly to students, it does not differentiate between various modalities of communication nor does the construct differentiate between delivery of content or expertise and delivery of other content (e.g., a syllabus review). Because the student participants in this study were so consistently clear about their preference for content-based, direct instruction in their asynchronous courses, further study of this observation would be helpful to the field.

Students mentioned an appreciation of synchronous video, and several instructors I worked with described successful integration of synchronous activities into other asynchronous classes. Given the importance of social presence in student retention (Boston et al., 2019), activities that improve it are worthy of study. The nature of social presence as a tool for humanizing online courses (Glenn, 2018) suggests that research into means that have the largest humanizing effect would be warranted. Furthermore, instructor-led, synchronous sessions would have a potential impact on teaching presence as well. Blending the exciting potential of synchronous activities with the promise of schedule flexibility, which is the hallmark of asynchronous classes, represents a space for innovation and experimentation that leads to action research projects in support of the COI Framework.

Finally, as the instructor videos had some mixed results, research into the social presence and teaching presence benefits of various types of content would help determine how to most effectively utilize video in support of presence-building in courses. Several instructors used their weekly summary and introduction videos to review course materials and content, while others preferred to use that time to review weekly learning objectives and assignment parameters. Research into which types of video content (both of which fall under the direct instruction subconstruct of teaching presence) have bigger impacts would benefit the instructors spending their time building videos.

Persistence, the COI, and a path model for retention

At the outset of this study, I sought methods to improve persistence for students enrolled in online courses. As noted previously, the number of variables that contribute to a student reenrolling in courses makes it difficult to isolate the concept of persistence and

study it directly. I adopted the path model depicted in Figure 1 as a conceptual tool to help me keep the goal of improved persistence in mind as I studied social presence and teaching presence throughout this action research study. Because the literature clearly highlights a link between improvements in those variables and the likelihood of persistence, I consider the study successful in highlighting means through which videos could also improve student persistence. While the research questions that framed the study spoke specifically to presence, the overarching goal of this cycle was improving the rate at which online students persist to future semesters through the application of the COI Framework to the aforementioned path model. Future cycles of action research could focus on the same notions.

The complex nature of student persistence suggests a problem for which many solutions could improve matters. In the case of this study, the focus on teaching presence and social presence should be linked to improvements in student persistence based on the research-support links between persistence and presence. However, without further study and iteration, the specific impact on persistence would be difficult to quantify.

Reflection

By nature, a dissertation can be a trying, lengthy, rewarding, and surprising journey of several years. Certainly, my own doctoral journey has been all of those things. Spending just a few pages reflecting upon what I have learned about myself and my approach to online learning over the course of this project is relevant and important at this juncture. This penultimate section provides brief reflections upon how this three-year process has changed my approaches, opinions, and beliefs, as well as what I have learned about myself as an educator and administrator.

Faculty Partnership

Perhaps I was naive. I have worked with enough educators to know how much the craft means to them and how passionately they approach it. Regardless of this pre-existing knowledge, among the great discoveries of this project for me was the sheer power faculty partnership brings to a project. In the case of the video innovation I developed and tested for this dissertation, I spent countless hours speaking with faculty before, during, and after the innovation was deployed — working with them to improve our courses and brainstorming how we could reach students. While the partnership leading to this dissertation promised anonymity, I learned I can count on our faculty to step forward with ideas, execute them, and work hard to help their students succeed. I am amazed and impressed by the variety of approaches these expert educators used to engage students outside the bounds of the research I asked them to participate in. From synchronous study sessions to optional meet-and-greets, instructors came forward with ideas that will certainly improve education at Davenport University moving forward.

Student Experiences

I have worked at Davenport for over 17 years at the completion of this study. In that time, I have spoken with students as a computer programmer, a web developer, the Chief Information Officer, and the Dean. None of those conversations approached the depth of discussions this dissertation allowed me to have with our students. While the interview protocol constrained many of the topics we discussed, the connections I made with students in the pursuit of this dissertation were the richest and most philosophical conversations I have had with students. We talked about the hardships they face outside of school, their motivations for pursuing a degree, their favorite (and least favorite)

instructors, the job and careers they hoped to enter after graduation, and the nature of college in general. The variety of motivations spanned a gamut, but the optimism they exuded about their futures was inspiring and refreshed my love for the work we do at the university.

> My children are young adults, and they're both very entrepreneurial in spirit. So, this class has helped me put together thoughts and perspectives to help them build their brain and their businesses. (Student L, February 18, 2022)

Despite a myriad of out-of-school hardships, financial challenges, and difficult experiences prior to arriving at school, students exuded the optimism and hope that are the hallmarks of people striving to improve their lives. It was tremendously rewarding to speak with each of them and learn about their educational journeys.

> For me it's about being an example for my children. Like hey, start something and regardless how long it take you you gotta finish it. You can! You can still finish it! There is no timeline on what you put out into the atmosphere. (Student A, February 24, 2022)

Conclusion

Davenport University had been conferring degrees online for 20 years at the time this study was conducted. Videos have been delivered over the internet for nearly as long. This study demonstrated that the use of existing, reliable video technology coupled with energetic instructors who embrace the concept of informal, frequently produced videos helps students who take the time to watch the videos. Improved social presence and teaching presence are possible, even expected, in those situations.

As with many ideas for improving classrooms (virtual or otherwise), a component is still missing: reaching students who are less motivated to engage in their courses. This challenge is certainly exacerbated in an asynchronous environment where the default behavior is self-regulated learning that is managed in relative isolation. Adding videos and interaction to courses only benefits those who engage, so future cycles of research certainly need to focus on engaging students who are resistant. Despite a failure to impact the experience of all students, this study helped illuminate the benefits of adding simple improvements to courses. Perhaps the most traditional of all teaching strategies (direct instruction) had the biggest impact for students when coupled with video as the means of delivery. To that end, this action research study set me on a course to continue to search for ways to use readily available technology to impact larger numbers of students in online courses.

REFERENCES

Abbitt, J. T., & Boone, W. J. (2021). Gaining insight from survey data: an analysis of the community of inquiry survey using Rasch measurement techniques. Journal of Computing in Higher Education, 33(2), 367–397.

Akyol, Z., Arbaugh, B., Cleveland-Innes, M., Garrison, R., Ice, P., Richardson, J., & Swan, K. (2009). A response to the review of the community of inquiry framework. International Journal of E-Learning and Distance Education, 23(2), 123–135.

Akyol, Z., & Garrison, D. R. (2008). The development of a community of inquiry over time in an online course: Understanding the progression and integration of social, cognitive and teaching presence. Journal of Asynchronous Learning Networks, 12, 3–22.

Alharthi, A. D., Spichkova, M., & Hamilton, M. (2019). Sustainability requirements for eLearning systems: a systematic literature review and analysis. Requirements Engineering, 24(4), 523–543.

Allen, M., Mabry, E., Mattrey, M., Bourhis, J., Titsworth, S., & Burrell, N. (2004). Evaluating the effectiveness of distance learning: A comparison using meta-analysis. The Journal of Communication, 54(3), 402–420.

Andersen, S. M., & Przybylinski, E. (2018). Shared reality in interpersonal relationships. Current Opinion in Psychology, 23, 42–46.

Anderson, T., Rourke, L., Garrison, D. R., & Archer, W. (2001). Assessing teaching presence in a computer conferencing context. Journal of Asynchronous Learning Networks. http://auspace.athabascau.ca/handle/2149/725

Andrews, R., & Haythornthwaite, C. (2008). Introduction to e-learning research. In R. Andrews & C. Haythornthwaite (Eds.), The SAGE handbook of e-learning research (pp. 1–52). SAGE.

Arbaugh, J., Cleveland-Innes, M., Diaz, S., Garrison, D., Ice, P., Richardson, J., & Swan, K. (2008). Developing a community of inquiry instrument: Testing a measure of the Community of Inquiry framework using a multi-institutional sample. The Internet and Higher Education, 11(3-4), 133–136.

Arizona State University. (n.d.). Why it matters. Arizona State University. Retrieved February 1, 2020, from https://edplus.asu.edu/why-it-matters

Armellini, A., & De Stefani, M. (2016). Social presence in the 21st century: An adjustment to the Community of Inquiry framework: Social presence and the Community of Inquiry framework. British Journal of Educational Technology: Journal of the Council for Educational Technology, 47(6), 1202–1216.

Aslanian, C., Clinefelter, D., & Magda, A. (2019). Online college students: Comprehensive data on demands and preferences. https://www.learninghouse.com/knowledge-center/research-reports/ocs2019-research-report/

Bailey, A., Vaduganathan, N., Henry, T., Laverdiere, R., & Pugliese, L. (2018). Making digital learning work: Success strategies from six leading universities and community colleges. Boston Consulting Group & Arizona State University. https://edplus.asu.edu/sites/default/files/BCG-Making-Digital-Learning-Work-Apr-2018%20.pdf

Bandura, A. (2000). Exercise of human agency through collective efficacy. Current Directions in Psychological Science, 9(3), 75–78.

Bandura, A. (2001). Social cognitive theory: An agentic perspective. Annual Review of Psychology, 52, 1–26.

Bandura, A. (2005). The evolution of social theory. In K. G. Smith & M. A. Hitt (Eds.), Great minds in management (pp. 9–35). Oxford University Press.

Bandura, A. (2011). Handbook of theories of social psychology (P. Van Lange, A. Kruglanski, & E. Higgins (eds.); Vol. 1). Sage UK.

Bandura, A. (2012). On the functional properties of perceived self-efficacy revisited. Journal of Management, 38(1), 9–44.

Bawa, P. (2016). Retention in online courses: Exploring issues and solutions—a literature review. SAGE Open, 6(1), 2158244015621777.

Boekaerts, M., Zeidner, M., & Pintrich, P. R. (1999). Handbook of self-regulation. Elsevier.

Boston, W., Díaz, S. R., Gibson, A. M., Ice, P., Richardson, J., & Swan, K. (2019). An exploration of the relationship between indicators of the community of inquiry framework and retention in online programs. Online Learning, 13(3). https://doi.org/10.24059/olj.v13i3.1657

Boton, E. C., & Gregory, S. (2015). Minimizing attrition in online degree courses. Journal of Educators Online, 12(1), 29.

Bradley, R. L., Browne, B. L., & Kelley, H. M. (2017). Examining the influence of self-efficacy and self-regulation in online learning. College Student Journal, 51(4), 518–530.

Brame, C. J. (2016). Effective educational videos: Principles and guidelines for maximizing student learning from video content. CBE Life Sciences Education, 15(4). https://doi.org/10.1187/cbe.16-03-0125

Bray, S. R., Gyurcsik, N. C., Culos-Reed, S. N., Dawson, K. A., & Martin, K. A. (2001). An exploratory investigation of the relationship between proxy efficacy, self-efficacy and exercise attendance. Journal of Health Psychology, 6(4), 425–434.

Brinkmann, S., & Kvale, S. (2015). Interviews: Learning the craft of qualitative research interviewing (Vol. 3). Sage Thousand Oaks, CA.

Brown, T. (Ed.). (2016). Davenport: Educating across three centuries. Davenport University.

Burke, A. (2019). Student retention models in higher education: A literature review. The American University Journal of International Law and Policy / Washington College of Law, 94(2), 12–21.

Camilleri, M. A. (2021). Using the balanced scorecard as a performance management tool in higher education. Management in Education, 35(1), 10–21.

Carr, S. (2000). As distance education comes of age, the challenge is keeping the students. The Chronicle of Higher Education, 46(23), A39.

Caskurlu, S. (2018). Confirming the subdimensions of teaching, social, and cognitive presences: A construct validity study. The Internet and Higher Education, 39, 1–12.

Central Michigan University. (2018). Semester two retention. https://www.cmich.edu/office_provost/academic_administration/APA/Reports/Documents/2nd%20Semester%20Retention/Semester_Two_Retention_2017.pdf

Charmaz, K. (2014). Constructing grounded theory. SAGE.

Chen, E., Kaczmarek, K., & Ohyama, H. (2020). Student perceptions of distance learning strategies during COVID-19. Journal of Dental Education. https://doi.org/10.1002/jdd.12339

Choi, H. J., & Johnson, S. D. (2005). The effect of context-based video instruction on learning and motivation in online courses. The American Journal of Distance Education, 19(4), 215–227.

Creswell, J. W., & Guetterman, T. C. (2019). Educational research: Planning, conducting, and evaluating quantitative and qualitative research. Pearson.

Davenport University. (n.d.-a). Key performance indicators (KPIs). Davenport University. Retrieved February 22, 2020, from https://my.davenport.edu/about-davenport/vision-2020/key-performance-indicators-kpi

Davenport University. (n.d.-b). Vision, mission and values. Davenport University. Retrieved February 22, 2020, from https://www.davenport.edu/about/vision

Davenport University. (2015). Vision 2020. https://my.davenport.edu/Portals/0/IR/StrategicPlanning/Vision2020.pdf

Davenport University. (2016, January 22). The global campus @ DU. https://my.davenport.edu/du-global-campus

Davenport University. (2020). Vision 2025.

Dempsey, P. R., & Zhang, J. (2019). Re-examining the construct validity and causal relationships of teaching, cognitive, and social presence in Community of Inquiry framework. Online Learning Journal, 23(1), 62–79.

Derouin, R. E., Fritzsche, B. A., & Salas, E. (2005). E-Learning in organizations. Journal of Management, 31(6), 920–940.

Diep, N. A., Cocquyt, C., Zhu, C., & Vanwing, T. (2016). Predicting adult learners' online participation: Effects of altruism, performance expectancy, and social capital. Computers & Education, 101, 84–101.

Drouin, M. A. (2008). The relationship between students' perceived sense of community and satisfaction, achievement, and retention in an online course. Quarterly Review of Distance Education, 9(3), 267–284.

Elgammal, A. (2020). Transition to Online Feedback. Davenport University. https://my.davenport.edu/system/files/Transition%20to%20Online%20Feedback%20Summary_N.pdf

Espino, J. M. S., Artal, C. G., & Betancor, S. M. G. (2021). Video lectures: An analysis of their useful life span and sustainable production. In The International Review of Research in Open and Distributed Learning (Vol. 22, Issue 3, pp. 99–118). https://doi.org/10.19173/irrodl.v22i3.5553

Fiock, H. (2020). Designing a community of inquiry in online courses. The International Review of Research in Open and Distributed Learning, 21(1), 135–153.

Gardner, A. C., Maietta, H. N., Gardner, P. D., & Perkins, N. (2021). Online postsecondary adult learners: An analysis of adult learner characteristics and online course taking preferences. The American Journal of Distance Education, 1–17.

Garrison, D. (2017). E-learning in the 21st century : A framework for research and practice [Xiv, 167 p. : ill. ; 25 cm..]. RoutledgeFalmer.

Garrison, D. (2020). Reflective teaching in a digital age. Athabasca University. https://reflectiveteaching.buzzsprout.com/1384834/5950516-dr-randy-garrison-community-of-inquiry-coi-framework-and-online-teaching?play=true

Garrison, D., Anderson, T., & Archer, W. (1999). Critical inquiry in a text-based environment: Computer conferencing in higher education. The Internet and Higher Education, 2(2-3), 87–105.

Glenn, C. W. (2018). Adding the human touch to asynchronous online learning. Journal of College Student Retention: Research, Theory & Practice, 19(4), 381–393.

Goodman, J., Melkers, J., & Pallais, A. (2019). Can online delivery increase access to education? Journal of Labor Economics, 37(1), 1–34.

Griffith, J. C., Faulconer, E. K., & McMasters, B. L. (2021). The relationship between learning mode and student performance in an undergraduate elementary statistics course in the United States. The International Review of Research in Open and Distributed Learning, 22(1), 166–179.

Hachey, A. C., Wladis, C. W., & Conway, K. M. (2013). Balancing retention and access in online courses: Restricting enrollment … is it worth the cost? Journal of College Student Retention: Research, Theory & Practice, 15(1), 9–36.

Harasim, L. (2006). A History of e-learning: Shift happened. In J. Weiss, J. Nolan, J. Hunsinger, & P. Trifonas (Eds.), The International Handbook of Virtual Learning Environments (pp. 59–94). Springer Netherlands.

Hobson, T. D., & Puruhito, K. K. (2018). Going the distance: Online course performance and motivation of distance learning students. Online Learning, 22(4), 129–140.

Hovdhaugen, E., Frølich, N., & Aamodt, P. O. (2013). Informing institutional management: Institutional strategies and student retention. European Journal of Education, 48(1), 165–177.

Huntington-Klein, N., Cowan, J., & Goldhaber, D. (2017). Selection into online community college courses and their effects on persistence. Research in Higher Education, 58(3), 244–269.

Idrizi, E., Filiposka, S., & Trajkovijk, V. (2021). Analysis of success indicators in online learning. The International Review of Research in Open and Distributed Learning, 22(2), 205–223.

Indiana University. (n.d.). Office of online education: Mission and vision. Indiana University. Retrieved February 1, 2020, from https://ooe.iu.edu/mission-vision/index.html

Institutional Research. (2017). Course poor standing rate profiles by course format 2016-17 edition. Davenport University.

Institutional Research. (2019a). Online SET scores from fall 2011-2018. Davenport University.

Institutional Research. (2019b, September 1). Davenport databook. Davenport University. https://my.davenport.edu/davenport-university-databook

Institutional Research. (2020a). Fall 2019 to winter 2020 stop outs by reason. Davenport University.

Institutional Research. (2020b). Student satisfaction 2019/20. Davenport University.

Institutional Research. (2020c, October 1). Davenport databook. Davenport University. https://my.davenport.edu/davenport-university-databook

Institutional Research. (2021). Course Search report - Fall 2021.

Ivankova, N. (2014). Mixed methods applications in action research. SAGE.

Joksimović, S., Gašević, D., Kovanović, V., Riecke, B. E., & Hatala, M. (2015). Social presence in online discussions as a process predictor of academic performance. Journal of Computer Assisted Learning, 31(6), 638–654.

Jones, S. J. (2013). Learning equity between online and on-site mathematics courses. Journal of Online Learning and Teaching / MERLOT, 9(1), 1–12.

Jones, S. J., & Long, V. M. (2013). Learning equity between online and on-site mathematics courses. Journal of Online Learning and Teaching / MERLOT, 9(1). https://jolt.merlot.org/vol9no1/jones_0313.htm

Jung, E., Bauer, C., & Heaps, A. (2017). Higher education faculty perceptions of open textbook adoption. The International Review of Research in Open and Distributed Learning, 18(4). https://doi.org/10.19173/irrodl.v18i4.3120

Kaplan, R. S., & Norton, D. P. (1996). The balanced scorecard: Translating strategy into action. Harvard Business Press.

Karr, C. L., Weck, B., Sunal, D. W., & Cook, T. M. (2003). Analysis of the effectiveness of online learning in a graduate engineering math course. The Journal of Interactive Online Learning, 1(3), 1–8.

Kelleher, T., & O'Malley, M. (2001). Two schools, two time zones, one set of PR class objectives: on asynchronous learning networks and in-class discussions. Teaching Public Relations, 54, 1–4.

Kessler, G. (2016). What can we learn from our colleagues? A framework for virtual classroom training. Online Learning Consortium.

Kirk, A. F. (2010). Leveraging technology to increase enrollment, capacity, and revenues. University Business, 13(2), 31–33.

Kobus, M. B. W., Rietveld, P., & van Ommeren, J. N. (2013). Ownership versus on-campus use of mobile IT devices by university students. Computers & Education, 68, 29–41.

Kotter, J. P. (2012). Leading change. Harvard Business Press.

Kotter, J. P., & Cohen, D. S. (2002). The heart of change: Real-life stories of how people change their organizations. Harvard Business Press.

Kovanović, V., Joksimović, S., Poquet, O., Hennis, T., de Vries, P., Hatala, M., Dawson, S., Siemens, G., & Gašević, D. (2019). Examining communities of inquiry in Massive Open Online Courses: The role of study strategies. The Internet and Higher Education, 40, 20–43.

Krumpal, I. (2018). Social desirability. In B. Frey (Ed.), The SAGE encyclopedia of educational research, measurement, and evaluation (p. 1536). SAGE Publications, Inc.

Laaser, W., & Toloza, E. A. (2017). The changing role of the educational video in higher distance education. The International Review of Research in Open and Distributed Learning, 18(2). https://doi.org/10.19173/irrodl.v18i2.3067

Lake, D. (1999). Reducing isolation for distance students: An on-line initiative. Open Learning: The Journal of Open, Distance and E-Learning, 14(3), 14–23.

Larrea, M. (2019). Changing universities through action research: The dilemma of scope in pluralistic environments. Action Research, 17(3), 400–416.

Lee, Y., & Choi, J. (2011). A review of online course dropout research: implications for practice and future research. Educational Technology Research and Development: ETR & D, 59(5), 593–618.

Lipman, M. (2003). Thinking in education.

Liu, S. Y., Gomez, J., & Yen, C.-J. (2009). Community college online course retention and final grade: Predictability of social presence. Journal of Interactive Online Learning, 8(2), 165–182.

Maddrell, J. A., Morrison, G. R., & Watson, G. S. (2017). Presence and learning in a community of inquiry. Distance Education: Special Issue: Social Presence and Identity in Online Learning, 38(2), 245–258.

Maddux, J., & Kleiman, E. (2016). Self-efficacy. In J. Johnson & A. Wood (Eds.), The Wiley handbook of positive clinical psychology (pp. 89–101). John Wiley & Sons, Incorporated.

Mandernach, B. (2006). Confessions of a faculty telecommuter: The freedom paradox. Online Classroom, 3, 3–8.

Mandernach, B. (2009). Effect of instructor-personalized multimedia in the online classroom. The International Review of Research in Open and Distributed Learning, 10(3). https://doi.org/10.19173/irrodl.v10i3.606

Mandernach, B. (2015). Assessment of student engagement in higher education: A synthesis of literature and assessment tools. Journal of Learning, Teaching and Educational …. http://www.ijlter.org/index.php/ijlter/article/view/367

Mertens, D. M. (2015). Research and evaluation in education and psychology. SAGE Publications.

Mertler, C. A. (2020). Action research: Improving schools and empowering research (Steve Scoble, Chelsea Neve, Jane Martinez, Will DeRooy (Ed.); Sixth). Sage.

Moreira, D. P. (2016). From on-campus to online: A trajectory of innovation, internationalization and inclusion. The International Review of Research in Open and Distributed Learning, 17(5). https://doi.org/10.19173/irrodl.v17i5.2384

Mullin, C. (2017). When less is more: Prioritizing open access. American Association of Community Colleges. https://files.eric.ed.gov/fulltext/ED579759.pdf

National Center for Education Statistics. (2019). Undergraduate retention and graduation rates. https://nces.ed.gov/programs/coe/indicator_ctr.asp

National Center for Education Statistics. (2021). Retention of first-time degree-seeking undergraduates at degree-granting postsecondary institutions, by attendance status, level and control of institution, and percentage of applications accepted: Selected years, 2006 to 2019. https://nces.ed.gov/programs/digest/d20/tables/dt20_326.30.asp?current=yes

Nelson, T. (2013, June 13). Tech-Savvy college students are gathering gadgets, saying yes to showrooming and rejecting second-screening. NASDAQ OMX's News Release Distribution Channel. http://login.ezproxy1.lib.asu.edu/login?url=https://www-proquest-com.ezproxy1.lib.asu.edu/wire-feeds/tech-savvy-college-students-are-gathering-gadgets/docview/1367134752/se-2

Nguyen, T. (2015). The effectiveness of online learning: Beyond no significant difference and future horizons. Journal of Online Learning and Teaching / MERLOT, 11(2), 309–319.

Our story. (n.d.). Western Governors University. Retrieved February 1, 2020, from https://www.wgu.edu/about/our-story.html

Pajares, F. (1997). Current directions in self-efficacy research. Advances in Motivation and Achievement, 10(149), 1–49.

Pang, K. (2009). Video-driven multimedia, web-based training in the corporate sector: Pedagogical equivalence and component effectiveness. The International Review of Research in Open and Distributed Learning, 10(3). https://doi.org/10.19173/irrodl.v10i3.629

Paris, S. G., & Winograd, P. (1990). How metacognition can promote academic learning and instruction [Xi, 555 p. : ill. ; 24 cm..]. In B. F. Jones & L. Idol (Eds.), Dimensions of thinking and cognitive instruction (pp. 15–51). North Central Regional Educational Laboratory ; L. Erlbaum.

Paulsen, J., & McCormick, A. C. (2020). Reassessing disparities in online learner student engagement in higher education. Educational Researcher , 49(1), 20–29.

Phirangee, K. (2016). Students' perceptions of learner-learner interactions that weaken a sense of community in an online learning environment. Online Learning, 20(4), 13–33.

Pintrich, P. R. (2004). A conceptual framework for assessing motivation and self-regulated learning in college students. Educational Psychology Review, 16(4), 385–407.

Plano-Clark, V. L., & Creswell, J. W. (2015). Understanding research: A consumer's guide. Pearson Higher Ed.

Powers, W. T. (1991). Commentary on Bandura's "human agency." In American Psychologist (Vol. 46, Issue 2, pp. 151–153). https://doi.org/10.1037/0003-066x.46.2.151.b

Pratt, T. (2017). The open access dilemma: how can community colleges better serve underprepared students? Education Next, 17, 34+.

Putulowski, J., & Crosby, R., III. (2019). Effect of personalized instructor–student e-mail and text messages on online students' perceived course quality, social integration with faculty, and institutional commitment. Journal of College Student Retention: Research, Theory & Practice, 21(2), 184–201.

Ramlatchan, M., & Watson, G. S. (2020). Enhancing instructor credibility and immediacy in the design of distance learning systems and virtual classroom environments. The Journal of Applied Instructional Design, 9(2). https://edtechbooks.org/jaid_9_2/enhancing_instructor

Ranieri, M., Raffaghelli, J., & Pezzati, F. (2018). Digital resources for faculty development in e-learning: a self-paced approach for professional learning. Italian Journal of Educational Technology, 26(1), 104–118.

Reio, T. G., & Crim, S. J. (2013). Social presence and student satisfaction as predictors of online enrollment intent. The American Journal of Distance Education, 27(2), 122–133.

Reisdorf, B. C., Triwibowo, W., & Yankelevich, A. (2020). Laptop or bust: How lack of technology affects student achievement. The American Behavioral Scientist, 64(7), 927–949.

Richardson, J. C., Besser, E., Koehler, A., Lim, J., & Strait, M. (2016). Instructors' perceptions of instructor presence in online learning environments. In The International Review of Research in Open and Distributed Learning (Vol. 17, Issue 4). https://doi.org/10.19173/irrodl.v17i4.2330

Richardson, J. C., Maeda, Y., Lv, J., & Caskurlu, S. (2017). Social presence in relation to students' satisfaction and learning in the online environment: A meta-analysis. Computers in Human Behavior, 71, 402–417.

Rovai, A. (2002). Building sense of community at a distance. International Review of Research in Open and Distance Learning, 3(1), 74–85.

Rovai, A., & Wighting, M. (2005). Feelings of alienation and community among higher education students in a virtual classroom. The Internet and Higher Education, 8(2), 97–110.

Ruffalo Noel Levitz and Civitas. (2020). 2020 student success and retention benchmarks: For first-year, second-year, and transfer students at four-year private and public institutions. https://files.eric.ed.gov/fulltext/ED606632.pdf

Saldaña, J. (2021). The coding manual for qualitative researchers. Sage.

Salkind, N. J., & Frey, B. B. (2020). Statistics for people who (think they) hate statistics. SAGE Publications.

Schunk, D. H. (1989). Social Cognitive Theory and self-regulated learning. In B. J. Zimmerman & D. H. Schunk (Eds.), Self-regulated learning and academic achievement: Theory, research, and practice (pp. 83–110). Springer New York.

Schunk, D. H. (2012). Social cognitive theory. In K. R. Harris, S. Graham, T. Urdan, C. B. McCormick, G. M. Sinatra, & J. Sweller (Eds.), APA educational psychology handbook, Vol 1: Theories, constructs, and critical issues. (Vol. 1, pp. 101–123). American Psychological Association.

Schunk, D. H., & DiBenedetto, M. K. (2020). Motivation and social cognitive theory. Contemporary Educational Psychology, 60, 101832.

Seery, K., Barreda, A., Hein, S., & Hiller, J. (2021). Retention strategies for online students: A systematic literature review. Journal of Global Education and Research, 5(1), 72–84.

Shea, P., & Bidjerano, T. (2009). Community of inquiry as a theoretical framework to foster “epistemic engagement” and “cognitive presence” in online education. Computers & Education, 52(3), 543–553.

Shea, P., Hayes, S., Vickers, J., Gozza-Cohen, M., Uzuner, S., Mehta, R., Valchova, A., & Rangan, P. (2010). A re-examination of the community of inquiry framework: Social network and content analysis. The Internet and Higher Education, 13(1), 10–21.

Shea, P., Vickers, J., & Hayes, S. (2010). Online instructional effort measured through the lens of Teaching Presence in the Community of Inquiry Framework: A re-examination of measures and approach. International Review of Research in Open and Distance Learning, 11(3), 127–154.

Shields, C. A., & Brawley, L. R. (2006). Preferring proxy-agency: impact on self-efficacy for exercise. Journal of Health Psychology, 11(6), 904–914.

Simpson, O. (2013). Student retention in distance education: are we failing our students? Open Learning: The Journal of Open, Distance and E-Learning, 28(2), 105–119.

Southern New Hampshire University. (2022) About SNHU. Southern New Hampshire University. https://www.snhu.edu/about-us

Stewart, A. C., & Carpenter-Hubin, J. (2000). The balanced scorecard: Beyond reports and rankings. Planning for Higher Education, 29(2), 37–42.

Stoytcheva, M. (2021). Developing a sense of belonging in a collaborative distance learning course: Breaking isolation in online learning. AIP Conference Proceedings, 2333, 1–9.

Stroupe, D., Caballero, M. D., & White, P. (2018). Fostering students' epistemic agency through the co-configuration of moth research. Science Education, 102(6), 1176–1200.

Sublett, C. (2019). What do we know about online coursetaking, persistence, transfer, and degree completion among community college students? Community College Journal of Research and Practice, 43(12), 813–828.

Swan, K. P., Richardson, J. C., Ice, P., Randy Garrison, D., & Ben Arbaugh, J. (2008). Validating a measurement tool of presence in online communities of inquiry. 2(24). http://dx.doi.org/

Swan, K., & Shih, L. F. (2019). On the nature and development of social presence in online course discussions. Online Learning, 9(3), 115–136.

Swanson, J. A., Renes, S. L., & Strange, A. T. (2018). The communication preferences of collegiate students. In Cognition and Exploratory Learning in the Digital Age (pp. 65–78). Springer International Publishing.

Szeto, E. (2015). Community of Inquiry as an instructional approach: What effects of teaching, social and cognitive presences are there in blended synchronous learning and teaching? Computers & Education, 81, 191–201.

Tight, M. (2020). Student retention and engagement in higher education. Journal of Further and Higher Education, 44(5), 689–704.

Tinto, V. (1975). Dropout from higher education: A theoretical synthesis of recent research. Review of Educational Research, 45(1), 89–125.

Tinto, V. (1993). Leaving college: Rethinking the causes and cures of student attrition. University of Chicago Press.

Tinto, V. (2012). Completing college: Rethinking institutional action. University of Chicago Press.

Tinto, V. (2017). Through the eyes of students. Journal of College Student Retention: Research, Theory & Practice, 19(3), 254–269.

Trout, B. S. (2020). The Coronavirus-induced transition to online learning: Perceptions and intentions of first-time online students. Quarterly Review of Distance Education; Charlotte, 21(1), 1–12.

Tu, C.-H. (2000). On-line learning migration: from social learning theory to social presence theory in a CMC environment. Journal of Network and Computer Applications, 23(1), 27–37.

University of the People. (2015, December 17). University of the people: Mission & values. https://www.uopeople.edu/about/uopeople/mission-values/

U.S. Department of Education, National Center for Education Statistics. (2018). 2003-04, 2007-08, 2011-12, and 2015-16 National postsecondary student aid study (NPSAS:04, NPSAS:08, NPSAS:12, and NPSAS:16). https://nces.ed.gov/programs/digest/d18/tables/dt18_311.22.asp

Vancouver, J. B. (2012). Rhetorical reckoning: A response to Bandura. Journal of Management, 38(2), 465–474.

Vancouver, J. B., & Kendall, L. N. (2006). When self-efficacy negatively relates to motivation and performance in a learning context. The Journal of Applied Psychology, 91(5), 1146–1153.

Vancouver, J. B., Thompson, C. M., Tischner, E. C., & Putka, D. J. (2002). Two studies examining the negative effect of self-efficacy on performance. The Journal of Applied Psychology, 87(3), 506–516.

Vignare, K., & Geith, C. (2013). Introduction to the special issue on OER and online for international, rural, and hard-to-reach populations. Online Learning, 17(2). https://doi.org/10.24059/olj.v17i2.371

Ward, W. (2020a, April 15). [Letter to Brian Miller].

Ward, W. (2020b, April 15). [Letter to Brian Miller].

Waterfield, J. (2018). Interviewer bias. In B. Frey (Ed.), The SAGE encyclopedia of educational research, measurement, and evaluation (p. 872). SAGE Publications, Inc.

Weick, K. E. (1984). Small wins: Redefining the scale of social problems. The American Psychologist, 39(1), 40.

Wei, C.-W., Chen, N.-S., & Kinshuk. (2012). A model for social presence in online classrooms. Educational Technology Research and Development: ETR & D, 60(3), 529–545.

Wenger, E. (1999). Communities of practice: Learning meaning and identity. Cambridge University Press.

Wilkin, S., Davies, H., & Eynon, R. (2017). Addressing digital inequalities amongst young people: conflicting discourses and complex outcomes. Oxford Review of Education, 43(3), 332–347.

Willging, P. A., & Johnson, S. D. (2009). Factors that influence students' decision to dropout of online courses. Journal of Asynchronous Learning Networks, 13(3), 115–127.

Wolf, P. D. (2006). Best practices in the training of faculty to teach online. Journal of Computing in Higher Education, 17(2), 47.

Xu, D. (2011). Online and Hybrid Course Enrollment and Performance in Washington State Community and Technical Colleges. Community College Research Center, Teachers College, Columbia University.

Xu, D., & Jaggars, S. S. (2011). The effectiveness of distance education across Virginia's community colleges: Evidence from introductory college-level math and english courses. Educational Evaluation and Policy Analysis, 33(3), 360–377.

Yang, Y., Chen, Q., Yu, Y., Feng, X., & Aalst, J. (2020). Collective reflective assessment for shared epistemic agency by undergraduates in knowledge building. British Journal of Educational Technology: Journal of the Council for Educational Technology, 51(4), 1136–1154.

Yildirim, Z., & Kilis, S. (2019). Posting patterns of students' social presence, cognitive presence, and teaching presence in online learning. Online Learning Journal, 23(2), 179–195.

Zhang, S., Chen, H., Wen, Y., Deng, L., Cai, Z., & Sun, M. (2021). Exploring the influence of interactive network and collective knowledge construction mode on students' perceived collective agency. Computers & Education, 171, 104240.

Zimmerman, B. (1990). Self-regulating academic learning and achievement: The emergence of a social cognitive perspective. Educational Psychology Review, 2(2), 173–201.

APPENDIX A

QUESTIONS FROM CYCLE 0 INTERVIEWS

Questions used in interviews with faculty members and academic advisor:

1. What have been some highlights of teaching online?
2. What have been lowlights of teaching online?
3. Do you teach at other schools? If so, how is the experience different?
4. Have you worked with students you thought might drop out? Did they?
5. What do you think contributes to students dropping out of online courses?
6. Tell me about how you engage with students in online courses.
7. What do you think contributes to students persisting in online courses at Davenport?

Questions used in the interview with the student participant:

1. Do you take courses on campus as well as online? Can you tell me what has been different for you between those two types of courses?
2. When or why do you select online courses instead of on-campus courses?
3. Think back to your online courses. Tell me what you think contributed to you successfully completing the course (if you did).
4. Have you taken online courses anywhere other than Davenport? Tell me how it was different for you.
5. Which online instructors made you feel more connected to the school and what did they do to make you feel that way?
6. How do you feel like you build relationships with other online students?
7. Why do you think more students drop their online courses than we see with on-campus courses?

APPENDIX B

COMMUNITY OF INQUIRY SURVEY

Teaching Presence

Design & Organization

1. The instructor clearly communicated important course topics.

2. The instructor clearly communicated important course goals.

3. The instructor provided clear instructions on how to participate in course learning activities.

4. The instructor clearly communicated important due dates/time frames for learning activities.

Facilitation

5. The instructor was helpful in identifying areas of agreement and disagreement on course topics that helped me to learn.

6. The instructor was helpful in guiding the class towards understanding course topics in a way that helped me clarify my thinking.

7. The instructor helped to keep course participants engaged and participating in productive dialogue.

8. The instructor helped keep the course participants on task in a way that helped me to learn.

9. The instructor encouraged course participants to explore new concepts in this course.

10. Instructor actions reinforced the development of a sense of community among course participants.

Direct Instruction

11. The instructor helped to focus discussion on relevant issues in a way that helped me to learn.

12. The instructor provided feedback that helped me understand my strengths and weaknesses relative to the course's goals and objectives.

13. The instructor provided feedback in a timely fashion.

Social Presence

Affective expression

14. Getting to know other course participants gave me a sense of belonging in the course.

15. I was able to form distinct impressions of some course participants.

16. Online or web-based communication is an excellent medium for social interaction.

Open communication

17. I felt comfortable conversing through the online medium.

18. I felt comfortable participating in the course discussions.

19. I felt comfortable interacting with other course participants.

Group cohesion

20. I felt comfortable disagreeing with other course participants while still maintaining a sense of trust.

21. I felt that my point of view was acknowledged by other course participants.

22. Online discussions help me to develop a sense of collaboration.

Cognitive Presence

Triggering event

23. Problems posed increased my interest in course issues.

24. Course activities piqued my curiosity.

25. I felt motivated to explore content related questions.

Exploration

26. I utilized a variety of information sources to explore problems posed in this course.

27. Brainstorming and finding relevant information helped me resolve content related questions.

28. Online discussions were valuable in helping me appreciate different perspectives.

Integration

29. Combining new information helped me answer questions raised in course activities.

30. Learning activities helped me construct explanations/solutions.

31. Reflection on course content and discussions helped me understand fundamental concepts in this class.

Resolution

32. I can describe ways to test and apply the knowledge created in this course.

33. I have developed solutions to course problems that can be applied in practice.

34. I can apply the knowledge created in this course to my work or other non-class related activities.

5-point Likert-type scale

1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree

APPENDIX C

STUDENT INTERVIEW PROTOCOL

Note to readers, this protocol will be used for both the pre-innovation students and the post-innovation students. Where I have encapsulated text in square brackets [LIKE THIS] I will substitute the correct variable prior to the interview. Some students will be interviewed in the Fall-2 session and others in the Winter-1 session. Furthermore, there are several courses being studied, so I will replace the actual course name before interviewing as well.

Initial Briefing

As we discussed before, I will be recording this interview so I can take notes and review your answers after we conclude today's interview. Please be as honest as you can. Your answers will be kept confidential, and I will not use your name in any of my research reports or written materials. You have the right to decline to answer any questions, and we can stop this interview at any time. You may recall the form you signed when I recruited you to participate, that you have a right to confidentiality, that there are no right or wrong answers, and your answers do not impact your standing at Davenport University or your grades in this course.

This interview is part of a study on how students interact with each other and their instructors in online courses, and whether the use of videos in those courses improves the experience. Ultimately, I am interested in whether or not it increases or decreases students' likelihood of continuing their studies throughout college. In this particular interview, I'll be asking you questions about your involvement in your online course this semester. [COURSE NAME HERE]. The questions I am asking will be referring to this specific course, taken in the [SEMESTER/SESSION] semester which you just

completed. There are no right or wrong answers, but I may ask you for more detail if it will help us get to the deeper meaning of your answer.

With that, do you have any questions for me before we get started?

Questions

1. Please describe your experience with online learning before this semester.
2. What went well for you this semester in this course?
3. What went poorly for you this semester in this course?

The following questions will be about interactions with other students in your class

4. How well were you able to get to know your classmates during this course?
5. Can you give me an example of an interaction you had with one or more of your classmates?
6. Describe how the discussion board worked for you as a learning tool.
7. Can you tell me how comfortable you were sharing personal information in the discussions?

These questions will be about interactions with your instructor

8. Have you had this instructor for courses in the past?
9. How well were you able to get to know your instructor during this course?
10. Can you give me an example of an interaction you had with your instructor?
11. How did your instructor ensure you were understanding the topics covered in class?
12. What role did your instructor play in your learning journey this semester?

The last 3 questions are about your own educational journey at Davenport.

13. What are your goals for next semester?

14. When are you scheduled to finish your degree and what will it be in?

15. What challenges might prevent you from finishing your degree?

16. Are there any questions I did not ask you that you wish I had?

Debriefing

Thank you for participating. I will be transcribing and taking notes based on the recording of this interview after which I will destroy the recording to ensure your confidentiality. The study is being conducted over the next few weeks, and my research results and report will be shared with the Mary Lou Fulton Teachers College at Arizona State University. Your professor here at Davenport University will not see the results of our interview, or my research report. Thank you very much for participating and good luck with the rest of your semester.

APPENDIX D

FACULTY INTERVIEW PROTOCOL 176

Note to readers, this protocol will be used for faculty who are interviewed after teaching with the innovation being studied. Where I have encapsulated text in square brackets [LIKE THIS] I will substitute the correct variable prior to the interview. All faculty interviews will take place in the Winter-1 session. There are several courses being studied, so I will replace the actual course name before interviewing as well.

Initial Briefing

As we discussed before, I will be recording this interview so I can take notes and review your answers after we conclude today's interview. Please be as honest as you can. Your answers will be kept confidential, and I will not use your name in any of my research reports or written materials. You have the right to decline to answer any questions, and we can stop this interview at any time. You may recall the form you signed when I recruited you to participate, that you have a right to confidentiality, that there are no right or wrong answers, and your answers do not impact your standing at Davenport University.

This interview is part of a study on how students interact with each other and their instructors in online courses, and whether the use of videos in those courses improves the experience. Ultimately, I am interested in whether or not it increases or decreases students' likelihood of continuing their studies throughout college, but in your case, I am also interested in the potential benefits or challenges with the video feedback innovation we deployed. In this particular interview, I'll be asking you questions about your online course [COURSE CODE] this semester. The questions I am asking will be referring to this specific section, not previous sections you may have taught. There are no right or

wrong answers, but I may ask you for more detail if it will help us get to the deeper meaning of your answer.

With that, do you have any questions for me before we get started?

Questions

1. Please describe your experience with video in online courses prior to this semester.
2. What went well for you this semester in this course?
3. What went poorly for you this semester in this course?

The following questions will be about interactions with your students

4. What were you able to discern about your students' participation with the videos you provided as feedback this semester?
5. Why do you think your students did (or did not) utilize the videos you provided?
6. What would you do differently with this type of feedback in the future?
7. Did you have any synchronous interactions with your students as a result of the videos you created? If so, please describe.

The following questions will be about student videos created in the course discussions

8. Describe the level of participation and effort students put into the videos they created for your course.
9. Can you describe this level of effort compared to text-based discussion boards in other courses?
10. Can you tell me how comfortable your students were sharing personal information in the discussions? Did you think this was more or less sharing than when discussions are text-based?

These questions will be about creating the videos

11. Please describe the process you used to create your video feedback.

12. How much time did this take relative to grading text-based feedback?

13. What changes would you suggest to improve the use of videos in asynchronous online courses?

14. If we made those changes, what are your thoughts on the feasibility of this approach moving forward?

Debriefing

Thank you for participating. I will be transcribing and taking notes based on the recording of this interview after which I will destroy the recording to ensure your confidentiality. The study is being conducted over the several months, and my research results and report will be shared with the Mary Lou Fulton Teachers College at Arizona State University as part of my dissertation. Nobody at Davenport will see the interview transcript or your name associated with any of the discussion we just had. Thank you very much for participating and good luck with the rest of your academic year.

APPENDIX E

CODING SCHEMA: SOCIAL PRESENCE

Category	Code	Indicator / Definition
Affective Communication	SP-AC-EMO	Emotion: Expression of emotions (incl. emoji), and related words (etc. feelings, informality)
	SP-AC-VAL	Value: Expression of personal beliefs
	SP-AC-DIS	Self-disclosure - Sharing of personal information about life outside of class, expressing vulnerability
	SP-AC-HUM	Use of humor
Group Cohesion	SP-GC-GRE	Greetings, Salutations (using names)
	SP-GC-VOC	Vocatives - Non-greeting use of other classmates' names
	SP-GC-PRO	Use of group pronouns (we, us, ours)
	SP-GC-SOC	Social sharing (information not specific to class)
	SP-GC-REF	Group Reflection about the course itself

Openness and Interaction	SP-OI-AGR	Agreement, Disagreement, and Acknowledgement - Referring directly to content of someone else's post.
	SP-OI-ASK	Asking questions of other students or the moderator (not incl. Help desk) or inviting a response
	SP-OI-COM	Compliments or appreciation
	SP-OI-ADV	Offers of personal advice or assistance

APPENDIX F

CODING SCHEMA: TEACHING PRESENCE

Category	Code	Indicator
Instructional Design and Organization	TP-ID-CUR	Setting Curriculum
	TP-ID-MET	Designing methods
	TP-ID-TIM	Establishing time parameters
	TP-ID-MED	Utilizing the medium
	TP-ID-NET	Netiquette
	TP-ID-MAC	Macro-level content comments
Facilitation	TP-F-AGR	Identifying agreement, disagreement
	TP-F-CON	Seeking consensus, understanding
	TP-F-ACK	Encouraging, acknowledging, reinforcing student contributions
	TP-F-LER	Setting the learning climate
	TP-F-PAR	Drawing in participants
	TP-F-EFF	Assessing efficacy
Direct Instruction	TP-DI-ASK	Asking questions

	TP-DI-CON	Presenting content directly
	TP-DI-FOC	Focusing discussion
	TP-DI-SUM	Summarizing discussion / content
	TP-DI-EXP	Confirming through explanatory feedback
	TP-DI-ADD	Adding knowledge from diverse sources
	TP-DI-TEC	Addressing technical concerns
Assessment	TP-AS-FOR	Giving formative feedback [originally just discussions, I changed this for any formative feedback]
	TP-AS-SUM	Delivering summative feedback
	TP-AS-SOL	Soliciting formative assessment from students
	TP-AS-MET	Soliciting meta-level course feedback (via evals or 1:1s)