Participatory Action Research:

Honors Students and Online Honors Seminar Courses

by

Jayci Hacker

A Dissertation Presented in Partial Fulfillment
of the Requirements for the Degree
Doctor of Education

Approved October 2021 by the
Graduate Supervisory Committee:

Terri Kurz, Chair
Leigh Graves Wolf
John Rodari Meisner

ARIZONA STATE UNIVERSITY

December 2021

ABSTRACT

Honors programs in the United States offer high-quality educational experiences for exceptional students at the undergraduate level. These experiences generally take place in a face-to-face format. In recent years, higher education embraced online learning as a strategy to increase flexibility and access for students with diverse needs. Research has clearly established online learning as an effective model for high-quality education, yet, honors programs have been resistant to this shift in learning modalities.

The community of inquiry theoretical framework provided a method for the assessment of online discussions and courses using a validated survey and coding instrument. Using a critical digital pedagogical lens to guide this mixed-methods participatory action research (PAR) study, an online honors seminar course was implemented in the fall of 2021. Honors students worked alongside the researcher as they developed an assessment tool based on the community of inquiry survey, selected different online discussion tools, and provided ongoing feedback throughout the course. Two research questions guided the study. First, what were student perceptions of different online discussion tools and their utility in facilitating social and cognitive presence in an online honors seminar course? And, second, how did engaging in a critical PAR research study impact an honors student's experience in an online honors seminar course? Data were collected from students' open-ended reflections, transcripts of online discussions, and responses to the revised community of inquiry survey.

The results from this PAR study showed that students spoke favorably about all online discussion tools implemented in the online honors seminar course and each discussion tool was found to be effective in nurturing social and cognitive presence.

Students also spoke favorably about their experiences engaging in the PAR study. The most important finding was that by authentically engaging students in the design, implementation, and assessment of an online honors seminar course high-quality learning outcomes could be achieved in an online environment. Within the honors community, future research and practice regarding the intersection of honors curriculum and online learning are essential to maintain the relevancy of honors programs.

TABLE OF CONTENTS

Page

APPENDIX

LIST OF TABLES

LIST OF FIGURES

CHAPTER 1

CONTEXT AND PROBLEM OF PRACTICE

Institutions of higher education in the United States must continually evolve to meet the needs of their students, communities, and society as a whole. Many universities and colleges in the United States quickly adopted online learning as an integral part of their academic programs as a way to provide flexibility to meet the diverse needs of students seeking to advance their education. Among honors programs in higher education, the evolution of programs/courses using online components appears to be much more gradual. As a result of the ever-increasing demand for online learning and in light of the recent mandatory transition to remote instruction in higher education as a means to battle the highly infectious COVID-19 virus, an event that significantly increased the speed at which change occurred, research pertaining to the effective implementation of high-quality online honors courses is needed.

Honors Programs in Higher Education

Honors programs offer valuable opportunities for students by engaging them in unique modes of learning focused on high-quality outcomes as outlined by the National Collegiate Honors Council (NCHC). Honors programs are diverse in the pedagogical practices they employ (Fuiks & Rutland-Gillison, 2002), and most place special emphasis on seminar style pedagogy (Scott & Bowman, 2009). These unique modes of learning result in a differentiated educational experience at universities and colleges across the United States. Honors students often have different needs than the regular university student population (Plominski & Burns, 2018) and above average academic expectations and goals. Because of these needs, it is important to clearly identify the value of an

honors education and how honors education is different from other educational programs in higher education. Developing this understanding of honors programs in higher education helps contextualize the students' curricular needs and supports a more meaningful understanding of honors students' educational trajectories.

Honors programs at institutions of higher education in the United States provide academic support, a more rigorous curriculum, and unique opportunities for high-achieving students (National Collegiate Honors Council, n.d.; NCHC Board of Directors, 2013). Although honors programs vary in their organizational structure at different institutions, programs are generally designed to engage honors students in a deep and meaningful curriculum that enhances their educational experiences (National Collegiate Honors Council, n.d.). In addition to offering a specialized curriculum, honors programs provide a supportive learning community that instills a sense of belonging for high-achieving students (Bottoms & McCloud, 2019; Smeaton & Walsh, 2019). The NCHC (n.d.), a professional organization serving over 900 institutional members, offers this description of an ideal honors education:

> Honors education ignites passion for lifelong learning and encourages student creativity, collaboration, and leadership in the classroom and beyond. It is characterized by in-class and extracurricular activities that are measurably broader, deeper, or more complex than comparable learning experiences typically found at institutions of higher education. Honors curriculum serves as a laboratory for inventive and experiential education that can be implemented in the traditional classroom. Honors experiences include a distinctive learner-directed environment and philosophy, provide opportunities that are appropriately tailored to fit the institution's culture and mission, and frequently occur within a close community of students and faculty. (para. 1)

This definition, with a special emphasis on "implemented in the traditional classroom" has served as a guiding framework for honors education at many institutions across the United States for nearly 50 years. However, looking at the "tailored to fit the institution's

culture and mission" element of this definition, a tension exists between an institution that is integrating online learning into its academic strategy and culture and an honors program that adheres tightly to a traditional face-to-face classroom setting. As institutions of higher education consider enhancing their online programs, it is crucial to consider the pedagogical practices in a traditional honors classroom prior to including honors education in these conversations.

Honors Pedagogy

When considering the challenges inherent in transitioning a face-to-face honors course into an online course, it is important to fully understand the pedagogical practices of honors educators. The NCHC Board of Directors (2013) published a document outlining five modes of learning in honors education; these are summarized in Table 1. Seminars are often referenced as the gold-standard in honors education (Nix et al., 2014; Rosenow et al., 2016), although looking at the five modes of learning outlined by the NCHC Board of Directors (2013), seminar is only mentioned once. In the context of online courses, it is, however, seminars that prove to be the most contentious of topics among honors faculty and administrators.

Seminars commonly use a Socratic Method of inquiry to engage students in discussions (Scott & Bowman, 2009). The Socratic Method of inquiry seeks to elicit knowledge through the application of a series of questions (Overholser, 2008). Generally, these questions are posed by the instructor of a course and students then engage in the seminar based on their understanding of the course content and materials. It is through these seminars that meaningful learning can happen. Seminars and discussions based on

the Socratic Method have been identified as effective practices to facilitate and nurture critical thinking in an honors classroom (Edman, 2002; Taylor, 2002).

Table 1

Modes of Learning in Honors Education

Mode	Characteristics
Research and creative scholarship	Highly focused learning experiences with an emphasis on research, analysis, and interpretation. Specialized, in-depth learning: self-reflective, analytical, and creative. Products lead to new integrations, new knowledge, or new understanding. Students are prepared to continue advanced studies or professional careers.
Breadth and enduring questions (multi or interdisciplinary learning)	Core curriculum honors courses that include seminars for greater depth. Curriculum includes alternate modes of inquiry and is integrative in nature. Emphasis is placed on the process of learning.
Service learning and leadership	Community engagement that addresses real-world problems. Service may take place on or off campus and is often credit-bearing.
Experiential learning	Emphasizes exploration and discovery including student-driven projects supervised by a faculty mentor. Reflection and dissemination are essential elements.
Learning communities	Integration of academic, social, or service activities with a cohort of students living or working together in close proximity, collaborating on solutions to common problems.

Note. This table is adapted from the NCHC Board of Directors five modes of learning (2013).

Honors Program at Southern Utah University

Southern Utah University (SUU), established in 1897, serves as a regional comprehensive university meeting the needs of over 10,000 graduate and undergraduate

students in Cedar City, Utah. SUU offers more than 144 undergraduate programs, along with 17 graduate and certificate programs. Within those programs are nine undergraduate online programs and 11 online graduate programs (Southern Utah University, 2019b). Over the last several years, SUU has seen unprecedented growth in student enrollment numbers, retention rates, and the number of students earning degrees (Southern Utah University, 2018).

Established in 2009, the Honors Program at SUU enrolls approximately 300 undergraduate students each academic year. The mission of the honors program is to "provide an interdisciplinary academic experience for motivated learners to enhance their education through innovative curriculum and involvement in a community incorporating SUU's best faculty members and students" (Southern Utah University, 2019a, para. 1). Nearly every major and discipline on campus is represented in the honors program. There is a concerted effort to recruit students into the honors program based on high school GPAs and standardized test scores, with a special focus on students' academic achievements, extra-curricular activities, and community engagement.

Students who complete the honors program receive an official designation on their transcript as graduates of the program. Although research on honors alumni is limited, Kotschevar et al. (2018) found that 80% of honors graduates perceived their honors education added valuable skills that benefited their personal and professional lives. To graduate from the SUU Honors Program, students must earn 21 honors credits and complete an honors capstone project. Students obtain honors credits by completing honors courses, honors sections of general education courses, and honors contracts involving special projects in non-honors courses. Students create unique honors academic

plans in collaboration with academic advisors. This gives them the freedom to achieve their academic goals and professional aspirations as they select their courses and create their contracts through which they will earn honors credits. One of the most attractive elements of the honors program is the flexibility it offers to students in earning the honors distinction as they complete the program.

In addition to the academic offerings of the program, students develop a strong sense of community through social activities, leadership opportunities, academic field trips, and other activities (Southern Utah University, 2019a). In yearly surveys of SUU honors students informally administered for internal improvement processes, honors students report that they joined the program in an effort to be surrounded by students with similar motivations, aspirations, and academic accomplishments. Honors students live together in the honors residence hall, collaboratively engage in course-work, and participate in extracurricular events with each other. The sense of community developed within the honors program has been a significant factor in the high levels of retention and completion of honors students at SUU and other institutions (Bottoms & McCloud, 2019; Smeaton & Walsh, 2019).

The honors program plays a vital role at the university. It attracts high-achieving students, provides specialized support for them, and, as a result, elevates the overall academic climate of the university (Diaz et al., 2019; Patton et al., 2019). According to the SUU institutional internal dashboard, honors students are retained at the university and complete their degree programs at much higher rates than peers with similar academic preparedness (as measured by high school GPA and standardized test scores) who were not members of the honors program. It is clear that students in the honors

program and the university as an institution both benefit from the academic and extra-curricular experiences made possible by the honors program.

In 2014, a new honors curriculum, comprised of three one-credit courses, was developed that ushered students through their first three years of the program and prepared them to successfully complete an honors capstone project. These courses were required of all honors students regardless of their major. One benefit of this curriculum was the increase in points of contact between students and faculty members in the honors program. Another benefit included an enhanced sense of community and belonging within the honors program. However, some challenges accompanied the addition of required courses to the honors program curriculum. The most noteworthy challenge related to this new curriculum was the reduction of flexibility for students to complete the program requirements. This was a challenge for students in degree programs with rigid course requirements such as nursing, elementary education, and theater. These programs had strictly prescribed course schedules that left very little room for flexibility during those students' junior and senior years.

When students elected to leave the honors program at SUU, exit surveys showed that the primary reason students left was due to the challenge of fitting the required honors courses into their academic plans. In addition, students reported that other life/work responsibilities made it difficult for them to enroll in honors courses. Many honors students at SUU are non-traditional students. Marriage and childcare demands are sometimes barriers to student success at SUU and within the honors program. Online courses play a notable role in meeting the diverse needs of students, such as those articulated by honors students who leave the program. Despite the clear need for more

flexibility in the honors program curriculum, very few online honors courses are available at SUU.

Honors Director

From 2012 to 2021, I worked within SUU's honors program and served as the director of the program for six years. As the director, I was responsible for every aspect of the program including recruiting, advising, budgeting, student support, academic enrichment, curriculum development, advocacy, and overall program improvement. Administrators at SUU placed a special emphasis on increasing the number of students who complete all requirements and graduate from the program, and this number was used to evaluate the effectiveness and success of the honors program. During my time as the director, I made significant changes to the program which increased the number of students who completed the program. These changes included more intentional and timely advising, regular one-on-one meetings with each student, enhanced collaboration with academic departments, and intensive training for academic advisors. The graduating class of 2012 included nine honors students, and the 2021 graduating class included 29 students, an increase of over 200% over the eight-year period.

The Honors Program at SUU serves a key role in the academic strategy of the university and supplements the experience of highly motivated undergraduate students. While the benefits of the program are clear, the challenges currently facing the continued success of the program are also clear. The honors program administration needs to find new ways to increase flexibility in order to support more honors students through to graduation.

Online Learning in Higher Education

One learning modality has been practically non-existent in conversations about how honors education can serve the diverse needs of students: online learning. Though often not included in an honors program, online learning can offer greater flexibility and a high-quality learning experience. Online courses could increase the students' ability to juggle the many roles they have in addition to being a student (Bastrikin, 2020). Online learning has a recent but rich history in higher education and is an endeavor highly valued at SUU. However, it has not been a part of the honors program until very recently. Online learning has been well established as an effective way to educate students outside of a face-to-face setting (Bastrikin, 2020; Stack, 2015; Lyke & Frank, 2012). In 2017, approximately 3.2 million undergraduate students in the United States took at least one course online. In 2018, 47% of students who selected online degree programs did so because of other commitments making coming to campus difficult, 46% of faculty in 2019 reported having taught an online course for credit, and in 2020 98% of higher education institutions moved all classes temporarily online because of the COVID-19 pandemic (Bastrikin, 2020).

Prior to the COVID-19 pandemic, there was disagreement among faculty and students about the quality of online courses versus face-to-face courses (Johnson, 2013; Nightingale, 2014; Pope-Wingo et al., 2017). This was especially true in the honors community. *Honors Programs at Smaller Colleges* (Schuman, 2011) is a commonly referenced publication in the honors community that directs the administration and implementation of honors programs. In this publication, Schuman is clear that technology (e.g., online learning) should never replace "close, humanized learning relationships" (p.

53). I heard this refrain often when talking to honors colleagues about the possibility of online honors courses. At this point in time, it is unclear what the impact of the forced transition to remote instruction due to the COVID-19 pandemic will have on the conversations surrounding online versus face-to-face learning. However, one observation is certain: practically all faculty and students now have experience with online learning.

Online Learning at Southern Utah University

Recent and unprecedented growth at SUU has ignited considerable discussion about the expansion of online programs at the university. Some argue that online degree programs must grow in order to increase student enrollment and accommodate current students within the university's existing physical buildings. Others claim the university should curb the growth and maintain the intimate feel of an education from SUU. The university's president has made it clear that efforts to expand online degree programs will move forward. In 2019, SUU entered into a formal agreement with an online program management company to nearly double the number of students enrolled in SUU's online programs. In a press release related to SUU's efforts in expanding online programs by reducing tuition for online students by 12%, the president of the university stated, "Our goal is to grow our online enrollment so that more people have the opportunity to earn a college degree" (Bishop, 2019, para. 5). Moving forward, it is apparent that online learning is an integral element of the university's strategy for growth.

As the honors director, I was responsible for helping students achieve their academic goals at SUU and in the honors program. Although the number of students graduating with honors has continued to increase over the years, many students experienced significant barriers to completing the honors program. As previously

discussed, these barriers included rigid degree requirements, scheduling conflicts, and external responsibilities (e.g., work and family). These obstacles can be surmounted by the creation and implementation of online honors courses. Several factors informed the investigation of offering online honors courses at SUU. Research shows that high-achieving students perform well in online courses (Bastrikin, 2020; Cavanaugh & Jacquemin, 2015). Online courses offer a level of flexibility that is not possible in face-to-face courses, and technological advances in video conferencing, learning management software, and online document collaborations have drastically improved the quality of online courses in higher education (Bastrikin, 2020; Stack, 2015; Lyke & Frank, 2012).

Problem of Practice

The problem of practice addressed by this innovation and research is the apparent tension between offering online honors courses to meet the goals and objectives of SUU and the SUU Honors Program while maintaining the ideal pedagogical practices identified by the honors community, specifically seminar style instruction. A valuable opportunity exists within this problem of practice to include current honors students in determining the future of online honors courses by utilizing participatory action research (PAR). PAR will be described further in future chapters.

Previous Cycles of Research

I conducted two previous cycles of research related to this problem of practice and each provided valuable insight into the context of the current study and evidence in support of pursuing additional research. The first cycle of research included open-ended interviews with honors students and honors faculty at SUU, evaluating their current beliefs regarding the possibility of online honors courses. Based on results from the first

cycle of research, a second cycle of research was warranted. The second cycle of research included the implementation and evaluation of an online seminar in a fully online honors course using the Community of Inquiry (CoI) theoretical coding framework (Garrison et al., 2000).

First Cycle: Open-Ended Interviews

In the Fall of 2018, I conducted open-ended interviews to gain a better understanding of current honors students' and faculty members' perceptions about online honors courses. For the interviews, six students (five females and one male) and two faculty members (both female) participated. All of the students were active members of the honors program for more than one year. The faculty members had amassed many years of experience teaching online and in person and developed a strong background in the honors program.

All interview questions were open ended. Students were asked questions such as, "What are your thoughts regarding online honors courses?" and, "From your perspective, what are the biggest obstacles for online honors courses?" Faculty were asked questions such as, "What tools/methods do you use in online classes to support students?" and, "What are your thoughts regarding an online honors course?" A full list of questions for both students and faculty is included in Appendix A. I obtained approval through the Institutional Review Board (IRB) at both Arizona State University (ASU) and SUU. After participant consent, interviews were conducted in person and recorded.

To analyze the data collected from students and faculty, I reviewed the recordings multiple times. First, to obtain a general sense of what was being reported, then to identify themes that were present, and finally, to identify quotes that were illustrative of

the major themes identified in the second review. During the data analysis, I kept a notebook tracking each of the steps listed above.

A few major themes emerged. First, every student expressed concerns about losing connection with other students and faculty members when engaging in an online course. Second, all participants with the exception of one student, expressed excitement and optimism about the possibility of online honors courses. And, last, the faculty members both spoke of the importance of utilizing the most appropriate technology to match the activities and learning outcomes of the course. The results of this research supported the overall belief that an essential element of an honors classroom experience is the face-to-face interaction between students and faculty. Additionally, the data collected supported the value of innovation and experimentation in honors courses. While it seems that these two findings might contradict each other, the purpose of this innovation and research was to investigate a way to achieve outcomes similar to both in an online environment—face-to-face interaction and experimentation. Further exploration of meeting the honors objectives in an online format was warranted based on the results of these interviews.

Second Cycle: Implementing and Evaluating the CoI Survey

During the second cycle of research, I collected qualitative data to determine how and to what extent students demonstrate cognitive and social presence in an online honors synchronous seminar session. IRB approval was received from both ASU and SUU for this cycle of research. The CoI theoretical framework was used to guide the innovation and data collection. The CoI theoretical coding framework is provided in Appendix B.

I collected qualitative data by evaluating a video recording of an online synchronous seminar conducted with honors students enrolled in an online honors course. The evaluation of the video recording utilized the CoI theoretical coding framework (Garrison et al., 2000), specifically looking at the social and cognitive presence demonstrated in the discussion. Social and cognitive presence will be defined thoroughly in subsequent chapters. The CoI coding framework provided a description of elements associated with cognitive and social presence. Using the CoI coding framework, I evaluated the recorded online synchronous discussion to find the number of occurrences and examples of each presence. Using the CoI theoretical framework to code the transcript of the online synchronous seminar produced very valuable qualitative data. The recorded seminar was approximately 35 minutes long, and the transcript produced 10 pages of text. In general, students demonstrated high levels of two elements associated with cognitive presence and a high level of one element associated with social presence.

For this second cycle of research, it was concluded that the CoI theoretical framework was an effective theoretical perspective and assessment tool for online learning. The results of this research found that the innovation was successful in creating an opportunity for honors students to engage with each other in a synchronous online seminar.

Purpose of Study and Research Questions

The current study expanded on the results observed in previous cycles of research. It was designed to address the tension between meeting the goals and objectives of SUU and the SUU Honors Program while maintaining high-quality honors pedagogy such as

seminar style instruction. The purpose of the current innovation and research was to answer the following research questions:

1. *What were student perceptions of different online discussion tools and their utility in facilitating social and cognitive presence in an online honors seminar course?*
2. *How did engaging in a critical participatory action research study impact an honors student's experience in an online honors seminar course?*

The ever increasing need to create diverse modes of delivery for courses in higher education and ensure high-quality experiences and outcomes for students required careful consideration and intentionality. Previous research and theoretical frameworks were essential in envisioning what type of innovation could address the problem of practice and identify the most effective data in answering the research questions related to the purpose of this study.

CHAPTER 2

THEORETICAL PERSPECTIVES AND RESEARCH GUIDING THE PROJECT

The students who participated in this research all navigated a mandated transition to remote instruction as a means to slow the spread of a deadly viral pandemic. In the spring 2020 semester, these students were required to finish their face-to-face courses online. This transition to remote instruction was perceived as a loss of control for many students and instructors. Many instructors were unprepared to deliver their courses online (Smalley, 2020) resulting in significant confusion, poorly executed courses, and frustration on the part of all involved. It was crucial to identify theories that centered the students in the course and honored their lived experiences in online courses. With this in mind, theoretical perspectives were selected to guide the creation of an online honors seminar course (OHSC), engage honors students in participatory action research (PAR), and evaluate the overall experience and outcomes of the OHSC.

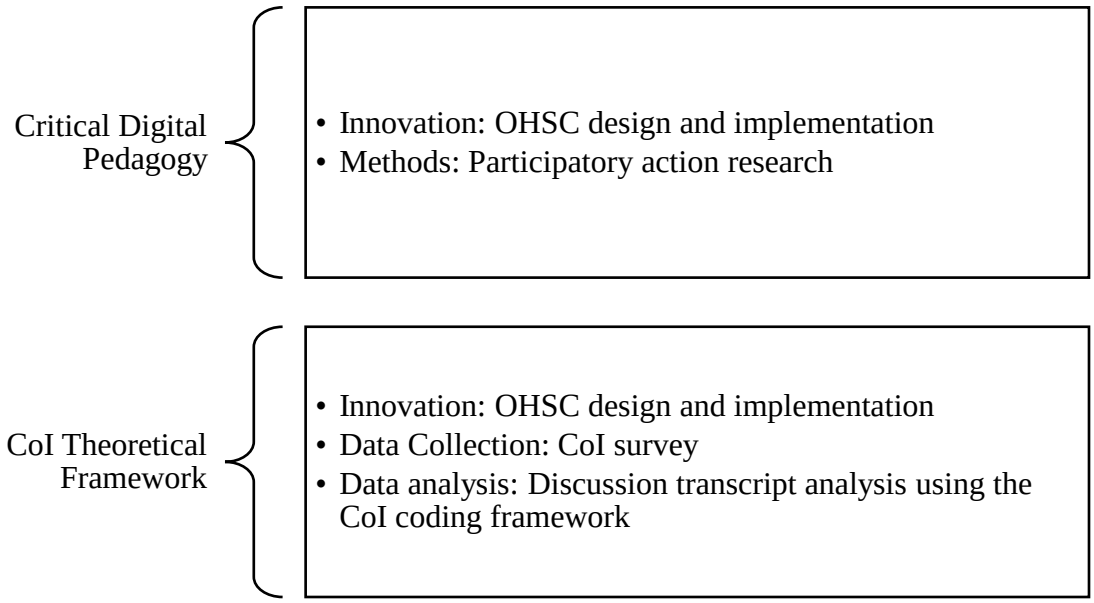
In this chapter, critical digital pedagogy and the CoI theoretical framework are introduced as two theoretical perspectives that addressed the unique challenges posed by this problem of practice. Utilizing critical digital pedagogy (Stommel, 2014), a descendent of critical pedagogy (Freire, 1974), to guide this research gave some control back to the students and likely helped rebuild their trust in the process of education. Additionally, the CoI theoretical framework (Garrison et al., 2000) provided a validated and frequently used online course assessment tool to evaluate the overall quality of the OHSC. It is important to remember that the problem of practice for this research was to address the tension between maintaining the quality expected of an honors course while

meeting the diverse needs of students and remain in alignment with the academic strategy of the university.

Some specific characteristics of honors students and honors education informed the selection of these theoretical perspectives. While honors students are incredibly unique, most have some common characteristics that should be considered when selecting theoretical perspectives. Based on my experience working in honors education for over nine years, these unique characteristics were critical to consider. First, honors students have high expectations of themselves and their instructors (Mariz, 2008). Second, honors students perform better when courses are transparently designed and implemented (Meadows, 2019). And, third, honors students do not perform as well academically or emotionally when they experience a loss of control over their environments (Albert & Dahling, 2016; Plominski & Burns, 2018). Honors education is also unique in its approach to instruction. Most honors courses actively engage students in seminar discussions and place an important emphasis on the value of community in the classroom (Fuiks & Rutland-Gillison, 2002; NCHC Board of Directors, 2013). It was with these considerations in mind that critical digital pedagogy (Stommel, 2014) and the CoI theoretical framework (Garrison et al., 2000) were selected to guide this innovation and research. Figure 1 illustrates how each theoretical framework was utilized in this PAR study.

Figure 1

Theoretical Perspectives Guiding the Project



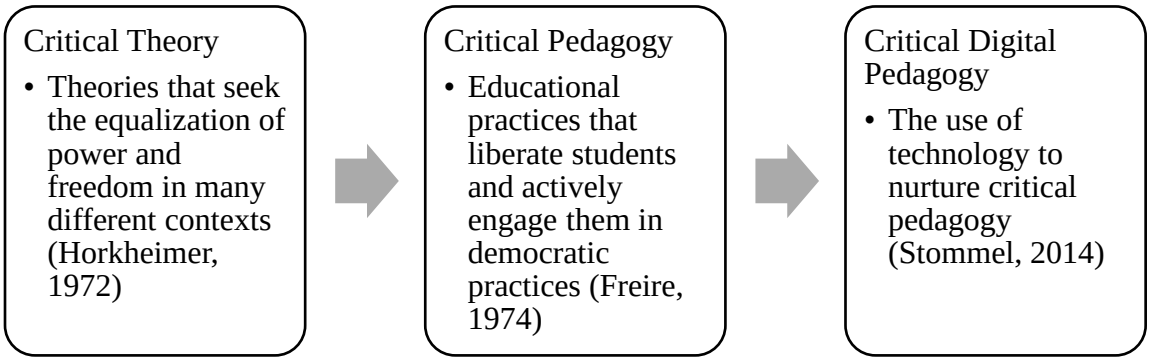
Critical Theory

A historical context is provided in this section to fully illustrate the applicability of critical digital pedagogy to this research. Critical digital pedagogy has roots in critical theory (Horkheimer, 1972), a well-established and broad theory that seeks to emancipate or liberate learners and embodies a desire to improve social conditions at its core (Bohman, 2019; Budd, 2008). Historically, course design, implementation, and evaluation were the responsibility of instructors with expertise in the discipline. While there was good reason for this tradition, a negative consequence of such a process was the marginalization of students and a replication of inequity that exists in a broader social sense (Freire, 1974). This was certainly the case when all coursework transitioned into a remote delivery model in the spring semester of 2020. Instructors rolled their coursework into learning management systems and moved forward without much student input or

thought to course design (Smalley, 2020). Both instructors and students experienced a sense of helplessness with the situation; it seemed to be very much out of everyone's control, and the hastiness in which decisions were made created an even more intense sense of disorientation. By applying a critical theoretical lens to this innovation and research with the inclusion of critical digital pedagogy (Horkheimer, 1972), it was my hope to instill a stronger sense of control and power in the students in the course. Figure 2 highlights the relationship between critical theories, illustrating the evolution from critical theory to critical digital pedagogy.

Figure 2

Relationship Between Critical Theories



Critical Pedagogy and Critical Digital Pedagogy

Under the umbrella of critical theory (Horkheimer, 1972) sits critical pedagogy (Freire, 1974). Paulo Freire is most commonly associated with the theory of critical pedagogy through his work in teaching literacy to Brazilian people during significant political turmoil. Freire (1974) argued that education was the best way to encourage people to take an active role in the world around them and that education should provide "opportunities for the analysis and debate of problems, or for genuine participation" (p. 32). Freire (1974) succinctly captures the essence of critical pedagogy when he states,

"the important thing is to help men help themselves, to place them in consciously critical confrontation with their problems, to make them the agents of their own recuperation" (p. 13). Freire used the term "critical consciousness" as the ideal outcome of critical pedagogy. Critical consciousness is demonstrated by students taking an active role in critically investigating systems of power, knowledge formation, and democracy (Freire, 1974). Critical pedagogy is often discussed and utilized as the equalization of power and knowledge formation between students and educators (Freire, 1974; Heaney, 2000; Macrine, 2009; McLaren, 2000).

While Freire did not provide explicit detail in how critical pedagogy should be implemented (Kincheloe, 2007), researchers Lankshear and McLaren (1993) provided a summary of six principles from Freire's work. Two of these six principles are closely aligned with my problem of practice. The first encourages learners to consider the connections between their lived experiences and reality. The second challenges learners to question the nature of dominant discourse and to take a role in transformative action that disrupts the systems that marginalize them. When considering the creation of an OHSC, enacting the values, as described by critical pedagogy, ensured students had the opportunity to significantly influence the direction of this research, associated outcomes, and ultimately, the future of online honors education.

Translating critical pedagogy into an online environment required the inclusion of critical digital pedagogy. Critical digital pedagogy takes traditional critical pedagogy and explores the ways in which technology can nurture critical consciousness through the application of critical thinking in course discussions (Stommel, 2014). Gold (2012) argued that critical digital pedagogy offered a valuable opportunity to enact the principles

set forth by critical pedagogy. Critical digital pedagogy created space for students in this research to direct their own learning through internet research, the selection of digital tools, and sustained communication with classmates and instructors. Digital technology with a critical pedagogical lens nurtures a more equitable classroom and learning experience for students (Rorabaugh, 2012).

Critical Digital Pedagogy: Related Research

Research specifically utilizing critical digital pedagogy as a guiding framework is not prolific. There is more research pertaining to critical pedagogy as a framework for exploring questions based in an online educational context or the use of digital tools to facilitate critical consciousness. However, Stommel (2014) argued that when questions focusing on the ability of online tools and spaces to facilitate community and collaboration across cultural and political barriers, allow space for diverse voices to be heard, and extend education to non-traditional sites, it is, in fact, critical digital pedagogy. Using the guidelines provided by Stommel (2014), many researchers, while not explicit in their use of critical digital pedagogy, explored questions related to online spaces and their ability to equalize the power structures and knowledge formation traditions that exist between students and instructors.

Researchers consistently argue that online courses and the use of digital tools have great potential for fostering critical consciousness (Bondy et al., 2015; Conover & Miller, 2014; Green & Chewning, 2020; Matheson et al., 2012; & Mehta & Aguilara, 2020). Looking specifically at critical thinking and critical discourse, Bondy et al. (2014), Conover and Miller (2104), and Matheson et al. (2012) found that online discussion tools were effective in promoting sustained critical communication between students and

instructors in online courses. Online spaces were also found to be highly effective in centering students and providing opportunities for them to direct their own learning (Conover & Miller, 2014; Green & Chewning, 2020; Matheson, et al., 2012). In relation to my current focus, perhaps the most valuable research investigating critical digital pedagogy was conducted by Mehta and Aguilera (2020). They critically analyzed several online courses looking for evidence of the humanization of critical pedagogy and the role that digital tools played in equalizing the power structures that can often replicate social inequities in learning spaces. They found that, with intentional and sustained focus, educators could employ pedagogies in online spaces that humanize education and challenge "the systemic barriers that stand in the way of a more inclusive, just, and equitable education for all" (Mehta & Aguilera, 2020, p. 118). Another important finding of their research was the value of collaborations among students and instructors in an effort to dismantle institutional hierarchies and create democratic learning spaces.

Critical Digital Pedagogy: Implications

Critical digital pedagogy, while in its infancy, has roots established in both critical theory and critical pedagogy, two theoretical frameworks that addressed issues related to this research. This research centered the students, collaborated with them as co-researchers utilizing PAR, and provided the opportunity for students to take an active role in their education. Critical digital pedagogy, as a theoretical framework, provided solid guidance and justification for these endeavors. Critical digital pedagogy demanded that "open and networked educational environments must not be merely repositories of content. They must be platforms for engaging students and teachers as full agents of their own learning" (Stommel, 2014, para. 16). Thinking back to the principles articulated by

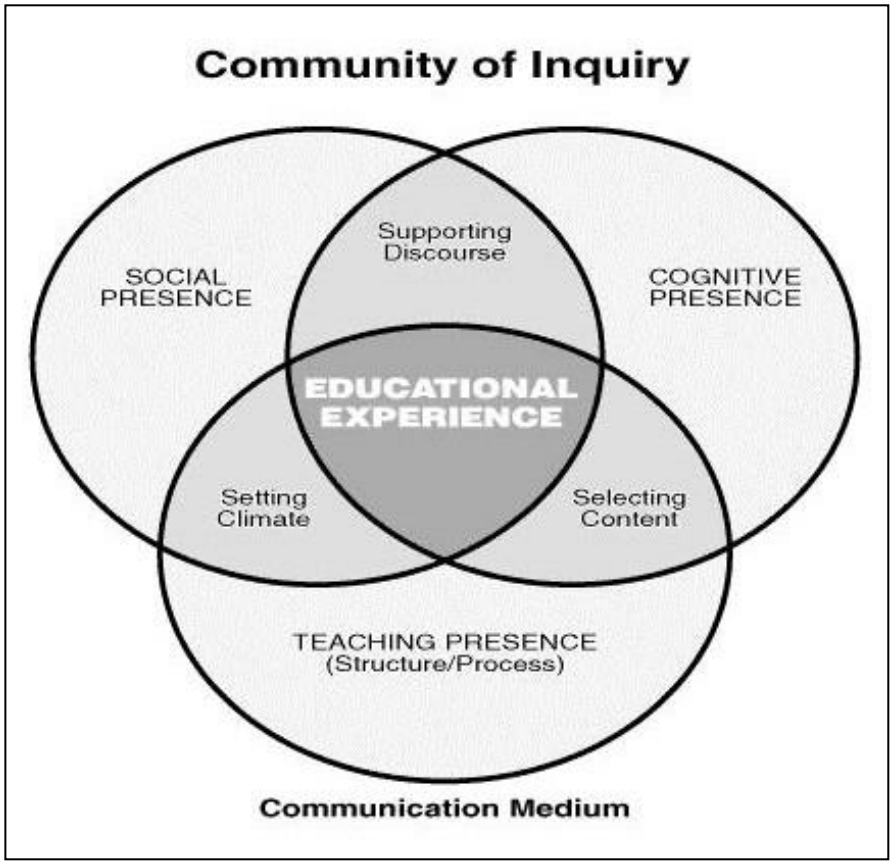
Lankshear and McLaren (1993), the current study provided a valuable opportunity for students to make connections between their lived experiences and reality, question the nature of dominant discourse, and take an active role in dismantling the systems that marginalized them as students. Additionally, by utilizing critical digital pedagogy as a theoretical lens for this research, valuable contributions were made to the existing literature regarding honors students, honors pedagogy, OHSCs, and PAR.

The CoI Theoretical Framework

To guide the assessment and evaluation of this innovation, the CoI theoretical framework was used (Garrison et al., 2000). Garrison et al. (2000) conducted a meta-analysis of online learning in the mid-1990s. Based on that analysis, they developed a framework for assessing and evaluating the quality of an online CoI. Garrison (2017) recently defined a CoI as an environment "in which students can take responsibility and control of their learning by negotiating meaning, diagnosing misconceptions, and challenging accepted beliefs" (p. 24). In their landmark study, Garrison et al. (2000) identified three primary presences that, when implemented correctly in an online educational environment, resulted in a meaningful learning experience for students. In Figure 3, the three presences are illustrated.

Figure 3

CoI Theoretical Framework



Note. From "Critical inquiry in a text-based environment: Computer conferencing in higher education," by D.R. Garrison, T. Anderson, & W. Archer, 2000, *The Internet and Higher Education, 2*(2–3), 87–105. Licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.

In the CoI framework, the first presence was cognitive presence. Cognitive presence was described by Garrison et al. (2000) as the ability of students to construct meaning in the course through sustained communication. The second presence identified was social presence. Garrison et al. (2000) described social presence as the ability of students to make meaningful connections with each other in the course. The final presence identified for a quality CoI was teaching presence, described as the design and

facilitation of the educational experience. There are obvious overlaps and interplays among the three presences, and all are essential in order to create an environment that nurtures learners' ability to engage in critical thinking (Garrison, et al., 2000). In addition to identifying the three presences that create a CoI, Garrison et al. (2000) also developed a coding framework to measure the degree in which each presence was demonstrated in an online course. Arbaugh et al. (2008) created a Likert scale survey (Appendix C) that measured student perceptions of each presence in an online or blended learning environment that was validated by Swan et al. (2008).

Although the framework was developed in the early 2000s when online learning was truly in its infancy, its applicability to the current online learning environment was evident. The identified presences, coding framework, and Likert scale survey were valuable resources in creating and assessing online courses. As my research was focused on the development of an OHSC, using a valid and reliable theoretical framework and instrument such as the CoI theoretical framework helped to ensure the highest quality in both the design and assessment of the new course.

The Three CoI Presences: Social, Cognitive, and Teaching

Before examining previous research and implications of the CoI theoretical framework, it was important to gain a full understanding of the three presences identified by the theory. As illustrated in Figure 3, the three presences overlapped using a communication medium and resulted in a meaningful educational experience for students. While the illustration of how the three presences relate to each other was quite straightforward, their interactions and outcomes are complex. In fact, Garrison (2017)

recently published an entire book devoted to exploring the ways in which each presence manifested and interacted with the other presences.

According to Garrison (2017), creating social presence in an online environment was critical to the formation of a CoI. Social presence was demonstrated by interactions between students that allow for individual personalities to be shared openly and a sense of identity to be created through sustained communication. It was through social presence that a community was built. Garrison (2017) argued that "social presence is an important antecedent to collaboration and critical discourse" (p. 37). Social presence was comprised of three broad categories: 1) personal/affective communication—expressions of respect and welcome; 2) open communication—the ability to take risks in communicating; and 3) group cohesion—developing a group identity and collaborating (Garrison, 2017).

The second presence identified by Garrison et al. (2000) was cognitive presence. Cognitive presence was defined by Garrison (2017) as "facilitating the analysis, construction and confirmation of meaning, and understanding within a community of learners through sustained reflection and discourse" (p. 50). Garrison (2017added that critical thinking and higher-order knowledge acquisition and application were also essential components of cognitive presence. Garrison et al., (2000) largely conceptualized the cognitive presence based on a model of practical inquiry. Within the cognitive presence were four phases with associated descriptors and indicators. Garrison (2017) argued that, when done well, building an online learning environment that nurtures cognitive presence was the "essential purpose of an educational experience" (p. 67).

The last presence identified by Garrison et al. (2000) was teaching presence. This was perhaps the most complex of the three presences and was described by Garrison (2017) as having the responsibility "to monitor and manage the transactional balance, and by engaging the learners, collaboratively guide the process of achieving worthwhile and intended learning outcomes in a timely manner" (p. 69). Within teaching presence were three main categories, each with associated indicators. The first category within the teaching presence was instructional design and organization, including setting the curriculum, designing methods, establishing time parameters, utilizing the medium effectively, establishing netiquette (online etiquette), and making macro-level comments about course content (Garrison, 2017). The second category within teaching presence was facilitating discourse. Indicators of this category included actions such as identifying areas of agreement/disagreement; seeking to reach consensus/understanding; encouraging, acknowledging or reinforcing student contributions; setting the climate for learning; drawing in participants, prompting discussion; and assessing the efficacy of the process (Garrison, 2017). The last and final category within teaching presence was direct instruction. Associated indicators of direct instruction included presenting content/questions, focusing the discussion on specific issues, summarizing the discussion, confirming understanding through assessment and explanatory feedback, diagnosing misconceptions, injecting knowledge from diverse sources (textbook, articles, internet, personal experiences), and responding to technical questions (Garrison, 2017).

CoI Theoretical Framework: Related Research

The CoI theoretical framework was initially designed as an instrument to measure the learning experience in an online setting using three presences as factors positively

associated with leaning: social, cognitive, and teaching. Cho and Tobias (2016) utilized the CoI framework in combination with the measurement of time spent online and learning outcomes (grades) to determine student satisfaction in three iterations of the same course. They found that a student's sense of connection to others in the course was enhanced by social interaction with their instructors and fellow classmates. Interestingly, they found that a student's interaction with the instructor played a greater role in a student's sense of connection to the course than interactions with their classmates. Akyol and Garrison (2010) utilized the CoI framework in a similar way as they specifically examined cognitive presence and deep learning. They concluded that the CoI survey was a valuable tool to quantitatively measure learning and explore factors that influence learning in an online course.

In a related study, Kozan (2016) conducted research using the CoI survey in five different online graduate courses that confirmed the hypothesis that the presences identified by the CoI theoretical framework each played an important role in learner satisfaction and cognitive load in online courses. Kozan (2016) found that when perceived learning satisfaction was controlled for, cognitive presence and teaching presence could be predictive of the overall cognitive load of students in online courses. Kozan (2016) also concluded that teaching presence played a principal role in mediating cognitive presence and social presence among students in the courses. Taken together, the three research studies praised the CoI framework as a successful, valid and reliable instrument to measure the learning experience in an online setting (Akyol & Garrison, 2010; Cho & Tobias, 2016; Kozan, 2016).

By comparison, research utilizing the CoI framework as an instructional design tool was relatively new and promising. Szeto (2015) utilized the CoI framework in the design of an online engineering course finding, that by intentionally designing the course around cognitive presence, social presence, and teaching presence, overall student satisfaction and outcomes improved. Szeto (2015) also showed that when instructors designed a course using the CoI framework, the context of the course was important to consider. In another study, Aykol and Garrison (2010) designed courses utilizing the CoI framework for graduate online students. They asked instructional design students to apply the CoI theoretical framework as they redesigned online courses and then the researchers used the CoI survey to measure the graduate students' perceptions of each presence in their instructional design courses. Their findings supported the conclusion that using the CoI framework proved to be a valuable tool in online course design.

Diaz et al. (2009) included students in the evaluation of the CoI theoretical framework. First, they engaged graduate and undergraduate students from four different United States colleges and universities in an evaluation of the importance of each item on the CoI survey. Students were asked to rate each question and the extent to which they perceived the importance of the question. Then, researchers asked the students to complete the CoI survey to evaluate their courses. The researchers combined the data from this research to evaluate the validity of the constructs of the theory. The results of this research found that the constructs within the CoI survey were valid and that student perceptions of the importance of each question could be used by instructors as they design online courses (Diaz et al., 2009).

Research using the CoI theory as a guiding framework resulted in some notable contributions to the scholarly conversations about online learning. Bondy et al. (2015) and Dalley-Hewer et al. (2012) completed research using the CoI theoretical framework as a guiding framework for both course design and to assist as they conceptualized their research methodology. Both studies found that by using the CoI theoretical framework as a guiding framework, they were able to view the students' perspectives and experiences differently. Most importantly, both studies found value in evaluating online learning using the three presences identified and described by the CoI theoretical framework (Bondy et al., 2015 & Dalley-Hewer et al., 2012).

The CoI framework had utility as both an instructional design tool and as an instrument for assessing the effectiveness of the online learning experiences. Since its development in 2000, hundreds of research studies utilized it in various ways. Research on its utility in designing and assessing the learning experience in an online platform was prolific and ongoing (Garrison, 2017).

CoI Theoretical Framework: Implications

Honors courses should exemplify high-quality learning experiences, social engagement, and connection between students and instructors. As demonstrated by previous studies, the CoI theoretical framework was very supportive in guiding the design of the online course and the assessment of its effectiveness in achieving honors program learning outcomes. The Likert scale survey and coding framework were relatively easy to understand and implement, increasing the utility of the CoI theoretical framework. The CoI framework was grounded in previous and ongoing research, utilization, and validation.

Alignment of Critical Digital Pedagogy and the CoI Theoretical Framework

There was an important alignment between the two theoretical frameworks selected for this innovation and research, especially when viewed through an online honors education lens. This research was intended to develop an OHSC and engage honors students in PAR to address the identified research questions. As previously discussed, both the CoI theoretical framework and critical digital pedagogy had applicability and added valuable contributions to this innovation and research. Both theories placed a special emphasis on student engagement. Critical digital pedagogy attempted to identify the online tools or environment that were most conducive to engaging students in democratic education, elevating them to a more equal level of participation in their education. The CoI theoretical framework, with its emphasis on community building and critically evaluating online courses, provided a validated and reliable instrument to guide the selection of online discussion tools and assessment of their utility in facilitating deep and meaningful learning experiences for online honors students. These theoretical frameworks were used to design, implement, and evaluate the online honors seminar course. Honors students were engaged in PAR as part of the innovation. Data collected throughout the study added valuable insight into the feasibility of offering high-quality online honors courses that center the student and enact the ideals of critical pedagogy and honors education.

CHAPTER 3

METHODS

This mixed-methods PAR research attempted to reconcile the tension between the SUU Honors Program maintaining the quality and ideals of an honors education and meeting the goals and objectives of SUU. Specifically, by enhancing online course delivery options and remaining true to time-honored honors pedagogy such as seminar style instruction. The research methodology utilized mixed methods action research with a large component of PAR. Based on previous cycles of research, evidence showed that online honors courses, including seminars, had the potential to meet the expectations set forth by the honors program and fulfill the goals of the university. Upon receipt of IRB approval through ASU and SUU (Appendix D), the innovation and data collection associated with this research took place during the fall 2020 semester.

Researcher Positionality

I was the honors director at SUU for over six years and an instructor in the honors program for the past seven years. I was very engaged in the national, regional, and local honors academic leadership communities, and I was the president of the Western Regional Honors Council for the 2020-21 academic year. As a result of these experiences and professional roles, I developed a deep understanding of honors as an academic discipline and community. I witnessed and engaged in countless conversations and explorations regarding honors curriculum, assessment, student achievement, and implications for the future. Addressing the diverse needs of honors students was central to my agenda. The honors community prided itself on innovation and out of the box thinking in curriculum and student outcomes, yet online education was rarely part of the

conversation (Johnson, 2013). This omission of online education in the honors discourse was troubling. As an online learner, a non-traditional, and first-generation student, I was impressed with the importance of expanding honors education into an online delivery method. The resistance of the honors community to online learning inspired this research.

I was the instructor of the OHSC, the researcher, and the honors director of the students enrolled in the course. There was inherent power that accompanied these roles (Freire, 1974) and my inclusion of PAR was an attempt to equalize this power dynamic. By selecting critical digital pedagogy (Stommel, 2014) as one of the guiding frameworks, I asserted that honors students (like all students) were historically marginalized by administrators and educators in conversations regarding honors curriculum and course delivery methods (Campbell et al., 2007; Brooman et al., 2015). In this study, I stood alongside the honors students as we investigated several tools for creating, implementing, and evaluating an OHSC.

Innovation

The innovation for this research embraced two assumptions. First, online education was an undeniable reality in the future of higher education, including honors education (Bastrikin, 2020). Second, honors students are historically excluded from conversations and decisions regarding honors curriculum, course delivery, and assessment (Campbell et al., 2007; Brooman et al., 2015). The innovation for this research was a change in the delivery method of an honors seminar course from face-to-face delivery in a traditional classroom to a fully online and asynchronous course in Canvas, an online learning management system. This OHSC was an important and valuable addition to the honors program curriculum, providing greater flexibility for

students who wanted to complete the honors program requirements but who had experienced challenges in attending face-to-face classes. This was important to fulfill the mission of the honors program and to increase the ability of the program to serve students with diverse needs. Within this innovation existed a valuable opportunity to elevate the perceptions, beliefs, and lived experiences of the honors students within the honors academic community and discourse.

During the fall 2020 semester, I was the instructor of the HONR 4010 Honors Seminar course. The topic of the course changed every semester, and for this iteration of the course, the topic was leadership. It was a semester-long course that took place over 14 weeks. The students in the course were actively engaged in the research, not just as participants, but as co-creators and co-researchers. As previously discussed, honors students' voices have largely been silenced in decisions regarding the design and delivery of honors courses. This was due to the enduring tradition of faculty being the experts (Freire, 1974; Heaney, 2000; Macrine, 2009; McLaren, 2000). This research attempted to address this imbalance by amplifying students' voices in the honors disciplinary discourses surrounding curriculum, pedagogy, and course delivery methods. Students in this course were responsible for selecting the online discussion tools for the course, revising the CoI survey to better reflect their expectations of an OHSC, and providing feedback using the newly revised CoI survey throughout and at the end of the semester.

Using the HONR 4010 course and the topic of leadership as the location for this PAR study provided a valuable opportunity for students to engage in collaborative leadership practices. These practices included data-informed decision making, communication, negotiation, innovation, evaluation, and teamwork—all essential

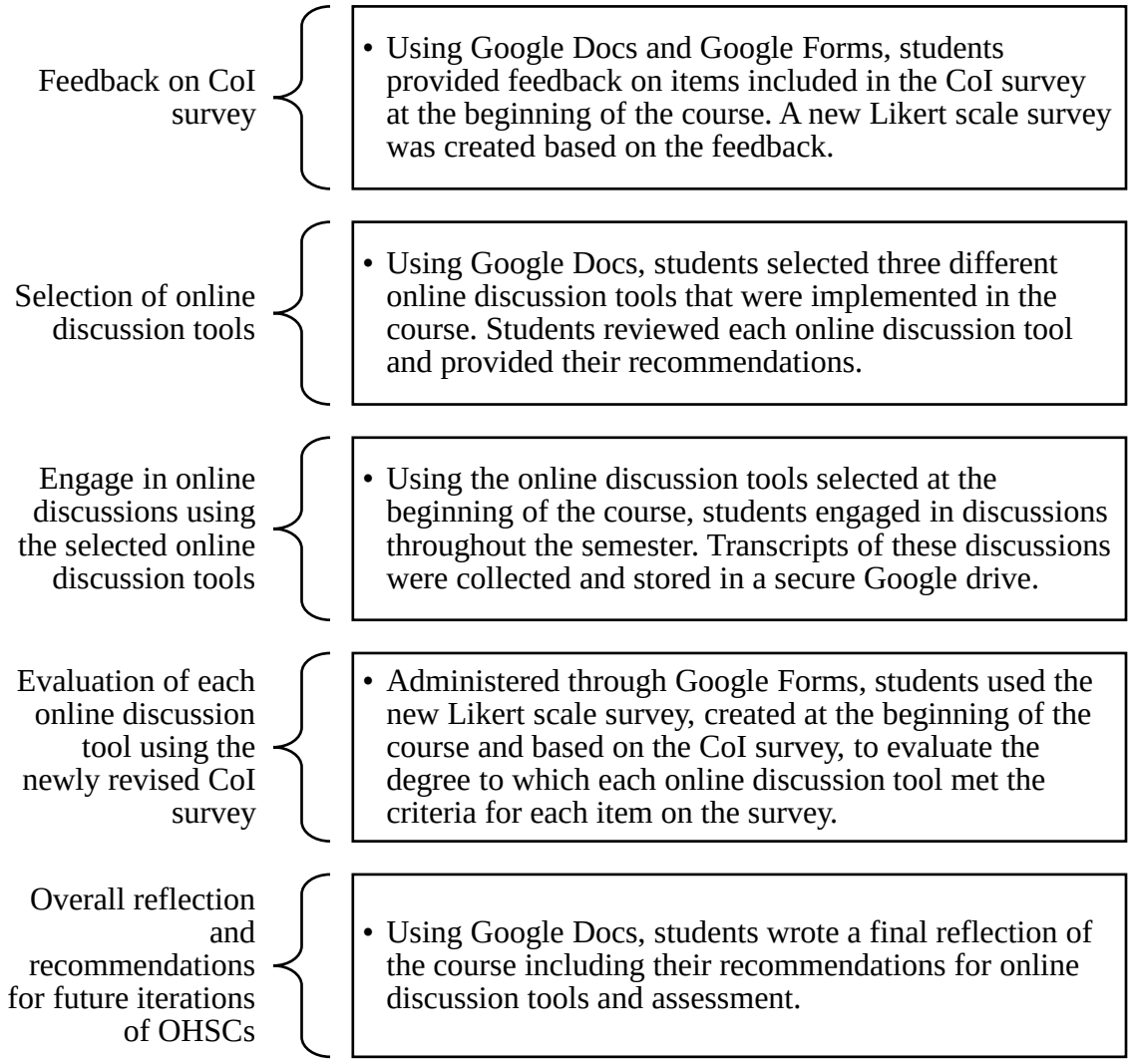
elements of effective leadership. As a result of the students' feedback in this course, future OHSCs will be designed. This innovation and research gave the student participants an incredibly valuable opportunity to take an active role in designing an honors curriculum that will be used for years to come. As the instructor and primary researcher, this course afforded me a valuable opportunity to practice and model the ethic of continual improvement.

Critical Digital Pedagogy

A guiding theoretical framework for this research was critical digital pedagogy (Stommel, 2014). Critical digital pedagogy explores the ways that digital technologies can facilitate critical pedagogy (Freire, 1974). Enacting the values identified by critical digital pedagogy in the design of the course using student feedback on an assessment tool and the selection of online discussion tools ensured a democratic experience in the course. Students were able to direct their own education. Specific elements of this innovation that embraced critical digital pedagogy are outlined in Figure 4. Students in the course played a very important role in the design, implementation, and evaluation of this innovation. Students were treated as equals as they provided valuable feedback on an assessment tool (the CoI survey), helped to design a new assessment tool, helped to select online discussion tools, and provided feedback that will inform the design of future iterations of OHSCs. Critical digital pedagogy, as a guiding theoretical framework, ensured that digital tools were used appropriately as students engaged in the process of their own education.

Figure 4

Critical Digital Pedagogy in Practice



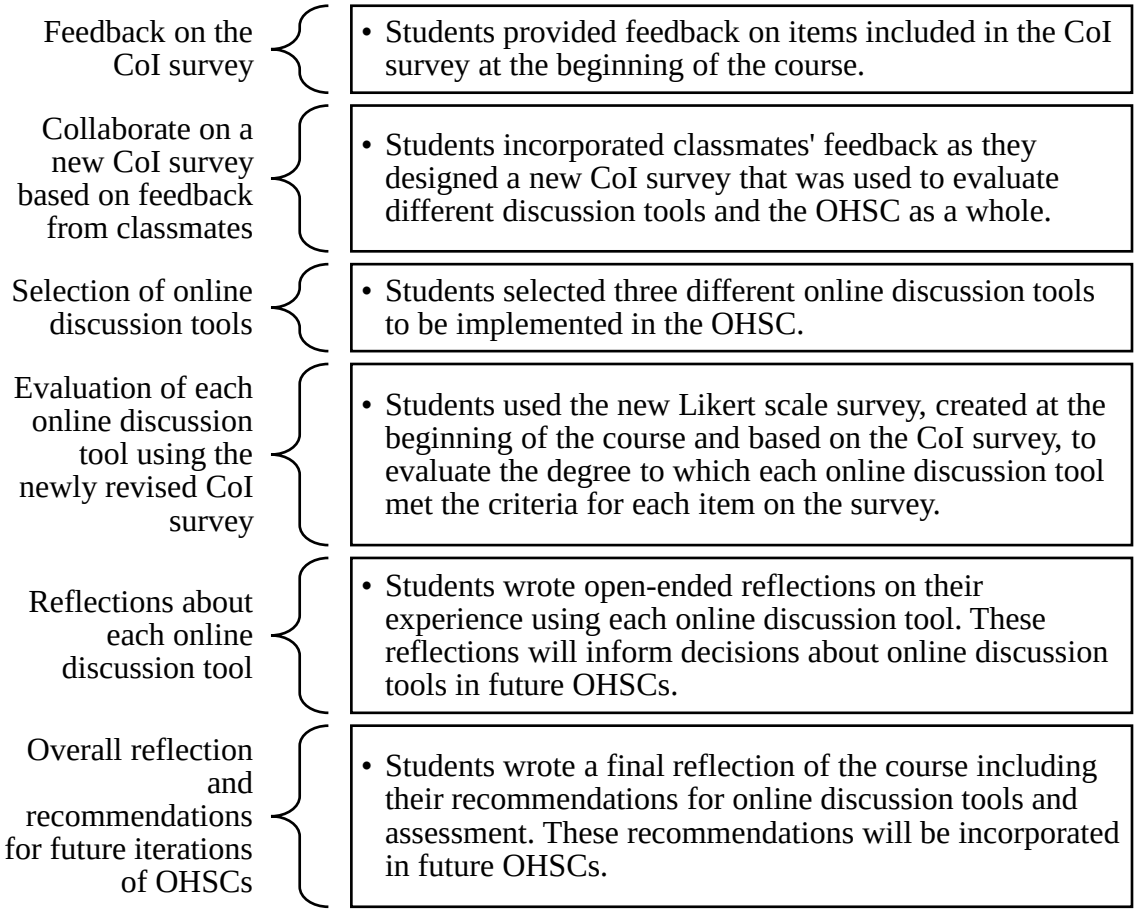
Participatory Action Research

As another guiding framework for the innovation and research methodology of this research, PAR elevated the students in the course to the role of co-designers and co-researchers (Baldwin, 2012; Greenwood, 2004; Pant, 2014). Simply stated, PAR was used to "give voice to participants and collaborate with them in shaping the research and

to build evidence from both quantitative and qualitative data" (Creswell & Creswell, 2018, p. 230). PAR has some important defining characteristics that made its use in this innovation valuable. PAR is focused on the emancipation of marginalized communities; it is a collaboration between researchers and participants; it is reflexive and recursive, leading to positive social change; and it critically investigates structures that uphold oppression and marginalization (Plano-Clark & Creswell, 2015; Creswell & Guetterman, 2019; Greenwood, 2004). PAR was an important component of this action research project. Figure 5 highlights how PAR was used in practice throughout this research.

Figure 5

PAR in Practice



Discussion Tool Selection. Following a critical digital pedagogical approach, students were actively engaged in selecting the tools used to facilitate discussions throughout the course. Options for the facilitation of online discussions, both text and video-based, were numerous. Many platforms were synchronous and others allowed for asynchronous discussions. Examples of synchronous discussion tools included Zoom and Google Meet. Examples of asynchronous discussion tools included Flipgrid, Slack, Facebook, the Canvas discussion board, and Yellowdig. Each tool offered unique features aimed at increasing overall student interaction and engagement. With a 14-week semester, three online discussion tools were selected. By narrowing down to three online discussion tools, students had enough time to become familiar with the platforms and sufficient time to make a well-informed assessment of the tool's utility in nurturing social and cognitive presence in the online discussions.

To select the discussion tools for the course, students were asked to review five total online discussion tools out of a list of seven: the Canvas discussion board, Flipgrid, Slack, Facebook, Yellowdig, Zoom, and Google Meet. They listed the benefits and drawbacks of each tool and ranked each tool based on their desire to use it for the class discussions. Using their feedback, the seven tools were narrowed down to four: Zoom, Flipgrid, Yellowdig, and the Canvas discussion board. To select the three tools to be used for the class discussions, students were asked to complete a Google form ranking each of the final four tools. Based on these rankings, Flipgrid, the Canvas discussion board, and Zoom were selected to facilitate class discussions. This iterative feedback process regarding online discussion tools granted students control over the way in which online

discussions in the class were designed and delivered. It also honored their previous experiences in online discussions and engagement.

Creating a New CoI Survey. The CoI survey developed by Arbaugh et al. (2008), is a validated and reliable instrument (Swan et al. 2008) to evaluate social, cognitive, and teaching presence in an online course. The original CoI survey included a five-point Likert scale on 34 items related to cognitive, social, and teaching presence. However, the tool was developed in 2000 and contained antiquated language and unclear terminology such as "web-based communication" and "online medium." To more accurately reflect students' expectations of an online course and include more relevant and clear terminology, students were asked to engage in a revision of the CoI survey at the beginning of the course.

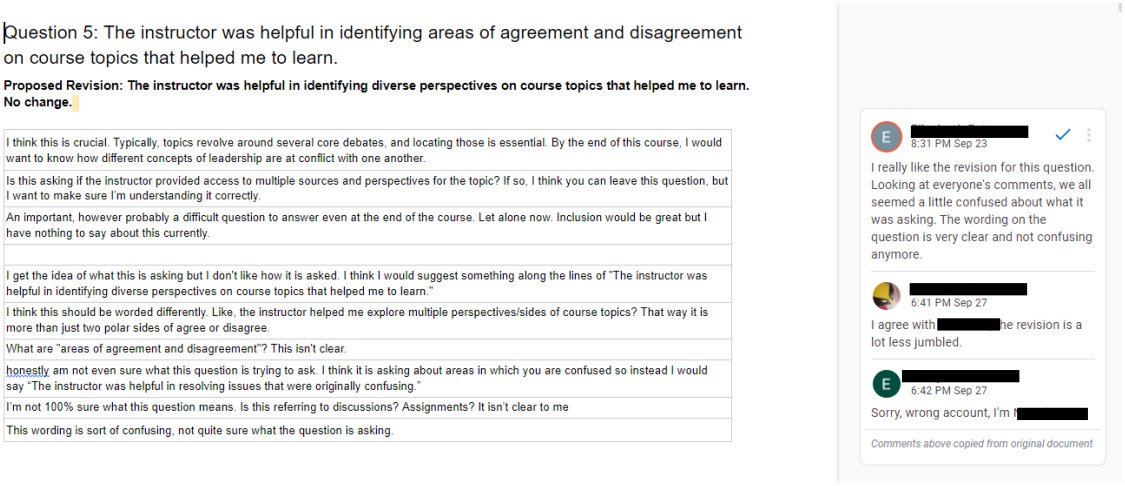
In the first round of revisions, students commented on each of the 34 items included in the original survey. Examples of student comments included, "this is a good question," "I think that maybe a 'timely fashion' should be defined in this survey, because this can differ between students," and "how is 'distinct impressions' being defined? Maybe clarify this more." After I reviewed the student responses to all items on the survey and considered their feedback, 17 items were revised, one was eliminated, and 16 remained the same. Revisions included updated language and clearer definitions.

In the second round of revisions, students commented as to whether they approved of the 17 revisions. Based on these comments, two more items were revised. The final revised CoI survey was a five-point Likert scale containing 33 items approved by students in the course and is included in Appendix E. An example of the revision process is included in Figure 6. This iterative feedback process was an important part of

including students' previous experiences in evaluating courses. The end result was a survey that more accurately reflected students' expectations of an OHSC.

Figure 6

Feedback Process for Revised CoI Likert-Scale Survey



Critical Hermeneutics

It was appropriate to introduce a third theoretical perspective in the consideration of data collection and analysis. Students wrote several reflections regarding three different online discussion tools selected for the course and completed pre/post innovation reflections about their perceptions of and experiences in online honors courses. These qualitative data provided valuable supportive evidence to measure the overall impact of engaging in a PAR research study on a student's experiences in an OHSC. Analyzing these qualitative data, while honoring the critical essence of the research, called for a critical hermeneutical perspective (Ricoeur, 1981; Thompson, 1981).

Critical hermeneutics engaged researchers in a rigorous interpretation of texts, considering the social and historical context of the text in combination with a formal interpretation of the text, and then grounding the interpretation within its contextual home (Hope & LeCoure, 2012; Kogler, 2008; Phillips, 2004). In essence, critical hermeneutics enhanced the interpretation of what students reported in their reflections by considering their identities as honors students, their experiences in honors courses, the current climate in higher education, the power dynamics in the class, and other important factors that may have influenced their responses.

Fall 2020, the semester in which this PAR study took place, was rife with uncertainty. The COVID-19 pandemic was still ravaging our world and significantly impacted higher education (Smalley, 2020). Fall sports were delayed until the spring semester (NCAA, 2020), and many universities elected to offer their courses online only (Smalley, 2020). Administrators and faculty at SUU worked to keep the face-to-face classes from being cancelled, but it is important to note that a full transition of face-to-face classes into a remote delivery method was entirely possible at any point in time. Such uncertainty surely effected the students participating in this study. Critical hermeneutics as a theoretical perspective that informed the interpretation of data collected in this research created guidance and a method for this uncertainty to be considered.

Participants

Ten undergraduate honors students at SUU who were enrolled in HONR 4010 for the fall 2020 semester were the participants in this study. The average age of the students was about 20 years old and students were enrolled in diverse majors on campus. Students

in the course were male (n = 2), female (n = 7), and other diverse genders (n = 1). The students in the course all completed at least one face-to-face honors seminar course prior to enrolling in this course. This course was not required as part of the honors program curriculum, so students self-selected into the course to earn honors credit toward honors graduation. Participation or nonparticipation in the research did not affect their grade in the course. Informed consent was obtained from all students at the beginning of the course (n = 10) and reaffirmed at the conclusion of the course (n = 10).

Data Collection and Analysis

This was a sequential mixed-methods action research study that included an intense concentration of PAR. Both qualitative and quantitative data were collected throughout the innovation. By using a critical digital pedagogical lens for the research, all data were collected using online platforms including Google Docs, Canvas, and other selected online discussion tools. Table 2 provides an overview illustrating the connection between research questions for the study, associated data collection, and data analysis methods.

Table 2

Research Question, Data Collection, and Data Analysis

Research Question	Data Collection	Data Analysis
What were student perceptions of different online discussion tools and their utility in facilitating social and cognitive presence in an online honors seminar course?	Reflections were collected throughout the course (after the implementation of each selected online discussion tool) and at the conclusion of the course (qualitative data) The newly developed CoI survey was implemented after the use of each selected online discussion tool and at the conclusion of the course (quantitative data)	CoI coding framework and critical hermeneutics Descriptive statistics using Microsoft Excel
How did engaging in a participatory action research study impact an honors student's experience in an OHSC?	Reflections using themes found in the CoI framework pre and post innovation (qualitative data) Reflections were collected after the implementation of each online discussion tool and at the conclusion of the course (qualitative data)	CoI coding framework and critical hermeneutics CoI coding framework and critical hermeneutics

Qualitative Data

Data collected for this research were primarily qualitative in nature. Qualitative data were useful in gaining an understanding of a phenomenon or exploring a case (Creswell & Creswell, 2018). In this research, one section of an OHSC was implemented and data collected throughout the course provided a deeper understanding of students' experiences in the course. There were several different sources of qualitative data for this research including: student reflections about perceptions of online courses, student feedback on the CoI survey, open ended responses to items on the newly revised CoI

survey for each online discussion tool and the course, and transcripts of course discussions.

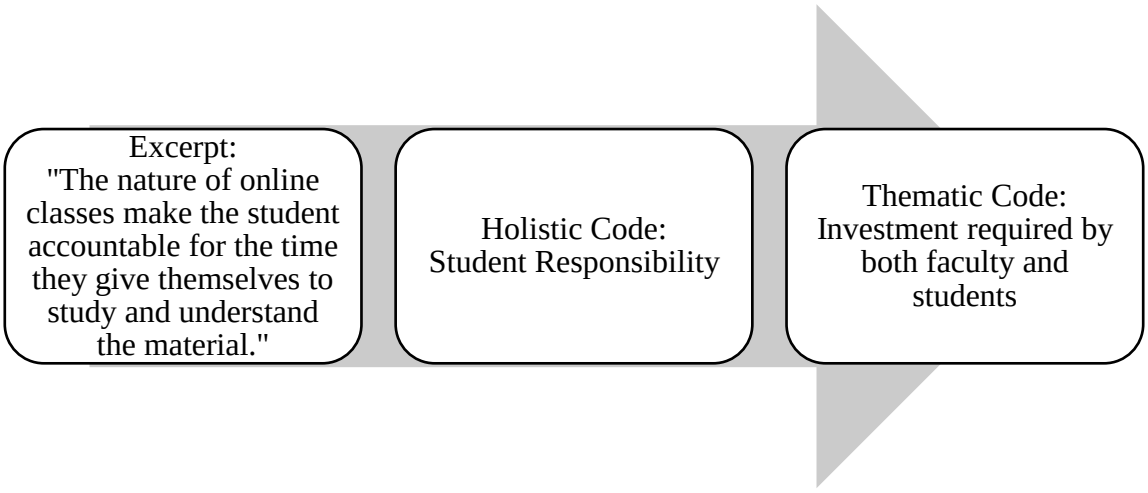
Student Perceptions Regarding Online Courses

Data Collection. At the beginning of the course, students (n = 10) provided a written reflection of their perceptions regarding online courses responding to prompts that align with the CoI theoretical framework. The prompts for reflection are provided in Appendix F. These reflections were collected anonymously through Google Docs. All responses were transferred into a single 23 page document and uploaded into Dedoose, a qualitative data coding software.

Data Analysis. The data analysis for these reflections followed a strict qualitative coding methodological approach. Holistic coding is described as a way for researchers to understand basic themes in the data by considering them as a whole (Saldaña, 2016). Holistic coding was applied to 140 excerpts. Using the excerpts and associated codes assigned through the holistic coding method, common themes were identified. An example of this process is included in Figure 7.

Figure 7

Holistic to Thematic Coding Approach



Open Ended Responses to the CoI Survey for Each Online Discussion Tool

Data Collection. Included in the newly revised CoI survey was a prompt to provide open-ended responses on each item. In addition, three questions were added to evaluate the discussion tools. These responses were optional as part of completing the survey and collected using Google Forms. The CoI survey for discussion tools is included in Appendix G. Students provided responses using this survey three times throughout the semester, one for each different online discussion tool.

Data Analysis. The data analysis was conducted after the course ended. Student responses were organized by the different discussion tools utilized in the course. A formal textual analysis was conducted by coding the reflections using holistic and thematic coding (Saldaña, 2016) previously described and illustrated in Figure 7. Open-ended responses were organized by discussion tool: Flipgrid (n = 10), Canvas discussion board (n = 9), and Zoom (n = 9). Responses were uploaded into Dedoose and common themes within the responses were identified by holistic coding.

Transcripts of Online Discussions

Data Collection. At the conclusion of the course, transcripts of both text and video-based discussions from the different online discussion tools selected by the students at the beginning of the course were collected and stored in a secure Google Drive. The transcripts for each of the three groups engaging in the third discussion in each tool were selected for analysis.

Data Analysis. The analysis of these discussions took place after the course ended. Text-based discussion transcripts were coded utilizing the CoI coding framework (Appendix B). I transcribed the video-based discussions and then coded the transcripts using the CoI theoretical coding framework. The CoI theoretical framework (Garrison et al., 2000), outlines three distinct presences that can be found in online courses: social, cognitive, and teaching presence. Each presence, as outlined by the theory, can be demonstrated through specific words, phrases, and actions found in transcripts of online discussions. Using the CoI theoretical framework as the formal structure to analyze the transcripts, I engaged in an iterative process by reading, coding, re-reading, and re-coding the transcripts from the course discussions. These codes were used to evaluate the degree to which qualitative data demonstrates the presences identified by the CoI Theoretical Framework. Teaching presence was not included in the analysis as the discussions were not moderated by an instructor.

Quantitative Data

Online Discussion Tools and Final Course Evaluation

Data Collection. Using the new version of the CoI survey co-created in the beginning of the course by students, each of the three online discussion tools were

evaluated. In addition to evaluating each discussion tool, the newly revised CoI survey was used at the conclusion of the course for students to evaluate the course as a whole. The CoI survey (Arbaugh et al., 2008), in its original form, is a 34 item, validated (Swan et al., 2008) Likert scale survey that measures student perceptions of teaching presence, social presence, and cognitive presence in an online course and is included in Appendix D. The newly revised survey (Appendix E), created at the beginning of the course, was administered to students through Google Forms and the responses were anonymous.

Data Analysis. Data was analyzed using descriptive statistics in Microsoft Excel. Descriptive statistics included the mean, median, and standard deviation for each administration of the newly designed CoI survey. Additionally, an ANOVA analysis was conducted to determine if any significant difference was found between the mean scores of each tool. These data provided valuable context to consider as qualitative data were analyzed.

Triangulation

To validate results from the data analysis described above, all data were triangulated. Triangulation, using different sources of data, allows researchers multiple views of the identified problem of practice (Gibbs, 2012). This research collected six distinct sources of data, described above, each providing a different perspective on how the honors program at SUU can successfully implement online honors courses meeting both the objectives of SUU and the quality expected of honors education set forth by the NCHC. Triangulation alone cannot provide full assurance that there is a single truth found in the data collected (Gibbs, 2012), but it can increase the overall confidence in the conclusions.

Timeline

This innovation and research took place during the Fall 2020 semester (14 weeks). This research involved a large component of PAR and as such, some adjustments to the timeline were made when students began collaborating on the research at the beginning of the semester. A timeline of data collection is included in Table 3. Data analysis was conducted at two points in time. The first analysis took place at the beginning of the course as students collaborated on a new version of the CoI survey. The second analysis was completed after the course ended.

This mixed-methods PAR study utilized critical digital pedagogy and the CoI theoretical framework in the design and implementation of the innovation. As data were collected and analyzed using these frameworks, a critical hermeneutical perspective was added to provide a more complete understanding of what students reported.

Table 3

Timeline

Timeframe	Activities
Weeks 1 & 2: September 2020	Collected student reflections measuring student perceptions of online learning based on the CoI theoretical framework (Appendix C) Engaged the students in a review, critique, and rewrite of the CoI survey (Appendix D) that more accurately reflected their values related to an OHSC Selected three different online discussion toolsthat were used throughout the course
Weeks 3-14: October through December 2020	Integrated selected online discussion tools into the course schedule/activities After the implementation of each online discussion tool, administered the newly revised CoI survey Collected transcripts from online discussion tools
Spring 2021	Qualitative data analysis using the CoI theoretical framework and critical hermeneutics Quantitative data analysis using the CoI theoretical framework and descriptive statistics

CHAPTER 4

RESULTS

Data collected through this study met two objectives. First, the data were used to provide context and inform the innovation and, second, the data provided evidence to support the answers to the research questions. Data collected to provide context and inform the innovation included student responses to the pre-course reflections and will be presented first. Two research questions guided this research. First, *what were student perceptions of different online discussion tools and their utility in facilitating social and cognitive presence in an online honors seminar course?* Second, *how did engaging in a PAR study impact an honors student's experience in an OHSC?* Qualitative and quantitative data were collected to address both research questions. Online discussion tool evaluations and transcripts of online discussions were collected and analyzed to address the first research question. Final course reflections and responses to the final course CoI survey were collected and analyzed to address the second research question.

Contextual information regarding students' previous experiences in online courses will be presented first. These data provide some insight into student's perceptions regarding online learning prior to engaging in the innovation. Using this data as a lens through which subsequent data are presented provides valuable perspective. Data related to each research question will be presented next. Each research question is addressed individually and both qualitative and quantitative data are included. Data including direct quotes from students were not edited for punctuation, spelling, or grammar to maintain the critical nature of the research.

Pre-Course Reflections

Responses to the pre-course reflections (Appendix F) provided information on students' previous experiences in online courses and their beliefs regarding the potential of online courses to create meaningful learning experiences. The data collected through the pre-course reflections provided a foundational understanding of students' perceptions using themes found in the CoI theoretical framework (Garrison et al., 2000) prior to engaging in the PAR study. It is important to note that all students had experience with online learning and shared positive and negative stories of their previous online experiences. The thematic coding analysis (Saldaña, 2016) of the pre-course reflections (n = 10) identified two common themes in the students' responses. The first theme was an awareness of the complexity of online courses. The second theme was an acknowledgement of investment required by instructors and students to make an online course successful. Maintaining the critical nature of this research, many quotes are included in these results to preserve student voice and honor the spirit of their responses.

Previous Experiences in Online Courses

Determining students' previous experiences in online courses was important to help contextualize their responses throughout the research. Due to the mandated transition to online learning during the spring 2020 semester as a result of the global pandemic, all students completing the pre-course reflections had recent experience in online courses. Additionally, several of the students completed online courses as part of their normal class schedules in previous semesters. Using these previous experiences as the basis for their responses to the pre-course reflection prompts, students provided

robust, detailed, and relevant information about their perceptions of and experiences in online courses.

Complexity of Online Courses

In their responses to the pre-course survey, students shared stories that highlighted the complexity of online courses. Some students reported having meaningful experiences in online courses while others pointed out the ways in which online courses fell short of meeting their expectations. Some students described experiences in previous online courses that were both positive and negative. In general, students communicated an understanding of the complexity associated with online courses.

A few students shared positive experiences in online courses. One student reported,

> I find that online courses often give students more of an opportunity to share about themselves in ways that don't happen in face-to-face classes, usually because of time constraints. I've been in online classes where we can share a lot about our relevant experiences in discussions in lengthy ways that let us get to know each other a little better than we probably would have been able to in a traditional classroom setting.

Another student shared,

> I think my past professors did really well in facilitating discussions in the courses. In most of my online classes, there were weekly discussions in which we were required to respond for a grade. It was also required to respond to other students so that we could share more ideas and have better conversations. Having the discussions as a requirement for our grade was more motivation to complete them and share more ideas.

This student shared a very specific example of a positive experience in an online course,

> In my online classes for my library studies minor I have felt like part of a community. Those classes were made up of a fairly small number of people (I had lots of classes with the same people over many semesters) and we all share a passion for libraries and books and learning.

It was more common for students to report negative experiences or to discuss the challenges of online courses. One such statement included,

> I have not felt valued and supported by my online professors as much as I do by my face-to-face professors and that probably goes back to the social presence. I have a full social presence in my face-to-face classes so I know that those professors know more of me whereas I don't have a full social presence online and so my online professors don't know me as well.

Another student shared,

> I think it depends on the course and the teacher. If the teacher puts in the effort to build an effective course, then yes. But I've had online courses that basically consisted of copy-pasted textbook readings and reading quizzes, and it felt like the teacher had copied the textbook and I didn't gain anything more from the class than I could have by reading a textbook about it.

This student shared a challenge related to online classes,

> When compared to face-to-face classes, I do not think that I experience as close of a connection with other students in online classes. It is more difficult to create that kind of connection when you cannot have a conversation face-to-face. However, I would still say that I have had connections with other students in my online classes as we have had online discussion boards, just not as close as a connection when it is face-to-face.

The most common response from students was an articulation of the complexity of online courses. Students communicated an understanding of the nuance inherent with online courses. One student shared,

> I think it depends on the medium and context. For example, I feel a lot better communicating through text than through video. I feel like I express my meaning and intent better through writing, instead of talking to a webcam where I'm not getting any feedback on my tone and if what I'm saying makes sense. The topic I'm speaking on matters a lot too. There are things I can express online that I never could in person, and things I can express in person that I would never put online. It's a pretty mixed bag.

Another student was more detailed in their response, stating,

> I think that it is possible to facilitate interactions and create an identity through online courses, but I feel it's a bit limited by both time and purpose. There are a lot of communities online that have a strong sense of connection and identity, but a lot of those communities have had years to build up relationships and experiences between members. Online courses don't have the luxury of longer times to build connections before they need to move on to course material. Likewise, many 'successful' communities online are very casual, where individuals don't need to worry about their input meeting certain criteria. Online courses, on the other hand, always have specific goals behind conversation which will alter the content and tone of messages sent through the course.

And, summing things up nicely, this student shared,

> This is a massive "depends" answer. This just really has everything to do with the instructor, and the course set-up. I have enjoyed online classes that involved creative approaches to work, using videos, discussions, clever formatting, and curated reading; to classes that had you purchase an e-textbook (or normal textbook for that matter) and take quizzes and write papers on it weekly. Such an approach feels elementary, not challenging, and cheap.

These results show, based on previous experiences in online courses, students have both positive and negative impressions of online courses. Students demonstrated through their responses an understanding that online courses are not simply good or bad; they are complicated. Students also communicated their belief that online courses have the potential to be meaningful learning experiences.

Acknowledgment of the Investment Required by Students and Instructors

The second dominant theme found in the coding analysis of the pre-course reflections indicated that students acknowledge the investment required by both faculty and students to make an online course successful. Students made statements such as,

> Although I feel like the professors tried their best to guide the learning in the course, I would say that online courses require one to be more responsible for their own learning. While the professors could provide all the learning materials online, it is up to the student to utilize those materials. It is different than face-to-face in that there is not a professor in the same room leading the class and providing reminders to stay on track.

Another student shared,

> In my experience, my professors did really well trying to engage with the learners and guide their learning the best they could. They prepared assignments that were aimed at getting the class engaged with one another, and there was always a set schedule with deadlines set so that everything was turned in on time. The professors would also usually send reminders through email when there was a due date coming up.

This student clearly articulated their understanding,

> I believe online courses have the potential to create cognitive presence, however I feel like it depends on the professor and student. If the professor is dedicated to providing the materials and instruction that are required for higher-order knowledge acquisition and the application of concepts, they have given the students the opportunity to create cognitive presence. I think it is then up to the students to utilize the material the professor has provided to make sure they acquire and apply the concepts as they would in a face-to-face class.

The coding of the direct quotes included in the pre-course reflections showed that many students articulated the importance of both their investment in the class and investment on the part of their instructors.

Research Question One

An important element of the innovation was the involvement of students in the selection and evaluation of different online discussion tools. To address the question regarding *student perceptions of different online discussion tools and their utility in facilitating social and cognitive presence in an OHSC*, both qualitative and quantitative data were collected. Qualitative data included open ended responses to the CoI survey about each discussion tool and transcripts collected from one discussion using each tool. Quantitative data included CoI Likert scale survey responses to each discussion tool.

Online Discussion Tool Evaluations

Using the nine items related to discussions included in the newly revised CoI survey created by students at the beginning of the course (Appendix G), each discussion tool was evaluated after the students engaged in at least three discussions using that tool. The survey collected quantitative data in the form of a five-point Likert scale and qualitative data in the form of open-ended responses to each survey item. This mixed methods approach provided insight into how students in the course perceived each tool's utility in facilitating social and cognitive presence in the discussions.

Quantitative Data. Looking at the statistical analysis including the mean, median, mode, and standard deviation for each item included on the CoI survey (Table 4), it appears that the video-based discussion platforms, Flipgrid and Zoom, were consistently ranked higher by students than the text-based discussion platform, Canvas. The only exceptions were items that measured comfort in various ways. Conducting an ANOVA analysis of the mean scores of each discussion tool, there was not a statistically significant difference ($p > .05$) between the means of each discussion tool.

Table 4

CoI Survey Student Responses

Item		Flipgrid *n* = 10	Canvas *n* = 9	Zoom *n = 9*
1. In the group discussions, getting to know other course participants gave me a sense of belonging in the course.	*M*	4.40	3.30	4.56
	SD	0.52	1.32	0.53
2. In the group discussions, I was able to get a better understanding of course participants' personalities, beliefs, or perceptions.	*M*	4.60	3.67	4.44
	SD	0.52	1.00	0.73
3. Online communication using this discussion tool is an excellent medium for social interaction among participants in this course.	*M*	4.00	3.22	4.33
	SD	0.67	1.30	1.12
4. I felt comfortable conversing through this discussion tool.	*M*	3.80	4.30	4.22
	SD	0.92	1.00	0.97
5. I felt comfortable participating in the course discussions using this discussion tool.	*M*	4.30	4.56	4.33
	SD	0.67	0.53	0.71
6. I felt comfortable interacting with other course participants using this discussion tool.	*M*	4.10	4.56	4.56
	SD	0.88	0.53	0.88
7. I felt comfortable disagreeing with other course participants while maintaining a sense of trust and respect in the group discussions.	*M*	4.00	4.22	4.33
	SD	1.05	0.44	0.71
8. I felt that my point of view was acknowledged by other course participants in the group discussions.	*M*	4.80	4.33	4.56
	SD	0.42	0.87	0.53
9. Online discussions in this tool help me to develop a sense of collaboration with my classmates.	*M*	4.00	3.56	4.11
	SD	0.94	1.51	1.05
All Items	*M*	4.22	3.98	4.38
	SD	0.79	1.08	0.81

Qualitative Data. Responses to the open-ended prompts included in the CoI survey provided information regarding students' perceptions of each tool's utility in

facilitating social and cognitive presence during the discussions. A qualitative coding analysis (Saldaña, 2016) identified themes in the responses. In general, students commented on the comfort they felt while using each tool, the ease of use for each tool, included feedback on limitations associated with each tool, and discussed the sense of connection they experienced while using each tool. These four primary themes are discussed below. Quotes are included that embody the essence of each theme.

Students commented on the different features of each tool and how they affected their comfort levels. For Flipgrid, students spoke of the value of seeing each other in the video posts. For Canvas, students spoke of their familiarity of the tool which created a sense of comfort for them. And, for Zoom, students commented on the value of in person synchronous discussions in creating comfort. In Table 5, quotes about the sense of comfort students felt while using each discussion tool are presented.

Table 5

Direct Quote Examples Regarding Comfort

Discussion Tool	Quotes
Flipgrid	"I felt like Flipgrid is able to create a friendly presence between everyone, so I felt comfortable interacting with the people themselves." "I really liked that we could see each other's expressions and it made it easier to interact."
Canvas	"I feel this was a great way to have a more academic discussion and I felt comfortable with the students in my group." "It's just typing, which is obviously comfortable and inclusive. Didn't feel the need to do my hair or anything like I did with Flipgrid"
Zoom	"I felt more comfortable than previous methods, the environment felt more casual, which helped me feel more comfortable contributing to the discussion." "While it was a little awkward at first, when we got to know each other's tendencies, it made it more comfortable I think."

Another common theme found in the coding of student responses was the ease of use of each online discussion tool. Students found features of each tool that were easy to use. For Flipgrid, they spoke of the convenience of posting their videos when it was opportune for them. For Canvas, again, their familiarity with the program and its flexibility made it easy for students to use. For Zoom, because students were familiar with the platform, they experienced few challenges in online discussions. Direct quotes related to the ease of use experienced in each discussion tool are presented in Table 6.

Table 6

Direct Quote Examples Regarding Ease of Use

Discussion Tool	Quotes
Flipgrid	"It felt easy, I enjoyed it." "Flipgrid worked really well for me. It fit in my schedule and was simple to use."
Canvas	"I personally liked just having their words to worry about when it came to interaction, it made everything a lot simpler for me when it came to interactions." "It is nice because it works asynchronously. It is hard to line up schedules enough to spend time discussing things "in person" / at the same time. It also familiar and easy to use, and it feels secure because it is in a closed discussion that the public wouldn't be able to access it."
Zoom	"Simple program, easy to use." "It was nice to schedule one meeting, have the discussion, and be done for the week."

In evaluating each online discussion tool, students frequently spoke of each tool's unique limitations. For Flipgrid, students commented on the awkwardness of commenting on other students' posts. They found the discussions to be disjointed and difficult to navigate. For Canvas, their primary frustrations were related to the amount of reading and writing necessary to have a productive discussion. For Zoom, the key limitation was finding a time that worked for all group members to engage in the synchronous discussion. Comments about the limitations of each discussion tool are included in Table 7.

Table 7

Direct Quote Examples Regarding Limitations

Discussion Tool	Quotes
Flipgrid	"Flipgrid did get a bit annoying with the comments, because the first comment moves all the way to the bottom so you have to scroll down, and stop the other comments from playing to find the first one." "The response video format can seem disconnected from the general discussion, which can keep it from building and flowing naturally. In order to remember what a group member said about a specific point, they may have to skip around the video a bit in order to find it."
Canvas	"It is hard to read that much text and not get discouraged about it. It just feels like we are writing a lot and spending more time when we could have been talking out loud and responding with more substantive comments. Additionally, it is hard to feel engaged with the content because there isn't a person there, it just feels like we are reading something anyone could write. It is formal and not very personal." "It's difficult if you're trying to build just one conversation on the topic, since initial posts can end up creating different conversation bubbles that vary in tone and direction."
Zoom	"Scheduling a time when everyone could join Zoom was a bit of a hassle, and we had a couple times where people weren't able to join and rescheduled." "It was really challenging to find a time that worked for everyone. We often had to try multiple times to get everyone because something else came up for one person during the time we had determined."

When commenting on the sense of connection experienced while using each online discussion tool, students expressed similar reactions to Flipgrid and Canvas. Using those platforms created a sense of disconnect for most students. Using Zoom for their discussions was the preferred method when considering the sense of connection that a discussion can create in a group. The students spoke most positively about Zoom. More

negative comments were found in the responses related to Canvas. Examples of quotes about the sense of connection students felt while using each discussion tool are included in Table 8.

Table 8

Direct Quote Examples of Sense of Connection

Discussion Tool	Quotes
Flipgrid	"It was hard for me to string videos and their responses together as one conversation, mostly because each video starts with a greeting and kind of closes itself. Because of this, I really felt like we were all doing separate things based off of each other, instead of building an overall discussion." "The only thing I didn't like was just talking to my computer screen without anything on the other side."
Canvas	"One drawback is that it does not really give you a sense of personally connecting with classmates because you are just reading words on a screen." "I feel like people were really open about their thoughts in their initial posts and there was a lot of focus on how their beliefs and perceptions affected their responses and input in the conversation."
Zoom	"I think that being able to have a real time conversation helped everyone talk casually and ask more personal questions before the recording and discussion started. This really helped me feel a sense of belonging." "It was so nice to have the closest thing to an in-class discussion. We were able to give each other feedback right away and see nonverbal cues (like nodding heads) that helped us feel confident in our points. It was also nice to connect on a more personal level. Before we started our discussion proper, my group would take a moment and ask how everyone was doing."

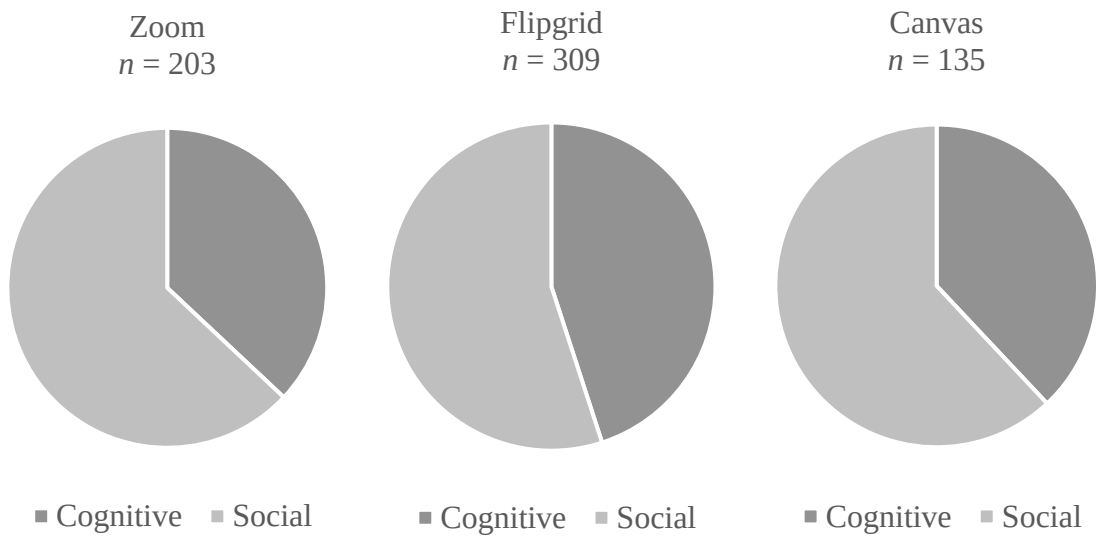
CoI Coding of Discussion Tool Transcripts

The CoI coding framework (Garrison et al., 2000) found in Appendix B was used to qualitatively code transcripts from each of the discussion tools. These data provided

information answering the second part of research question one regarding online discussion tools and their utility in facilitating social and cognitive presence in an online honors seminar course. There was a significant difference in the number of excerpts selected from each of the transcripts. The difference was due to the length of the transcripts. Canvas provided the least amount of data for analysis while Flipgrid provided the most. When students used Canvas, they were writing and editing their responses prior to posting to the discussion board and were more succinct in their responses. When using the video-based tools like Flipgrid and Zoom, there was more informal conversation as well as a significant amount of repetition in what students said, thus creating more data to analyze in the transcripts. From the Flipgrid transcript, 309 unique excerpts were coded, from the Canvas transcript, 135 unique excerpts were coded, and 203 unique excerpts were coded from the Zoom transcript.

Figure 8

Social and Cognitive Presence Demonstrated in each Discussion Tool



The data collected through the CoI coding analysis (Garrison et al., 2000) of the discussion tool transcripts were most informative when comparing the ratio of social versus cognitive presence found in each tool (see Figure 8). While each tool was successful in facilitating both social and cognitive presence, the Flipgrid transcript demonstrated the most balance between the two presences. The video-based discussion tools had a larger percentage of items related to social presence.

Further insight can be gained by exploring the ways in which social and cognitive presence were demonstrated in the transcript of each tool (Table 9). The nature of how each presence was demonstrated differed only slightly between the tools. Self-disclosure was the primary way students demonstrated social presence in all three tools. Considering cognitive presence, connecting ideas was most prevalent in the Canvas and Zoom transcripts. Exchanging information was the major indicator of cognitive presence in Flipgrid.

Table 9

Examples of Social and Cognitive Presence in Discussion Transcripts

CoI Presence and Discussion Tool	Example Quote
Social Presence Flipgrid	"Hey, I just wanted to start off by saying that I really like the connection you made between his style of leadership and solving wicked problems." "I'm so looking forward to fall break and hope you guys are too. I don't know what I'll do but I won't go to school for one day."
Canvas	"I feel like your comment 100% encapsulates why I'm not interested in politics." "Shout out to my mom for teaching me right."
Zoom	"I like how you relate to that." "Like I said, I don't like confrontation. So, someone who's like super in my face about stuff, I think I kind of like retreat. I think I need a lot more like motivation."
Cognitive Presence Flipgrid	"I think the main takeaway I've had so far was from the readings about wicked problems a couple of weeks ago." "I think though that we could probably use authentic leadership to model him pretty well. In a sense that authentic leadership is designed kind of around the moral support and the justification of ones you know, kind of moral claims as being kind of a place of leadership and attempting to help other people kind of develop morally."
Canvas	"This reminded me about our class readings about the collectivist worldview instead of individualistic." "This demonstrates skill in solving wicked problems."
Zoom	"Emotional intelligence is this big part of being a leader, because you have to understand your emotions, other's emotions and be in control of those and not let them get out of the way." "We talked about the 15 characteristics of a bad leader article forever ago. And one of those was like a failure to communicate. And he was just like super blatant. And he was like, if you're not a good communicator, you will not be a good leader like this. You won't be able to stay in your position for very long."

Quantitative data collected to address the first research question about student perceptions regarding different online discussion tools' utility in facilitating cognitive and social presence was limited. Quantitative data analysis included a statistical analysis of Likert scale responses to items included in the CoI survey created by students at the beginning of the course. Analysis of the quantitative data produced no meaningful results. Qualitative data provided much more insight into the first research question and included a CoI coding analysis (Garrison et al., 2000) of discussion tool transcripts and thematic coding (Saldaña, 2016) of direct quotes collected from the discussion tool evaluations. The qualitative data analysis found that each online discussion tool presented unique features that facilitated both social and cognitive presence in the discussions and students shared insight regarding the limitations and opportunities found in each online discussion tool.

Research Question Two

To address the second research question regarding *how engagement in a PAR study impacted honors students' experiences in an OHSC*, both qualitative and quantitative data were collected. Quantitative data included Likert scale responses to the final course CoI survey. Qualitative data included open ended responses to the final course CoI survey and final course reflections (prompts included in Appendix H). In this section, information regarding students' overall experience in the course is provided in an analysis of the final course CoI survey results and concludes with a presentation of the qualitative data analysis including thematic coding (Saldaña, 2016) of the open-ended responses to the final course survey and thematic coding of the final course reflections.

Final Course CoI Survey Results

Student responses to the CoI Likert scale survey for the whole course provided valuable feedback about their overall experience in the course using a tool they helped create (see Appendix E) at the beginning of the semester. The CoI Likert scale survey created by students was a 33-item survey asking students to rate their level of agreement with each item including prompts to provide additional information related to that item. There was evidence of survey fatigue in the responses as more students made comments at the beginning of the survey versus at the end of the survey.

With the low number of responses (n = 9), a thorough statistical analysis is not warranted. However, basic descriptive statistics indicated areas where the course met expectations and areas that indicate the need for improvement. Comments are included to honor students' voices and maintain the critical nature of this research. The data collected through the final course survey were robust and extensive and are presented in a comprehensive table in Appendix I.

In general, students provided high ratings for each item included on the final course CoI survey. Items that rated highest among students included "the instructor provided clear instructions on how to participate in course learning activities," "the instructor encouraged course participants to explore new concepts in this course," "the instructor provided feedback within the time-frame communicated in the course," and "I utilized a variety of sources and perspectives to explore problems/questions posed in this course."

Items rated lower by students included "online communication is an excellent medium for social interaction among participants in this course" and "course activities

piqued my curiosity." The results showed that students were more likely to provide lower ratings for items related to the course or course delivery methods rather than items related to instructor or student engagement in the course. Evaluating the average ratings for all items, the results indicated students felt the course met the expectations measured by the CoI survey. In considering the impact engaging in the PAR study had on students' experiences in the course, these data provide valuable context.

Final Course Reflections

The qualitative thematic coding analysis (Saldaña, 2016) of the final course reflections (n = 9) provided results addressing how engaging in the PAR study impacted the students' experiences in the OHSC. Three themes were identified through the qualitative data analysis. First, students communicated that participating in the PAR study enhanced their experiences in the course. Second, students gained a deeper appreciation regarding the importance of the research. Third, students identified the ways in which the global pandemic affected their course experiences.

Enhanced Experiences in the Course. Within the theme of participating in the PAR study enhancing their experiences, student comments fell into several different categories. Some were general comments such as, "I think it's a good thing to incorporate in classes," "it definitely made it more interesting," "I actually think engaging in this research made my experience in the online course better," and "if we could make every honors course like this, a research of how to improve and integrate certain elements, I think it would really enhance a lot of the classes we have to take."

Other comments fell into a category of increasing their engagement in the course. Students made comments such as, "being involved with the research helped me to have a

deeper connection to the course, and see the importance of what we were doing," and "it also made me feel more involved and valued as a student and as a stakeholder." Another student commented "engaging in this research definitely helped me feel more engaged in my learning in this course. I like having an active role in what I am learning and feeling like it is applicable outside of the course."

Students spoke of feeling valued by engaging in the research. Students made comments such as, "It made me feel much more valued and heard as a student," "I recognized that my work and contribution was valuable so I worked hard to provide the best feedback so that online learning can be improved in the future." Another comment related to the value of actively participating in research. A student said, "being a part of the research in this course made me recognize the value of my feedback, and I was excited to be a part of the process."

Another category of comments addressed the increased motivation and sense of control students felt by engaging in the PAR study. Comments in this category included, "understanding that this course was important to future courses made me more willing to continue doing the work and reading for this course" and "I think that it helped me take it more seriously than I would have otherwise." Similarly, students spoke of feeling a sense of control in the course. A student stated, "I really like the idea of involving students in research as they are able to provide feedback on what they think is best for each course and create an honors program that best works for them and other students." Another student commented, "it's also nice to be involved in solving problems that directly affect yourself -- it gives people, especially students, a sense of empowerment in their education." While another said, "getting to direct what we did in the course and choosing

the ways in which we wanted to discuss made it feel like we actually had an input in directing our overall education."

Appreciation for the Importance of the Research. In the final course reflections, students expressed an appreciation for the importance of the research and their role in it. Students made comments such as, "I recognized that my work and contribution was valuable so I worked hard to provide the best feedback so that online learning can be improved in the future." Another stated,

> engaging in the research made me feel more responsible for my feedback in this course. I usually try to be intentional with feedback, but knowing that it was actually part of research made me want to dive really deep into how the discussion platforms worked for me.

And,

> I think that going through the process of finding the best discussion method helped me understand the most what needs to be considered as we go online with honors. Besides that the question we had on the previous survey had me thinking about how deciding the format of all of the assignments also impacts the integration of honors online. Participating in this research helped me see the decisions that have to go into building a new course.

Impact of the Global Pandemic. As this innovation and research took place during the peak of the COVID-19 pandemic, it was important to understand how that may have affected students' experiences in the course. The results were complicated. Students spoke of both the positive and negative ways their lives and experiences in the course were affected by restrictions initiated due to the pandemic.

The positive impact of engaging in the PAR study during the pandemic was referenced by a few students in their comments. Primarily, students commented on the increased amount of free time made possible by cancelled events and activities. One student spoke of their studies being an outlet and a place where they felt a sense of

control over an unpredictable world saying, “I felt like my learning was constantly being interrupted. But at the same time my learning was a safe haven. Just to have something steady to keep me going a checked in with life.” Another student commented, “I think my learning has actually been impacted in a positive way because of how much I have been relying on it.”

In general, more students spoke of the negative impact COVID-19 had on them. Students shared comments such as,

> My concentration and effort were spread more thin this semester than before. I had to check in on friends, and take more breaks from homework than before. I felt like I was engaged in triage: deciding which projects needed my effort and which ones I accept as incomplete or bad. I sacrificed a good deal of the course in order to use that attention towards more critical projects.

Similarly, another student commented,

> This has hands down been the hardest semester of my life. Life circumstance has forced me to make school less of a priority and my grades have definitely reflected that. I’ve always had great grades and it’s been hard for me to accept that I just won’t have that this semester. Between finances, familial loss, disappointment from programs being canceled, etc, it has just been extremely rough all around.

And, this statement made by another student, really embodies the sentiment communicated by all students, “I’m just tired. All of the time. I just want something to be consistent.”

The qualitative thematic coding of the final course reflections resulted in the identification of several important themes that inform the question of how engaging in the research impacted the students’ experiences in the course. All efforts were made to maintain the voice of the student participants to honor the critical nature of the research throughout the data analysis. A critical hermeneutical lens will be utilized as these results, in combination with other results, are discussed in the next chapter.

CHAPTER 5

DISCUSSION

This PAR study was designed to engage honors students at SUU in the evaluation of online discussion tools in a newly designed OHSC during the fall 2020 semester. Two complimentary theoretical perspectives provided a valuable framework for the design of the innovation. A third theoretical perspective, critical hermeneutics, addressed in this chapter, added meaning to the data analysis. Subsequent data collection and analysis addressed two research questions: *What were student perceptions of different online discussion tools and their utility in facilitating social and cognitive presence in an online honors seminar course?* and, *How did engaging in a PAR study impact an honors student's experience in an OHSC?* Data collected throughout the innovation provided important information to consider as future OHSCs are designed and implemented in the Honors Program at SUU. This final chapter summarizes the results of the data analysis and considers the implications related to the selected theoretical frameworks, limitations of the research, and provides recommendations for future practice and research. But, first, a critical hermeneutical analysis of the research is presented to provide a more authentic and meaningful perspective through which the results were contextualized.

Critical Hermeneutics

Critical hermeneutics, as a lens for interpreting the results of this PAR study, offered a nuanced perspective of the ways in which student responses were likely influenced by the social and historical context in which data were collected (Ricoeur, 1981; Thompson, 1981). Critical hermeneutics recognizes the power dynamics present within the interpretation of written responses by a researcher. In this study, the researcher

was also the instructor of the course and the director of the honors program in which students in the study belong. As the honors director, instructor of the OHSC, and researcher for this PAR study, my influence on students in the course and their engagement is difficult to quantify. Having previously developed a relationship with all of the students in the course likely influenced their responses. In several video transcripts and responses to survey questions, students referenced me directly. It is clear they were always aware of my investment in the innovation and research.

Another important element of this research that influenced student responses to surveys and reflections was the topic of the course: leadership. Throughout the course, students made connections between leadership concepts and their engagement in the PAR study. In essence, they were engaging in the study using leadership as their frame of reference at all times. There are many places in the reflections where students directly addressed concepts of leadership as they provided feedback on the discussion tools and on the course.

Several other factors likely influenced student engagement and responses to reflections and surveys. First, due to the small and intimate nature of the honors program, many of the students in the class were already familiar with each other having attended previous face-to-face courses or honors events together. This, undoubtedly, had an impact on their feelings of belonging in the OHSC. Second, while this OHSC was fully online, all but one student was still attending regular face-to-face classes on campus. Students in this OHSC were still interacting with other students, face-to-face on a regular basis throughout the semester. Third, students in this OHSC experienced significant life challenges outside of the class throughout the semester. One student was hospitalized for

a new diagnosis of diabetes and another dropped the class altogether due to mental health reasons. While students expressed their increased motivation and engagement in the course in their responses to the final course reflections, these out of classroom challenges likely impacted their ability to focus throughout the semester. Fourth, several of the students contracted COVID-19 during the semester and others had family members become ill with the virus. There is no doubt that COVID-19 played an important role in the way students engaged in the course and their subsequent reflections and responses to surveys related to the research.

While considering the interpretation of the results, some assumptions can be made based on the critical hermeneutical analysis. First, students were highly invested in the success of this course based on their enrollment and previous relationships with each other and me. Second, students in this PAR study were significantly impacted both before and during the semester by COVID-19. And, finally, the fact that the students in this research had an identity of being honors students, had previous relationships with each other and me, and had previous experience in both online and honors courses implies they may have felt uniquely situated to evaluate the innovation and discussion tools as experts in this field of study.

Explanation of Results

In general, students preferred using online discussion tools that supported visual interactions. Zoom, a live video-based discussion platform, received the highest ratings from students. Flipgrid, an asynchronous video-based discussion platform, was a very close second. Students appreciated the ability to see body language. Many of them spoke directly about body language helping them feel connected and increasing their ability to

understand what other students were communicating. Students also favorably rated Canvas, the text-based discussion platform. They valued the ability to take time to draft and edit their responses to each other. Additionally, they appreciated the flexibility of being able to post to the discussion board at their convenience. Canvas received more negative comments than the video-based platforms. Students felt the discussions lacked the personal feel they experienced while using the video-based tools. Students were also critical of the amount of reading required when using the text-based discussion tool. Anderson and Dron (2011) found that educators and students must be skilled and informed in order to select the best technological tools and pedagogy based on the desired outcomes of the course. By engaging in this PAR study, students developed skills by using each discussion tool and an awareness of how each tool can result in different outcomes. Based on Anderson and Dron's (2011) research, it can be concluded that the feedback provided by students in this PAR study should be considered as future OHSCs are designed.

However, student comments about each platform alluded to their belief that a successful discussion was determined more by the students in the discussion than the platform itself. This result is enhanced when considering the assumptions defined by the critical hermeneutical analysis. Students previously established relationships with each other and were collectively experiencing challenges related to COVID-19. It can be argued that they credited each other for the success of the discussions based on an enhanced sense of belonging created by these factors. Brown (2011) maintained that a sense of camaraderie in an online class takes time to develop. In this OHSC, students were already in the process of developing relationships with each other through other

honors program activities. These previous experiences increased the speed at which their sense of camaraderie developed in the online class. Diep et al. (2017) found a sense of belonging to be a significant predictor of student perceptions of quality in their online interactions. They recommended courses be intentionally designed to foster connections among the students. The evidence of social presence in each discussion transcript combined with the positive ways students spoke of their classmates was likely a result of the intentional ways this class was designed to foster connections among the students. At the beginning of the course, students spent a full week getting to know each other through different activities. Discussion groups were small and changed throughout the semester to create a stronger sense of belonging in the course. At the conclusion of the course, students provided high ratings on the CoI survey for the course- communicating their satisfaction with the quality of the course.

The results of the CoI coding of the transcripts from each discussion tool found there was no significant difference between any of the tools' ability to nurture social or cognitive presence. The tools departed from their similarities in how burdensome evaluating the discussions proved to be. The video-based discussions required transcription and resulted in longer transcripts than the text-based discussions. Zoom appeared to be the discussion tool most effective in creating connections among the students, in nurturing social and cognitive presence, and in how quickly students learned to use the platform. Although there were challenges in finding a convenient time to conduct the Zoom discussions, it seemed the benefits of the tool outweighed the challenges. Utilizing Zoom as a discussion tool for online classes made the transition to remote learning during the COVID-19 pandemic possible. Prior to that event, its

utilization and related research was limited. In a survey of university students, Serhan (2020) concluded that students' perceptions of Zoom as a replacement for face-to-face learning were primarily negative but students did appreciate the flexibility provided by Zoom. This finding conflicted with comments made by students in this PAR study where students specifically listed lack of flexibility as a drawback of Zoom. Additionally, Alfadda and Mahdi (2021) found a positive correlation between students' previous use of Zoom and their likelihood to accept it as a platform for learning. This finding provided insight as to why students in this PAR study found the platform to be their top-rated tool for online discussions. The students in this study all navigated the mandated transition to online learning during the spring 2020 semester- a transition made possible by the utilization of Zoom.

Based on the results of this research, it can be argued that students were satisfied with their experiences and performed well in the OHSC and in the PAR study. Researchers have argued that honors students demonstrate lower levels of academic performance when they experience a loss of control over their environments (Albert & Dahling, 2016; Plominski & Burns, 2018). In this OHSC, students had control over several elements of the course. Students spoke favorably about selecting the discussion tools, utilizing the different discussion tools to engage with each other, and the ability to influence other elements of the course. This finding is also congruent with previous research about honors students' performance being positively impacted by transparent course design (Meadows, 2018). Student responses to the final course reflection highlighted their appreciation for the experience. Several students recommended the inclusion of PAR in future honors courses. Students generally responded very positively

to the prompts and ratings. Considering the assumptions created through the critical hermeneutical analysis, student satisfaction in the course is more significant when students in the course are viewed as experts in this area and their voices are included in course design (Brooman, et al., 2015).

Findings Related to Theory

Community of Inquiry

Previous studies have included students in the evaluation of items contained in the survey (Stenbom, 2018). In these studies, the CoI survey was altered to change the terminology and add or remove items. Some studies simply used the CoI survey as a basis for creating a new survey with similar items included. Diaz et al. (2009) engaged students in a revision of the entire instrument when they validated the constructs found in the survey. After asking students to gauge the importance of each item contained in the survey, the students used the survey to evaluate their courses. The experience of co-creating an assessment tool for this OHSC, provided students an opportunity to have control over the elements of the course they perceived to be most important. By engaging in the revision of the CoI survey, students increased their understanding of what the instrument was measuring. Previous research (Diaz et al., 2009; Stenbom, 2018) confirmed this practice as an acceptable use of the CoI theoretical framework and survey.

The CoI coding of discussion transcripts found evidence of social presence in all discussions. According to Garrison (2017), social presence is an essential element of a community of inquiry. A sense of community develops when social presence is found in class discussions. Cho and Tobias (2016) found social presence to be a strong indicator of student satisfaction in an online course. This PAR study, utilizing the CoI theoretical

framework resulted in similar findings related to social presence. Students in the course felt connected to each other and communicated a sense of satisfaction in the course in their final course reflections. Similarly, evidence of cognitive presence was found in all discussion transcripts. Cognitive presence is the strongest indicator of higher order knowledge acquisition and critical thinking (Garrison, 2017). This is an important finding of this research as one of the most often cited reasons for not including online courses in an honors program is the perception that online courses cannot effectively impart knowledge to students or engage them in activities that develop critical thinking skills (Scott & Bowman, 2009). Knowledge building and critical thinking are two essential elements of an honors education (Edman, 2002; Taylor, 2002).

Using the revised CoI survey, students provided favorable ratings when they assessed the class as a whole. Items in the revised survey included measurements of social and cognitive presence. The discussion transcripts included evidence of both social and cognitive presence in each online discussion tool. Considering these two findings together, it can be argued that online discussions in the OHSC were successful in facilitating social and cognitive presence, regardless of the online discussion tool. This finding is interesting when considering similar research conducted by Rubin et al. (2012). In their study, student responses to the CoI survey varied greatly based on the perceived affordances of different online technology used to facilitate learning. Based on previous research that found a correlation between satisfaction in an online course and positive responses to items contained in the CoI survey, it can also be argued that students in the OHSC were satisfied with the experience based on responses to a survey instrument they co-created at the beginning of the semester (Arbaugh et al., 2008; Rubin et al., 2012).

Critical Digital Pedagogy

In relation to critical digital pedagogy, a profound finding of this PAR study was the impact that engaging in the PAR study had on students' concern about the outcome of the research and the way this influenced their engagement and motivation in the course. In their final course reflections, students shared comments regarding their hopes that the research would result in positive and meaningful changes to future online courses in the honors program. These concerns about the outcome of the research likely increased their motivation and thus their engagement throughout the semester. PAR, guided by critical digital pedagogy, ensured an increase in faculty/student interactions. Komarraju et al. (2010) found a positive correlation between student and faculty interaction and increased motivation among university students. In this OHSC, students and I worked together to create a course over which they had significant control. Considering the critical hermeneutical lens contextualizing these results and the complicated power dynamic present between the students in the OHSC and me, this finding disrupts the notion that an imbalance of power always results in negative outcomes.

Critical digital pedagogy was especially valuable as a means to engage students during a worldwide pandemic in which they felt varying degrees of helplessness. At their core, critical theories seek to empower learners as conceptualized by Freire (1974). In their final course reflections, students expressed appreciation for the experience of working alongside each other and with me as solutions for future OHSCs were explored. Echoing Mehta and Aguilera (2020), this research was supportive of the argument that collaborations between students and instructors are effective in humanizing education. This finding should not be underestimated in the value it adds to the growing consensus

that empowering students in their own education results in positive learning outcomes (Freire, 1974; Heaney, 2000; Macrine, 2009; McLaren, 2000; Stommel, 2014). Additionally, the findings of this research support conclusions made by Brooman et al. (2015) that students are willing to invest time in the design of curriculum for the future benefit of others. These results demonstrate the worth of including student voices, specifically through the utilization of PAR (Udas, 1998) in the discourse surrounding honors curriculum in an online setting.

Looking specifically at the way technology leveraged the overall experience of this study, it is clear that the digital tools selected for the course had a positive impact on the students. At the beginning of the course, students provided their perceptions of online courses using Google docs. Students also utilized Google docs to select the three discussion tools for the course, to provide feedback on each discussion tool, and to provide their final course reflections. Each discussion tool had digital features that nurtured social and cognitive presence in the course. Flipgrid allowed students to think about their posts and responses along with the ability to see each other's faces and body language. Canvas allowed students time to draft their posts and edit their responses to each other. Zoom provided students with the opportunity to engage in discussions "live." It is important to recall that students selected each of these tools through an iterative process at the beginning of the course. Their investment in and critical evaluation of each tool translated into valuable data for this research.

The semester in which this research took place was the first time many of these students had been back in face-to-face classes after the mandated transition to remote learning during the spring 2020 semester. While a transition back to remote instruction

was always possible, students were able to remain face-to-face for the full fall 2020 semester. Through this PAR study, with the inclusion of critical digital pedagogy, students were afforded a great deal of influence over design and assessment of the course using online communication tools to the greatest extent possible. Perhaps this was an important way for students to evaluate their previous online experiences in an attempt to improve future ones.

Limitations

There are some limitations of this PAR study. First, as previously mentioned, the sample size of participants was small, impacting the significance of the quantitative data analysis. At the beginning of the semester, ten students enrolled in the course and one student withdrew at the end of the semester. According to Field (2018), it is much more difficult to identify significant differences between samples when the sample size is small. With a sample size of nine, any differences identified between scores on the CoI survey responses were non-significant. While the qualitative data collected throughout the study provided valuable insight, quantitative data were limited in their findings.

Second, due to the nature of my relationship with the students in the OHSC, response bias was likely present. Response bias considers the possibility of responses not accurately reflecting the actual views of the respondents (Creswell & Guetterman, 2019). The students in the OHSC were aware of the motivations behind this research and due to their connections to me, their responses to reflections and surveys might have been more positive than if the researcher had been unknown to them. This limitation effects the generalizability of the research but not the transferability (Mertler, 2017).

Third, while every effort was made to consider the impact of COVID-19 on the students' responses to the CoI survey and reflections in the course, it is possible the impact was underestimated. Open-ended responses were included in the CoI survey and both the pre-course and final-course reflections. In each of these open-ended opportunities for students to share their perceptions regarding specific items, there was a possibility that students did not respond honestly or accurately. It is possible that their responses were highly influenced by the impacts related to COVID-19. Nelson (2008) encouraged researchers utilizing perception questions to scrutinize responses carefully. If this research had taken place without a global pandemic raging on, the results may have been significantly different.

Fourth, the CoI theoretical coding framework was designed with text-based online discussions in mind. The CoI theoretical coding framework has not yet been updated to address video-based discussion tools. Garrison (2017) emphasized the impact that video-based synchronous discussions have on social presence. The immediacy of responses and ability to read facial expressions significantly enhances students' perceptions of social presence. This is an area where researchers are working to identify different methods of assessment for blended or synchronous online learning environments (Garrison, 2017).

Sixth, this research included honors students only. As previously discussed, honors students embody unique characteristics that make their involvement in this research unique. Some of these characteristics include above average motivation for academic pursuits, a desire to go above and beyond what is expected of them, and a strong identity of being a learner (Mariz, 2008). Similar research conducted with a different type of student would likely result in significantly different findings. Related to

this is the transferability of the findings from this research. Only certain findings would have applicability in a different setting. Specifically, the finding of PAR being an effective methodology for increasing motivation and engagement for students may not be true in a larger class, with a different population, or in a setting where the instructor has not established a prior relationship with the students. The finding that the CoI is an effective assessment tool of online discussions and courses, is, however, likely to be applicable in many different settings. Each of these limitations are important and should be considered as future research and practice are informed by the results of this PAR study.

Recommendations

Future Practice for Honors Programs

Critical pedagogy resists the practice of prescribing pedagogy across different contexts and communities (Kincheloe, 2007). However, some findings of this research can be informative as future explorations surrounding honors and online education are designed. Despite the apparent resistance within the honors community to online courses, this research suggests that OHSCs can be effective in nurturing social and cognitive presence. The CoI coding analysis of discussion transcripts in this OHSC found evidence of both social and cognitive presence- two factors critical for achieving high-quality educational outcomes in an online setting. Asynchronous OHSCs should be designed intentionally to facilitate both cognitive and social presence (Diep et al., 2017). Interactions between students and the instructor should be frequent thus increasing student motivation in the course (Komarraju et al., 2010). Discussions should be regular and among smaller groups of students in the course (Kurucay & Inan, 2017). Students

should be involved with the creation of specific elements of the course (Brooman et al., 2015). In this OHSC, students were given control over online discussion platforms to be used in the course. In other OHSCs, students would likely select different discussion tools. Elements of student control should be ongoing and unique to the individual course (Kincheloe, 2007). Student feedback should be collected from the students throughout the semester and considered as the course continues. Historically, honors courses are small and this practice should be continued as honors courses are designed to be implemented in an online environment. The definition of curriculum included in the modes of learning provided by the NCHC (2013), states that honors courses should include seminars for greater depth, include alternate modes of inquiry that are integrative in nature, and emphasize the process of learning. Based on this definition, the results of this research provide evidence that OHSCs are an appropriate addition to an honors curriculum.

It is interesting to consider the way in which online learning can expand collaborative possibilities in a course. While it could be argued that face-to-face learning has no barriers, utilizing online tools can significantly expand options for collaboration outside of the physical classroom. When courses are offered online and asynchronously, time and place constraints are not as significant of barriers to collaboration. Students can connect and collaborate using digital tools that offer significant flexibility and ease of use (Scott & Bowman, 2009). As conversations within the honors community continue to debate the merit of online courses, this element of flexible collaboration must be considered.

Previous research has argued for the connection between a sense of community or belonging and retention/satisfaction in a college setting or an honors program (Plominski

& Burns, 2018; Knekta & McCartney, 2021). This research provides additional evidence in support of that argument. As future OHSCs are intentionally designed, this feeling of belonging and community can continue to grow, thus increasing overall retention and completion rates for the honors program at SUU. This PAR study provides evidence that offering flexibility in the modes of instruction within an honors program does not come at the expense of quality or a sense of belonging.

Future Research for Honors Programs

Evidence of both social and cognitive presence was found in the transcripts of each discussion and in the utilization of each discussion tool. While these data were important to address the research questions related to this study, more research is needed to determine the level at which each presence should be demonstrated in a quality discussion (Garrison, 2017). If future OHSCs are offered in the Honors Program at SUU, transcripts should be collected and coded using the CoI coding framework. Over a period of time, benchmarks can be developed to measure the quality of these discussions. Additionally, these data can be informative as other honors programs consider the inclusion of OHSCs in their class options.

The CoI theoretical framework was created and validated using online text-based discussion transcripts. In this research, it was applied to one text-based discussion tool and two video-based discussion tools. Future research should validate the constructs within the CoI survey using synchronous and asynchronous video-based discussion tools (Garrison, 2017). As technology continues to evolve, the CoI theoretical framework and assessment tools should be updated accordingly.

The results of this research add to the growing field of critical digital pedagogy but more research is still needed. This is especially true with the exponential increase in the number of online courses offered by colleges and universities in the United States (Bastrikin, 2020). Friend (2021) reminded educators that by empowering students to see themselves as contributing participants in the process of their own learning, they are continuing to enact the ideals set forth by Freire (1974). Honors students embody special qualities that make their involvement in this ongoing research valuable (Mariz, 2008; Meadows, 2019; Albert & Dahling, 2016; Plominski & Burns, 2018). The honors community should continue to explore questions regarding online course development, online course pedagogy, digital tools, online course assessment, and the impact of providing asynchronous online honors courses on student satisfaction, retention, and program completion.

Conclusion

Higher education operates in a space filled with diverse options for the ways in which learning experiences are created for students. After the mandated transition to online learning in the spring semester of 2020, the exploration of these options became a priority for many educators. In this PAR study, guided by the CoI theoretical framework (Garrison et al., 2000) and driven by critical digital pedagogy (Stommel, 2014), students were granted control over several important elements of an OHSC. The OHSC was designed to test the ability of online discussions to nurture both social and cognitive presence using different online discussion tools. The results of this research suggest that OHSCs can and do fulfill the strategies of the institution, meet the objectives of the honors program, and embody the essence of an ideal honors education.

Looking specifically at the research questions identified in this study, students provided positive responses about each online discussion tool and the coding analysis of each transcript found evidence of social and cognitive presence in the discussions. The CoI theoretical framework (Garrison et al., 2000) is a valuable method for designing, implementing, and assessing online discussions. Perhaps the most important finding of this research, however, is in consideration of the second research question and critical digital pedagogy (Stommel, 2014). Students engaged in this PAR study spoke favorably of their experiences and provided evidence that by actively engaging in the process of their education and being granted control over certain elements of the course, they experienced high levels of satisfaction and motivation. These are positive outcomes for the students.

The cognitive dissonance evident in the conflicting messages within the honors community regarding their high regard for innovation (Schuman, 2011; NCHC Board of Directors, 2013) along with their apparent resistance to adapting honors education to be implemented in an online space (Johnson, 2013) is having a negative impact on the students in honors programs and colleges across the United States. This research provides important evidence that the objectives of an honors education can be met, asynchronously, in an online environment. Including OHSCs in the honors curriculum will provide much needed flexibility for high-achieving students, allowing them to complete their academic goals without reducing the quality of their honors education. This research also confirms the value of authentically engaging honors students in the design, implementation, and assessment of honors courses. Finding and taking advantage of opportunities to elevate student voices in conversations regarding course design,

delivery, and assessment translates to better outcomes, overall, for students in honors programs and colleges.

REFERENCES

Akyol, Z., & Garrison, D. R. (2010). Understanding cognitive presence in an online and blended community of inquiry: Assessing outcomes and processes for deep approaches to learning. *British Journal of Educational Technology, 42*(2), 233–250. https://doi.org/10.1111/j.1467-8535.2009.01029.x

Albert, M. & Dahling, J. (2016). Learning goal orientation and locus of control interact to predict academic self-concept and academic performance in college students. *Personality and Identity Differences, 97*, 245-248. http://dx.doi.org/10.1016/j.paid.2016.03.074

Alfadda, H.A., Mahdi, H.S. (2021). Measuring students' use of zoom application in language course based on the technology acceptance model (TAM). *Journal of Psycholinguist Research*, 50, 883–900. https://doi.org/10.1007/s10936-020-09752-1

Anderson, T., & Dron, J. (2011). Three generations of distance education pedagogy. *International Review of Research in Open and Distance Learning*, *12*(3).

Arbaugh, J. B., Cleveland-Innes, M., Diaz, S. R., Garrison, D. R., Ice, P., Richardson, J. C., & Swan, K. P. (2008). Developing a community of inquiry instrument: Testing a measure of the Community of Inquiry framework using a multi-institutional sample. *Internet and Higher Education, 11,* 133-136. https://doi.org/10.1016/j.iheduc.2008.06.003

Baldwin, M. (2012). Participatory Action Research. In *SAGE Handbook of Social Work* (pp. 467–481). SAGE Publications.

Bastrikin, A. (2020, April 12). Online education statistics. EducationData.Org. https://educationdata.org/online-education-statistics/

Bishop, D. (2019, October 23). Southern Utah University online degrees named among most affordable in the nation. University News. https://www.suu.edu/news/2019/10/online-degrees-ranking.html

Bohman, J. (2019). Critical Theory. In E. Zalta (Ed.), *The Stanford Encyclopedia of Philosophy*. Metaphysics Research Lab, Stanford University. https://plato.stanford.edu/archives/win2019/entries/critical-theory/

Bondy, E., Hambacher, E., Murphy, A. S., Wolkenhauer, R., & Krell, D. (2015). Equity & excellence in education developing critical social justice literacy in an online seminar. *Equity & Excellence in Education*, *48*(2), 227–248. https://doi.org/10.1080/10665684.2015.1025652

Bottoms, B. & McCloud, S. (2019). Proving the value of honors education: The right data and the right messaging. In A. Cognard-Black, J. Herron, & P. Smith (Eds.), *The demonstrable value of honors education: New research evidence (pp. 41-58).* NCHC Monograph Series.

Brooman, S., Darwent, S., & Pimor, A. (2015). The student voice in higher education curriculum design: Is there value in listening? *Innovations in Education and Teaching International, 52*(6), 663–674. https://doi.org/10.1080/14703297.2014.910128

Brown, R.E. (2001). The process of community building in a distance learning class. *Internet and Higher Education, 5*(2), 18-35

Budd, J. M. (2008). Critical Theory. In L. Given (Ed), *The SAGE Encyclopedia of Qualitative Research Methods*. https://doi.org/10.4135/9781412963909

Campbell, F., Beasley, L., Eland, J., & Rumpus, A. (2007). *Hearing the student voice promoting and encouraging the effective use of the student voice to enhance professional development in learning, teaching and assessment within higher education.* [Final Report]. Napier University.

Cavanaugh, J. & Jacquemin, S. (2015). A large sample comparison of grade based student learning outcomes in online vs. face-to-face courses. *Online Learning, 19*(2).

Cho, M.-H., & Tobias, S. (2016). Should instructors require discussion in online courses? Effects of online discussion on community of inquiry, learner time, satisfaction, and achievement. *International Review of Research in Open and Distributed Learning, 17*. https://files.eric.ed.gov/fulltext/EJ1093637.pdf

Conover, G. D., & Miller, J. C. (2014). Teaching human geography through places in the media: An exploration of critical geographic pedagogy online. *Journal of Geography, 113,* 85–96.

Creswell, J. W. & Creswell, J. D. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches.* SAGE Publications.

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

Dalley-Hewer, J., Clouder, D. L., Jackson, A., Goodman, S., Bluteau, P., & Davies, B. (2012). Facilitating critical discourse through "meaningful disagreement" online. *Journal of Interprofessional Care, 26*, 472–478. https://doi.org/10.3109/13561820.2012.711383

Diaz, D., Farruggia, S., Wellman, M., & Bottoms, B. (2019). Honors education has a positive effect on college student success. In A. Cognard-Black, J. Herron, & P. Smith (Eds.), *The demonstrable value of honors education: New research evidence (pp. 59-91).* NCHC Monograph Series.

Díaz, S. R., Swan, K., Ice, P., Kupczynski, L., & Hall, A. (2009). Student ratings of the importance of survey items, multiplicative factor analysis, and the validity of the community of inquiry survey. *Internet and Higher Education, 13,* 22-30. https://doi.org/10.1016/j.iheduc.2009.11.004

Diep, N. A., Celine Cocquyt, V., Chang ZHU, V., & Vanwing, T. (2017). Online interaction quality among adult learners: The role of sense of belonging and perceived learning benefits. In *TOJET: The Turkish Online Journal of Educational Technology* (Vol. 16, Issue 2).

Edman, L. (2002). Teaching critical thinking in the honors classroom. In C. Fuiks & L. Clark (Eds.), *Teaching and learning in honors (pp. 45-64).* NCHC Monograph Series 9. http://digitalcommons.unl.edu/nchcmono/9

Field, A. (2018). *Discovering statistics using IBM SPSS statistics*. Sage Publications, Inc.

Freire, P. (1974). *Education for critical consciousness*. Bloomsbury Academic.

Friend, C. (2021, February 25). *Introduction to hybrid teaching: People, pedagogy, politics.* Hybrid Pedagogy. https://hybridpedagogy.org/hybrid-teaching/

Fuiks, C. & Rutland-Gillison, L. (2002). A review of pedagogy in honors courses. In C. Fuiks & L. Clark (Eds.), *Teaching and learning in honors (pp. 45-64).* NCHC Monograph Series 9. http://digitalcommons.unl.edu/nchcmono/9

Garrison, D.R. (2017). *E-Learning in the 21st century: A community of inquiry framework for research and practice.* Routledge.

Garrison, D. R., Anderson, T., & Archer, W. (2000). Critical inquiry in a text-based environment: Computer conferencing in higher education. *The Internet and Higher Education*, *2*(2–3), 87–105.

Gibbs, G. R. (2012). Analytic quality and ethics. In *Analyzing Qualitative Data* (pp. 90-104). Sage Publications, Ltd. https://doi.org/10.4135/9781849208574

Gold, S. (2012). Critical pedagogy and digital technology. In A. Mills, G. Durepos, & E. Wiebe (Eds.), *Encyclopedia of case study research* (pp. 249-253). SAGE Publications. https://dx.doi.org/10.4135/9781412957397

Green, K. R., & Chewning, H. L. (2020). The fault in our systems: LMS as a vehicle for critical pedagogy. *Association for Educational Communications and Technology, 64*, 423–431. https://doi.org/10.1007/s11528-020-00480-w

Greenwood, D. J. (2004). Participatory Action Research. In M. Lewis-Beck, A. Bryman, & T. Liao (Eds.), *SAGE encyclopedia of social science research* (p. 800). SAGE Publications. https://doi.org/10.4135/9781412950589

Heaney, T. (2000). Politics of explanation ethical questions in the production of knowledge. In S. Steiner, H.M. Krank, P. McLaren, & R. Bahruth (Eds.), *Freirean pedagogy, praxis, and possibilities: Projects for the new millennium* (Chapter 7). Falmer Press

Hope, A., & Lecoure, J. S. (2012). Hermeneutics. In A. Mills, G. Durepos, & E. Wiebe (Eds.) *Encyclopedia of case study research* (pp. 436–437). SAGE Publications. https://doi.org/10.4135/9781412957397

Horkheimer, M. (1972). *Critical theory: Selected essays.* Continuum Publishing Company.

Johnson, M. L. (2013). Meeting the aims or honors in the online environment. *Journal of the National Collegiate Honors Council*, *14*. https://files.eric.ed.gov/fulltext/EJ1081961.pdf

Kincheloe, J. (2007). Critical pedagogy in the twenty-first century: Evolution for survival. In P. McLaren & J. Kincheloe (Eds.), *Critical pedagogy: Where are we now?* (pp. 9-42) Peter Lang Publishing, Inc.

Knekta, E., & McCartney, M. (2021). What can departments do to increase students' retention? A case study of students' sense of belonging and involvement in a biology department. *Journal of College Student Retention*, *22*(4), 721–742. https://doi.org/10.1177/1521025118788351

Kögler, H.H. (2008). Critical Hermeneutics. In L. Given (Ed.) *The SAGE encyclopedia of qualitative research methods*. https://doi.org/10.4135/9781412963909

Komarraju, M., Musulkin, S., & Bhattacharya, G. (2010). Role of student-faculty interactions in developing college students' academic self-concept, motivation, and achievement. *Journal of College Student Development*, *51*(3), 332–342.

Kotschevar, C., Ngorsuraches, S., & Bott-Knutson, R. (2018). The value of honors: A study of alumni perspectives on skills gained through honors education. *Journal of the National Collegiate Honors Council Online Archive.* 590. http://digitalcommons.unl.edu/nchcjournal/590

Kozan, K. (2016). The incremental predictive validity of teaching, cognitive and social presence on cognitive load. *Internet and Higher Education, 31*, 11–19. https://doi.org/10.1016/j.iheduc.2016.05.003

Kurucay, M., & Inan, F. A. (2017). *Examining the effects of learner-learner interactions on satisfaction and learning in an online undergraduate course*. https://doi.org/10.1016/j.compedu.2017.06.010

Lankshear, C., & McLaren, P. (Eds.). (1993). *Critical literacy: Politics, praxis, and the postmodern.* State University of New York Press.

Lyke, J. & Frank, M. (2012). Comparison of student learning outcomes in online and traditional classroom environments in a psychology course. *Journal of Instructional Psychology, 39(3/4), 245-250.*

Macrine, S. (Ed.). (2009). *Critical pedagogy in uncertain times.* Palgrave Macmillan.

Mariz, G. (2008). The culture of honors. *Journal of the National Collegiate Honors Council*, 56. https://digitalcommons.unl.edu/nchcjournal/56

Matheson, R., Wilkinson, S. C., & Gilhooly, E. (2012). Promoting critical thinking and collaborative working through assessment: combining patchwork text and online discussion boards. *Innovations in Education and Teaching International*, *49*(3), 257–267. https://doi.org/10.1080/14703297.2012.703023

McLaren, P. (2000). Paulo Freire's pedadogy of possibility. In S. Steiner, H.M. Krank, P. McLaren, & R. Bahruth (Eds.), *Freirean pedagogy, praxis, and possibilities: Projects for the new millennium* (pp. 1-22). Falmer Press.

Meadows, J. (2019). Resisting commodification in honors education. *Journal of the National Collegiate Honors Council, online archive, 20*(1).

Mehta, R., & Aguilera, E. (2020). A critical approach to humanizing pedagogies in online teaching and learning. *The International Journal of Information and Learning Technology*, *37*(3), 109–120. https://doi.org/10.1108/IJILT-10-2019-0099

Mertler, Craig. (2017). *Action research: Improving schools and empowering educators.* Sage Publications, Inc.

National Collegiate Honors Council. (n.d.). *About NCHC: What is honors?* NCHChonors.org. Retrieved May 17th, 2020, from https://www.nchchonors.org/about-nchc

NCAA. (2020). *College sports and the coronavirus: Latest COVID-19 news, schedule changes.* NCAA.com. https://www.ncaa.com/live-updates/ncaa/ncaa-sports-news-schedule-changes-coronavirus-updates-all-sports

NCHC Board of Directors. (2013). *Definition of honors education.* NCHChonors.org. https://www.nchchonors.org/uploaded/NCHC_FILES/PDFs/Definition-of-Honors-Education.pdf

Nelson, T. L. (2008). Perception question. In P.J. Lavrakas (Ed.) *Encyclopedia of survey research methods.* Sage Publications, Inc. https://dx-doi-org.ezproxy1.lib.asu.edu/10.4135/9781412963947.n374

Nightingale, B. (2014). Teaching honors online at a public college. *Journal of the National Collegiate Honors Council*, 61–62. http://digitalcommons.unl.edu/nchcjournal/425

Nix, E., Etheridge, B., & Walsh, P. (2014). A traditional educational practice adapted for the digital age. *Honors in Practice, 10*, 37–43.

Overholser, J. (2008). Socratic method. In F. T. Leong (Ed.), *Encyclopedia of counseling* (Vol. 1, pp. 876-876). Thousand Oaks, CA: SAGE Publications, Inc. https://doi.org/10.4135/9781412963978.n279

Patton, K., Coleman, D., & Kay, L. (2019). High-impact honors practices: Success outcomes among honors and comparable high-achieving non-honors students at Eastern Kentucky University. In A. Cognard-Black, J. Herron, & P. Smith (Eds.), *The demonstrable value of honors education: New research evidence (pp. 93-114).* NCHC Monograph Series.

Pant, M. (2014). Participatory Action Research. In D. Coghlan & M. Brydon-Miller (Eds.) *The SAGE encyclopedia of action research* (pp. 583–588). SAGE Publications. https://doi.org/10.4135/9781446294406

Phillips, N. (2004). Critical Hermeneutics. In M. Lewis-Beck, A. Bryman, & T Liao (Eds.) *The SAGE encyclopedia of social science research methods* (p. 218). SAGE Publications. https://doi.org/10.4135/9781412950589

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

Plominski, A. P., & Burns, L. R. (2018). An investigation of student psychological wellbeing: Honors versus nonhonors undergraduate education. *Journal of Advanced Academics*, *29*(1), 5–28. https://doi.org/10.1177/1932202X17735358

Pope-Wingo, N., Ivankova, N. & Moss, J. (2017). Faculty perceptions about teaching online: Exploring the literature using the technology acceptance model as an organizing framework. *Online Learning, 21* (1), 15-23. https://doi.org/10.10.24059/olj.v21i1.761

Ricoeur, P. (1981). *Hermeneutics and the human sciences.* Cambridge University Press.

Rorabaugh, P. (2012, August 6). *Occupy the digital: Critical pedagogy and new media.* Hybridpedagogy.org. https://hybridpedagogy.org/occupy-the-digital-critical-pedagogy-and-new-media/

Rosenow, C., Morrison-Graham, K., & Ozolins, E. G. (2016). Varying formats for two-year-college honors seminars. *Honors in Practice, 12,* 95–107.

Rubin, B., Fernandes, R., & Avgerinou, M. D. (2013). The effects of technology on the community of inquiry and satisfaction with online courses. *Internet and Higher Education, 17,* 48–57. https://doi.org/10.1016/j.iheduc.2012.09.006

Saldaña, Johnny, (2016). *The coding manual for qualitative researchers.* SAGE Publications.

Schuman, S. (2011). *Honors programs at smaller colleges*. Lincoln, NE: National Collegiate Honors Council.

Scott, R. I., & Bowman, D. (2009). It's the pedagogy, stupid. *Journal of the National Collegiate Honors Council*, *494*, 41–44.

Serhan, Derar. (2020). Transitioning from face-to-face to remote learning: Students' attitudes and perceptions of using Zoom during COVID-19 pandemic. *International Journal of Technology in Education and Science, 4*(4), 335-342.

Smalley, A. (2020). *Higher education responses to Coronavirus (COVID-19).* National Conference of State Legislatures. https://www.ncsl.org/research/education/higher-education-responses-to-coronavirus-covid-19.aspx

Smeaton, G. & Walsh, M. (2019). Contributions of small honors programs: The case of a public liberal arts college. In A. Cognard-Black, J. Herron, & P. Smith (Eds.), *The demonstrable value of honors education: New research evidence (pp. 229-252).* NCHC Monograph Series.

Southern Utah University. (2018). SUU leads the state in growth. Retrieved January 30, 2019, from https://www.suu.edu/news/2018/10/leading-enrollment-growth.html

Southern Utah University. (2019a). Honors program. Retrieved January 30, 2019, from https://www.suu.edu/honors/

Southern Utah University. (2019b). Majors and programs of study. Retrieved January 30, 2019, from https://www.suu.edu/majors.html

Stack, S. (2015). Learning outcomes in an online vs traditional course. *International Journal for the Scholarship of Teaching and Learning, 9(1).* https://doi.org/10.20429/ijsotl.2015.090105

Stenbom, S. (2018). *A systematic review of the Community of Inquiry survey*. https://doi.org/10.1016/j.iheduc.2018.06.001

Stommel, J. (2014, November 17). *Critical digital pedagogy: A definition.* Hybrid Pedagogy. https://hybridpedagogy.org/critical-digital-pedagogy-definition/

Swan, K. P., Richardson, J. C., Ice, P., Garrison, D. R., Cleveland-Innes, M., & Arbaugh, J. Ben. (2008). Validating a measurement tool of presence in online communities of inquiry. *E-Mentor*, *2*(24), 1–12. www.e-mentor.edu.pl/eng

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. https://doi.org/10.1016/j.compedu.2014.10.015

Taylor, W. (2002). Promoting critical thinking through classroom discussion. In C. Fuiks & L. Clark (Eds.), *Teaching and learning in honors (pp. 45-64).* NCHC Monograph Series 9. http://digitalcommons.unl.edu/nchcmono/9

Thompson, J. (1981). *Critical hermeneutics: A study in the thought of Jurgen Habermas and Paul Ricoeur.* Cambridge University Press.

Udas, K. (1998). Participatory Action Research as Critical Pedagogy. *Systemic Practice and Action Research*, *11*(6).

APPENDIX A

FIRST CYCLE OF RESEARCH OPEN-ENDED INTERVIEW QUESTIONS

Current Honors Students

1. In an honors course,
    a. What resources are most supportive for you?
    b. What tools do you use to interact with other students?
    c. What is the most valuable element of the course?
2. What are your thoughts regarding online honors courses?
3. What would encourage you to participate in online honors courses?
4. What would discourage you from participating in online honors courses?
5. From your perspective, what are the biggest obstacles for online honors courses?
6. From your perspective, what are the benefits of participating in online honors courses?

Current Honors Faculty

1. What elements of an honors course are most important to replicate in an online honors course?
2. What tools/methods do you use in and online class to help students interact with each other?
3. What tools/methods do you use in an online class to support students?
4. What are your thoughts regarding an online honors course?
5. From your perspective, what are the biggest obstacles with respect to offering online honors courses?

From your perspective, what are the benefits with respect to offering online honors courses?

APPENDIX B

COMMUNITY OF INQUIRY CODING FRAMEWORK

Elements	Categories	Indicators (examples only)
Cognitive Presence	Triggering Event	Sense of puzzlement
	Exploration	Information exchange
	Integration	Connecting ideas
	Resolution	Apply new ideas
Social Presence	Emotional Expression	Emoticons
	Open Communication	Risk-free expression
	Group Cohesion	Encouraging collaboration
Teaching Presence	Instructional Management	Defining & initiating discussion topics
	Building Understanding	Sharing personal meaning
	Direct Instruction	Focusing discussion

101

APPENDIX C

COMMUNITY OF INQUIRY SURVEY-ORIGINAL

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

104

APPENDIX D

IRB APPROVAL

APPROVAL:
MODIFICATION

Terri Kurz

Division of Teacher Preparation - Polytechnic Campus

-
Terri.Kurz@asu

.eduDear Terri

Kurz:

On 9/4/2020 the ASU IRB reviewed the following protocol:

Type of Review:	Modification / Update
Title:	Understanding Honors Students' Experiences in an Online Honors Seminar Course
Investigator:	Terri Kurz
IRB ID:	STUDY00012160
Funding:	None
Grant Title:	None
Grant ID:	None
Documents Reviewed:	• Hacker Recruitment and Consent Letter REVISION.pdf, Category: Consent Form; • Jayci Hacker Protocal 9 4.docx, Category: IRB Protocol;

The IRB approved the modification.

When consent is appropriate, you must use final, watermarked versions available underthe "Documents" tab in ERA-IRB.

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

Sincerely,

IRB Administrator

cc: Jayci Bash
Jayci Bash

107

APPENDIX E

STUDENT REVISION OF THE COMMUNITY OF INQUIRY SURVEY

Teaching Presence

1. The instructor clearly defined and communicated important course topics.
2. The instructor clearly defined and communicated important course goals.
3. The instructor provided clear instructions on how to participate in course learning activities.
4. The instructor clearly communicated all due dates/time frames for learning activities.
5. The instructor was helpful in identifying diverse perspectives on course topics that helped me to learn.
6. The instructor was helpful in guiding me toward clearly understanding course topics.
7. The instructor helped to keep me and other course participants engaged and participating in productive discussions.
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.
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 identify, understand, and improve upon my strengths and weaknesses relative to the course's goals and objectives.
13. The instructor provided feedback within the time-frame communicated in the course.

Social Presence

14. Getting to know other course participants gave me a sense of belonging in the course.
15. I was able to get a better understanding of course participants' personalities, beliefs, or perceptions.
16. Online communication is an excellent medium for social interaction among participants in this course.
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.
20. I felt comfortable disagreeing with other course participants while maintaining a sense of trust and respect.
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 with my classmates.

Cognitive Presence

23. Problems posed increased my interest in course issues.

24. Course activities piqued my curiosity.
25. I felt motivated to explore content related questions.
26. I utilized a variety of sources and perspectives to explore problems/questions posed in this course.
27. Conducting my own research helped me resolve content related questions.
28. Online discussions in this course were valuable in helping me appreciate different perspectives.
29. Combining new information helped me answer questions raised in course activities.
30. Learning activities helped me construct explanations or solutions to problems presented in this course.
31. Reflection on course content and discussions helped me understand fundamental concepts in this class.
32. I can describe ways to apply the knowledge created in this course in a real world situation.
33. REMOVED
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 F

PRE-COURSE REFLECTION PROMPTS

Social Presence is demonstrated by interactions between students that allow for individual personalities to be shared openly and there being a sense of identity created through sustained communication (Garrison, 2017). Based on this description,

1. To what extent do you believe online courses are successful in creating social presence?
2. In your previous online learning experiences, have you felt as though you were part of a community? Please elaborate.
3. Compared to face-to-face classes, have you experienced close connections with students in online courses or environments?
4. What are your experiences in collaborating through an online medium?
5. Do you feel you can communicate openly in an online setting? Please elaborate.
6. In an online setting, what helps you feel connected to the other students in the course?

Cognitive Presence is demonstrated by critical thinking, higher-order knowledge acquisition, and application (Garrison, 2017). Based on this description,

1. To what extent do you believe online courses are successful in creating cognitive presence?
2. In your previous online learning experiences, have you felt as though you were challenged cognitively?
3. Compared to face-to-face classes, have your online courses helped encourage, nurture, and provide deep and meaningful learning experiences? Please elaborate.
4. In your previous online courses, have you been applied the knowledge you gained in the course? Please elaborate.
5. In your previous online courses, have you been able to make connections between the concepts within the course and with concepts from other courses/experiences? Please elaborate.

Teaching Presence is demonstrated by an instructor engaging the learners, collaboratively guiding the process of achieving worthwhile and intended learning outcomes in a timely manner (Garrison, 2017). Based on this description,

1. How effective do you believe online courses are in facilitating teaching presence?
2. In your previous online courses compared to your face-to-face courses, do you feel that instructors had the same ability to guide the learning in the course? Please elaborate.
3. In your previous online courses, do you feel that instructors were able to design the courses in a way that enhanced your learning? Please elaborate.
4. How effective have your previous online instructors been in facilitating discussions in your classes?

Compared to your face-to-face instructors, have you felt supported and valued by your online instructors? Please elaborate.

APPENDIX G

DISCUSSION TOOL COMMUNITY OF INQURY SURVEY

1. Using this tool for discussions, getting to know other course participants gave me a sense of belonging in the course.
    a. Comment or elaborate further on question 1 below.
2. Using this tool for discussions, I was able to get a better understanding of course participants' personalities, beliefs, or perceptions.
    a. Comment or elaborate further on question 2 below.
3. Online communication using this tool is an excellent medium for social interaction among participants in this course.
    a. Comment or elaborate further on question 3 below.
4. I felt comfortable conversing through this discussion tool.
    a. Comment or elaborate further on question 4 below.
5. I felt comfortable participating in the course discussions using this discussion tool.
    a. Comment or elaborate further on question 5 below.
6. I felt comfortable interacting with other course participants using this discussion tool.
    a. Comment or elaborate further on question 6 below.
7. I felt comfortable disagreeing with other course participants while maintaining a sense of trust and respect in the discussions using this tool.
    a. Comment or elaborate further on question 7 below.
8. I felt that my point of view was acknowledged by other course participants in the discussions using this tool.
    a. Comment or elaborate further on question 8 below.
9. Online discussions using this tool help me to develop a sense of collaboration with my classmates.
    a. Comment or elaborate further on question 9 below.

Overall, what are the benefits of using this discussion tool for class discussions?
Overall, what are the drawbacks of using this discussion tool for class discussions?
If there is anything else you would like to share about your experience using this discussion tool, please do so here.

5 point Likert-type scale
1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree

APPENDIX H

PROMPTS FOR FINAL COURSE REFLECTIONS

1. We started the semester learning about Participatory Action Research. "Participatory Action Research (PAR) is a research paradigm within the social sciences which emphasizes collaborative participation of trained researchers as well as local communities in producing knowledge directly relevant to the stakeholder community." In the case of this course, you (the stakeholder) assisted me (the researcher) in creating an instrument for assessment that best reflected your values in an online course. You also used this new instrument to assess three different online discussion platforms and the course as a whole. Finally, as a stakeholder in this research, you have continually provided valuable feedback through reflections, assignments, and messages that will be used as future iterations of online honors courses are created and revised. This was all done under the theme of leadership. In what ways did engaging in this research impact your overall experience in the online honors seminar course?

2. Did participating in the research activities help you gain a better understanding of the issues related to creating online honors seminar courses? If so, please provide more details.

3. In what ways did engaging in the research enhance your experience in the course?

4. In what ways did engaging in the research diminish your experience in the course?

5. Thinking about leadership and everything we learned this semester, what are your thoughts about using PAR to solve problems or answer questions in the Honors Program?

6. This semester was full of chaos: protests, riots, an election, a pandemic, remote instruction, and more. In addition to those external events, you all negotiated some complicated life situations. Taking all of this into consideration, how was your learning in this course affected? Please provide examples, these could be positive effects or negative effects.

7. Along those same lines, did these life events inform the way you engaged in this class and research? Again, please provide examples.

APPENDIX I

FINAL COURSE COMMUNITY OF INQUIRY SURVEY RESPONSES

Item	*Mean*	*SD*	Comments
1. The instructor clearly defined and communicated important course topics.	4.3	1.0	"I think the videos were great! They are exactly what I want when taking an online course." "I felt that I knew exactly what we were supposed to be studying each week" "This was done through the weekly videos sent out discussing the topics that each week would be focusing on." "Jayci always sent out helpful videos, and gave impactful assigned readings." "I think that the TOL questions were very helpful in highlighting the most important parts of the learning materials and answering them helped me understand them more."
2. The instructor clearly defined and communicated important course goals.	4.4	1.3	"I think that all the assignments were tied to key concepts that helped with leadership development." "I felt that I always understood what our goals were." "In this area, Jayci excels." "The videos for each week really helped communicate which goals were the most important to focus on and accomplish."
3. The instructor provided clear instructions on how to participate in course learning activities.	4.9	0.3	"I think all the instructions were very clear. If I did have any questions they were quickly answered." "The instructions for all of our discussions and assignments were very clear." "Clear instructions in the videos and under the descriptions of each assignment." "Between the videos and the descriptions on canvas, I felt

Item	*Mean*	*SD*	Comments
			confident that I know what I needed to do for each activity."
4. The instructor clearly communicated all due dates/time frames for learning activities.	4.7	0.7	"I appreciated how big projects were presented. The steps of "start thinking about it" "start working on it" and then "it is due this week" helped me to stay on track. Besides that, all of the due dates being consistent and similar was very helpful." "Due dates were also clearly outline in the videos and on canvas. Reminders were sent over email when due dates were coming up." "The due dates and times were really consistent throughout the semester. For the first two discussion platforms the first post was due on Wednesday and the last posts and TOL assignments were due by Sunday at 8pm. Since it didn't change much it was really easy to remember."
5. The instructor was helpful in identifying diverse perspectives on course topics that helped me to learn.	4.6	1.0	"What sticks out to me most is the materials from Latinas and women. I know that we talked more about the perspectives of the other materials but I don't remember them being that diverse, but then again I really enjoyed all of the materials and thought they had diverse opinions." "I liked that we took time to learn about leadership from different perspectives such as latinas, gender, traditional, etc." "Many diverse perspectives of leadership discussed throughout the course." "Very Much So"

Item	*Mean*	*SD*	Comments
			"I think that the Learning Materials for each week were from a good amount of different perspectives and sources. The discussions with other classmates helped present more perspectives as well."
6. The instructor was helpful in guiding me toward clearly understanding course topics.	4.0	1.3	"Yes. However, I do think sometimes it felt a little to generic for me personally. Perhaps a "leadership IN (selected topic)" would be better next time." "The TOL questions helped with course materials, but I feel with some I could have just read one specific part of the material and been fine." "Yes. Even when I clearly misunderstood, she took the time to help me understand and succeed."
7. The instructor helped to keep me and other course participants engaged and participating in productive discussions.	4.3	1.1	"The discussion formate of this class was so great!" "We were engaged in activities but I would have loved to hear your thoughts on all of our readings during our discussions." "We were encouraged to engage in discussions as we had to participate in discussions through different formats throughout the course and engage with multiple other students." "Yes, discussion structure throughout the week was effectively managed."
8. The instructor helped keep the course participants on task in a way that helped me to learn.	4.0	1.1	"I think the one thing I didn't necessarily enjoy is that when people weren't watching the videos or discussing a reminder was sent out to everyone. Since there was

Item	*Mean*	*SD*	Comments
			only a few students in the course I assume it was the majority who weren't on task, but I think it is more impactful to contact them directly, then again maybe that did happen. I was confused as to whether or not I personally was on task because I felt like I was, but then I would get those announcements."
9. The instructor encouraged course participants to explore new concepts in this course.	4.8	0.4	"I think having students make connections between materials they found and course materials was a great way to do this." "I liked that we had an assignment dedicated to picking a type of leadership that we wanted to explore more." "The last module had us research our own topics to explore that related to the course content."
10. Instructor actions reinforced the development of a sense of community among course participants.	4.0	1.0	"Letting us vote on things, and then setting up changing groups did a great job of this." "Sense of community developed with discussions, more so with zoom."
11. The instructor helped to focus discussion on relevant issues in a way that helped me to learn.	4.2	1.3	"I liked that we could apply what we were learning to leaders in our own life." "We were able to connect course material to current situations with COVID." "The discussions were facilitated by students but we were all able to keep each other on task."
12. The instructor provided feedback that helped me identify, understand, and improve upon my strengths	4.2	1.3	"I think having the questions that had us directly refer to our strengths and weakness obviously helped with this."

Item	*Mean*	*SD*	Comments
and weaknesses relative to the course's goals and objectives.			"The feedback that I received was super helpful in helping know what I needed to work harder on. And I loved the positive feedback when I did a good job on an assignment." "Feedback was given as comments in TOL's."
13. The instructor provided feedback within the time-frame communicated in the course.	4.8	0.4	"Everything was graded in a timely manner, only a couple days after the due date." "Again, Jayci's overall reliability is the greatest attribute as an instructor"
14. Getting to know other course participants gave me a sense of belonging in the course.	4.2	1.1	"I liked that we did flipgrid introductions because they gave me an opportunity to connect faces to names." "Felt more connected to others even in an online environment." "Perhaps. Maybe if we stuck with the same groups longer in the course I could answer this with a higher score, but as of now it was pretty loose in terms of made connections."
15. I was able to get a better understanding of course participants' personalities, beliefs, or perceptions.	4.3	0.7	"I enjoyed the zoom discussions most for this, but all of the discussions were really great for building community and getting to know the other students." "Using the Canvas discussion made it difficult to understand others personalities, but flipgrid and zoom worked really well for these topics." "This was especially true of Zoom." "This depends on the type of discussion we were using at the time."

Item	*Mean*	*SD*	Comments
			"I think that Flipgrid and Zoom were the most effective platforms for this."
16. Online communication is an excellent medium for social interaction among participants in this course.	3.4	0.9	"I think that doing the different forms of discussion made me realize how great conversions can still be had online, that being said I think that it was really nice to see people's faces and interact through zoom. I think if these face-to-face "free" interactions are integrated more into online communication I would strongly agree." "I felt that this has gone a lot better than my previous online courses and I found it easier to communicate online this time." "Canvas discussions were less effective than zoom but communication was still good." "I still prefer in-person interactions, but I feel like online communication can work for a course."
17. I felt comfortable conversing through the online medium.	4.1	1.0	"I would have felt a lot more comfortable if I had a better place to record. I was always concerned about my roommate walking in on me recording and interrupting." "I never really got over the initial awkwardness of online communication. I felt the most comfortable with Zoom and the least comfortable with FlipGrid."
18. I felt comfortable participating in the course discussions.	4.4	0.9	
19. I felt comfortable interacting with other course participants.	4.7	0.5	"Everyone in the class was super respectful and kind. I really enjoyed discussing with them."

Item	*Mean*	*SD*	Comments
20. I felt comfortable disagreeing with other course participants while maintaining a sense of trust and respect.	4.4	0.7	"I think disagreeing is always hard especially when it comes to more polarized topics. The fact that we did change groups frequently I think didn't help with this. I think there has to be a building relationship and feeling comfortable disagree with other was challenging in this short amount of time." "Everyone was always respectful throughout the discussions, and everyone was open to others' views."
21. I felt that my point of view was acknowledged by other course participants.	4.4	0.5	"Similarly to my reasoning above I think sometimes it is hard to build that deeper understanding in a short amount of time." "I mean, it was forced, so this is difficult to answer, as it may or may not have been genuine."
22. Online discussions help me to develop a sense of collaboration with my classmates.	4.1	1.0	"I thought that we did a great job for the most part collaborating. I think there was a challenge that for both flipgrid and canvas we were just concerned about completing the assignment requirements instead of actually having a good discussion."
23. Problems posed increased my interest in course issues.	4.2	1.4	"I think further defining what it means to be a leader lead me to have more questions and interest in the course." "I loved the topics of leadership that we looked at and the different readings that we had. They were all very unique and got me thinking in a different way."

Item	*Mean*	*SD*	Comments
			"Especially questions relating to leadership during COVID was interesting."
24. Course activities piqued my curiosity.	3.6	1.3	"I think the activity we had to interview a leader was interesting, but other than that it was A LOT of reading and writing. I think that is obviously necessary for a course and topic like this one, but it was a lot sometimes, and I know that everything didn't have my full effort because of that. I think the presentation is also a way to mix this up, but that is at the end of the course. I think if this assignment was earlier it would be a nice break from the writing, but then again it wouldn't be able to be the same assignment then." "The Thinking Out Loud activity was very helpful for me because I could just write what I was thinking without concern and it allowed me to make personal connections that were meaningful to me." "I really enjoyed the leadership interview."
25. I felt motivated to explore content related questions.	4.0	1.2	"This course has definitely made me think deeper about different leaders and made me want to learn more."
26. I utilized a variety of sources and perspectives to explore problems/questions posed in this course.	4.8	0.4	"I loved the opportunity to look through different sources and perspectives." "TOL prompts helped me to relate course materials together."
27. Conducting my own research helped me resolve content related questions.	4.3	0.5	"I think even more opportunities to find our own sources would have been great!"

Item	*Mean*	*SD*	Comments
28. Online discussions in this course were valuable in helping me appreciate different perspectives.	4.1	1.3	"I like discussions because then I could learn about how my classmates thought through the different styles of leadership because we all think in very different ways."
29. Combining new information helped me answer questions raised in course activities.	4.2	1.1	
30. Learning activities helped me construct explanations or solutions to problems presented in this course.	4.1	1.4	"I thought that all of the activities were relevant and help me connect all of the different areas of leadership that we have talked about."
31. Reflection on course content and discussions helped me understand fundamental concepts in this class.	4.2	1.3	"What I really enjoyed about this course was how interconnected everything was. Everything built on each other, referenced other materials, and filled gaps of other materials." "TOL's were an interesting reflection tool."
32. I can describe ways to apply the knowledge created in this course in a real world situation.	4.1	1.3	"This is exactly why I wanted to take this course. I think I have learned enough to apply skills and put what I learned into practice." "Especially with the leadership profile paper and COVID related questions about leaders in Utah and such."
33. I can apply the knowledge created in this course to my work or other non-class related activities.	4.4	1.3	"I think that leadership is extremely applicable to everyday knowledge and that everyone should learn the concepts of leadership to apply them." "This was obviously a very 'real-world-applicable' course"