Using Community of Inquiry to Increase Student Presence, Attitude and Achievement of

Active-Duty Service Member Students in Online Courses

by

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

Approved October 2022 by the
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ARIZONA STATE UNIVERSITY

December 2022

ABSTRACT

Active-duty service members pursuing college degrees face many obstacles due to their military service, such as frequent relocation, long work hours, extended field time, and deployments. While online learning makes higher education more accessible to service members, asynchronous courses can leave active-duty students feeling that online education is lacking in social or peer connection. The purpose of this action research study was to use the Community of Inquiry Framework, as well as Self-Determination Theory, to investigate the results of an intervention, called the R&R Journal, on the social presence, cognitive presence, attitude, and overall academic outcome of active-duty service members enrolled in online, asynchronous HIST 1301 at Central Texas College. This study uses a quasi-experimental concurrent mixed methods design with both treatment and comparison course groups. Results indicate that active-duty students who participated in the intervention increased in social presence, cognitive presence, and overall academic outcome over the course of HIST 1301. Implications for practice include (a) increasing social presence by encouraging peer to peer connection in an asynchronous course through deeper analysis of discussion boards, (b) increasing cognitive presence by challenging students to make personal connections to course material, and (c) increasing cognitive presence by encouraging relevant, modern-day connections to course material.

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DEDICATION

This work, and the years spent leading up to it, is dedicated to my family.

To Rose, Leo, and Archie,

Do not let anything get in the way of your dreams, including time, the world, or yourselves. Timing is rarely perfect, and the world is always busy, but dreams and goals are important. Sometimes there have to be compromises, but you can and should strive to accomplish your dreams. I will always be there to support you and cheer for you. Throughout this work, you all have taught me so much: that it's ok to feel whatever I'm feeling, to laugh and go with the flow, and to take time to appreciate the moment. I love you all so much.

To Rob,

Thank you for supporting me, listening to me talk about my research, and for waiting for it to be finished before you read it. I know timing wasn't great when I began this journey, but you supported and encouraged me every step of the way. I'm so glad we're on this adventure together, and I can't wait to see where life takes us next. As long as we're together, I know it will be great. You're my best friend, and I love you so, so much.

To myself,

You did it.

ACKNOWLEDGMENTS

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GLOSSARY OF IMPORTANT TERMS

Active-duty- Full-time service members in the active military.

The Box- Part of a Combined Training Center. This is where Army units test battle tactics and readiness of their troops within 90 days of a deployment to a combat zone. The Box is home to 13 Iraqi/Afghan-like villages, populated with role-players, including the dangers of modern warfare. When in the Box, soldiers do not have personal communication devices and are cut off from the outside world for their 10-20 day rotation. Short for the sandbox.

Battalion- A military unit consisting of 4-6 companies and about 1,000 soldiers. A Lieutenant Colonel is generally in command. Two to three battalions make up a brigade.

Brigade- A military unit consisting of 2-3 battalions and anywhere from 3,000 to 5,000 soldiers. A Full Colonel is generally in command.

Cognitive Presence- the ability for students to construct meaning from content. This is one of the three elements of the Community of Inquiry framework for online engagement and learning (Garrison et al., 2000).

Combined Training Center- An Army training center, located in Ft. Polk, Louisiana (known as JRTC), Ft. Irwin (known as NTC), California, or Hohenfels, Germany (known as JMRC). These are premier training facilities used to prepare military units for deployment

Company- A tactical sized unit that consists of a few dozen to up to 200 soldiers. A Captain generally commands a company, consisting of 3-4 platoons.

CONUS- Continental United States. This includes any duty station located in the 48 contiguous states.

Deployment-The movement of troops and/or equipment to a place or position for military action. Deployments can last anywhere from 3 to 18 months.

Enlisted- Rank of E-1 to E-9; a service member ranked below commissioned officers or warrant officers.

Garrison- The collective term for any body of troops stationed in a particular location, particularly in one's home country; a permanent military installation. Commonly used as slang for a non-deployed status.

GoArmyEd- A virtual portal that connects service member students with resources historically conducted with an Army Education Counselor. This service allows soldiers to

manage their college education and Tuition Assistance (TA) benefits. It was replaced by ArmyIgnitED in February 2021

Maneuver Units- Combat arms units. Examples include Infantry, Armored, and Artillery units. Infantry refers to soldiers on foot, armored refers to armored transport such as tanks, and artillery uses long-ranged weapons.

New GI Bill- An effort by the federal government to provide benefits to veterans returning from duty. Benefits include 100% tuition and fee coverage for higher education, monthly housing allowance for school, and a one-time relocation allowance. Service members are eligible if they served at least 90 aggregate days on active-duty after September 10, 2001, earning 40% of benefits. 100% of benefits require 36 cumulative months. Service members can also transfer benefits to dependents. Also known as the Post 9/11 GI Bill.

OCONUS- Outside the Continental United States. Regions outside the continental United States such as Germany, Korea, and Japan. Alaska, Hawaii, Guam, and Puerto Rico are also considered OCONUS.

Persistence- A motivational measure applied to an active-duty service member's intention to persevere in an online course.

Service Member- A person serving in the armed forces, which include the Army, Air Force, Marines, Navy, and Coast Guard.

Social Presence- The ability to present one's personal identity in the online community so that she or he is perceived as a 'real' person. This involves (1) acquiring a social identity, (2) having purposeful communication, and (3) building relationships. This is one of the three elements of the Community of Inquiry framework for online engagement and learning (Garrison et al., 2000).

Soldier- A person who serves in the Army.

Support Units- Military units that are focused on providing operational support to combat units. Examples include Military Intelligence, Civil Affairs Corps, Logistics, Corps of Engineers, Chemical Warfare, and Military Police. Support Soldiers may also be assigned to combat arms units.

Teaching Presence- Encompasses both design and facilitation of an online course. Supports both social and cognitive presence. This is one of the three elements of the Community of Inquiry framework for online engagement and learning (Garrison et al., 2000).

Tuition Assistance- A program implemented by the Department of Defense that provides financial assistance for voluntary off-duty civilian education programs in support of a

Soldier's professional and personal self-development goals. All Soldiers on active-duty, Army National Guard, and Army Reserve Soldiers on active-duty can receive Tuition Assistance. Commonly referred to as TA.

CHAPTER 1

LEADERSHIP CONTEXT AND PURPOSE OF THE ACTION

In 2018, approximately 7% of American adults have served in the military, and at any given time there are millions of active-duty military personnel across all branches of the US military (Schaeffer, 2021). For example, in 2017, 1,294,520 active-duty personnel served in the four branches of the United States military, which includes the Army, Navy, Marine Corps, and Air Force. The Army is the largest branch, with approximately 472,047 soldiers (Department of Defense, n.d.). Of the active-duty personnel, most (82.3%) are enlisted, meaning on average there are 4.6 enlisted personnel for every officer on active-duty (Department of Defense, n.d.). Of those who are active-duty enlisted, 80.6% have a high school diploma or GED, 10.5% hold an associate degree, and 7.1% have a bachelor's degree (Department of Defense, n.d.). The percentage of active-duty enlisted with a Bachelor's degree or higher has almost doubled since 2010, rising from 4.8% in 2010 to 8.3% in 2017 (Department of Defense, n.d.). These gains are likely due to the accessibility of online degrees. As both a military spouse and an online history professor teaching primarily active-duty service members, I have seen an urgent need to make online coursework even more accessible and engaging for active-duty service members.

Larger Context: Professional Lives of Enlisted Service Members

Given the United States' involvement against global terrorism in the last two decades, increasing numbers of families have joined the military. A modern-day 'warrior caste' has emerged, "in which the military is increasingly composed of those who have an immediate family member who has served" (Schafer, 2017, p. 3). As a generation has

passed, children of men and women who fought in the early years of war in Afghanistan and Iraq have joined the military to fight in the same war as their parents (Canfield, 2018). From 2001 through February 2019, over 775,000 U.S. troops across all service branches deployed to Afghanistan, over 390,000 deployed more than once, and at least 28,000 deployed five or more times (Lamothe, 2011).

Notably, the challenges of deployment are not simply limited to the time a service member is overseas. Deployments also include intense training cycles in preparation for overseas missions. These training cycles vary depending on the specific unit, but they regularly involve extended field time and month-long exercises at Combined Training Centers, which are located in the swamps of Ft. Polk, Louisiana, the desert of Ft. Irwin, California, and the hills in the Bavarian region of Germany. Each month-long exercise at a Combined Training Center involves moving equipment, including everything from rations to tanks, as well as time in "the Box," a two-week long simulated exercise where training units fight against other units. During this time, service members are allowed no contact with the outside world, and all personal electronic devices are surrendered. Service members enrolled in college courses during such trainings often have no choice but to suspend their academics for the duration of the training. These training exercises prohibit any activity outside of the military, and they also create weeks of additional military duty work on either end of the training. Beyond the time spent training, the time immediately following deployment also has consequences on the lives of service members. "Reset" is the time immediately following deployment, where service members continue working long and sometimes unpredictable hours as they focus on cleaning equipment, conducting inventory, and catching up on professional development.

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For maneuver and support units at the Brigade level and below, life is often a series of prepare, deploy, and "reset", which further limits the ability to complete online coursework.

In addition to deployment, a large portion of the Army serves on the Global Response Force (GRF) and European Response Force (ERF) missions, with high training standards, recall requirements, and the permanent restlessness of not knowing when and where they will be called into action. GRF units are called into action for global defense purposes, as well as providing support during global natural disasters such as earthquakes or hurricanes. Specific units are assigned to GRF and ERF for up to one year at a time and are on staggered recall. This means that if they are activated, they are given from 2 to 96 hours to report for duty, which includes rapid deployment. Again, these service members are required to turn in personal cell phones and laptops, which prohibits internet access, hindering the service member's ability to complete online coursework.

Military focus on education

It is generally understood that enlisted service members must eventually earn a bachelor's degree to keep advancing in rank. If a service member does not earn a degree, they are eventually 'pushed out' of the military, as they are no longer promotable. The military also requires demanding professional development courses for rank advancement. These courses vary depending on the position being sought, but include schools like Airborne, Ranger, Jumpmaster, Master Gunner, and Master Mechanic. Military schools are both physically and mentally demanding, and concurrent enrollment in these military school courses and university-based academic courses is nearly impossible. For example, Ranger School requires a minimum of 61 days without contact

with the outside world. I personally know soldiers who have spent over 90 days at Ranger School. Furthermore, soldiers rarely know the exact date they will start these military schools. They may spend months waiting for a position to open up, making it difficult to determine the best time to take college courses for personal academic enrichment. They are also required to attend rank and position specific leadership schools, like the Basic Leaders Course to become a Sergeant. These courses often require moving away from family for a period of several months, which greatly increases the complexity of life, and as such, generally has an adverse effect on taking college courses.

Finally, it is important to note that service members must balance their professional development with day-to-day duties. Soldiers have jobs and additional duties while in a garrison environment. This is as routine as maintaining equipment, or as odious as conducting guard duty, which requires a 24-hour shift on top of normal, day-to-day responsibilities and working hours. Regardless, being an active-duty service member is a full-time job, often balanced on top of deployment, preparation, or reset, which hinders personal and professional goals like earning a college degree.

Personal Context: Educator and Military Spouse

Lives of American service members and their families are highly unpredictable. Service members and their families move duty stations about every three years. Moreover, service members are involved in regular training events that take them away from home for weeks at a time. My husband is a Major in the U.S. Army. In our nine years of marriage, the Army has moved us seven times, which includes two international moves to Singapore and Nepal. My six-year-old daughter has had six homes, my three-year-old son has had four, and my one-year-old son has had two. As an educator with an

established career, I have at times found it difficult to continue to pursue my education or refine my craft due to our mobility. There are so many aspects involved in a military move, causing personal education to often fall in priority, especially when one must rediscover resources and support with each move, only to move again in a couple of years. Nevertheless, I am aware of my options and the resources available to reach my goals. By comparison, I interact with many service members and their families who are not aware of all their options and available resources, particularly regarding education.

Over the past decade, I have been an active observer of the active-duty student, both as an educator and as a support figure within the military organization, and I have substantial direct contact with enlisted service members. While stationed at Ft. Hood, I took on the role of Family Readiness Group (FRG) leader for both C Company and HHC Company of 2-7 CAV, which allowed me to become extremely familiar with the missions of the company, battalion, and brigade. It was during this time that I became more aware of how unsupported many soldiers and their families felt. Yes, resources and support were available, but many service members were unaware of them or felt there were too many obstacles to utilize supports. As FRG Leader, I assisted the soldiers and their family members with community resources and support to help them with the various obstacles, transitions, and struggles of active-duty military life. Many of the soldiers and their families were pursuing degrees, and I noticed that many struggled with balancing their careers, education, and personal lives.

When my husband was a company commander at Ft. Hood, leading over 200 soldiers in C Company of 2-7 CAV in the 3rd Armored Brigade Combat Team of the First Cavalry Division, he led a year-long support mission for the 82nd Airborne Division

known as the Global Response Force (GRF). As mentioned earlier, when an armored company is part of the acting GRF, they must be ready to respond to a global crisis and deploy at any time, within 96 hours of notice. During this time, the company conducted readiness training that took them away from their homes for days, weeks, and months at a time, totaling more than six months in one year. Therefore, I have personal knowledge of how these trainings not only affect internet access needed to complete online courses, but also whether or not soldiers register for online college courses in the first place.

Local Context: Central Texas College

I am currently an online adjunct professor of history at Central Texas College (CTC), located in Killeen, Texas. Killeen is a small town located just outside the gates of Ft. Hood, the third largest military installation in the United States, both in population and acreage (Veteran Aid, 2016). CTC has partnered with 25 military installations within the US, as well as US military installations throughout Europe (Central Texas College, 2020c). With 109 locations that are easily accessible to service members and a robust distance education program offering over 500 distance learning courses, CTC has promoted itself as an accessible option for active-duty military service members (Central Texas College, 2020b). To make education even more accessible, specifically to those service members who are deployed or stationed overseas with limited access to the internet, 55 stand-alone multimedia courses, which do not require internet access at any time, are offered (Central Texas College, 2020d). Additionally, CTC awards up to six hours of college credit for military education and experience. active-duty students must submit their Joint Service Transcript to the college for review and awarded credit must apply directly to the student's degree or certificate program (Central Texas College,

2020a). Serving military students for almost 50 years, CTC has had 24,339 military graduates since 2003 (Central Texas College, 2019). During the 2018-19 school year, the worldwide classroom enrollment was 51,429, and worldwide online enrollment was 49,226 (Central Texas College, 2020e).

Because of CTC's accessibility to military installations, many of my students are active-duty military service members. Although some are stationed at Ft. Hood, my students are all over the world. Despite challenges, including those related to their varying and demanding positions, they believe their education is important, and these active-duty service members enroll to further their studies. I want to be able to directly assist the active-duty students in my class and in the entire CTC distance learning program by identifying and addressing variables that affect their education. My personal and professional experience supporting active-duty students uniquely position me to address the struggles of active-duty service members that are completing their post-secondary studies.

Problem of Practice

From January 2019 to March 2020, I had 67 active-duty students. Thirty-two were stationed in the continental United States (CONUS), and 35 were stationed outside of the continental United States (OCONUS). Sixteen of those students heavily struggled with balancing the demands of service and schoolwork, which resulted in failure or dropping the course. During interviews for an action research Cycle 1, students indicated that they (a) struggled with a work/school balance, (b) felt the course was lacking in social or peer connection, and (c) did not receive support from their chain of command.

While I have no present ability to affect the support of a service member's chain of command, I do have the ability to encourage deeper social presence, which is the ability of students to make personal connections, allowing them to present themselves and view their peers as 'real people' in an online setting (Rourke et al., 2001). Although it is certainly possible for students to connect to their peers in an online setting, especially for younger generations that are more accustomed to online interaction, many of my students have indicated that they find a lack of peer connection in asynchronous online courses. Rather than connecting to their peers as they would in a face-to-face course, they see their peers not as individuals with opinions and biases that can impact learning, but as faceless discussion posts that require little, if any, interaction. However, by bringing personal connections into the course, encouraging students to share their personal experiences and opinions as they would in a face-to-face discussion, cognitive presence can deepen, leading students to construct meaning from content (Garrison et al., 2001).

Garrison et al. (2001) argue that students develop meaning of content through connecting with each other, discussing the content, and reflecting. Without peer connection and discourse, some students may fail to create a deeper meaning of content. Furthermore, I have found through early cycles of research, discussed in Chapter 2, that many active-duty students take a surface approach to the course, completing the minimum requirements needed to earn a C in the course. Many students seem to view discussion posts as a box to check, rather than as an opportunity to learn. It is possible that this is a pragmatic approach by students to balance their military service and education. A C earns a passing grade and qualifies those using military Tuition Assistance to receive aid. Furthermore, as previously discussed, it is an understood

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requirement for enlisted service members to earn a bachelor's degree if they want to continue to advance in the military. It is also possible that some students 'go through the motions' to get a degree in order to continue their military career, or perhaps as a way to prepare for civilian life upon separation from the military. For these reasons, it is possible that students feel that they are taking required courses — such as the one that is the focus of this action research study — out of obligation. This can lead students to take a surface approach to the material, completing only the requirements. While this is certainly acceptable for students to have a goal of a C, I believe this approach prevents students from connecting the course content to their lives, experiences, and other content. This not only affects their course engagement, but also affects their internalization of the content and how much they learn- and as Winston Churchill (1948) famously said, "Those who fail to learn from history are doomed to repeat it." Of course, I wish for all students to focus on performing at high levels. However, some students are likely satisfied with only completing enough to pass the course. It is not my wish or goal for my expectations to create a mindset or environment that these students are wrong or need help. Rather, my aim is to nudge those students who may need prompting to become more engaged.

The intervention, the Reaction & Reflection (R&R) Journal, is a weekly journal assignment in *American History I*, commonly referred to as HIST 1301. The innovation is designed to encourage students in an asynchronous environment to engage with peers in the weekly discussion post, then critically think about social and personal connections to their peers' responses and the material, which they then reflect on in their R&R Journal. The R&R Journal is shared only with the instructor, which provides a safe place for students to be open in their responses without fear of judgment, as I am clear that I am

not grading or judging based on student opinion, but rather their ability to make deeper connections with course content and support their arguments. To show they are making deeper connections, students are asked to explain their reasoning with fact from the course material, outside research and the discussion posts. They are also encouraged to think more deeply by discussing counter arguments and viewpoints in relation to their own. Students are explicitly told that it is not their opinion that was graded, but their explanation, defense, and argument of their work.

Although the innovation focuses on increasing social and cognitive presence, the journals will support greater teacher presence, as the R&R Journal is completed on a GoogleDoc, allowing for direct commenting and increased conversation and connection between instructor and student. The primary goal of the innovation, the R&R Journal, is to increase both social and cognitive presence in the asynchronous, online HIST 1301, student attitude towards the course, and ultimately overall student achievement. To do this, students need to increase both their intrinsic and extrinsic motivation so they can move beyond superficial engagement, and the nature of the R&R Journal will increase both intrinsic and extrinsic motivation (Borokhovski et al., 2012; Martin & Bollinger, 2018; Reeve & Lee, 2014; Skinner & Belmont, 1993). Students often need to be encouraged and pushed to engage and connect with each other and the course content.

The R&R Journal is designed as a mandatory course assignment, providing external motivation for students to complete the journal in the form of a grade. However, as students answer the prompts, which ask them to consider and reflect on their peers' discussion responses and make personal or modern-day connections with historical content, I anticipate that students will begin to make both personal and cognitive

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connections, which may lead to an increase in intrinsic motivation. As students make deeper cognitive and social connections, they will become more internally motivated to learn and apply the work. By increasing social and cognitive presence, along with internal and external motivation, attitudes toward the online course and overall student achievement in HIST 1301 are likely to improve. Figure 1 shows the alignment of the innovation, theories, and constructs of the study. A path between attitude and overall student achievement exists, but the purpose of this study is to see how the innovation affects both collectively as opposed to exploring paths between the two. Additionally, while Self-Determination Theory is an important and guiding aspect of the study, the innovation focuses solely on implementing a community of inquiry.

Figure 1

Alignment of Innovation, Theories and Constructs
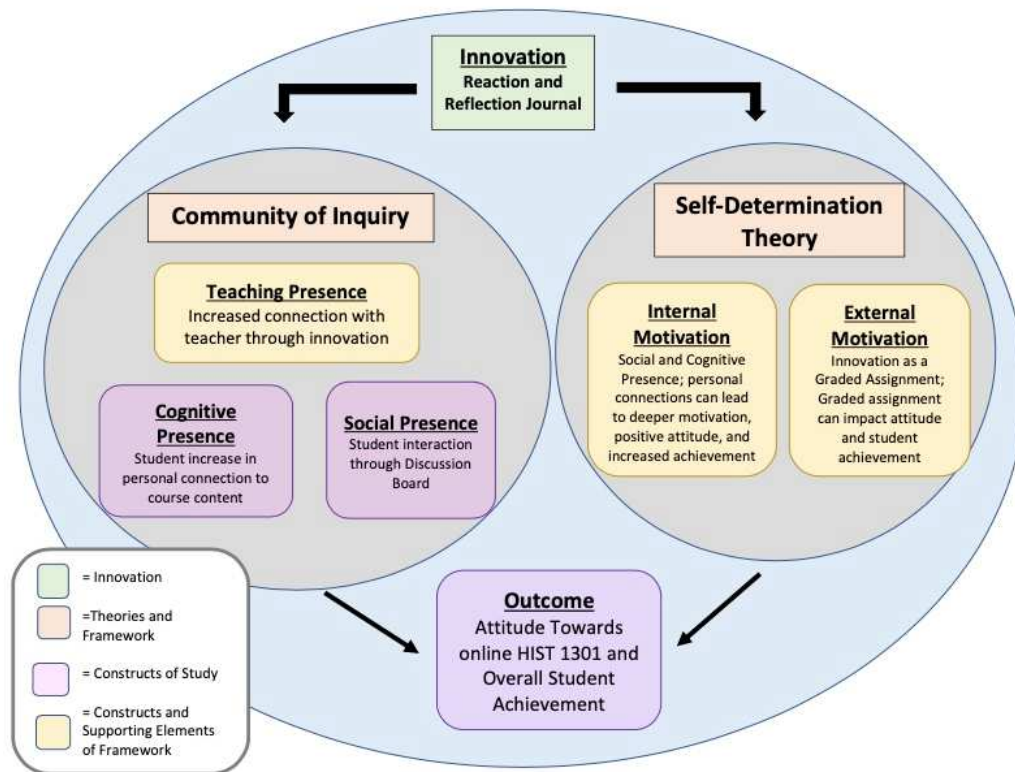
A Brief Introduction to the Intervention

The Community of Inquiry framework, when applied to distance education, promotes collaborative engagement, reflection, and critical discourse by encouraging the participant to create personal meaning through participation and discussion (Garrison et al., 2000). The intervention, the Reaction & Reflection (R&R) Journal, will replace two writing assignments in the course, and will promote student-student and student-content engagement. Because the course is asynchronous, students may complete each of the eight modules at different times, severely limiting the amount of interaction students have with each other in the discussion boards, which is their primary, if not only, form of peer interaction in the course. As previously noted, students indicated in early cycles of research that they were missing the peer interaction of face-to-face courses, but I have found that the nature of both the asynchronous course and the impact of military service has made the students' desired peer or social interaction difficult to achieve.

The R&R Journal is designed to promote both social and cognitive presence in the course while still supporting the asynchronous setting needed to support the needs of active-duty military students. Each week, students will respond to pre-determined questions in a private R&R Journal kept on a GoogleDoc, visible only to the student and the instructor. More deeply discussed in Chapter 3, the R&R Journal prompts require students to return to their weekly discussion boards and analyze and respond to their peers' discussion posts, increasing students' social interaction. Because students work on the course at different paces, it is common for students to make their initial discussion post, and move on to the next module, which prevents them from reading their peers'

responses. The R&R Journal will require students to read their peers' discussion responses, reflect on their words and mentally interact with them, creating an internal discussion that replaces the in-class discussions of face-to-face courses. Journal prompts require students to consider their peers' opinions, whether they be similar or different than their own, and reflect on their peers' ideas and personal biases, as well as their own personal and modern-day connections to course material. As students answer the journal prompts, they will discuss their reaction to and reflection of their peers' responses. Additionally, social presence will be further supported as their instructor will make comments and ask questions supporting deeper cognitive thought directly on the GoogleDoc, which students can then respond to, further promoting social interaction in the course.

Students' deep reflection of discussion board interactions is expected to increase social engagement in the asynchronous online course, and students will build cognitive presence by analyzing discussions and making real-life connections to the content, allowing students to construct meaning from the content. Deep reflection includes thoughtful responses that make references to other discussion posts and material. It includes an explanation of ideas, reasoning, and uses material to support that. In addition, it can include acknowledging ideas from opposing viewpoints and discussing those in relation to their ideas. By constructing meaning, students are more likely to internalize and apply learned content, giving them a deeper understanding of the material that extends past the confines of the course (Garrison et al., 2001). The R&R Journals are designed to promote social and cognitive presence, with the goal of subsequently

positively affecting attitude toward the course and improve overall student achievement of active-duty students in my HIST 1301 courses.

Methods for measuring the social and cognitive presence of students, as well as their attitude towards the course, will be measured through a pre-intervention and post-intervention survey. Student achievement will be measured by reviewing students' overall course grade. Qualitative data gathered by the surveys will further be supplemented by data gathered from the intervention. Additionally, I will compare overall course grades between courses that have implemented the innovation with those that have not. These methods are discussed in detail in Chapter 3.

Purpose of Study and Research Questions

The purpose of this study is to examine how the R&R Journal, an intervention to assist students in increasing social and cognitive presence within the course, affects active-duty military students' continuing efforts to complete online classes, specifically HIST 1301, at Central Texas College. The study is conducted with active-duty service members enrolled online in HIST 1301 and is guided by the following research question:

RQ: Compared to their civilian peers, how and to what extent did implementation of the Reaction & Reflection Journal affect active-duty students':

(a) social presence in their HIST 1301 course?

(b) cognitive presence in their HIST 1301 course?

(c) attitude towards online HIST 1301?

(d) overall academic outcome (course grade) in online HIST 1301?

CHAPTER 2

REVIEW OF RESEARCH AND THEORY INFORMING THE STUDY

In the 2011-12 academic year, 170,790 active-duty service members were enrolled in undergraduate programs in the US (Molina & Morse, 2015). Of those, more than 60 percent "were identified as having four or more risk factors associated with not completing college. By contrast, 44 percent of veterans, 37 percent of reservists, and 30 percent of National Guard members had four or more of these risk factors" (Molina & Morse, 2015, p. vii). These risk factors included single parent status, full-time work while in college, part-time college enrollment, delayed college enrollment, having dependents, financial independence, and no high school diploma (Molina & Morse, 2015). Military service members also face additional obstacles, like the unpredictability of deployments, long hours, field exercises, and changes of duty station. Not only could these obstacles be considered additional risk factors, but they often mean traditional face-to-face courses are may not be an option, which lead many active-duty service members to enroll in online distance education programs.

The rapid growth of online education in recent years triggered an urgency to understand the needs of all learners, including nontraditional online students such as active-duty service members. Military resources, such as Tuition Assistance, and college resources like a flexible, military-positive classroom with self-pacing options, have positively affected military students' persistence in online courses, but military service obligations adversely affected their online learning (Brock, 2018; Johnson, 2017).

In my experience, the majority of active-duty students enrolled in my asynchronous online HIST 1301 often treat the assignments as a box to check, making

sure the assignment is complete but without making any real cognitive connections or effort to learn. This includes engaging in plagiarism, skipping assignments entirely, submitting incomplete assignments, making only surface-level connections, or do not complete assignments resulting in not passing the course. In terms of how assignments are addressed by students in my HIST 1301 course, when compared to their civilian counterparts, active-duty students more frequently wait until the end of the course to submit assignments, do not complete the requirements of assignments, or do not submit assignments. Because many students, often civilian, are successful in completing the requirements of the course, it's reasonable to assume the instructions and explanations of the tasks are clear, and that the needs of active-duty students are unique and require additional thought to meaningfully engage this group of learners.

To effectively design and implement an intervention that increases social and cognitive presence of active-duty service member students in their asynchronous online course, it is imperative to study prior research related to distance learning and higher education for active-duty service members and veterans. After reviewing prior research, this chapter explores theory informing the research: Community of Inquiry framework (Garrison et al., 2000) and Deci and Ryan's (1985) self-determination theory (SDT). Finally, the chapter ends with a review of prior cycles of research and a summary of the main points and implications.

Prior Research

This review of scholarly literature will first offer contextual information on the plight of military students enrolled in online community college programs. Although there was extensive research on both community college and distance learning programs,

and the themes of barriers, support, and persistence were identified, little research was found that specifically addressed the relation between active-duty service members and online education. The following section reviews scholarly literature concerning student motivation towards learning in online environments. Finally, this section includes summaries of literature on theoretical frameworks and constructs that inform this study.

Active-duty Students' Academic Success

Both active-duty and veterans taking traditional college courses have reported that they felt uncomfortable among the traditional student population or misunderstood by faculty (Zoli, Maury, & Fay, 2015). Consistent with this perspective, Brown and Gross (2011) claimed faculty members may view military students as high maintenance, as they face disadvantages, such as being called to duty on short notice or having limited access to the internet, that leave their civilian peers unaffected. This fostered a distinct disadvantage for military students because the relationship between faculty and student veterans "may be the most important nonfinancial key to ensuring the persistence of student veterans" (Vacchi, 2012, p. 20). It can be inferred that this would be similar for active-duty students.

Transitions. Although some military students may not feel comfortable in traditional face-to-face settings, they also experience additional obstacles that make the transitional experience more difficult. For example, while the transition to college can be difficult for any student, military students face additional transition challenges associated with their military service, including deployment, war, or post-traumatic stress disorder (Ballenger-Browning & Johnson, 2010). Furthermore, active-duty students face additional frustrating and disruptive challenges, like being suddenly reassigned to a new

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duty assignment, whether it be at the same or a different military installation (DiRamio et al., 2008).

Most researchers who have examined service members' educational experiences focused on a single institution, though DiRamio and colleagues (2008) conducted a study across three college campuses. They found that service members with combat experience struggled with the transition from active-duty service to a less-structured academic environment. There was a common theme of the need for support throughout DiRamio et al.'s (2008) study. Notably, because military service members demonstrated different experiences, they needed to be treated as individuals by instructors *and* support services personnel (Rausch, 2014; Starr-Glass, 2013; Vaccaro, 2015; Vacchi, 2012). Although I cannot influence support from service member's chain of command, I do hope that the intervention will allow active-duty students to be more supported by their instructors in their online classes.

Due to additional obstacles, as discussed in Chapter 1, an increasing number of military students have been taking online college courses, which created unique challenges and opportunities for institutions (Brown & Gross, 2011). As previously noted, both active-duty and veteran service members have been nontraditional students, and "military learners come with all of the fears and concerns of civilian learners, only more so" (Starr-Glass, 2013, p. 359). Military service members may have faced stereotypes in the civilian world, which affected their approach to education. Starr-Glass (2013) argued that although their challenges were different, the needs of military students in distance learning courses did not greatly differ from those of traditional students. Supporting the use of the Community of Inquiry framework, Starr-Glass (2013)

suggested the most effective way to influence student retention was instructors'

engagement, which focused primarily on instructors practicing mindfulness and

approaching military students as individuals. This orientation was captured effectively

when Starr-Glass (2013) stated:

> Military learners are best recognized as individuals, but for that to happen
> they must be included in a dialogue where authentic listening occurs.
> Military learners neither need special favors nor demand differential
> treatment, but they are entitled to be understood as individuals, not
> representatives of something else. (p. 360)

Degree Persistence. Degree persistence is a common topic of scholarly research

in studies related to higher education. Most commonly, persistence is defined as a

student's commitment to their studies, despite the challenges they may encounter (Burrus

et al., 2013; Miller et al., 1996; Multon et al., 1991; Robbins et al., 2004). Persistence can

be measured in numerous ways, such as graduation (Ben-Yoseph et al., 1999), remaining

enrolled at an institution (Pritchard & Wilson, 2003; Robbins et al., 2004), or simply the

intention to persist (DaDeppo, 2009). In relation to this study, focused on active-duty

service members, persistence will apply to service member's intention to persevere in an

online course, which one can argue is a motivational measure influencing students'

academic outcome.

The community college system has a long history of supporting service members

(Guth, 2019). Many service members may take longer than traditional students to

complete their degrees, despite factors that positively influence their persistence,

including military-friendly school procedures, and supporting a balance between work,

school, and family (Williams, 2016). While time to complete a degree varies based on the

individual, some service members may persist towards their degree for decades, having

had to plan their educational careers around their military careers (Williams, 2016). To demonstrate persistence, students must actively work toward degree completion (Rovai, 2003; Williams, 2016). For military service members, degree persistence has been demonstrated in many ways. Service members may have taken courses each semester, passed proficiency exams, or even transferred military training experiences toward course credit. Nevertheless, it has been difficult for institutions to measure academic persistence of service members because of the complex path to earning a degree, especially considering the fact that active-duty service members serve in different locations, experience different circumstances and stressors, and have different levels of motivation.

Students can 'double dip' by enrolling in more than one institution; 'stop out' by taking a temporary break from coursework; create a 'swirl' by transferring in and out of higher education; or 'dropout' and stop their education entirely (Schulte, 2015). These various alternatives have made it difficult for institutions to track student persistence because institutions would not necessarily have known whether students were double-dipping, stopping-out, or dropping-out. Further, if students enroll into a university for course work, the institution cannot predict whether those students will graduate from that institution or another (Schulte, 2015). Schulte's (2015) research is applicable to active-duty service member students because like other community college students, it was difficult to measure their persistence as evidenced by the lack of scholarly research. For example, active service members may be required to stop-out due to deployments or training, double-dip or swirl due to military moves, or they may have dropped out entirely. As students pursued their education, if they swirled or double-dipped regularly, they may have been required to duplicate course work for credit, prolonging their

education. As a result, prolonged enrollment may have adversely affected students'

academic persistence throughout their degree program (Johnson & Muse, 2012).

Nevertheless, research results have shown double-dipping done in community college

and four-year college programs has had a positive effect on student persistence (Wang &

Wickersham, 2014).

Military resources, like the GI Bill or GoArmyEd, have positively affected

military students' persistence in online courses, but military service obligations have

adversely affected their online learning (Johnson, 2017). Results showed more than 80%

of veterans dropped out of college within the first year, and only 3% would graduate

(Callahan & Jarrat, 2014). While veterans are no longer active-duty service members,

studies have found that more than 60% of active-duty service members have four or more

risk factors associated with not completing their degree, compared to only 44% of

veterans (Study International, 2015). This implies that it is more likely for an active-duty

service member to drop out of college than a veteran. To combat this, a flexible, military-

positive classroom with self-pacing options, along with introducing healthy coping-

mechanisms for stress has been found essential to fostering student persistence and

completion of an online program (Brock, 2018). Creating veteran-specific programs and

veteran-only courses, providing professional development for faculty with regard to

veteran needs, and building strong institutional support structures, like counseling

services, have also been found to positively affect academic persistence of veteran

students (Griffin & Gilbert, 2015; O'Herrin, 2011; Persky & Oliver, 2011). Along with

instructor flexibility, instructor engagement was key to increasing student efficacy and

retention, which affects student persistence as described earlier in the *Problem of*

Practice section. According to Starr-Glass (2013), "Mindful instructors appreciate this and understand that flexibility means more than changing dates, granting extensions, or making exceptions. It is vital to recognize and maintain requirements that contribute to good educational outcomes, but it is also vital to acknowledge the unique circumstances of the learner" (p.360).

Supports Impacting Persistence of active-duty Students. Since the introduction of the Post 9-11 GI Bill, also known as the New GI Bill, college has been made more accessible for many service members and their dependents. Military resources like the New GI Bill and GoArmyEd have had a positive effect on the education of deployed soldiers (Murray, 2013). On average, the New GI Bill has increased college enrollment by three percent nationwide (Zhang, 2018). The New GI Bill has been available as a blanket policy to most active-duty service members and veterans, but student service members cannot be treated with blanket policies by the university or in the classroom (Vacchi, 2012). O'Herrin (2011) summed up the matter well:

> Because veterans are a diverse population with an incredibly wide range
> of experiences, it is impossible to take a one-size-fits-all approach to
> serving them. Thus, one of the most important steps that campus
> leadership can take is to gauge the specific needs of veterans at their
> institution before devoting resources to new initiatives. (p. 16)

Each student has individual needs, and this includes both active-duty and veteran service members. However, Vacchi (2012) identified five areas to enhance the college and learning experience for active-duty and veteran service member students, noting "Creating a veteran-friendly campus environment begins with awareness and professionalism" (p. 20). Vacchi (2012) argues that processing the GI Bill in a timely manner, lifting mandatory requirements for health care for students with VA health

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coverage, bursar awareness of student veteran status, academic advising practices that understand the nuanced requirements of transfer credits, and faculty practices, like accommodating seating arrangements or keeping opinions of current military affairs private, if they do not relate to the course, all enhance the learning experience for active-duty and veteran students.

Other supports with positive feedback from active-duty and veteran students include veteran-specific learning communities, deferred tuition, awarding college credit for military learning experience, flexible enrollment dates, establishing a student veterans' group on campus, providing veteran students with a comprehensive orientation to the university, and establishing specific points of contact for military and military-adjacent students on campus (Brown & Gross, 2011; O'Herrin, 2011).

Theoretical Frameworks

This section explores the theory and framework used to guide this study: The Community of Inquiry framework and Self-Determination Theory.

Community of Inquiry

The Community of Inquiry (CoI) framework (Garrison et al., 2000) has been shown to be consistent with the notion of mindful instructors as described by Starr-Glass (2013) when referring to instructors of military online learners who understand and "acknowledge the unique circumstances of the learner" (p.360). In particular, the CoI framework has included three major concepts relevant to online learning: (a) cognitive presence, (b) social presence, and (c) teaching presence (Figure 2). Presence can be difficult to define, as it can encompass many things. In relation to the CoI framework, presence "encompasses capacity to be found and connected to through multi-mediated

forms of both synchronous and asynchronous communications" (McKerlich et al., 2011, p. 325). Presence allows for learners to create and contribute to an understanding of content, creating a connection between both peers and content that can extend past the classroom. For example, when contributing to an understanding of content, students may interpret the content differently due to personal experiences and biases, which can lead other students to see the content from a different perspective that they will carry with them past the time constraints of the course. Garrison et al. (2000) defined cognitive presence in relation to the CoI framework as the extent to which students or participants "are able to construct meaning through sustained communication," which while not always perfect in traditional face-to-face classrooms, is more difficult to achieve in asynchronous, online classroom settings (p.89). Social presence allows students to "project their personal characteristics onto the community, thereby presenting themselves as 'real people'" (Garrison et al., 2000, p. 89), rather than an anonymous- and perhaps indistinguishable- set of individuals on the computer screen or in the online classroom. To be perceived as a 'real' person in an online community, a person must (1) acquire a social identity, (2) engage in purposeful communication, and (3) build relationships (Garrison, 2009; Krejins et al., 2014). Teaching presence encompasses both design and facilitation, ensuring that social and cognitive presence are supported and enhanced (Garrison et al., 2000).

Figure 2

Community of Inquiry framework

Aimed specifically at online and blended learning communities, the CoI framework supports a collaborative learning environment in a setting where many may find it difficult to collaborate. According to Kilis and Yildirim (2019), "The CoI framework also articulates the behaviors and processes required to nurture knowledge construction through the cultivation of various forms of presence" (p. 179). Creating and maintaining an online presence, which is supported with the CoI framework, is crucial in distance education because students need to make connections with their peers and instructors.

Just as military learners have different needs and experiences, students enrolled in online courses have needs that differ from traditional, face-to-face students, like identification with school and establishment of interpersonal relationships (Rovai, 2003). For these needs to be addressed and learning to be supported, students must participate in interaction with one another. A crucial element to online learning is student interaction and the cognitive process of ''offering up ideas, having them criticized or expanded on, and getting the chance to reshape them (or abandon them) in the light of peer discussion'' (Rowntree, 1995, p. 207). In adult distance education courses as short as five weeks, online instructors can use the CoI framework to create and promote a sense of classroom community that lessens psychological distance and encourages student-student interaction (Rovai, 2001). Through the implementation of my intervention following the CoI framework, this can also be achieved in eight-week, self-paced courses by addressing social, cognitive, and teaching presence. In short, in the current study, social presence is addressed by the intervention through having students read and consider their peers' views in discussion posts, then reflect on their reactions to peers in their journals. Cognitive presence is addressed by encouraging students to make personal and present-day connections to the course material. Finally, teaching presence is addressed through increased interaction between instructor and student in their R&R Journal.

CoI and Student Persistence. Online education is rapidly growing, but persistence of online students is concerning because the drop-out rate may be up to seven times higher than those of campus-based programs (Boston et al., 2009). In their study on student retention, Boston et al. (2009) analyzed over 28,000 student records to determine the effect of the CoI framework and its influence on student persistence. Results showed

88% of social presence indicators, 33% of teaching presence indicators, and 75% of

cognitive presence indicators "were significant predictors of student re-enrollment"

(Boston, et al., 2009, p. 77). Boston et al. (2009) used the CoI Survey Instrument,

comprised of 34 indicators to measure social, teaching, and cognitive presence. Teaching

presence is measured by design and organization, facilitation, and direct instruction.

Social presence is measured by affective expression, open communication, and group

cohesion, and cognitive presence is measured by exploration, integration, and

experiencing triggering events, like feeling a sense of increased curiosity (Swan et al.,

2008). Multiple studies have found that a lack of social presence in online-courses is a

key factor in students dropping out of courses (Dempsey & Zhang, 2019; Kilis &

Yildirim, 2019; Szeto, 2015), which may support the argument that social presence is the

most important factor of the CoI framework (Boston et al., 2009). Considering this,

higher student engagement with peers, or social presence, can lead to increased student

success. Therefore, my intervention is supported by both teaching presence and cognitive

presence, but it primarily focuses on building social presence through student analysis of

course discussion posts, with the expectation that the intervention's effect on social

presence will also increase teaching presence and students' cognitive presence.

Self-Determination Theory

Deci and Ryan (2015) suggested Self-determination Theory was effective in

understanding individuals' motivation when they claimed, "As a motivational theory, it

addresses what energizes people's behavior and moves them into action, as well as how

their behavior is regulated in the various domains of their lives" (p. 486). Thus,

individuals possessed "inherent growth tendencies and innate psychological needs that are the basis for their self-motivation" (Deci & Ryan, 2000, p. 68).

Self-determination theory argues that motivation is a continuum between intrinsic and extrinsic reward (Schallert & Martin, 2003). With intrinsic motivation, rewards come from completing a task because they get a personal feeling of accomplishment or enjoyment, like increased understanding, progress, or mastery. With extrinsic motivation, the reward is the potential to get something in return, like a college degree. Grades can be argued to be both intrinsic and extrinsic motivators, as they are given in return for student work, but can also provide a personal feeling of accomplishment to students. As individuals act on their motivations, they are able to 'self-determine' where they are on the continuum (Deci & Ryan, 2000; Schallert & Martin, 2003).

In this innovation, the external reward is the score on the assignment. The internal reward is intended to be the personal connections made to the content, the instructor, and peers achieved by increasing social and cognitive presence in the Community of Inquiry (Figure 3). Because of the relationship between motivation and attitudes, it can be presumed that this innovation will lead to an increase in student attitude towards the online course and overall student achievement in HIST 1301. Although not a construct of this study, the relationship between motivation and attitude would have subsequent impacts on persistence, an important consideration given prior research that documents this need for this particular group of online learners.

Figure 3

Alignment of Innovation, Theories and Constructs
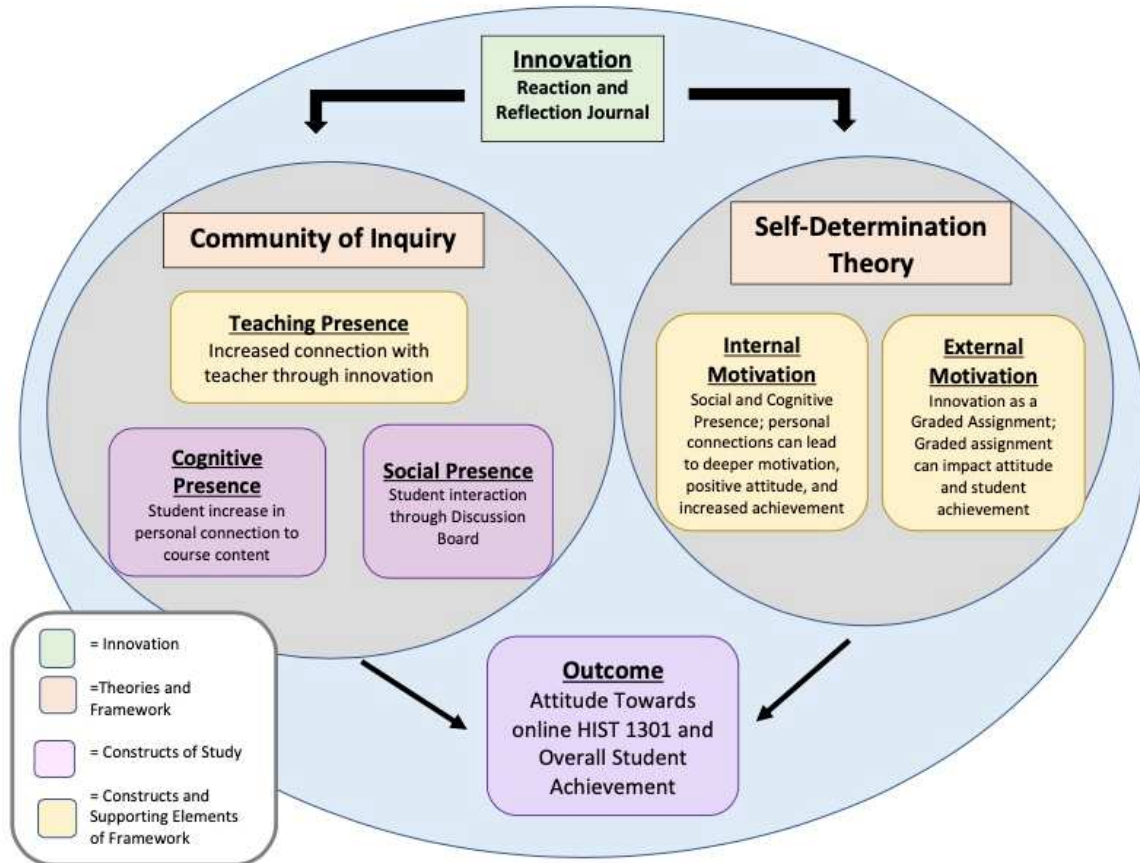
In relation to the Community of Inquiry framework, by increasing social presence in the online classroom, students can become motivated to share their knowledge and opinions with their peers. By increasing social presence, students will be motivated to increase their involvement and connection with the material, which will increase their cognitive presence in the course. Furthermore, the more students feel they have the ability to share information, express their beliefs, share personal experiences, and have an identity within the online classroom, the more secure a student feels in the course, which

leads to an increased social presence (Sung & Mayer, 2012). As students feel more connected and socially secure in their online course, they will be more intrinsically motivated to express their ideas, increasing their social presence.

Implementing the CoI framework will impact students' self-determination, as they increase in intrinsic motivation, extrinsic motivation, or both. Through the CoI framework, students may increase in intrinsic motivation, as the social connections in the class will inspire them in their studies, increase their interest through personal connections, and lead to personal fulfillment. Alternatively, because social presence will increase, students may become more extrinsically motivated to prove their competence to their peers.

Student Motivation in Online Learning Environments

Online learning has greatly expanded in recent years, making educational opportunities more accessible to an increasingly diverse student population (Rumble & Latchem, 2004). Hartnett et al. (2011) note that much of the existing research into motivation of students in online learning environments focuses on either intrinsic or extrinsic motivation. External motivation consists of outside recognition, which could include grades, eligibility for scholarships, or work promotion (Knowles & Kerkman, 2007). External motivators can be present for many active-duty students, as those using Tuition Assistance must earn a C or higher for their tuition to be funded, and service members can more easily earn military promotion or gain civilian employment if they earn a bachelor's degree. However, it can also be argued that extrinsic motivators can undermine students' internal motivation, as students are focused on the reward rather than learning or retaining the content (Deci, Koestner, & Ryan, 1999). Alternatively,

verbal rewards, or positive feedback, a form of extrinsic motivation, has been found to lead to an increase in intrinsic motivation, particularly in adults (Deci, 1971; Deci, Koestner, & Ryan, 1999). Online students have also been found to have more intrinsic motivation than their on-campus counterparts, as studying in an online environment can be seen as more rewarding, as they are able to "learn anytime" (Rovai et al., 2007, p.33). However, it is important to note that instructor presence and ability to facilitate online discussions in a manner that limits feelings of isolation among students is necessary to create a successful online classroom community (Rovai et al., 2007). Additionally, "On-line instructors should be sensitive to the different communication patterns used by their students and should adapt their teaching in ways that facilitate the interaction of diverse groups and accommodate individual and group differences without sacrificing or silencing other members of the learning community" (Rovai et al., 2007, p. 46). While external motivation is on one end of the spectrum, internal motivation, or simply the desire to learn, is on the other. Amotivation, or the lack of both intrinsic and extrinsic motivation, though not discussed for this study, is on the far end of the continuum. Deci and Ryan's (2015) Self-Determination Theory supports the idea that students' motivation exists on a continuum of both internal and external motivators (Schallert & Martin, 2003). Figure 4 demonstrates the motivation continuum with the ideas discussed above.

Figure 4

Continuum of Motivation
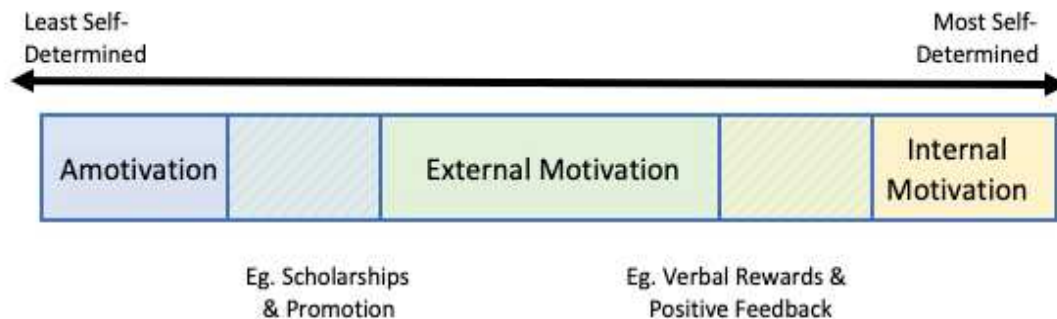
Studies show that motivation influences how, when, and what students learn, and that motivated students are more likely to be actively engaged, adopting a deep approach to learning (Schunk, 1995; Schunk, et al., 2008). Student motivation affects multiple aspects of online learning, like student achievement (Eccles et al., 1993), and course satisfaction (Fujita-Starck & Thompson, 1994), both of which can further increase student motivation. Initially, a student's ability to maneuver the online learning environment (e.g., hesitation, unfamiliarity, or uncertainty for students not comfortable with online learning platforms) has a large impact on their motivation, but as students become more comfortable with online learning, student attitude towards online learning becomes more important as a factor for student success (Valantinaitė & Sederevičiūtė-Pačiauskienė, 2020). Student attitude towards online learning has a strong effect on student outcomes (Liaw et al., 2008), and that positive attitude can be indicative of student motivation. By measuring student attitude towards a course, like HIST 1301, you can make reasonable assumptions about student motivation in the course, especially when other constructs, like presence and overall achievement, are also measured. If a student

has a positive attitude towards online learning, then their learning outcomes will be higher than their counterparts with a negative attitude. Figure 3 shows the relationship between the innovation, motivation, student attitude towards the online course, and overall student achievement. Again, although a path between attitude and overall student achievement exists, the purpose of this study is to see how the innovation affects both collectively as opposed to exploring paths between the two.

Motivation and the Community of Inquiry Framework

The Community of Inquiry Framework places equal emphasis on teaching, social, and cognitive presence. However, the constructs of my study focus specifically on increasing social and cognitive presence, using teaching presence as a support through the innovation. The innovation, the R&R Journal, increases teacher presence, as it allows the instructor to have more communication with students through GoogleDocs, providing feedback and encouraging deeper cognitive thought, thus impacting both social and cognitive presence. Furthermore, the innovation, designed and guided by the instructor, encourages students in an asynchronous environment to make more connections with their peers by actively and mentally engaging with their peers' discussion posts.

Strategies for Motivation. Studies have shown that a lack of time and lack of motivation are the main factors that negatively affect learning outcomes in online courses (Aragon & Johnson, 2008; Serwatka, 2005; Visser, et al., 2002). While there are multiple factors that affect motivation, Kyong-Jee and Frick (2011) found that two of the strongest predictors of increased motivation for students is finishing several lessons in a course, and making relevant, personal connections to the content, or presence in the course. Presence has been found to increase student motivation (Martin & Bollinger, 2018),

which includes but is not limited to strategies of icebreaker discussions, sending regular

e-mail announcements (Cuthrell & Lyon, 2007; Ko & Rossen, 2010; Martin & Bollinger,

2018), structured, asynchronous discussions (Garrison & Cleveland-Innes, 2005; Gilbert

& Dabbagh, 2005; Martin & Bollinger, 2018), and real-world applications (Martin &

Bollinger, 2018). Alternatively, despite the importance to learning skills that will be used

in the workplace, students have also reported that online discussions, group projects,

synchronous meetings, and long readings have a negative effect on engagement and

motivation (Martin & Bollinger, 2018). These findings reveal that the use of online

discussions can have varied effect on learner engagement and motivation. To mitigate

potential negative effects, discussions have to encourage real-world application and

personal connection in order to positively affect learner engagement — as was done in

HIST 1301 (see Appendix F) In addition, Reeve and Lee (2014) found a strong

relationship between changes in students' classroom engagement and their classroom

motivation. The more students were engaged, the more motivated they became, as "what

enhances motivation would be *extra* effort, *unexpectedly* positive emotion, *deeper*

thinking, and *more* proactive contributions (i.e., greater behavioral, emotional, cognitive,

and agentic engagement)" (Reeve & Lee, 2014, p.536).

Model of Motivation. Skinner and Belmont's (1993) model of motivation

identified three psychological needs of students: structure, involvement, and autonomy

support, which when applied by teachers supported student success. In particular,

autonomy support, which occurred when teachers engaged student interest by connecting

it to classroom tasks, allowed students to have freedom within the classroom and their

learning, enabling students to self-regulate *and* self-motivate (Skinner & Belmont, 1993).

Although Skinner and Belmont's (1993) research focused on grades 3-5, other studies have taken note from their study, and applied it to college students.

Garcia and Pintrich (1996) found similar results to Skinner and Belmont (1993), as autonomy in the college classroom was found to be closely related to motivation. Cultivating a sense of autonomy in the college classroom can include student choice over essay topics or reading assignments and asking for student opinion, all of which support a structured course environment. Adopting these and similar classroom procedures can lead to strong end-of-term motivation for college students, leading to both greater student satisfaction, success, and retention (Garcia & Pintrich, 1996). In some college classroom environments, like an online course, it can be difficult for instructors to build one-on-one relationships with their students. However, by allowing students to have autonomy in a course, the instructor can "create an environment within which students sense that even if the teacher does not know the student personally, the instructor does care about what students have to contribute to the course" (Garcia & Pintrich, 1996, p.485).

Instructors' encouragement of students in distance education programs to collaborate and communicate with each other has the potential to increase motivation of online students. Borokhovski et al. (2012) captured this thought when they said, "Designing more interactive treatments that allow students to communicate better among themselves and with learning materials can increase the effectiveness of DE [distance education]" (p. 315).

Motivation and Self-Determination Theory

Self-determination theory is commonly applied to online learning, specifically in regard to academic motivation (Chen & Jang, 2010; Hartnett, 2015; Hartnett et al., 2011),

which can influence student attitudes. The construct of attitude towards participation in the online course falls under the larger umbrella of the construct of online learning attitudes, which focuses on the attitudes of online learners towards their personal online learning experience (Dumčienė et al., 2016; Rhema & Miliszewska, 2014; Suri & Sharma, 2014). Online learning attitudes are an important construct to study, as it can provide insight to student motivation (Rhema & Miliszewska, 2014). Simply put, if a student has a good attitude towards online learning, it is reasonable to assume that the student will have high motivation and determination in the online course. Similarly, a negative attitude could negatively impact student motivation and determination within online learning.

Previous Cycles of Action Research

As with any action research, my research study has evolved over time. When I initially began this action research, I intended on focusing on how various states of active-duty service affected students' online learning. I wanted to compare those who were deployed, stationed in the continental United States, and those who were stationed outside of the continental United States, with the goal of creating an intervention to best support active-duty students in their various states of service.

Action Research Cycles 0, 1, and 2

The study was designed using a quasi-experimental (with treatment and comparison) concurrent mixed methods design, gathering both quantitative and qualitative data simultaneously. The current study represents Cycle 3. Briefly, each of the prior cycles 0-2 are introduced here before a full explanation of the current study. Each cycle of study took place over an 8-week period, as shown below in Table 1. Cycles 0

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and 1 were considered learning phases, as I gathered initial data to solidify my focus, research questions, and methods. These early cycles included interviews and analyzing course data, which impacted the direction and basis of the study. By Cycle 2, my methods for research were largely determined, and they were analyzed and tested to ensure that quality research was conducted in Cycle 3. Table 1 shows a complete timeline of study.

Table 1

Complete Timeline of Study

Cycle	Time Period	Action
Cycle 0	Fall 2019-Spring 2020	Determine problem of practice, constructs, frameworks, and methods for study
Cycle 1	Fall 2020	Conduct preliminary interviews
Cycle 2	Spring 2021	Refine quantitative and qualitative methods, review research/theories, solidify plan for Cycle 3
Cycle 3	Fall 2021-Fall 2022	The current research. See Chapter 3

Cycle 0. My first cycle of research, Cycle 0, consisted of analyzing data from past HIST 1301 courses and interviewing eight active-duty students who previously took my course. From January 2019 to March 2020, I had 67 active-duty students, 32 of whom were stationed in the continental United States (CONUS), whereas 35 were stationed outside of the continental United States (OCONUS).

During Cycle 0, I found active-duty service members stationed or deployed overseas have a higher course completion rate than active-duty students who are stationed in the United States. Additionally, I discovered that of those who do successfully pass the

course, service members stationed in the United States generally earn higher grades. To gain deeper insight into this, I conducted interviews with eight active-duty students that had previously taken my HIST 1301 course (Appendix A). In interviews, there were three notable themes. First, active-duty students struggled with creating a work/education balance. Because service members are trained to place the mission first, their education can be negatively affected. As their focus is on the mission or other directives, the amount of time and energy available for school becomes limited, and their attitude and self-determination is negatively impacted. Second, the data showed that students are not making strong connections with their peers. Students largely made surface level connections with their peers and the material in the discussion posts, which limits their social and cognitive presence in the course. Students saw discussion posts as a box to check, rather than as an opportunity to learn. To change this, students need to be encouraged and pushed to engage and connect with each other. Third, the data shows that active-duty students do not feel their educational pursuits are supported by their chain of command. If students do not feel supported in their education, and their sole focus is instead pushed toward the mission, their attitude and self-determination can be negatively impacted.

Cycle 1. Concerns of participants, such as support and balance, are important, but I decided that there was little I could do to improve those aspects of service members' education. Therefore, after considering the results from Cycle 0, I determined that I wanted to shift my focus from a comparison of active-duty students in different duty states to increasing social and cognitive presence, attitude toward participation, and overall student achievement of active-duty students in my online HIST 1301 course at

CTC. I believe this can be done by following the Community of Inquiry framework, aimed specifically at online and blended learning communities.

Instruments. For Cycle 1, I gained IRB approval and administered two instruments through Google Forms to collect quantitative data. First, I deployed a Pre-Survey during Week 1 of the course to gain insight into five constructs: Course participation, peer connection, self-efficacy, content, and impact of military service (Appendix B). It is important to note that in earlier cycles, I considered using the construct and theory of self-efficacy, though I ultimately decided that in relation to online learning, self-efficacy is most often applied to non-academic attitudes and abilities, like computer skills (Anne & Matthew, 2017; Kuo et al., 2013; Zimmerman & Kulikowich, 2016).

In Week 4, I administered the Study Process Questionnaire, used to determine surface-level and deep-level approaches active-duty students took towards their coursework (Appendix C). All student responses were anonymous, but each survey asked demographic questions, which allowed me to identify active-duty service members. To collect qualitative data, I purposely selected four R&R Journals belonging to active-duty students. Two students who were identified as high achievers, and two students who were considered low achievers were chosen, and their journals were selected for analysis.

Results. Data from Cycle 1 ($n = 10$) showed that peer interaction, which includes feeling connected or a sense of community with peers, had a high correlation with a surface approach to learning ($r = 0.656$), as opposed to a deep approach to learning ($r = 0.062$). The Study Process Questionnaire (Appendix C), developed by Biggs (1987), was used to measure surface and deep approaches to learning, which I used in Cycle 1 to

measure cognitive presence. However, participation in the course, which includes feeling comfortable asking questions, sharing opinions, and finding enjoyment in online discussions, strongly correlated with a deep approach to learning ($r = 0.693$). Appendix B shows Cycle 1 pre-survey questions and constructs.

Peer connection, or social presence, was not strongly correlated with self-efficacy ($r = 0.049$), content ($r = 0.078$) or participation ($r = 0.211$). These results countered what I expected the data to show based on the literature reviewed, and I believe that the small sample size may have impacted the results. A Cronbach's alpha test was used to measure the reliability of constructs that comprised the questionnaire used in Cycle 1, with the results as follows: participation, 0.735; peer connection, 0.921; self-efficacy, 0.733; content, 0.958; and military impact, 0.562. Data ($n = 9$) from the Study Process Questionnaire (Appendix C) also showed that the impact of military service was strongly correlated with surface approach ($r = 0.692$), surface motive ($r = 0.706$) and surface strategy ($r = 0.623$). Military service is also not strongly correlated with content ($r = 0.133$) or self-efficacy ($r = 0.143$), or participation in online courses (r= -0.104). Again, it is important to note the small sample size of participants in Cycle 1 ($n = 10$; $n = 9$), and it can be argued that these results were insignificant.

In their R&R Journals, students began the course with expectations of "learn[ing] different views and interpretations of these teachings from my fellow classmates." They also recognized that reading the points of view of their peers can help them better understand the material or learn things they may have missed.

Cycle 1 research on the impact of military service on the student approach to online courses was expected and aligns with qualitative data gathered in Cycle 0. Military

service negatively correlated to participation in online courses, while strongly correlating to a surface approach to the course. This data supports qualitative data gathered in Cycle 0, where active-duty students said that they struggled balancing work and school, and that they felt largely unsupported by their chain of command. One participant noted, "The constant and long-term deployments, field and training exercises just slow me down." Another said, "It's been a challenge to balance priorities while being in school as active-duty. We are trained to put the Marine Corps first, even before family." These statements support low course participation and a surface approach to school. If active-duty students are focused on their military service, meeting seemingly endless demands, they have less time and energy to devote to school, and it is reasonable to assume that their attitudes towards the course and participation is negatively affected, which in turn may negatively impact their social and cognitive presence and overall academic outcome.

It is important to note that Cycles 0 and 1 of the research were early in the study, and it represents a time in the research where I was determining the best constructs and methods to achieve the goals of the study. The research process is one of continuous reflection and revision, and the surveys and constructs evolved after Cycle 1 to better fit the goals of the study. For example, the survey questions related to the military construct were revised to have greater internal consistency, and the Study Process Questionnaire, while useful in early stages of research, was removed from later cycles, as I could gather similar data in the Pre- and Post-surveys. With that said, I do believe that it is important to address the early procedures used in Cycles 0 and 1, as it did impact the direction of the study and later cycles of research. Chapter 3 discusses the methods used in later cycles.

Implications of Research, Theory, Prior Research Cycles, and Alignment

Active-duty military students in distance learning programs face unique obstacles that challenge their social and cognitive presence, as well as their self-determination, ultimately impacting their attitude toward participation in the course and their academic outcome. However, many of these men and women are determined, and with proper instruction from educators that considers the challenges active-duty military students face while promoting cognitive, social, and teaching engagement, military students can succeed in their coursework and thrive in their distance education programs. Implementing an innovation structured to support the Community of Inquiry framework, the goal is to increase student self-determination, leading to an increase in social and cognitive presence, student attitude, and ultimately student achievement.

Alignment

This study was guided by the following research questions:

RQ: Compared to their civilian peers, how and to what extent did implementation of the Reaction & Reflection Journal affect active-duty students':

      (a) social presence in their HIST 1301 course?

      (b) cognitive presence in their HIST 1301 course?

      (c) attitude towards participation in online HIST 1301?

      (d) overall academic outcome (course grade) in online HIST 1301?

RQ (a, b): The Community of Inquiry framework supports a process of deep and meaningful learning through development of social, cognitive, and teaching presence (Garrison & Cleveland-Innes, 2005). Combined, these three elements create a heightened educational experience. Increased social presence leads students to identify with the

community, communicate purposefully, and develop interpersonal relationships with their peers, while an increased cognitive presence leads students to construct meaning through reflection and discourse (Garrison, 2009). The CoI framework will frame my study while allowing me to determine the impact of the innovation on the social and cognitive growth of my students.

RQ (c, d): Previously, students in HIST 1301 had very little interaction with each other, but by implementing the R&R Journal and fostering motivation, students will be afforded opportunities to grow in self-determination. As they grow in self-determination through an increased social and cognitive presence in the course, I hope to see a positive effect on student attitude towards course participation. I expect that by implementing a CoI into my course, while also focusing on building self-determination, HIST 1301 students will improve their overall academic outcomes in the course.

Deci and Ryan's (1985) self-determination theory addresses both internal and external motivations. Internal motivation has been shown to increase confidence, which in turn is likely to positively affect attitude. If the innovation can challenge students to make personal connections with their peers and with the content, they may see more personal value in the work, increasing their attitude and self-determination to complete the course and reach their academic goals for the class.

CHAPTER 3

METHOD

Action research is specifically related to education, conducted by practitioners "with a vested interest in the teaching and learning process or environment for the purpose of gathering information" and improving educational practice (Mertler, 2020, p. 5). Action research is cyclical in nature, emphasizing an iterative research process. Beginning with a problem of practice, action researchers conduct observations, collect and synthesize data, develop an intervention, act, and repeat. There are many recursive models of action research, like Stringer's (2007) action research interacting spiral that consists of "look, act, think" (p. 8). Another version of action research, presented by Mertler and Charles (2011) has four stages: planning, acting, developing, and reflecting. Then, upon reflection, the action researcher can begin again with the next planning stage. Essentially, action research is continuous.

This chapter explores the context of my HIST 1301 course, where the intervention takes place, including an in-depth review of the master course, as it is designed without the intervention. After reviewing the participants and my role as the researcher, I provide a detailed discussion on the intervention and how it fits into the HIST 1301 master course. Finally, I review the design of the study, including quantitative and qualitative methods of data collection, data analysis, and a timeline for the study.

Context

For this project, my action research focuses on increasing social and cognitive presence, attitude, and overall academic outcome among active-duty service members enrolled in a distance learning course of HIST 1301 at Central Texas College. To begin

my research and determine my problem of practice, I studied data from my previously taught HIST 1301 courses. I found active-duty service members stationed or deployed overseas had a higher course completion rate than active-duty students who were stationed in the United States. Additionally, I discovered that of those that did successfully pass the course, service members stationed in the United States generally earned higher grades.

After receiving IRB approval in Cycle 0, I interviewed eight former students to determine their opinions on the course, the effect their active-duty service has on their education, and to understand their educational decisions. Using the Community of Inquiry (CoI) framework, I designed an intervention that involves changing a current writing assignment to a Reaction and Reflection Journal (R&R Journal). The R&R Journal is meant to encourage students to make deeper connections with their peers and the course material, therefore increasing their social and cognitive presence. Additionally, the structure of the R&R Journal allows for the instructor to increase communication with each student, increasing teacher presence, as well. By implementing the CoI framework through the R&R Journal, I anticipate that course completion and student grades will increase across all groups of active-duty service members: deployed, stationed in the US, and stationed overseas.

Setting: HIST 1301

This action research study takes place over the course of two semesters in a series of 8-week, online, asynchronous HIST 1301 courses. Students are located across the United States or globally, either stationed or deployed overseas. As a military spouse, I conducted cycles 0 and 1 while stationed in Washington, D.C., cycle 2 while stationed in

Hawai'i, and cycle 3, the dissertation and defense, while stationed in Kathmandu, Nepal. Despite my personal relocation, my position as a HIST 1301 instructor at CTC remained unchanged.

History 1301 is conducted through Blackboard, a common learning management software for online courses. The students' R&R Journal is written on GoogleDocs, then submitted through Blackboard. Except for instructor comments on R&R Journals through GoogleDocs, all course communication is conducted through Blackboard, including information about surveys related to the study.

This research study is conducted only in asynchronous, 8-week, online HIST 1301 courses. It is important to note that while the study is focused on active-duty service member students, there are civilian students in the course, as well. Civilian students enrolled may be veterans, high school students, military dependents (i.e., military spouses or children), high school students earning dual credit, or other civilians with no personal military connections. This study is focused on the active-duty students because they face additional challenges and obstacles in their path to earning their degree. These obstacles not faced by their civilian peers, addressed in Chapter 1, include but are not limited to deployments, training cycles, and additional challenges related to active-duty service.

HIST 1301 Master Course

All sections of HIST 1301 are given the same master course in Blackboard. This master course was designed by CTC instructors before I joined the faculty. Instructors are allowed to make any changes to the course they feel are necessary, but they are not required to do so.

The master course for the 8-week, asynchronous, online HIST 1301 includes the syllabus and grading information, instructor information, a link to the online text, *The American Yawp*, an open educational resource developed by Stanford University, and the course assignments. The master course includes 8 modules, with each module covering two chapters. Although the course is asynchronous, with the only due date being the final day of the course, the modules are set up for students to complete one module per week. A suggested timeline is also provided to students in the master schedule, including suggested due dates. Students are reminded of this schedule in weekly announcements and in weekly videos. The asynchronous nature of the course certainly does not penalize students who follow their own timeline as opposed to the suggested timeline. The R&R Journal intervention was designed with this in mind- students will follow different timelines in the course. The current design of the intervention will allow students to cognitively participate in online course discussions at their own pace, as they are required to read and analyze the course discussions, and submit their analysis in a separate, individual assignment.

In week 1, students are asked to complete an introduction discussion board introducing themselves, stating where they are from or where they live, their major or educational interests, personal interests, or any other relevant information. Additionally, in week 1, students are asked to watch an introduction video that I filmed at the Lincoln Memorial in Washington, DC. I introduce myself, discuss the importance of early American history, and provide a basic overview of the course, which includes assignments, expectations, and grading procedures. Each week I film a short video at a relevant historical location, discuss the connection of the location to the week's topic, and

review the week's assignments. Each weekly video is approximately 10 minutes in length and is posted in the weekly announcement and agenda.

The master course requires that students complete eight lesson quizzes, which consists of ten multiple choice questions, eight discussion board postings, which include a 200-word initial response and one 100-word response to a classmate, two journal assignments, each comprised of ten separate entries at 120 words per entry, a research paper with a minimum word count of 1500 words, a midterm exam, and a final exam. The quizzes, midterm and final exams pull questions from a larger test bank, created by faculty. Each exam consists of multiple-choice questions, true/false questions, two short answer questions, and one essay. The suggested course schedule, broken down by lesson, which correlates with the week of the course, can be found in Table 2.

Students have a time limit of 20 minutes for each quiz and 90 minutes for each exam. The time limit can be adjusted by the instructor. Students also only have one attempt at each quiz and exam, unless granted another attempt by the instructor, and they cannot view their peers' discussion posts until their initial post has been made. Additionally, in order to access each quiz and exam, students must complete a BioSig verification, which is used to confirm their identity through typing patterns.

The entire HIST 1301 course is worth a total of 1,000 points, with an option to earn 35 bonus points through short quizzes that include a plagiarism and syllabus quiz. To determine grades, 900-1000 points earns an A, 800-899 points earns a B, 700-799 points earns a C, 600-699 points earns a D, and 0-599 points earns an F. Students have access to their gradebook and assignment feedback throughout the course, allowing them to track their progress. Table 3 provides a breakdown of grade components.

Table 2

HIST 1301 Master Course Schedule of Assignments

Lesson	Chapter(s)	Assignments	Suggested Due Dates
1	Chapter 1: Indigenous America Chapter 2: Colliding Cultures	• Lesson 1 Discussion • Lesson 1 Quiz	mm/dd
2	Chapter 3: British North America Chapter 4: Colonial Society	• Lesson 2 Discussion • Lesson 2 Quiz	mm/dd
3	Chapter 5: The American Revolution Chapter 6: A New Nation	• Lesson 3 Discussion • Lesson 3 Quiz	mm/dd
4	Chapter 7: The Early Republic Chapter 8: The Market Revolution	• Lesson 4 Discussion • Lesson 4 Quiz • Journal 1	mm/dd
Midterm Exam		mm/dd	
5	Chapter 9: Democracy in America Chapter 10: Religion and Reform	• Lesson 5 Discussion • Lesson 5 Quiz	mm/dd
6	Chapter 11: The Cotton Revolution Chapter 12: Manifest Destiny	• Lesson 6 Discussion • Lesson 6 Quiz • Essay	mm/dd
7	Chapter 13: The Sectional Crisis Chapter 14: The Civil War	• Lesson 7 Discussion • Lesson 7 Quiz	mm/dd
8	Chapter 15: Reconstruction	• Lesson 8 Discussion • Lesson 8 Quiz • Journal 2	mm/dd
Final Exam		No later than mm/dd	

Table 3

Grade Components for HIST 1301

Component	Possible Points
Lesson Quizzes: 8 @ 30 points each	240
Lesson Discussions: 8 @ 20 points each	160
Research Paper	100
Journals: 2 @ 50 points each	100
Midterm Exam	200
Final Exam	200
Extra Credit	35
Total	1000 points (1035 with Extra Credit)

Participants

All participants of this study are students enrolled in my eight-week HIST 1301 course online at Central Texas College. The anticipated ages of participants will range from 20 to 40 years of age. Of the participants, it is anticipated the majority will be males enlisted in the military who are stationed across the United States, stationed in Korea and Europe, and deployed to Eastern Europe and Middle Eastern nations.

In an effort to not single any one group out and to ensure that all students, whether they be active-duty or civilian, entered the course under the same classroom conditions, all students were invited to participate in the study. Because of this, I was able to gather survey responses from both active-duty and civilian groups in both the intervention and comparison courses. Even though this study is focused on the effect of the intervention on active-duty students enrolled in the 8-week, asynchronous, online

HIST 1301, it is beneficial to include the civilian results for a brief discussion, as they can be compared to the results of military students and help guide future research. With that said, the focus of the study is still on the results of the intervention on active-duty military students.

All active-duty service members and civilians enrolled in the course are invited to participate, and participants are self-selected. At the beginning of the course, I will explain the study to my students and send out the survey. Students have the choice to participate, and their decision has no impact on their course standing. The survey collects demographic information, which includes age, gender, location, highest level of education completed by parents, military branch and rank, whether the participant is using Tuition Assistance or the GI Bill for tuition, and whether or not they plan to stay in the military once their degree is earned.

Role of the Researcher

With respect to my position in this study, I will operate as an 'insider' who is studying my own practice in my workplace setting (Herr & Anderson, 2015). I reflect on the master design of HIST 1301, how students respond to it, and make adjustments in course design to increase student social and cognitive presence. Additionally, my role as an 'insider' extends beyond my role as course instructor. As a military spouse, I have extensive knowledge of the demands placed on military personnel, and I am able to apply that insight to the opportunities and challenges faced by my students.

Ethics

A primary role of the researcher is to uphold the integrity of the study. "Morally responsible behavior is more than abstract ethical knowledge and cognitive choices; it

involves the moral integrity of the researcher, his or her empathy, sensitivity, and commitment to moral issues and action" (Brinkmann & Kvale, 2015, p.97). As noted by Brinkman and Kvale (2015), the researcher is the instrument for obtaining knowledge. As the researcher, I am "familiar with value issues, ethical guidelines, and ethical theories [that] may help the researcher to make choices that weigh ethical versus scientific concerns in a study" (Brinkmann & Kvale, 2015, p.97).

Additionally, I use honesty, experience and fairness in my decisions and interactions, increasing validity of results and promoting transparency in my procedures and conclusions. Before each cycle of research, I submit an IRB for approval, and only conduct research and collect data once the IRB is approved. All participants volunteer and are given a document detailing the study and their consent. The surveys are anonymous to encourage students to feel they can provide honest answers, and all data is confidential. Furthermore, because my participants are also students in my class, I have to consider the power dynamics of our relationship. By having anonymous surveys, students can be reassured that their responses will not impact my opinion of them or their work. In connection with this, I also conduct a version of blind grading in my course, where I do not look at the names on written assignments while grading. These assignments include discussions, journals, essay, and exams. All quizzes are automatically graded and entered in the gradebook. By not associating a name with assignments while grading, I can assure students that I am grading their work fairly and without personal bias. Finally, I ask students for their opinions, which I may not personally agree with. I assure them throughout the course that I am not grading them on their opinions or personal beliefs-neither will impact their grade. However, I do look for students to support their opinion

with historical facts, which must be correct. Past this, I assure them that I am grading them on effort, thoughtfulness, support of argument, and making connections between the past and present.

Additionally, all stages or cycles of research have been approved by IRB, and there have been no deviations or exceptions to approved protocols.

The Innovation: Reaction and Reflection Journals

This intervention is supported by the Community of Inquiry framework which links teaching, social, and cognitive presence to create the educational experience (Garrison et al., 2000). Teaching presence facilitates learning, and social presence allows participants in a community of inquiry to project themselves socially and emotionally, while portraying themselves and seeing each other as 'real' people (Garrison, et al., 2000). Cognitive presence is defined as "participants [students] in any particular configuration of a community of inquiry [being] able to construct meaning through sustained communication" (Garrison et al., 2000, p. 89). In this case, students communicate through Blackboard discussion posts in an asynchronous manner, with the only due date being the end of the course. This single due date impacts student discussions, as students create discussion posts and respond to their peers' posts at different times throughout the 8-week course, which leads to a weak connection between students and ultimately content as supported by group discussions. The goal of the R&R Journal (See Appendix F) is to encourage students to engage more deeply as 'real' people in the discussion posts. Even if they do not have a back-and-forth discussion, students are encouraged to read and think deeply about their peers' responses. For example, they are asked how their peers' discussion responses challenge their personal interpretations, how

they can apply historical events to the modern day, or how past events impact present-day society. This may lead students to think more critically about the course material and their interactions, positively affecting their connections, self-determination, and attitude in the course.

With respect to the intervention, students are assigned one journal entry per week, for a total of eight entries. Because the course is self-paced and students may be forced to step away from coursework due to military assignments, the journals are not time sensitive, and they are due the last week of the course, as are all assignments in the asynchronous course. To promote student engagement, students are asked to respond to the journal prompts related to the week's course material and peer interactions in a minimum of one page. It is important to note that although the journal assignment changed to the R&R Journal, the workload in terms of writing is equal to the previous course structure and synchronous courses that are offered by the department. It is anticipated that these questions, if answered weekly or in a timely manner, will encourage students to become more active and engaged in their learning. Journal prompts vary week to week and can be found in Appendix F.

The R&R Journal assignment is located in the HIST 1301 Blackboard course, but students are provided a link to the R&R Journal in GoogleDocs. This GoogleDoc includes an overview of the assignment, grading policies, and set-up procedures, as well as the weekly prompts. Students will be asked to make a copy of the R&R Journal GoogleDoc and save the copy with their name. Upon completion of the first journal entry in the GoogleDoc, students are asked to submit their journal link in the Blackboard assignment, giving the instructor editing privileges. Each week, students will be asked to

complete their weekly R&R Journal in their GoogleDoc and submit their link in the weekly journal assignment found in Blackboard, as their submission will indicate to the instructor that they are ready for their journal entry to be read and graded. At the end of the course, all eight journal entries will be completed on the same GoogleDoc. Only the student and instructor will have access to the student's individual journal. The students' peers will not be able to see journals of other students.

I chose GoogleDocs for the R&R journal for multiple reasons. First, by using GoogleDocs and giving the instructor editing permissions, I am able to give timely and specific feedback on the students' journals, increasing teaching presence, one of the three factors in the Community of Inquiry framework. GoogleDocs allows for the instructor to communicate efficiently and effectively with each individual student. Furthermore, students can easily respond to instructor comments, allowing the instructor and student to have a private, one-on-one conversation about the content and their analysis, which can increase their cognitive presence in the course. Second, by using GoogleDocs, students can easily access their journal from any location or device, which is beneficial to military students who may be doing their assignments on cell phones or tablets while in the field. Third, by asking students to move out of Blackboard, they are able to expand their ability to learn in an online environment. Many of my students, particularly older students who are returning to college, have never used GoogleDocs, and they are sometimes apprehensive towards online learning. By incorporating GoogleDocs into the course, students are able to learn additional skills which can benefit their future. To help students set up their journals and feel more confident in the assignment, I provide a 'how-to' video at the beginning of the course, where I walk students through GoogleDocs, the

assignment, grading, set-up, and weekly submission. For students that are too overwhelmed by the use of GoogleDocs, they are able to submit their journal assignments in a Word document, where I can comment and attach as feedback. However, I strongly encourage the use of GoogleDocs because it allows for more collaboration between the student and instructor.

Design of the Current Study

The study is designed using a quasi-experimental (with treatment and comparison) concurrent mixed methods design, gathering both quantitative and qualitative data simultaneously. To conduct the study, I will collect data from four courses. Two will have the intervention, the R&R Journal, while two will have the journal from the master course (see Table 4).

Table 4

Structure of Current Study

Timeline	Course
October-December 2021	Intervention course 1
January-March 2021	Intervention course 2
March-May 2021	Non-intervention comparison course 1
May-July 2022	Non-intervention comparison course 2
July-Fall 2022	Analyze data

Non-Intervention Sections of HIST 1301

History 1301, a first-year course, has often been the first course that many of my distance learning students take. Multiple instructors teach the course, and each instructor receives a standardized course content in the learning management system. This is

referred to as the "master course." Although instructors may edit the course any way they wish, many instructors use this master course in its entirety. This "master course" version of HIST 1301 is used without modification to assign in the comparison (non-intervention) condition for this study (see Tables 3 and 4). In the master course, students were asked to write a total of 20 entries across two journals on any topic discussed in the book, discussions, or weekly videos (see Appendix E). Students describe the topic and are encouraged to provide their opinion or make a connection to today's society. I believe that the journal assignments, part of the master course for all HIST 1301 courses, provide very little direction, which leads to students completing the minimum amount of work, or failing to complete both journals.

Additionally, students will be asked to complete a quantitative pre- and post-survey during weeks 1 and 8 of the course. Although all students will be asked to take the survey, demographic information gathered will indicate which participants are active-duty service members. These surveys will be pulled for analysis.

Intervention Sections of HIST 1301

For the intervention sections of HIST 1301 (see Tables 4 and 5), students will engage in weekly discussion posts and quizzes, make journal entries, and take several quizzes and exams. Notably, as the course is originally designed, some students complete the requirements, but do very little additional work in terms of engagement with their classmates, material, or with their instructor. The goal of my intervention is to increase student engagement with their peers, instructor, and the course material. I anticipate that by increasing student engagement, an increase in student motivation and attitude,

including course completion and student grades, will occur across the various groups of active-duty service members (deployed, stationed in the US, and stationed overseas).

Students in the intervention sections of HIST 1301 will be asked to take the same pre-and post-surveys as their peers in the non-intervention sections. These surveys will also be distributed in weeks 1 and 8 of the course. The responses of active-duty students will be pulled for analysis, and I will gather qualitative data by analyzing R&R Journal responses. The quantitative and qualitative strategies for both treatment and non-treatment sections are discussed in further detail in Table 5.

Table 5

Visual Table of Concurrent QUAN + QUAL MMAR Study Design

	Treatment Sections	Comparison (non-treatment) sections
Week 1	*Quantitative (Quant)*: Administer Pre-Survey (n=TBD, based on enrollment) *Qualitative (Qual)*: Assign the Reaction & Reflection Journal; Students begin writing and submitting weekly responses	*Quantitative (Quant)*: Administer Pre-Survey (n=TBD, based on enrollment) *Qualitative (Qual)*: Assign the master course journal to courses not implementing the intervention; students begin writing journal and submit in week 4
Weeks 2-4	*Quant:* Analyze Pre-Survey Data *Qual*: Monitor implementation of innovation	*Quant*: Analyze Pre-Survey Data Week 4, students in course without intervention will submit Journal 1 and begin Journal 2
Week 5	Identify high and low active-duty achievers (n=10)	Identify high and low active-duty achievers (n=10)
Week 6	Conduct Coding	
Week 7	Continue Coding and Analysis	
Week 8	*Quant:* Administer Post Survey (n=TBD, based on enrollment) *Qual:* Code and analyze final journal entries	Submit Journal 2
After Course is Complete	*Quant:* Conduct a paired samples t-test of pre-and post-survey *Qual:* Review all coded entries, conduct final analysis	*Quant:* Conduct a paired samples t-test of pre-and post-survey
	Integration of QUAL+QUANT results; Interpretation of combined results; Translation of findings into innovation/ improvements	

Instruments

Quantitative Strategies

      Pre- and Post-Survey. Quantitative data are collected with an identical pre-and post-survey measuring four constructs. The constructs are: (a) social presence, (b) cognitive presence, (c) attitude towards online HIST 1301, (d) overall academic outcome. To measure each construct, I will use six-point Likert scales. The instrument used in this study is a combination of two surveys: the Community of Inquiry (CoI) survey (Arbaugh et al., 2008) and the Distance Education Learning Environment Survey (DELES) (Walker, 2003). In my instrument, provided in Appendix D, students are asked ten demographic questions, including their active-duty service and their academic goal for the course (construct d). Then, questions 1-9, assess social presence, and questions 10-21 assess cognitive presence. Questions 1-21 are taken directly from the CoI Survey, developed by Arbaugh et al. (2003). Questions 22-36 are pulled directly from the DELES instrument (Walker, 2003). Questions 22-28 also measure cognitive presence, while questions 29-36 measure student attitude towards online learning. Both the CoI and DELES instruments measure cognitive presence, and while I could have chosen questions from only one survey, I chose to include both, as I felt the CoI survey questions relate more to deep understanding of the topic, whereas the DELES instrument asked questions more related to personal relevance, both of which affect cognitive presence.

      Although I do not have a survey section on overall course outcome, I ask students in the demographic questions what their academic goal is in the course. I will compare this in the pre- and post-tests, along with their actual earned grade. Furthermore, I can compare the overall academic outcome of students in courses with the innovation, and

those without the innovation. Additionally, there is a section in the demographics section for active-duty military. The survey will be sent to all course students, and the military questions will identify those who are serving, allowing me to pull their surveys for analysis. By sending the survey to all students, whether they are civilians or serving in the military, I am ensuring that students do not feel singled out because of their military service, as all students are asked to perform the same tasks.

While it may be beneficial to the study to compare responses of active-duty students to their civilian counterparts, the focus of the study will be to analyze and compare the responses of active-duty service members in the treatment course with the responses of active-duty students in the non-treatment comparison course. Because active-duty students face outside, service-related obstacles that their civilian counterparts do not, this study focuses on improving the online educational experience for service member students, although civilian students may benefit as well.

As shown in Table 5, the pre-intervention survey is administered to courses with and without the intervention and collected in the first week of the course. The post-intervention survey is deployed and collected during week eight, the final week of the course, and distributed to courses with both the intervention and without the intervention. Each of these instruments will be administered using Qualtrics.

Data Analysis. The pre- and post-surveys are used to determine descriptive statistics, and both surveys provide baseline data for courses with and without the intervention. Participants create a unique identifier composed of their hometown, day of birth, and mother's maiden name on each survey, which allows me to compare individuals' surveys and identify potential growth over time. Furthermore, by running a

paired samples *t*-test, I can determine any significant differences between the pre- and post-test in courses with and without the intervention. I will also compare results between intervention and non-intervention courses, which will include anticipated and final grades, as well as change over time on pre-post survey constructs.

As previously noted, there are also civilian students in HIST 1301. Civilian students are also invited to participate in the survey, as I do not want to single out service member students in their responses. Demographic questions will allow me to pull and analyze service member survey responses. Comparisons between service member and civilian students are not part of the research, as this study focused on addressing the needs of active-duty students in HIST 1301. However, the analysis and results of the civilian responses may present implications and avenues for future research, which will be discussed in Chapter 5.

Concerns. I am aware that there are concerns to look for while collecting quantitative data, specifically issues related to "response-shift bias" (Pelfrey & Pelfrey, 2009; Sibthrop, et. al, 2007) and perhaps a ceiling effect, which happens when the independent variable (the intervention) no longer has an effect on the dependent variable. Frequently, respondents give themselves very high ratings on traditional pre-intervention assessments because they use 'liberal, less stringent criteria' to make their judgments. Then, after the intervention, they use new 'more stringent criteria,' which leads to lower scores for their responses on the traditional post-intervention assessment. Changing the criteria is called response-shift bias and it leads to lower scores that appear to indicate the intervention was ineffective.

Qualitative Strategies

R&R Journals. Although interviews were conducted in earlier cycles, R&R

Journal responses from active-duty students are primarily used for qualitative purposes.

Interviews are not used because I found in Cycles 0 and 1 that it is difficult to secure

active-duty volunteers for interviews, specifically due to their busy schedules.

Additionally, I can ask how students felt connected to their peers and content in the

journals. Based on responses received in prior cycles of my action research, asking those

same questions again in interviews would not result in additional insights. Journals are

assigned in week one of the course, and weekly feedback and grades are provided to

students. During week four of the eight-week course, I will look at overall course grades

and identify high achieving and low achieving active-duty students. High achieving

students will be identified as students who are on-track with weekly assignments, score

high on weekly quizzes, and are active in course discussions. Low-achieving students are

identified as those who may be behind on assignments, only complete the minimum in

discussion posts, or score low on weekly quizzes. I will purposely select five high

achieving and five low achieving active-duty students from each course with the

intervention. Their journals will be pulled for analysis, with the intention of comparing

the responses of high and low achieving active-duty students. Journal entries that prompt

responses about peers and personal connection to the content will be identified, coded,

and analyzed. Because this study is focused on the effect of the intervention on active-

duty students in HIST1301, qualitative data from journal entries will only be pulled from

active-duty students in courses with the intervention. In courses without the intervention,

students were not assigned a journal or assignment that could be pulled for qualitative

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analysis, so only quantitative data will be collected and compared with quantitative data collected in courses with the intervention.

Data Analysis. To analyze the qualitative data, I will use thematic analysis to identify, analyze, and interpret patterns of meaning within the student journals (Clarke & Braun, 2017). Thematic analysis offers flexibility to the researcher, as it can be used for homogeneous and heterogeneous samples, as well as both small and large data sets, which will be beneficial to the asynchronous environment of HIST 1301 (Clarke & Braun, 2017). Thematic analysis was used in Cycles 0 and 1, as I was refining my problem of practice, research study, and intervention. During this time, themes like 'connection', 'peer', and 'classmate' emerged, along with other themes related to the changing or strengthening of student opinion, deeper understanding, and peer support.

Braun and Clarke (2006) provide a six-step approach to thematic analysis:

1. Familiarizing yourself with your data,
2. Generating initial codes,
3. Searching for themes,
4. Reviewing themes,
5. Defining and naming themes, and
6. Producing the report.

Following these steps, I will familiarize myself with the data by reading through student journals multiple times and becoming "intimately familiar with literally every word" (Saldana, 2011, p.44) of the data, then applying a hybrid approach of deductive and inductive coding. "An integration of inductive and deductive coding reflects a balanced, comprehensive view of the data, instead of purely relying on the frequency of codes decontextualized from their context" (Xu & Zammit, 2020, p.3).

The deductive approach will focus on identifying the themes from Cycles 0 and 1, mentioned above. Then, I will use inductive coding to search for and identify new themes within the data. Once themes have been deductively and inductively identified, they will be reviewed to ensure they address the research questions, and some identified themes may be discarded as needed (Clarke & Braun, 2014).

Once themes have been fully defined, I will disaggregate by high/low achievers and search for representative quotes for each theme from each group (Fereday & Muir-Cochrane, 2006). Additionally, I will identify and analyze any extreme outliers. The use of thematic analysis with the hybrid approach of deductive and inductive coding will allow for a final analysis that is "the product of deep and prolonged data immersion, thoughtfulness, and reflection, something that is active and generative" (Braun & Clarke, 2019, p.591).

This research study will take place over the course of four 8-week asynchronous courses. As research is conducted, themes identified early in the research process may vastly differ from those that emerge as the research process continues. However, by continuously practicing thematic analysis and deductive and inductive coding throughout the research process, codes will be refined throughout the research study. This will allow me to ensure that my qualitative data is relevant and supports the research study throughout the process, culminating in the best and most representative codes and themes for the final analysis once all data has been collected.

Concerns. I have previously discussed the structure of the course, specifically its asynchronous design. To accommodate the needs of active-duty students, the course has suggested due dates for assignments on a weekly basis, but the only hard deadline for

assignments is the final day of the course. Most students follow the suggested due dates, but some students delay assignments until the final week of the course, which impacts qualitative data collection.

Some students complete their R&R Journals on a weekly basis, as intended, but others only complete the first week or two of entries and wait until the end of the semester to complete their remaining journal entries, or do not complete them at all. Specifically in Cycle 1, I knew some students would wait, but I did not anticipate that so many would put off their journal entries. This may limit the number of participants I can choose from for qualitative data and analysis, as many journals could be incomplete until the final week of the course.

Conclusion

The purpose of this mixed methods study is to introduce active-duty students taking an online, asynchronous course, specifically HIST 1301, to an intervention that can allow them to connect with the content and their peers, while providing them with the asynchronous structure needed to successfully balance active-duty service and earning course credit for a college degree. The findings of this study may be applicable to similar settings and demographics, but they specifically relate to my HIST 1301 course at CTC, and they are not intended to be directly applied to other settings or research.

My hypothesis is that by introducing the R&R Journal, active-duty students will increase both peer and content connection in HIST 1301, ultimately increasing their overall course outcome. Table 6 presents the research questions, instruments, and a description of the data analysis strategy for answering each research question.

Table 6

Research Questions and Data Collection Instruments

Research Questions	Instrument	Description
How and to what extent did implementation of the Reaction & Reflection Journal affect active-duty students':		
a. Social and cognitive presence in online HIST 1301?	Pre-Post Survey R&R Journal Entries	Quantitative data • Pre-Post-Survey measures constructs of participation, peer connection, content, and impact of military service 　○ Compare student data on pre and post survey in paired samples t-test 　○ Compare survey data from courses with no intervention Qualitative data • Open-ended responses to journal prompts about peer responses in discussion posts, personal and present-day cognitive connection to content
b. Attitude towards participation in online HIST 1301?	Pre-Post Survey; R&R Journal Entries	Quantitative data • Pre-Post-Survey measures constructs of participation, impact of military service 　○ Compare student data on pre and post survey in paired samples t-test 　○ Compare survey data from courses with no intervention Qualitative data • Open-ended responses to journal prompts about peer responses in discussion posts, personal and present-day cognitive connection to content

c. Academic outcomes in online HIST 1301?	End of course data	Quantitative data • Compare final grades of students with their academic goal indicated at beginning of course • End of course grades for active-duty students o Compared with end of course data from courses with no intervention

CHAPTER 4

RESULTS

The purpose of this action research study was to determine the effect of the R&R Journal on the social presence, cognitive presence, and overall attitude of active-duty military students towards online learning in HIST 1301 at Central Texas College. Chapter 3 detailed methods and instruments of data collection, and in this chapter, I provide a detailed description of data results used to determine the effect of the R&R Journal on the social presence, cognitive presence, attitude, and overall academic outcome of active-duty military students enrolled in my online, asynchronous HIST 1301 course at CTC. The data results and analysis are organized by research questions. In chapter 5, I provide analysis of results.

During Cycle 1 of research, I discovered that active-duty military students enrolled in my HIST 1301 course felt they lacked social interaction with their peers, which research shows is common in online courses and, I believe, is enhanced by the asynchronous nature of my specific course. To address the lack of social interaction, I implemented an intervention grounded in Community of Inquiry, with the primary goal of increasing social and cognitive presence, student attitude, and ultimately, overall student achievement. The research questions for this study are:

How and to what extent did implementation of the Reaction & Reflection Journal affect active-duty students':

(a) social presence in their HIST 1301 course?

(b) cognitive presence in their HIST 1301 course?

(c) attitude towards participation in online HIST 1301?

(d) overall academic outcome (course grade) in online HIST 1301?

As detailed in Chapter 3, I conducted a quasi-experimental, concurrent mixed method research study to answer these questions. Quantitative and qualitative data were collected simultaneously for two different groups: the intervention group and the comparison group. While the students enrolled in these two groups were different, the only change to the HIST 1301 course was the journal assignment. The intervention group was assigned the R&R Journal, while the comparison group was assigned the master course journal assignment, which is used by all online HIST 1301 courses at Central Texas College. Each group was asked to complete a pre-post course survey, which was used to measure change in student perception of social presence, cognitive presence, cognitive presence related to personal connection to material, and attitude by conducting a paired samples *t*-test. Results from the intervention course *t*-test were compared to results from the comparison course. Qualitative data was only collected from the R&R Journal assignment in the intervention course.

Data

Pre- and Post-Test

The pre- and post- test were administered to both military and civilian students. Students self-reported to items on a 6-point Likert scale: strongly disagree, disagree, slightly disagree, slightly agree, agree, and strongly agree. Students also indicated whether or not they were enlisted in the military, allowing me to identify participants for this study. Thirty-four students from the intervention course responded to both the pre- and post-test. Twenty of those were active-duty military, while 14 identified as civilians. Seventeen students from the comparison course responded to both the pre- and post-test,

with 7 identifying as active-duty military and 10 identifying as civilians. It is important to note that in rare cases, participants may not have answered all survey questions for some constructs, causing the *n* to vary among the constructs. If students responded to both the pre- and post-survey, their survey responses were pulled. If that student responded to all questions in a construct for both the pre- and post- surveys, then their responses were included in the analysis. However, if a student did not respond to all questions in the 'Attitude' construct, for example, then their responses for that specific construct were not included in analysis. Pre- and post- tests were administered to students through Qualtrics, then loaded into SPSS for statistical analysis. Participant responses in the pre- and post-test were matched through an anonymous identifier, the pre- and post-test files for both the intervention and comparison courses were merged and paired-samples *t*-tests were conducted.

R&R Journal Assignment

The R&R Journal was used to collect qualitative data. Initially, I planned to purposely select 10 R&R Journals for analysis from active-duty students in the intervention course for analysis. However, of the 20 active-duty participants in the intervention course, 13 consented to journal analysis. Of those, only 9 completed the journal. Therefore, I analyzed all 9 active-duty R&R Journals to deepen my understanding of the active-duty intervention group.

To begin qualitative analysis, I gathered all 9 journals and identified the final journal entry, which was an overall reflection of the course. Prior journal entries focused specifically on the weekly primary source document and discussion topic and, therefore, were not relevant to the constructs of this study. Using thematic analysis, I became

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familiar with the data, and I began a hybrid approach of both inductive and deductive coding.

To code and analyze qualitative data, I uploaded the journal responses of active-duty participants into HyperResearch. In Cycles 0 and 1, I conducted interviews with active-duty students, and identified major themes of 'connection', 'peer', and 'classmate', as well as themes related to changing and strengthening student opinion, deeper understanding, and support. In my first round of coding active-duty participant journals, I searched for the codes identified in Cycles 0 and 1 interviews. Next, I moved to inductive coding, where I used the word counter tool in HyperResearch to identify common words within the journals. Figure 5 shows the fifty most commonly used words in the final entry of participant journals. Larger text indicates more frequent use of the word. This helped me identify themes such as 'reading,' 'rewarding' and 'challenging.' Finally, I conducted a final round of deductive coding, where I used themes specific to the research questions. These themes were 'social presence,' 'cognitive presence' and 'attitude.' Table 15 details the frequency of themes. Some themes noted in Table 16 will overlap. For example, some of the themes identified in the overall theme of 'Rewarding' or 'Challenging' can be cross-coded as Social Presence, Cognitive Presence, or Attitude.

Figure 5

Most Used Words in Active-Duty Participant Journals
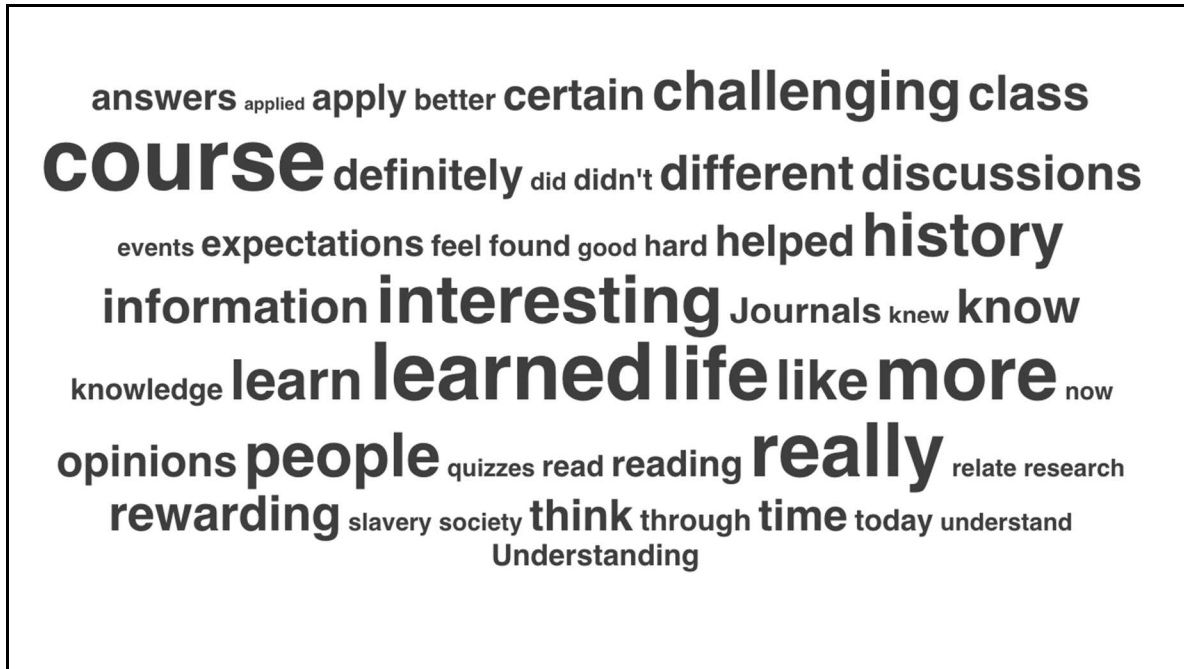
Table 7

Frequency of Key Themes in Active-Duty Student Journals

Key Theme	Frequency
Social Presence	18
Cognitive Presence	23
Cognitive Presence-Personal Connection	22
Attitude	13
Challenging	12
• Discussion Board	4
• Journals	1
• Keeping Up	1
• Quizzes	3
• Reading	3
Discussions	10
• Changed Thinking	1
• Did not Change Opinion	3
• Differing Opinions	1
• Everyone Agreed	2
• Helpful	2
• Personal Connection	1
Rewarding	9
• Discussions	2
• Good Grades	1
• Journals	3
• Keeping Up	1
• Learning In-Depth Material	1
• Research Paper	1

Data Analysis

This section will discuss the data in relation to each research question. With the quantitative data, I will include the results and analysis of the pre- and post-test results of the survey measuring social presence, cognitive presence, personal cognitive presence, and attitude towards online HIST 1301. The qualitative data section will include the findings and analysis of the R&R Journal, completed by students in the intervention course.

RQ (a): Social Presence

To address RQ (a) and measure social presence, participants responded to 9 questions on the pre- and post-survey about social presence, which were directly taken from the CoI survey developed by Arbaugh et al (2003). Table 7 presents the paired samples statistics in relation to social presence. Table 8 presents the results of the paired samples *t*-test for social presence.

Military Intervention. Among military students in the intervention course, the data gives sufficient evidence that there is a significant difference between social presence pre ($M = 40.894$, $SD = 6.217$) and post ($M = 46.789$, $SD = 5.701$) test scores, t (18) = 3.73, $p = .002$. Furthermore, results indicate a large effect size, $d = .856$ (Salkind & Frey, 2020), indicating a large effect size, showing a strong relationship between the intervention and social presence among active-duty students.

Military Comparison. The intervention and comparison courses had identical pacing and assignments, with the exception of the R&R Journal, which replaced the journal assignment in the master course. Among active-duty participants without the

intervention, this sample gives sufficient evidence that there is not significant difference between social presence pre ($M = 41.50$, $SD = 4.50$) and post ($M = 44.50$, $SD = 3.72$) test scores, t (5) $= 1.048$, $p = .343$. However, the sample size of active-duty participants was small, $n = 7$, and the effect size indicate a small effect, $d = .428$.

Civilian Intervention. Among civilian students in the intervention course, this sample gives sufficient evidence that there is no significant difference between social presence pre ($M = 43.071$, $SD = 6.707$) and post ($M = 43.785$, $SD = 6.93$) test scores, t (13) $= .563$, $p = .583$. The effect size was also not statistically significant, $d = .150$.

Civilian Comparison. The paired-samples t-test showed civilian response in the comparison course had no statistical significance between pre ($M = 41.555$, $SD = 8.917$) and post ($M = 44.666$, SD, 9.656) test scores, t (8) $= .738$, $p = .482$, but a small effect size, $d = .246$.

Table 8

Social Presence Paired Samples t-test for Military and Civilian Students in Intervention and Comparison Groups.

	Pre		Post		Paired *t*-test		
	M	SD	M	SD	t	df	Sig
Military							
Intervention	40.894	6.217	46.789	5.701	3.73	18	.002*
Comparison	41.500	4.505	44.500	3.728	1.40	5	.343
Civilian							
Intervention	43.071	6.707	43.785	6.930	.563	13	.538
Comparison	41.555	8.971	44.666	9.656	.738	8	.482

Note: *$p < .05$

Supporting Qualitative Data. Social presence was commented on 18 times throughout the 9 active-duty journal responses, largely in relation to weekly discussion posts. Students had mixed feelings about weekly discussion posts and when they interacted with their peers. One active-duty student said, "Responding to people was definitely not my favorite just because most of us had some of the same ideas or aspects that went into the answers." Another student saw weekly interactions as a personal challenge because they "wanted to think of answers that were not the normal ones that people put."

Other students found social interaction through discussion boards as rewarding, and affirmative. "Everyone agreed with my discussion. That made me feel good because I had put a lot of thought into my discussions." Social interaction also challenged students' interpretation of material. "I feel like my participation in weekly discussions challenged me because my opinions sometimes differed from my classmates. Sometimes they were wrong, but I learned after reading more into it that I just needed to look at it in a different way." Overall, the response to social interaction in the course was split, with some stating that peer interaction was helpful, as it affirmed their thoughts or challenged them to think outside the box, while others thought there was not enough differing opinions or discussion among their peers.

RQ (b): Cognitive Presence

To address RQ (b), Cognitive presence was measured in three ways. First, 12 questions from the CoI Survey developed by Arbaugh et al. (2002) were used to measure cognitive presence. Secondly, 7 questions from the DELES instrument, developed by Walker (2003), were used to measure cognitive presence in terms of personal relevance

and connection to the material. Finally, both measures were combined to obtain an overall measure of cognitive presence. Table 8 presents the means, standard deviations, and results of paired samples for measures of cognitive presence, Table 9 presents the same information for measures of cognitive presence in relation to personal relevance, and Table 10 presents the data for measures of combined cognitive presence.

Cognitive Presence

Military Intervention. Among active-duty students in the intervention course, this sample gives sufficient evidence that there is a statistically significant difference between cognitive presence pre ($M = 56.368$, $SD = 8.193$) and post ($M = 62.578$, $SD = 7.559$) test scores, t (18) $= 3.797$, $p = .001$. Results indicate a significant effect, $= .871$.

Military Comparison. Among military students in the comparison course, this sample gives sufficient evidence that there is not a statistically significant difference between cognitive presence pre ($M = 59.400$, $SD = 7.765$) and post ($M = 59.600$, $SD = 3.209$) test scores, t (4) $= .052$, $p = .961$. Results also indicate no effect, $d = .023$.

Civilian Intervention. Among civilian students in the intervention course, this sample gives sufficient evidence that there is not a statistically significant difference between cognitive presence pre ($M = 57.285$, $SD = 6.521$) and post ($M = 56.857$, $SD = 11.850$) test scores, t (13) $= .152$, $p = .881$. The effect size shows no effect, $d = .041$.

Civilian Comparison. Among civilian students in the comparison course, this sample gives sufficient evidence that there is not a statistically significant difference between cognitive presence pre ($M = 58.555$, $SD = 8.398$) and post ($M = 61.444$, $SD = 7.019$) test scores, t (8) $= .878$, $p = .405$. The effect size shows a small effect, $d = .293$.

Table 9

Cognitive Presence Paired Samples t-test for Military and Civilian Students in

Intervention and Comparison Groups.

	Pre		Post		Paired *t*-test		
	M	SD	M	SD	t	df	Sig (two-tailed)
Military							
Intervention	56.368	8.193	62.578	7.559	3.79	18	.001*
Comparison	59.400	7.765	59.600	3.209	1.04	5	.343
Civilian							
Intervention	57.285	6.521	56.857	11.850	.152	13	.881
Comparison	58.555	8.398	61.444	7.019	.878	8	.405

*Note. *p < .01*

Cognitive Presence with Personal Relevance

Military Intervention. Among active-duty students in the intervention course, this sample gives sufficient evidence that there is a statistically significant difference between cognitive presence in relation to personal relevance and connection in the pre (M = 32.100, SD = 5.280) and post (M = 35.650, SD = 3.950) test scores, t (19) = 3.527, p = .002. Results indicate a moderate effect, d = .789.

Military Comparison. Among military students in the comparison course, this sample gives sufficient evidence that there is not a statistically significant difference between cognitive presence pre (M = 33.285, SD = 2.058) and post (M = 35.285, SD = 3.401) test scores, t (6) = 1.164, p = .289. Results indicate a small effect, d = .440.

Civilian Intervention. Among civilian students in the intervention course, this sample gives sufficient evidence that there is not a statistically significant difference

between cognitive presence in terms of personal relevance. Analysis shows pre (M

=33.714, SD = 5.355) and post (M = 32.3571, SD = 6.096) test scores, t (13) = 1.045, p =

.315.The effect size shows a small effect, d = .279.

Civilian Comparison. Among civilian students in the comparison course, this

sample gives sufficient evidence that there is not a statistically significant difference

between cognitive presence pre (M = 34.600, SD = 5.601) and post (M = 33.700, SD =

10.187) test scores, t (9) = .256, p = .804. The effect size shows no effect, d = .081.

Table 10

Cognitive Presence in relation to Personal Relevance Paired Samples t-test for Military

and Civilian Students in Intervention and Comparison Groups.

	Pre		Post		Paired t-test		
	M	SD	M	SD	t	df	Sig (two-tailed)
Military							
Intervention	32.100	5.280	35.650	3.950	3.52	19	.002*
Comparison	33.285	2.058	35.285	3.401	1.16	6	.289
Civilian							
Intervention	33.714	5.355	32.357	6.096	1.045	13	.315
Comparison	34.600	5.601	33.700	10.187	.256	9	.804

*Note. *p < .05*

Combined Cognitive Presence

Military Intervention Among active-duty students in the intervention course,

this sample gives sufficient evidence that there is a statistically significant difference

between cognitive presence pre (M =88.421, SD = 13.326) and post (M = 98.631, SD =

10.213) test scores, t (18) = 4.217, p < .001. Results indicate a significant effect, d =.967.

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Military Comparison. Among military students in the comparison course, this sample gives sufficient evidence that there is not a statistically significant difference between cognitive presence pre (M = 92.800, SD = 9.391) and post (M = 94.400, SD = 3.974) test scores, t (4) =.383, p = .721. The effect size shows no effect, d = .171.

Civilian Intervention. Among civilian students in the intervention course, this sample gives sufficient evidence that there is not a statistically significant difference between combined cognitive presence pre (M =91.000, SD = 11.272) and post (M = 89.214, SD = 17.272) test scores, t (13) = .454, p = .657.The effect size shows no effect, d = .121.

Civilian Comparison. Among civilian students in the comparison course, this sample gives sufficient evidence that there is not a statistically significant difference between cognitive presence pre (M = 93.111, SD = 13.742) and post (M = 98.111, SD = 10.948) test scores, t (8) = 1.01, p = .338. The effect size shows a small effect, d =.340.

Table 11

Cognitive Presence Combined Paired Samples t-test for Military and Civilian Students in Intervention and Comparison Groups.

	Pre		Post		Paired *t*-test		
	M	SD	M	SD	t	df	Sig (two-tailed)
Military							
Intervention	88.421	13.326	98.631	10.231	4.21	18	<.001*
Comparison	92.800	9.391	94.400	3.974	.383	4	.721
Civilian							
Intervention	91.000	11.272	89.214	17.272	.454	13	.657
Comparison	93.111	13.742	98.111	10.948	1.01	8	.338

*Note. *p < .01*

Supporting qualitative data. Cognitive presence, both academic and personal, was heavily discussed in the journals of active-duty participants. In the final week of their journals, students were asked to state what they believed to be the most interesting aspect of the course. Overwhelmingly, students identified specific topics and primary source documents that led them to a more in depth understanding of American history.

> I learned many things that I didn't know before just by going in depth on certain topics like slavery, the Civil War, and the Revolutionary War. I feel like a lot of people know the major events that helped form our country into what it is today, but people don't know as much about how or why these things happened and I'm glad I got the opportunity to learn it.

Students also made personal connections to the material, and in doing so, were able to recognize that some topics resonated more deeply than others and why.

Depending on the topic, I sometimes found the readings very interesting and engaging; however, there were some that I struggled to read through due to disinterest. The worst of these for me was chapter 10, particularly the parts in regards to religion. I don't have much of a religious background, and as such the material was really hard to read through, somewhat because I had no way to connect to it.

Other students made personal cognitive connections to material in relation to their military careers. One student said,

A lot of it applied to my life because it's our country's history and how we became a nation and a lot of it applied to my military experience. There was some material in this course that helped me understand how some units in the Army came to be and the direct relation to their mottos and I found that extremely interesting.

Finally, three of nine active-duty participants made personal cognitive connections to the course in relation to societal structure and how it personally impacts their lives. In this, students discussed equality and the importance of being open minded. Once student made a personal connection by saying,

One aspect that applies to my life would be equality. I'm a black and gay American guy. Life is hard already because of the people who like to judge and discriminate. I will always be an advocate for equality because we are all humans and bleed the same. The only thing that separates us from other people is our personality. People shouldn't judge anyone for their skin color or the way they live their lives. Everyone has their own life, plan, and destiny. If everyone would just worry about themselves, maybe the world would be a completely different place.

Another student recognized the need to be more open minded. They said,

I really was able to apply that we should not judge each other with what we find feminine or masculine, that was the first reading of week one and I found it very interesting because many people believe you cannot do certain things or like certain things because of your gender. I learned that I should look at the bigger picture a lot more than I already do with people because we all come from different backgrounds and lifestyles, and we won't always know that person completely.

Attitude toward Participation in HIST 1301

To address RQ1(c), 8 questions from the DELES survey developed by Walker (2003) were used to compare student attitudes towards online HIST 1301 for those who did and did not receive the intervention. Table 11 presents the means, standard deviation, and results for the paired samples *t*-test for in relation to attitude.

Attitude: Military Students

Among active-duty students in the intervention course, the data gives sufficient evidence that there is no statistical difference in attitude towards online HIST1301 in pre ($M = 38.333$, $SD = 7.814$) and post ($M = 40.777$, $SD = 7.408$) test scores, $t(17) = 1.018$, $p = .155$. Although results show no significant growth, results indicate a small effect size, $d = .351$.

Among active-duty students in the comparison course, the data gives sufficient evidence that there is no statistical difference in attitude towards online HIST1301 in pre ($M = 36.142$, $SD = 4.298$) and post ($M = 37.428$, $SD = 10.438$) test scores, $t(6) = .286$, $p = .784$. Additionally, results indicate no effect, $d = .108$.

Attitude: Civilian Students

Among civilian students in the intervention course, the data gives sufficient evidence that there is no statistical difference in attitude towards online HIST1301 in pre ($M = 36.298$, $SD = 9.351$) and post ($M = 38.285$, $SD = 8.259$) test scores, $t(13) = .133$, $p = .278$. Although results show no significant growth, results indicate a small effect size, $d = .303$.

Among civilian students in the comparison course, the data gives sufficient evidence that there is no statistical difference in attitude towards online HIST1301 in pre ($M = 36.900$, $SD = 9.538$) and post ($M = 38.700$, $SD = 11.086$) test scores, t (9) = .405, p = .695. Furthermore, results indicate no effect, $d = .128$.

Table 12

Attitude Paired Samples t-test for Military and Civilian Students in Intervention and Comparison Groups.

	Pre		Post		Paired t-test		
	M	SD	M	SD	t	df	Sig (two-tailed)
Military							
Intervention	38.333	7.814	40.777	7.408	1.48	17	.155
Comparison	36.142	4.298	37.428	10.438	.286	6	.784
Civilian							
Intervention	36.928	9.351	38.285	8.259	1.13	13	.278
Comparison	36.900	9.538	38.700	11.086	.405	9	.695

Supporting Qualitative Data. Active-duty participants made fewer comments towards their attitude in the course, but multiple participants commented that they found the course interesting, while a few made remarks that the course made them "fall in love with history again" or that they "really enjoyed learning about all the subjects we went over."

The majority of active-duty participants indicated their expectations for the course were met. Of participants, six said their expectations for the course were met or exceeded. While some participants did not explicitly say their expectations were met,

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they indicated they still found value in the course. One active-duty participant said they had no expectations for the course, but that they "certainly learned a lot from the coursework, more-so than I initially expected to from an online class." Another active-duty participant said they initially thought they would hate the course and their "expectations were low but after taking the course I learned a lot and was able to relate it more to my life in various ways."

Overall Academic Outcome

Student participants were asked to state their academic course goal for HIST 1301 in both the pre- and post- survey. Students were given the option of choosing a letter grade (A, B, C, etc.). Frequencies were run to determine any change between perceived course goal between the pre- and post-test for intervention and comparison courses. Additionally, final course grades for military and civilian students were pulled for both intervention and comparison courses.

Military Students' Academic Goals

Among military students in the intervention course, 17 active-duty students indicated in the pre-test that their academic goal in HIST 1301 was to earn an A. Three active-duty students indicated in the pre-test that they hoped to earn a B. In the intervention course post-test, 16 active-duty students indicated they hoped to earn an A, while 4 active-duty students hoped to earn a B.

Among military students in the comparison course, all 7 students indicated that their academic goal was an A. In the post-test for the comparison course, 4 military students indicated their goal was an A, 2 stated their goal was a B, and 1 indicated their academic goal was a C. Active-duty military students in the comparison course were

more likely to decrease their expectation in terms of academic goals, while their active-duty counterparts in the intervention course were more consistent in their academic goals. Table 12 shows the academic goals in the pre- and post-test for military students in both the intervention and comparison course.

Table 13

Active-Duty Academic Goal

	Intervention		Comparison	
	Pre-Test	Post-Test	Pre-Test	Post-Test
A	17	16	7	4
B	3	4	0	2
C				1
Total	20	20	7	7
Percent A	85%	80%	100%	57%
Percent B	15%	20%		29%
Percent C				14%

Civilian Students' Academic Goals

Among civilian students in the intervention course, 12 civilian students indicated in the pre-test that their academic goal in HIST 1301 was to earn an A. Two civilian students indicated in the pre-test that they hoped to earn a B. In the intervention course post-test, 9 civilian students indicated they hoped to earn an A, while 5 students hoped to earn a B. Table 14 shows the academic goals in the pre- and post-test for military students in both the intervention and comparison course.

Among civilian students in the comparison course, 9 students indicated that their academic goal was an A, and 1 civilian student indicated they hoped to earn a B. In the post-test for the comparison course, 6 civilian students indicated their goal was an A, and 4 stated their goal was a B. Table 13 shows the academic goals in the pre- and post-test for civilian students in both the intervention and comparison course.

Table 14

Civilian Academic Goal

	Intervention		Comparison	
	Pre-Test	Post-Test	Pre-Test	Post-Test
A	12	9	9	4
B	2	5	1	6
Total	14	14	10	10
Percent A	86%	64%	90%	60%
Percent B	14%	36%	10%	40%

Final Grades- All Students

Grades were recorded for all students at the end of each term, regardless of whether or not students participated in the study. These grades were separated by active duty and civilian students, and percentages will be compared to academic goals in the pre-as post- test, as reported by participants. There was a total of 66 students across all intervention courses. Of those, 28 were self-identified as active-duty military, and 38 were identified as civilians. There was a total of 29 students in the comparison course. Of

those, 7 were active-duty military, and 22 were civilians. Table 14 details the final grades for military and civilian students in both the intervention and comparison courses.

Military Students. In the intervention course, 32% of active-duty students earned an A and 32% earned a B in the course, compared to 14% and 44%, respectively, of active-duty students in the comparison course. Eighteen percent of active-duty students in the intervention course earned a C, compared to 14% of active-duty students in the comparison course. No military students earned a D in the intervention, while 14% of military students earned a D in the comparison course. Fourteen percent of active-duty students in both the intervention and comparison course failed, while one military student in the intervention course dropped the course.

Civilian Students. In the intervention course, 13% of civilian students earned an A, while 14% of civilians in the comparison course earned an A. Additionally, 32%of civilians in the comparison course earned a B, compared to 21% of civilians in the intervention course. Thirty-seven percent of civilians in the intervention course earned an F, while 27% of civilians in the master course failed. No civilians in the comparison course dropped, but 8% of civilians in the master course did.

Table 15

Final Grades of All Students

	Military Students													
	A		B		C		D		F		Drop		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Military Intervention	9	32%	9	32%	5	18%	0	0%	4	14%	1	4%	28	100%
Military Comparison	1	14%	3	44%	1	14%	1	14%	1	14%	0	0%	7	100%

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	Civilian Students													
	A		B		C		D		F		Drop		Total	
Civilian Intervention	5	13%	8	21%	7	18%	1	3%	14	37%	3	8%	38	100%
Civilian Comparison	3	14%	7	32%	1	4%	5	23%	6	27%	0	0%	22	100%

CHAPTER 5

DISCUSSION

The purpose of this study was to examine how the R&R Journal, an intervention to assist students in increasing social and cognitive presence, affects active-duty military students' continuing efforts to complete online classes, specifically HIST 1301, at Central Texas College. In this chapter, I explore the results and analysis of data collected, by examining the quantitative data, supported by qualitative data, through the lens of the Community of Inquiry and Self-Determination frameworks. Minimal data was collected, and therefore cannot be generalized to the larger active-duty population across all online courses at CTC. However, collected data provided information to support the research questions of this study. In this chapter, I will discuss a summary of findings, implications for practice, limitations of the study, recommendations for future research, and reflection.

Summary of Findings

This study, which measured the effect of the R&R Journal on students' cognitive and social presence, was conducted with active-duty service members enrolled online in HIST 1301. Civilian students enrolled in the course also participated in the study, which allowed me to compare the impact of the innovation on both active duty and civilian students. There are four construct areas in the study: (a) social presence, (b) cognitive presence, (c) attitude and (d) overall academic outcome. The study was guided by the following research question:

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RQ: Compared to their civilian peers, how and to what extent did implementation of the Reaction & Reflection Journal affect active-duty students':

(a) social presence in their HIST 1301 course?

(b) cognitive presence in their HIST 1301 course?

(c) attitude towards online HIST 1301?

(d) overall academic outcome (course grade) in online HIST 1301?

Social Presence

In Cycle 0 of this research, active-duty students noted that they felt they were not making strong connections with their peers in the course. Discussion posts were simply boxes to check, rather than a chance to connect with peers and expand knowledge and interpretation of primary source documents. Social presence in online courses can be influenced by numerous factors, such as student demographics and learning styles, course content and instructional strategies (Cobb, 2011; Hostetter & Busch, 2006; Spears, 2012). In this study, simply the introduction of the R&R journal increased social presence for active-duty military students in their online, asynchronous HIST 1301 course.

Active-duty students who are assigned the R&R Journal course assignment show an increase in social presence over the 8-week period of HIST 1301. The quantitative results of the pre- and post- test in the intervention group showed a statistically significant difference regarding active-duty students' perception of social presence in the course. Their peers in the comparison course, without the R&R Journal assignment, did not have an increased sense of social presence, as indicated by the results of the identical pre- and post-test.

Cognitive Presence

For this study, cognitive presence was measured in three ways: cognitive presence, personal cognitive presence, focusing on personal and present-day connections, and a combined cognitive presence which is a combination of cognitive and personal cognitive presence.

Active-duty military students who participated in the intervention saw an increase in cognitive presence, personal cognitive presence, and combined cognitive presence. Data shows that the intervention affected all areas of cognitive presence for active-duty service members participating in the intervention. The intervention only affected active-duty service members, and it did not have an effect on civilian students.

Attitude

Studies have shown that there can be a positive relationship between social presence and course satisfaction or attitude (Alman et al., 2012; Baharudin et al., 2018; Bulu, 2012; Cobb, 2011; Croxton, 2014; Khalid, 2020, Spears, 2012). However, in this study, even though social presence of active-duty students increased in the course, quantitative data showed there was no statistically significant effect on attitude towards online learning in HIST 1301. It is important to note that the participant sample size of this study was small, and results indicated a small effect size, indicating that with further research, it is possible that the intervention could have an effect on student attitude towards the course. Furthermore, qualitative data in relation to the intervention was largely positive, as students indicated the intervention challenged them to learn more

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about course topics and further develop their opinions and interpretations of course content.

Overall Academic Outcome

In the intervention group, 20 active-duty students shared their academic goals for the course. In the pre-test, 17 active-duty students said they expected to earn an A, while 3 said they expected a B. In the post test, 16 active-duty students expected an A, while 4 expected a B. This shows that active-duty students felt consistent in their ability to succeed throughout the course. In comparison, there were 7 active-duty students in the non-intervention comparison course. In the pre-test, all 7 said they expected an A. In the post test, 4 expected an A, 2 expected a B, and 1 expected a C.

Overall, active-duty students in the intervention course had a greater overall academic outcome, as 32% earned an A, compared to 14% in the comparison course. However, civilian students in the intervention scored lower than their civilian peers in the comparison course. The biggest discrepancies in the civilian students were for the grade of B, with 21% of the intervention course civilians compared to 32% of civilians in the comparison course, and F, with 37% of civilians in the intervention course compared to 27% of civilians in the comparison course. This shows that active-duty military students in the intervention course earned a higher grade than their active-duty peers in the comparison course, while civilian students in the comparison course earned higher marks than their civilian peers in the intervention.

Summary

In summary, active-duty military students who participated in the study saw a statistically significant growth in both social and all cognitive presence variables, whereas their civilian counterparts did not. Across all groups, results showed there was no statistically significant effect concerning attitude.

This study builds on a growing body of research applying the Community of Inquiry framework to the online classroom and shows that the R&R Journal is a useful tool for increasing social and cognitive presence, both of which are critical to success in online learning.

Implications for Practice

Being a military spouse, as well as having earned multiple degrees online, I have an acute understanding of the demands that online instructors must meet in order for their active-duty students to academically succeed. Additionally, I have conducted countless hours of research on military learners, online learning, and related frameworks, collected data, designed an intervention, and analyzed the findings to help myself and others answer the research questions focused on social presence, cognitive presence, attitude, and overall academic outcome of active-duty military students in HIST 1301 at Central Texas College.

Findings for this study indicate several implications for practice. This section outlines the results of this study and potential applications for staff at Central Texas College, as well as other colleges and universities with a large active-duty military student population. The purpose of this research was to help increase the social and

cognitive presence, attitude, and overall academic outcome of active-duty service members enrolled in an 8-week, online, asynchronous HIST 1301 course at Central Texas College. Prior to the intervention, active-duty students indicated that they felt the course was lacking in social connection with peers. After the intervention, results showed that social and cognitive presence for active-duty students enrolled in the intervention did increase. In this section I discuss three implications of this study for Central Texas College and its faculty: (a) increase social presence by encouraging peer to peer connection in an asynchronous course through deeper analysis of discussion boards, (b) increase cognitive presence by challenging student to make personal connections to material, and (c) increase cognitive presence by encouraging relevant, modern-day connections to course material.

As previously noted, active-duty students indicated in early rounds of research that they felt their online course was lacking in peer connection. Creating a peer-to-peer connection can be difficult in an online classroom, but that difficulty is amplified in an asynchronous online course of only eight weeks. It is my personal experience that students often see their discussion board, which is their only real interaction with peers, as a box to check or an assignment to mark off the to-do list, rather than a class discussion. By creating an assignment where students have to give their reaction and analysis of their peers' discussion post, students are 'listening' to what their peers have to say, thinking about it, and replying with their own thoughtful additions. Even though deep student response may be given in another assignment, seen only by student and teacher, students are making connections to the ideas of their peers, looking forward to

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certain peers' discussion posts each week, and making connections with their peers. In many cases, as students realize they have an additional assignment connected to the discussion board, many students may begin to give more thoughtful responses to their peers, further deepening their social and cognitive connections.

Studies show that when people make personal connections to material, they are more likely to better retain and understand information (Jones-Bodie, 2020; Napolitano & Killinger, 2021; Oller, Engel, & Rochera, 2021). In the intervention, students were specifically asked to examine how each discussion topic related to their personal lives and present-day society. Although this proved to sometimes be difficult for some students, the vast majority of students were able to make personal comparisons or connections to the material, which deepened their understanding, and increased their cognitive presence.

For faculty members teaching online courses, it is my recommendation that online students, especially those in asynchronous courses, are required to analyze their peers' discussion posts and submit this analysis as a separate assignment, which will ensure that students are taking part in the discussion, increasing social presence, by thinking deeply about their peers' responses, while being afforded the time to do so. Student analysis of discussion posts can include how they agree or disagree, but also how their peers had a different interpretation or point of view, and how this impacted the reader's interpretation. By submitting this analysis as a separate assignment, students are able to take time to think about their connections to the discussion and material, and they are

given a safe space to discuss their analysis and personal connections, as some students may not be comfortable discussing personal connections with their peers.

I also recommend, particularly in history and social science courses, that students are required to make connections between course material and present-day society. In history classes, this enables students to recognize how events from the past can influence and affect present day society, and it allows students to recognize how social progress has or has not been made.

While these recommendations can and should be incorporated in the weekly discussion posts of an online course, I suggest implementing these recommendations in an additional assignment, where students will be encouraged to collect their thoughts, reflect, and provide analysis on social and cognitive components of the course. Doing so will provide a safe place for students to discuss their analysis, while also reinforcing the social and cognitive goals of the course.

Limitations

Although the findings of this study are beneficial to academic scholarship, it is important to note the limitations of the study. The first limitation is related to the sample size of the study. I planned to collect data from four courses, held between October 2021 and July 2022, with the goal of teaching two courses with the intervention, and two without the intervention. Enrollment numbers for the course were low, and in order to gather sufficient data for the intervention group, I ended up teaching three courses with the intervention and one without. Thirty-four students from the intervention course responded to both the pre- and post-test. Twenty of those were active-duty military, while

14 identified as civilians. Seventeen students from the comparison course responded to both the pre- and post-test, with 7 identifying as active-duty military and 10 identifying as civilians.

Third, while the number of participants was low, the larger limitation for this study is the lack of qualitative data. Of those students who were in the intervention course, only a handful consented to the use of their journal for data analysis and completed their journal. Additionally, qualitative data was only collected from students in the intervention course, as the qualitative data was collected directly from the intervention, the R&R Journal.

Finally, this study did not test teacher presence, one of the three key elements of an educational experience according to the Community of Inquiry framework (Garrison, 2009). The focus of this study was to determine the effect of the intervention on social presence, cognitive presence, attitude, and overall academic outcome. There is benefit to determining the effect of the intervention on teacher presence, and it could benefit this research.

Recommendations for future research

At the conclusion of this study, I discovered multiple areas to consider for future research, and I will suggest three areas to consider for future research studies: (a) explore the variables that caused civilian students in the intervention to have different results from their active duty peers, (b) consider the nuances of military service and how that can influence an active duty service member's online learning experience, and (c) implement

the innovation with more seasoned online students to determine the effectiveness of the innovation as compared to novice online students.

First, active-duty military students had a more positive response to the intervention than their civilian counterparts. It would be both interesting and beneficial to scholarship to determine why the intervention had a greater effect on active-duty military students than civilian students in the same course. Additional research could determine specific variables that could identify why civilian students did not see the same success as active-duty military students with this specific intervention. Expanding this study to include this could provide better insight as to how instructors can best support civilian students in online, asynchronous college courses.

To address this in immediate next steps, I suggest identifying when students turn in assignments. Because HIST 1301 is an asynchronous course and the only official due date is the final day of the course, students may choose to follow the instructor's suggested weekly schedule or create their own schedule for submitting assignments. I think it would be beneficial to determine if active-duty and civilian students are more likely to submit their assignments according to the instructor's suggested schedule or based on their own schedule. By comparing this information with data from this action research study, I may be able to ascertain more detailed data to determine why active-duty students saw more success with the intervention.

Second, this study focused on active-duty service members enrolled in an 8-week, asynchronous online course. However, there are various categories of active-duty students that were not explored. For example, active-duty students could be stationed in

the continental United States (CONUS), outside of the continental United States (OCONUS), deployed, or in various branches of the military, like the Air Force, Army, Marines, or Navy. For those stationed OCONUS, this could include overseas postings in Korea, Italy, or Germany, for example, or at duty stations in Hawaii or Alaska. The nature of deployments can also differ. For example, those deployed could be in the Navy on a ship for months at a time, or other service members could be stationed in Kuwait. Each of these postings will have different obstacles, stressors, and advantages to active-duty students enrolled in online learning. Additional research to determine the effect of various branches, duty stations, or other specifics for US military members can provide insight to how various aspects of active-duty service can affect online learning.

Finally, HIST 1301 is often one of the first courses in which students at CTC enroll, whether they are first time students or returning after a years-long break from school. I wanted to implement this intervention in an early course, as it is my hope that students will learn to analyze discussion boards and make personal and modern-day connections to the material, which they can then apply to other courses. It would be beneficial to scholarship to implement this intervention in a course with more seasoned students, who have already taken multiple asynchronous online courses with CTC, so researchers could see the effect of the innovation on students in a later or more advanced course.

Reflection

At the end of this study, I would be remiss if I did not take the time to reflect on this journey. I have been a military spouse for the past ten years, and I have worked as an

online instructor teaching HIST 1301 to active-duty service members and civilians for almost six years. During this time, I have had a lot of firsthand experience with the nuances of military service and how it can affect an active-duty service member's goal of earning a college degree. However, this study has enhanced my understanding of what it means to teach an online course in a way that is supported by research and best supports my students.

Before this experience, I had not had any formal training with academic research, and honestly, I was intimidated by it. As the research progressed, I felt a sense of imposter syndrome, but as I became more comfortable with my research, knowledge, and skills, I felt confident in both my ability and my research study. My research can make a difference in the education of active-duty service members, and I am certain that I will continue to conduct research in order to improve the learning experience for my students.

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APPENDIX A

CYCLE 0 QUALITATIVE INTERVIEW QUESTIONS

Demographic Questions

1. What is your age, gender and ethnicity?
2. In which branch of the military do you serve?
3. What is your rank? What is your MOS or job in the military?
4. Where are you stationed or deployed?
5. How many years have you been in the military?
6. Do you have any dependents?
7. What is your major?
8. Are you the first person in your family to attend college?

Interview Questions

1. Why did you decide to join the military?
2. Why did you decide to pursue a college degree?
3. Why did you choose to pursue classes online?
4. What factors affected the timing of your enrollment in online college courses?
5. Please describe the following factors of your job in as much detail as possible:

a. On average, how many hours per week do you work?

b. Have you experienced any short or no-notice demands (field exercises, trainings, deployments, etc.)?

c. Please describe your living conditions (barracks, on-post, off post).

d. On average, how often are you away from home (nights per month)?

e. Has your job ever limited your access to the internet for an extended period of time (over 24 hours)?

f. Discuss any additional stressors of your job.

6. Besides work, do you have any personal responsibilities or time commitments (volunteering, family, etc.)?

7. Do any of the challenges you discuss affect your learning or completion of assignments (positively or negatively)?

8. Are your immediate superiors and others in your chain of command supportive of your educational goals? Explain.

9. Have you considered putting your college education on hold for a semester or longer? Explain.

10. Have you ever failed or dropped an online course? If so, what factors led to failure or the decision to drop?

11. Do you feel like the course allowed you to collaborate with other students and/or your teacher?

12. Do you think collaboration with other students in the course would help you reach your goals?

13. Do you plan on staying in the military after you complete your degree?

14. Is there anything else you would like to add that you think I would want to know? Example: anything that has been helpful or harmful towards your education?

APPENDIX B

CYCLE 1 PRE-SURVEY QUESTIONNAIRE

Demographic Data

Are you active-duty military? (If answer is no, proceed to survey)

What is your military branch?

What is your rank?

Are you currently deployed or in garrison?

Where are you currently stationed?

What is your age?

What is your gender?

Directions: For the following sections please indicate your level of agreement with each of these statements regarding teacher leadership. Based on a six-point Likert Scale: 6 = *Strongly Agree*, 5 = *Agree*, 4 = *Slightly Agree*, 3 = *Slightly Disagree*, 2 = *Disagree*, and 1= *Strongly Disagree*.

	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
1. I feel comfortable asking questions in online courses.	1	2	3	4	5	6
2.I feel reluctant to speak openly and share my opinion/ideas.	1	2	3	4	5	6
3. I feel that it is hard to get help when I have a question.	1	2	3	4	5	6

4. I enjoy participating in weekly discussions.	1	2	3	4	5	6
5. I feel like I do not participate enough in online courses.	1	2	3	4	5	6
6. I feel that other students do not help me learn.	1	2	3	4	5	6
7. I feel connected to my peers in online courses.	1	2	3	4	5	6
8. I feel online courses lack a spirit of community with my peers.	1	2	3	4	5	6
9. I feel that my peers and I depend on each other in online courses.	1	2	3	4	5	6
10. I think discussion posts should challenge	1	2	3	4	5	6

me to see the material from a different point of view.					
11. I feel confident that my hard work pays off.	1	2	3	4	5	6
12. I feel certain that I can learn what is being taught.	1	2	3	4	5	6
13. I feel confident that I will achieve the educational goals I set for myself, even if it's harder than I thought.	1	2	3	4	5	6
14. I feel confident that when I'm struggling to accomplish something difficult, I can focus on my progress instead of	1	2	3	4	5	6

feeling discouraged .					
15. I feel confident that I can apply things I learned from other courses to this course.	1	2	3	4	5	6
16. I feel that online learning does not meet my educational needs.	1	2	3	4	5	6
17. I feel that online learning does not promote a desire to learn.	1	2	3	4	5	6
18. I feel that course assignments should challenge me to think critically about the material.	1	2	3	4	5	6

19. I feel confident that I will be able to make connections between course content and today's society/my personal life each week.	1	2	3	4	5	6
20. I feel confident that I can master the material in this course.	1	2	3	4	5	6
21.I feel that my military service prevented me from giving my best in the course.	1	2	3	4	5	6
22. I feel that my chain of command is supportive of my educational goals.	1	2	3	4	5	6

23. I feel that the military has taught me time management, which has helped in the course.	1	2	3	4	5	6
24. I feel that I struggle with balancing school and my military service.	1	2	3	4	5	6
25. My teachers are supportive of my needs due to my military service (example: field time, extensions, etc.).	1	2	3	4	5	6

APPENDIX C

CYCLE 1 STUDY PROCESS QUESTIONNAIRE

Demographic Data

Are you active-duty military? (If answer is no, proceed to survey)

What is your military branch?

What is your rank?

Are you currently deployed or in garrison?

Where are you currently stationed?

What is your age?

What is your gender?

Directions: For the following sections please indicate your level of agreement with each of these statements regarding teacher leadership. Based on a six-point Likert Scale: 6 = *Strongly Agree*, 5 = *Agree*, 4 = *Slightly Agree*, 3 = *Slightly Disagree*, 2 = *Disagree*, and 1= *Strongly Disagree*.

	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
1. I find that at times studying gives me a feeling of deep personal satisfaction.	1	2	3	4	5	6
2. I find that I have to do enough work on a topic so that I can form my own conclusions before I am satisfied.	1	2	3	4	5	6
3. My aim is to pass the course while doing as	1	2	3	4	5	6

little work as possible.					
4. I only study seriously what's given out in class or in the course outlines.	1	2	3	4	5	6
5. I feel that virtually any topic can be highly interesting once I get into it.	1	2	3	4	5	6
6. I find most new topics interesting and often spend extra time trying to obtain more information about them.	1	2	3	4	5	6
7. I do not find my course very interesting, so I keep my work to the minimum.	1	2	3	4	5	6
8. I learn some things by rote, going over and over them until I know them by heart even if I do not understand them.	1	2	3	4	5	6
9. I find that studying academic topics	1	2	3	4	5	6

can at times be as exciting as a good novel or movie.					
10. I test myself on important topics until I understand them completely.	1	2	3	4	5	6
11. I find I can get by in most assessments by memorizing key sections rather than trying to understand them.	1	2	3	4	5	6
12. I generally restrict my study to what is specifically set as I think it is unnecessary to do anything extra.	1	2	3	4	5	6
13. I work hard at my studies because I find the material interesting.	1	2	3	4	5	6
14. I spend a lot of my free time finding out more about interesting topics which have been	1	2	3	4	5	6

discussed in different classes.					
15. I find it is not helpful to study topics in depth. It confuses and wastes time when all you need is a passing acquaintance with topics.	1	2	3	4	5	6
16. I believe that lecturers shouldn't expect students to spend significant amounts of time studying material everyone knows won't be examined.	1	2	3	4	5	6
17. I come to most classes with questions in mind that I want answering.	1	2	3	4	5	6
18. I make a point of looking at most of the suggested readings that go with the lectures.	1	2	3	4	5	6
19. I see no point in learning material which	1	2	3	4	5	6

is not likely to be in the examination.					
20. I find the best way to pass examinations is to try to remember answers to likely questions.	1	2	3	4	5	6

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APPENDIX D

PRE- AND POST- SURVEY QUESTIONNAIRE

Please provide the following information as an anonymous survey identifier:

Your hometown, the day of your birth (August 9= 9), and your mother's maiden name.

Demographic Data

Demographic
1. What is your age?
2. What is your gender?
3. What is the highest level of education completed by your parents or legal guardians?
4. What is your academic goal for this course? (What grade do you hope to earn?)
5. On a scale of 1-100, how comfortable are you with the following: Blackboard, GoogleDocs, Using the internet, in general, for research

Military
6. Are you active-duty military?
7. What is your military branch?
8. What is your rank?
9. Where are you currently stationed?
10. Are you using TA or the GI Bill to help pay for your tuition?
11. After earning my degree I plan to… (stay in military, leave military, undecided)

Directions: For the following sections please indicate your level of agreement with each of these statements regarding teacher leadership. Based on a six-point Likert Scale: 6 = *Strongly Agree*, 5 = *Agree*, 4 = *Slightly Agree*, 3 = *Slightly Disagree*, 2 = *Disagree*, and 1= *Strongly Disagree*.

Social Presence (CoI Survey)						
	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
1. Getting to know other course participants gave me a sense of belonging in the course.	1	2	3	4	5	6

2. I was able to form distinct impressions of some course participants.	1	2	3	4	5	6
3. Online or web-based communication is an excellent medium for social interaction.	1	2	3	4	5	6
4. I felt comfortable conversing through the online medium.	1	2	3	4	5	6
5. I felt comfortable participating in the course discussions.	1	2	3	4	5	6
6. I felt comfortable interacting with other course participants.	1	2	3	4	5	6
7. I felt comfortable disagreeing with other course participants while still maintaining a sense of trust.	1	2	3	4	5	6

8. I felt that my point of view was acknowledged by other course participants.	1	2	3	4	5	6
9. Online discussions help me to develop a sense of collaboration.	1	2	3	4	5	6

Cognitive Presence (CoI Survey)						
	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
10. Problems posed increased my interest in course issues.	1	2	3	4	5	6
11. Course activities piqued my curiosity.	1	2	3	4	5	6
12. I felt motivated to explore content related questions.	1	2	3	4	5	6
13. I utilized a variety of information sources to explore problems	1	2	3	4	5	6

posed in this course.						
14. Brainstorming and finding relevant information helped me resolve content related questions.	1	2	3	4	5	6
15. Discussing course content with my classmates was valuable in helping me appreciate different perspectives.	1	2	3	4	5	6
16. Combining new information helped me answer questions raised in course activities.	1	2	3	4	5	6
17. Learning activities helped me construct explanations/ solutions.	1	2	3	4	5	6

18. Reflection on course content and discussions helped me understand fundamental concepts in this class.	1	2	3	4	5	6
19. I can describe ways to test and apply the knowledge created in this course.	1	2	3	4	5	6
20. I have developed solutions to course problems that can be applied in practice.	1	2	3	4	5	6
21. I can apply the knowledge created in this course to my work or other non-class related activities.	1	2	3	4	5	6
Cognitive Presence (Personal Relevance; DELES)						
	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree

22. I can relate what I learn to my life outside of university.	1	2	3	4	5	6
23. I am able to pursue topics that interest me.	1	2	3	4	5	6
24. I can connect my studies to my activities outside of class.	1	2	3	4	5	6
25. I apply my everyday experiences in class.	1	2	3	4	5	6
26. I link classwork to my life outside of university.	1	2	3	4	5	6
27. I learn things about the world outside of university.	1	2	3	4	5	6
28. I apply my out-of-class experiences.	1	2	3	4	5	6
Attitude (DELES)						
	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree

29. Distance education is stimulating.	1	2	3	4	5	6
30. I prefer distance education.	1	2	3	4	5	6
31. Distance education is exciting.	1	2	3	4	5	6
32. Distance education is worth my time.	1	2	3	4	5	6
33. I enjoy studying by distance.	1	2	3	4	5	6
34. I look forward to learning by distance.	1	2	3	4	5	6
35. I would enjoy my education more if all my classes were by distance.	1	2	3	4	5	6
36. I am satisfied with this class.	1	2	3	4	5	6

APPENDIX E

MASTER COURSE JOURNAL ASSIGNMENT

In this course, you will complete a series of History Journal entries, which you will submit twice during the term. Refer to the Assignments and Course Schedule on Syllabus Page 2 for due dates.

Journal #1

In this first journal activity, you may write about any topic(s) of your choice, but it is best to use the textbook, *The American Yawp*, to study.

- For this activity, topics should address content covered in Chapters 1 - 8 in the textbook.
    - It is expected that, at a minimum, you are reading the assigned textbook chapters.
    - You are encouraged to read collateral historical writings on topics covered in the textbook.
- This activity will consist of 10 separate journal entries; you will have a total of 20 entries by the end of the course (Journal 1 and Journal 2).
- Each separate entry should:
    - Be titled as Entry 1, Entry 2, Entry 3, etc. They should also be on the same document.
    - Contain a minimum of 120 words.
    - Consist of a summary, paraphrase, and synthesis of material you are reading/studying in this course.
    - Do not write journal entries over the same topics discussed in Discussion posts. You will not receive credit for these entries.
    - Be written in your own words - do not quote the work of others verbatim, do not summarize the ideas of others, etc.
    - Discuss the subject matter that you are studying - do not simply agree/disagree.
- Your study involves, first and foremost, learning the nation's past; doing so requires a review of previously published studies, so you are encouraged to conduct research using outside resources, but be sure to draft your journal entries in your own words.
    - Direct quotations should not be used; citations are not necessary.
    - Do not copy/paste information from any source.
    - No citations

Journal #2 has the same instructions and requirements as Journal #1, but you will address content from chapters 9-15 in the textbook.

APPENDIX F

INNOVATION

REACTION AND REFLECTION JOURNAL

Purpose

To reflect on how the course discussions, videos, and readings discussed in class apply to you, individually.

Process

Reflect and connect with history on a weekly basis for 8 weeks by interacting with the material and making personal connections.
Your writing should emphasize the following areas:

- Your connection to weekly discussion posts and videos. Refer to your classmates' discussions or videos, when necessary. You want to show that you are connecting with your classmates' thoughts and ideas, and that you are considering it when thinking about your own. Reflect on how your classmates' thoughts are similar or different to your own. You can discuss what you have learned from your class discussions, a classmate's perspective you found interesting, enlightening, etc.
- Your connection to weekly material. Discuss the material and your reaction to it. Show that you are able to critically analyze and apply the material.
- Your ability to analyze historical events and thoughtfully connect past events with the present. You can address concepts that you found interesting, enlightening, difficult to make personal connections to, etc.

Step 1: Make a copy of the R&R Journal GoogleDoc (File→ Make a Copy). Save this, with your name and course information.

Step 2: Make the journal viewable to the instructor. Click 'Share' and under 'Get Link' make the journal viewable to anyone with the link (alternatively, you could make it viewable to everyone).

Step 3: Write down your responses to prompts and give your thoughts. Make sure that you use information from the course (discussion posts, readings, videos, outside research, etc.) to support your arguments, when necessary. Arguments must be supported. If you agree or disagree with something, explain why using the course information. If something impacts today's society, explain how. You may have to conduct outside research. Also, make personal connections to the material. How does the content impact your life and/or today's society?

You will be updating this weekly with an entry each week and submitting weekly. There is no right or wrong -- these are your notes and reflections. Informal writing is fine -- but

it should be comprehensible to other readers (complete sentences, clear and thoughtful discussion).

Use your journal to respond to the weekly questions and to add your thoughts on personal learning through this course. Anything from 1- 1 ½ pages (double spaced, 12-point Times New Roman, left aligned) per weekly entry is fine, and you are also welcome to add images/diagrams/resources if you wish (these do not count towards space). Make sure to answer all questions and to explain and elaborate in your responses.
Step 4: Submit to the appropriate assignment link in Blackboard. You will submit the journal each week (Entry 1 will be complete for week 1, Entry 2 will be complete for week two, etc.)

Grading: Your journal is a place for you to privately reflect on the weekly discussions, readings, and videos. Each week, I will check your journals in your shared GoogleDoc, and I will respond with comments or questions to help expand your thinking about the issues. Because your responses are your opinion, there is no right or wrong (although supporting facts must be correct.) I do not have to agree with your opinions. I will be grading you on effort, thoughtfulness, completion, and making connections between the past and present.

Week 1

Respond to the following prompts in your journal entry. Add any additional thoughts you may have on the week's activities.

1. What expectations do you have going into the course concerning class discussions? How do you feel that you and your peers can meet those expectations?
2. In what ways was this week's discussion on T. Hall surprising? What about your classmates' perspectives do you find interesting, enlightening, challenging, etc.?
3. Gender and gender roles were clearly defined in the 17th century. In what ways is this the case today? Should gender roles be more or less defined in today's society? What personal connections were you able to make? Explain.

Week 2

Respond to the following prompts in your journal entry. Add any additional thoughts you may have on the week's activities.

1. Using information from the readings and your discussions, how could the Europeans have approached Indigenous people differently?
2. Had the Europeans approached the Indigenous people differently, perhaps more peacefully, how would our society look different today?
3. Did you find any of your classmates' perspectives interesting, enlightening, or challenging? Explain.

Week 3

Respond to the following prompts in your journal entry. Add any additional thoughts you may have on the week's activities.

1. This week you compared Thomas Jefferson and Thomas Paine in the discussion post. Do you think it's helpful to compare two historical figures? What can you learn by comparing and contrasting historical figures? Do you find it helpful to compare and contrast your discussions with those of your peers? Explain.
2. The United States has been an independent nation for 244 years. Do you feel that the Declaration of Independence is still an important document for the nation? Explain.
3. After reading the documents and your peer's responses, how can you relate Paine and Jefferson's arguments to the feelings of Americans today? What personal connections were you able to make? Explain.

Week 4

Respond to the following prompts in your journal entry. Add any additional thoughts you may have on the week's activities.

1. Students often disagree as to whether or not Jefferson's personal history should impact how he is viewed in the present day. Think about your opinion. Why do you think some of your peers felt differently?
2. How did the discussion make you change your opinion or reinforce your beliefs? What aspects of the discussion were you able to relate to your life or today's society?
3. Do you think that we study the full picture concerning historical people and events? Is it important to study the full picture, or should certain aspects of history get more focus than others? Explain.

Week 5

Respond to the following prompts in your journal entry. Add any additional thoughts you may have on the week's activities.

1. As we've seen, throughout history women were seen as the weaker sex, and they were not treated equally to men. Why do you think this is? Why were women treated differently (as less) for so long?
2. How do Grimke's words relate to today's society? Explain.
3. After reading the document and your peers' discussion posts, was anything surprising? How did your peers challenge your personal opinions?

Week 6

Respond to the following prompts in your journal entry. Add any additional thoughts you may have on the week's activities.

1. This week's discussion on *Incidents in the Life of a Slave Girl* is an emotional topic for many students. What was your reaction when reading the material and your classmates' discussions? Explain.
2. How can the impact of slavery still be felt in today's society? Does the impact of slavery still impact your life? Explain.

Week 7

Respond to the following prompts in your journal entry. Add any additional thoughts you may have on the week's activities.

1. This week, you read and discussed the Emancipation Proclamation. What stood out to you in the document or class discussion?
2. In the Emancipation Proclamation, Lincoln says, "And I hereby enjoin upon the people so declared to be free to abstain from all violence, unless in necessary self-defence." What does this quote mean to you? How does it relate to today's society?
3. Do you feel that the Emancipation Proclamation is as impactful today as it was in 1863? Explain.

Week 8

Respond to the following prompts in your journal entry. Add any additional thoughts you may have on the week's activities.

1. How were your expectations of the course met or not met? Explain.
2. What did you find most challenging, rewarding, and interesting?
3. Did your weekly journal entries influence your participation, your opinions or encourage you to make personal connections to the material? Explain.
4. What aspects of the material that you learned most apply to your life? What have you learned that you will apply to future learning?

APPENDIX G

IRB

INSTRUCTIONS
Complete each section of the application. Based on the nature of the research being proposed some sections may not apply. Those sections can be marked as N/A. Remember that the IRB is concerned with risks and benefits to the research participant and your responses should clearly reflect these issues. You (the PI) need to retain the most recent protocol document for future revisions. Questions can be addressed to research.integrity@asu.edu. **PIs are strongly encouraged to complete this application with words and terms used to describe the protocol is geared towards someone not specialized in the PI's area of expertise.**

IRB: 1. **Protocol Title**: Using Community of Inquiry to Increase Student Presence, Attitude and Achievement of Active-Duty Service Member Students in Online Courses

IRB: 2. Background and Objectives
   2.1 List the specific aims or research questions in 300 words or less.
   2.2 Refer to findings relevant to the risks and benefits to participants in the proposed research.
   2.3 Identify any past studies by ID number that are related to this study. If the work was done elsewhere, indicate the location.

TIPS for streamlining the review time:
✓ Two paragraphs or less is recommended.
✓ Do not submit sections of funded grants or similar. The IRB will request additional information, if needed.

Response:

The purpose of this study is to examine how the R&R Journal, an intervention to assist students in increasing social and cognitive presence within the course, affects active-duty military students 'continuing efforts to complete online classes, specifically HIST 1301, at Central Texas College.

How and to what extent did implementation of the Reaction & Reflection Journal affect active-duty students':
(a) social presence in their HIST 1301 course?
(b) cognitive presence in their HIST 1301 course?
(c) attitude towards participation in online HIST 1301?
(d) overall academic outcome (course grade) in online HIST 1301?

There are no perceived risks to the participants. Participants may benefit by reflecting on the outside influences that impact their education. This reflection will allow students to make informed decisions about their education.

Past studies conducted related to this study were completed in the Spring of 2020. The IRB ID is STUDY00011547.

IRB: 3.   Data Use - What are the intended uses of the data generated from this project?
Examples include: Dissertation, thesis, undergraduate project**,** publication/journal article, conferences/presentations**,** results released to agency, organization**,** employer, or school**.** If other, then describe.

Response: The data will be used in a dissertation and may be used in presentations or publications. Results may be released to the institution and to participants

IRB: 4.   Inclusion and Exclusion Criteria
4.1 List criteria that define who will be included or excluded in your final sample.
Indicate if each of the following special (vulnerable/protected) populations is included or excluded:

- ▪ Minors (under 18)
- ▪ Adults who are unable to consent (impaired decision-making capacity)
- ▪ Prisoners
- ▪ Economically or educationally disadvantaged individuals

4.2 If not obvious, what is the rationale for the exclusion of special populations?
4.3 What procedures will be used to determine inclusion/exclusion of special populations?

TIPS for streamlining the review time.
- ✓ Research involving only data analyses should only describe variables included in the dataset that will be used.

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✓ For any research which includes or may likely include children/minors or adults unable to consent, review content [here]

✓ For research targeting Native Americans or populations with a high Native American demographic, or on or near tribal lands, review content [here]
For research involving minors on campus, review content [here]

Response: Participants will include active-duty military students previously and currently enrolled in the investigator's HIST 1301 course. Minors, adults who cannot consent, prisoners, undocumented individuals, and non-English speakers will not participate in the study. Native Americans may participate, but they are not being specifically recruited.

IRB: 5. Number of Participants
Indicate the total number of individuals you expect to recruit and enroll. For secondary data analyses, the response should reflect the number of cases in the dataset.

Response: The expected number of participants I expect to enroll is 50.

IRB: 6. Recruitment Methods
6.1 Identify who will be doing the recruitment and consenting of participants.
6.2 Identify when, where, and how potential participants will be identified, recruited, and consented.
6.3 Name materials that will be used (e.g., recruitment materials such as emails, flyers, advertisements, etc.) Please upload each recruitment material as a separate document, Name the document:
recruitment_methods_email/flyer/advertisement_dd-mm-yyyy
6.4 Describe the procedures relevant to using materials (e.g., consent form).

Response: The Co-PI will conduct the recruitment process. She will recruit participants online by using a Recruitment Consent letter, which is attached. Participants will be recruited from the Co-PI's online HIST 1301 course. Students will be shown a recruitment script through the course announcements, and voluntarily choose to participate.

In week 1 of the students' course, they will be given the recruitment script, with a link to the consent letter and survey in Qualtrics. At the end of the consent letter, participants will be asked if they consent to the survey by answering a yes or no question. Then, layered consent will be implemented, and students will indicate their consent for journal analysis by writing their first and last name. If they do not consent to journal analysis, but do consent to the survey, they will move directly to the survey.

Upon consent for journal analysis, each student will be assigned a unique identifier (example: 001, 002, etc.) that is not related to their name or institutional ID number. This will be assigned to the journal for the study to allow for anonymity. I will permanently decouple the student consent for the journal analysis from the survey data as soon as it is downloaded. I will not download or analyze data, including the consent forms, until the semester is over. Course grades will be submitted before data management takes place.

Participant responses will be collected anonymously and linked using an identifier created by the participant, and journal responses will be de-identified prior to analysis. All data will be saved on an ASU server, and no identifying information, including IP addresses, will be used. In the survey, to protect participant confidentiality, I will ask them to create a unique identifier known only to them. Pick the first the first three letters of your mother's name and the last three digits of your phone number. For example, if your mother's name is Samantha and your phone number is 123-456-7890, write 'sam890'. The unique identifier will allow us to match post-intervention survey responses and retrospective, pre-intervention responses when we analyze the data. Results from this study may be used in reports, presentations, or publications but student names or any other identifying information will not be used.

IRB: **7.   Study Procedures**
    7.1 List research procedure step by step (e.g., interventions, surveys, focus groups, observations, lab procedures, secondary data collection, accessing student or other records for research purposes, and follow-ups). Upload one attachment, dated, with all the materials relevant to this section. Name the document: supporting documents dd-mm-yyyy
    7.2 For each procedure listed, describe **who** will be conducting it, **where** it will be performed, **how long** is participation in each procedure, and **how/what data** will be collected in each procedure.
    7.3 Report the total period and span of time for the procedures (if applicable the timeline for follow ups).
    7.4 For secondary data analyses, identify if it is a public dataset (please include a weblink where the data will be accessed from, if applicable). If not,

describe the contents of the dataset, how it will be accessed, and attach data use agreement(s) if relevant.

TIPS for streamlining the review time.

✓ Ensure that research materials and procedures are explicitly connected to the articulated aims or research questions (from section 2 above).

✓ In some cases, a table enumerating the name of the measures, corresponding citation (if any), number of items, sources of data, time/wave if a repeated measures design can help the IRB streamline the review time.

Response:

Intervention. Students will be assigned a weekly journal, which they will submit at the end of each week. Following the Community of Inquiry framework, this journal will encourage social, cognitive, and teaching presence within the course by promoting student-student and student-content engagement. Each week, students will use their interactions on the discussion board, their viewings of class videos, and their weekly readings to answer questions related to their interactions with students and content in a minimum of 5 sentences.

Students will be asked in their journal first journal prompt if they consent to the analysis of their responses for the study. The journals are a class assignment and will only be analyzed for the study if students give consent. Each journal assignment should take approximately 30 minutes per week to complete.

Surveys. Two online surveys will be administered to the participants. A pre-intervention assessment will be administered prior to the beginning of the intervention and a post-intervention survey will be administered at the conclusion of the intervention. The survey items are attached.

Surveys will be administered by the Co-PI through Qualtrics, and participants will take the survey online, in their own time. Participation in each survey will take approximately 15-20 minutes.

IRB: 8.   Compensation

   8.1 Report the amount and timing of any compensation or credit to participants.

   8.2 Identify the source of the funds to compensate participants.

   8.3 Justify that the compensation to participants to indicate it is reasonable and/or how the compensation amount was determined.

8.4 Describe the procedures for distributing the compensation or assigning the credit to participants.

TIPS for streamlining the review time.

✓ **If partial compensation or credit will be given or if completion of all elements is required, explain the rationale or a plan to avoid coercion**

✓ **For extra or course credit guidance, see "Research on educational programs or in classrooms" on the following page: https://researchintegrity.asu.edu/human-subjects/special-considerations.**

✓ **For compensation over $100.00 and other institutional financial policies, review "Research Subject Compensation" at: https://researchintegrity.asu.edu/human-subjects/special-considerations for more information.**

Response: No compensation or credit will be provided to the participants.

IRB: 9.   Risk to Participants

List the reasonably foreseeable risks, discomforts, or inconveniences related to participation in the research.

TIPS for streamlining the review time.

✓ Consider the broad definition of "minimal risk" as the probability and magnitude of harm or discomfort anticipated in the research that are not greater in and of themselves than those ordinarily encountered in daily life or during the performance of routine physical or psychological examinations or tests.

✓ Consider physical, psychological, social, legal, and economic risks.

✓ If there are risks, clearly describe the plan for mitigating the identified risks.

Response: There are no risks for participating in the research.

IRB: 10. Potential Direct Benefits to Participants

List the potential direct benefits to research participants. If there are risks noted in 9 (above), articulated benefits should outweigh such risks. These benefits are not to society or others not considered participants in the proposed research. Indicate if there is no direct benefit. A direct benefit comes as a direct result of the subject's participation in the research. An indirect benefit may be incidental to the subject's participation. Do not include compensation as a benefit.

Response: Benefits include learning about the academic benefits of increased student-student and student-content interaction. In turn, these can be used to help students gain confidence in online classrooms and apply learned habits of conversation and analysis to later classes. Additionally, participants will have opportunities to reflect on these topics.

IRB: **11. Privacy and Confidentiality**
Indicate the steps that will be taken to protect the participant's privacy.

11.1 Identify who will have **access to the data**.
11.2 Identify where, how, and how long data will be **stored** (e.g. ASU secure server, ASU cloud storage,
filing cabinets).
11.3 Describe the procedures for **sharing, managing and destroying data**.
11.4 Describe any special measures to **protect** any extremely sensitive data
(e.g. password protection, encryption, certificates of confidentiality, separation of identifiers and data, secured storage, etc.).
11.5 Describe how any **audio or video recordings** will be managed, secured, and/or de-identified.
11.6 Describe how will any signed consent, assent, and/or parental permission forms be secured and how long they will be maintained. These forms should separate from the rest of the study data.
11.7 Describe how any data will be **de-identified**, linked or tracked (e.g. master-list, contact list, reproducible participant ID, randomized ID, etc.). Outline the specific procedures and processes that will be followed.
11.8 Describe any and all identifying or contact information that will be collected for any reason during the course of the study and how it will be secured or protected. This includes contact information collected for follow-up, compensation, linking data, or recruitment.
11.9 For studies accessing existing data sets, clearly describe whether or not the data requires a Data Use Agreement or any other contracts/agreements to access it for research purposes.
11.10 For any data that may be covered under FERPA (student grades, etc.) additional information and requirements is available at https://researchintegrity.asu.edu/human-subjects/special-considerations.

Response: Only the PI and Co-PI will have access to the data. The data will be stored on an ASU server for a period of four years and then deleted or destroyed. IP address tracking through Qualtrics is disabled for the survey.

Surveys will ask participants to provide a unique identifier so the two surveys can be matched for data analysis. Details about the unique identifier are provided in the Recruitment Consent Letter and on the Surveys. Specifically, "In the survey, to protect your confidentiality, I will ask you to create a unique identifier known only to you. Pick the first the first three letters of your mother's name and the last three digits of your phone number. For example, if your mother's name is Samantha and your phone number is 123-456-7890, write 'sam890'. The unique

identifier will allow us to match your post-intervention survey responses and your retrospective, pre-intervention responses when we analyze the data."

Layered consent will be given by participants to indicate consent of participation for journal analysis. Students will provide their first and last name as consent so their journals can be identified. At the end of the semester, after final grades have been submitted, the consenting students and their journals will be identified. The journals of consenting participants will be assigned a unique identifier (example, 001, 002, etc.) that is not related to their name or institutional ID number, ensuring anonymity during data collection and analysis. Once a unique identifier has been assigned, student names or any other identifying information will be permanently deleted.

I will permanently decouple the student consent for the journal analysis from the survey data as soon as it is downloaded. I will not download or analyze data, including consent forms, until the semester is over and final grades have been submitted.

IRB: 12. Consent
Describe the procedures that will be used to obtain consent or assent (and/or parental permission).

12.1 Who will be responsible for consenting participants?
12.2 Where will the consent process take place?
12.3 How will the consent be obtained (e.g., verbal, digital signature)?

TIPS for streamlining the review time.
✓ If participants who do not speak English will be enrolled, describe the process to ensure that the oral and/or written information provided to those participants will be in their preferred language. Indicate the language that will be used by those obtaining consent. For translation requirements, see Translating documents and materials under https://researchintegrity.asu.edu/human-subjects/protocol-submission
✓ Translated consent forms should be submitted after the English is version of all relevant materials are approved. Alternatively, submit translation certification letter.
✓ **If a waiver for the informed consent process is requested, justify the waiver in terms of each of the following: (a) The research involves no more than minimal risk to the subjects; (b) The waiver or alteration will not adversely affect the rights and welfare of the subjects; (c) The research could not practicably be carried out without the waiver or alteration; and (d) Whenever appropriate, the subjects will be provided with additional pertinent information after participation.** Studies involving confidential, one time, or anonymous data need not justify a waiver. A verbal consent or implied consent after reading a cover letter is sufficient.
✓ ASU consent templates are [here].
✓ Consents and related materials need to be congruent with the content of the application.

Response: The Co-PI will conduct the consent process. Participants will be asked at the beginning of the survey for consent before moving to the survey ("If you agree to participate, proceed to the survey.". Participants will be reminded in the post-survey that they have provided consent in the pre-survey.

Consent has been provided from the site location (Central Texas College). Attachment of permission letter is attached.

De-identified data collected as part of the current study will be shared with the PI, Andrea Weinberg, for the purposes of this study. De-identified data collected as part of the current study will not be shared with others (investigators or industry partners) for future research or other purposes.

IRB: 13. Site(s) or locations where research will be conducted.
List the sites or locations where interactions with participants will occur-
- Identify where research procedures will be performed.
- For research conducted outside of the ASU describe:
    o Site-specific regulations or customs affecting the research.
    o Local scientific and ethical review structures in place.
- For research conducted outside of the United States/United States Territories describe:
    - Safeguards to ensure participants are protected.
- For information on international research, review the content [here].

For research conducted with secondary data (archived data):
- List what data will be collected and from where.
- Describe whether or not the data requires a Data Use Agreement or any other contracts/agreements to access it for research purposes.
- For any data that may be covered under FERPA (student grades, etc.) additional information and requirements is available [here].
- For any data that may be covered under FERPA (student grades, homework assignments, student ID numbers etc.), additional information and requirements is available [here].

Response: The study will be conducted online, with active-duty students enrolled in HIST 1301 at Central Texas College (CTC), located in Killeen, Texas. The Co-PI's department and supervisor is aware and supportive of the study, though CTC does not have an IRB process. The study will be conducted using the ethical safeguards and review structures in place at Arizona State University. Consent has been provided from the site location (Central Texas College). Attachment of permission letter is attached.

IRB: **14. Human Subjects Certification from Training.**

Provide the names of the members of the research team.

ASU affiliated individuals do not need attach Certificates. Non-ASU investigators and research team members anticipated to manage data and/or interact with participants, need to provide the most recent CITI training for human participants available at www.citiprogram.org. Certificates are valid for 4 years.

TIPS for streamlining the review time.
✓ If any of the study team members have not completed training through ASU's CITI training (i.e. they completed training at another university), copies of their completion reports will need to be uploaded when you submit.
✓ For any team members who are affiliated with another institution, please see "Collaborating with other institutions" [here]
✓ The IRB will verify that team members have completed IRB training. Details on how to complete IRB CITI training through ASU are [here]

PROCEDURES FOR THE REVIEW OF HUMAN SUBJECTS RESEARCH

General Tips:
- Have all members of the research team complete IRB training before submitting.
- Ensure that all your instruments, recruitment materials, study instruments, and consent forms are submitted via ERA when you submit your protocol document. Templates are [here]
- Submit a complete protocol. Don't ask questions in the protocol – submit with your best option and, if not appropriate, revisions will be requested.
- If your study has undeveloped phases, clearly indicate in the protocol document that the details and materials for those phases will be submitted via a modification when ready.
- Review all materials for consistency. Ensure that the procedures, lengths of participation, dates, etc., are consistent across all the materials you submit for review.
- Only ASU faculty, full time staff may serve as the PI. Students may prepare the submission by listing the faculty member as the PI. The submit button will only be visible to the PI.
- Information on how and what to submit with your study in ERA is [here]. Note that if you are a student, you will need to have your Principal Investigator submit.
- For details on how to submit this document as part of a study for review and approval by the ASU IRB, visit https://researchintegrity.asu.edu/human-subjects/protocol-submission.