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# Exploring Blended Curriculum to Enhance Student Learning in an Adult High School

Tara Burnham
*Walden University*

# Walden University

College of Education

This is to certify that the doctoral study by

Tara Burnham

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Dr. Christopher Cale, Committee Member, Education Faculty
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Sue Subocz, Ph.D.

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Abstract

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MLA, Baker University, 2012

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Project Study Submitted in Partial Fulfillment

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## Abstract

At the study site school for this research, the online curriculum in the current blended learning program was not promoting the desired student achievement outcomes. It was unknown if and how research-based best practices associated with blended learning were being implemented. This qualitative case study explored which elements of blended learning best practices were currently implemented in the online blended curriculum at one school to understand the factors enhancing or constraining student learning outcomes. A communities of inquiry framework was used to explore which blended learning best practices were currently implemented and which of those elements enhanced and constrained learning based on teacher and student perspectives. Data were collected using a whole population questionnaire, individual student/teacher interviews, and classroom observations. Three students and 5 teachers participated in the interviews and 5 classrooms were observed. Data were analyzed using a combination of open coding and a priori codes related to the conceptual framework. Findings indicated that while teacher presence was evident in the blended learning curriculum, the focus on self-paced assignments limited the social and cognitive presence needed in blended learning best practices. Results were used to design a blended learning professional development course to help prepare teachers to implement missing elements of blended learning best practices. This study can create social change by increasing teachers' understanding of blended learning and providing student learning data to help educational leaders close the achievement gap at the local site. Increasing student success could lead to lower dropout rates and enhance students' abilities to become more successful members of society.

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## The Local Problem

Blended learning, curriculum and instruction combining traditional brick-and-mortar and online education, can offer students a personalized curriculum while still providing coverage of core content knowledge in real-world settings. When blended learning is implemented with attention to best practices, increases in student achievement occur (Bidarra & Rusman, 2017; Donaldson et al., 2017). In blended learning, *implementation* refers to the design and contents of the course shell that students interact with as well as teachers' interactions with students and content to promote learning (Vaughan & Garrison, 2006). Blended learning best practices based on Garrison, Anderson, and Archer (2000) can be grouped into the three main elements of a communities of inquiry (CoI) framework: (a) cognitive presence, (b) social presence, and (c) teaching presence. Cognitive presence is evidenced by such practices as questioning, exploring, making connections, and applying new ideas. Social presence appears through emotional expression shared by teachers and students, open communication, a risk-free environment, encouragement, and collaboration. Teaching presence includes everything from the beginning stages of planning and selecting curriculum to facilitating discussions, assigning groups, building understanding, and direct instruction.

Blended learning curriculum and instruction, implemented with attention to blended learning best practices, should promote a CoI that actively involves students and their teachers in the learning process and provides them various ways to interact with the curriculum materials. Blended learning programs should promote a CoI that focuses on

social presence, teacher presence, and cognitive presence as blended learning best practices through a variety of activities from planning to implementation (Garrison et al., 2000). According to Vaughan and Garrison (2006), CoI promotes active learning, making connections among concepts, and the exchange of ideas by allowing learners to interact with teachers, peers, and the community to enhance learning. Constructing a CoI in an online, blended curriculum requires teacher presence, social presence, and cognitive presence to implement tools and assignments that depict the role of teachers and students in online learning, connecting face-to-face and online components, embed frequent online interactions with and between students and vary the types and technological tools of learning (Kintu, Zhu, & Kagambe, 2017; Palmer, Lomer, & Bashliyska, 2017). Some best practices are associated with how the online course materials have been designed (such as embedding frequent opportunities for collaboration in materials), and others relate to how the teacher implements these materials (Baghdadi, 2011). According to Green, Whitburn, Zacharias, Byrne, and Hughes (2017), when blended learning best practices are implemented, active learning occurs and student achievement is greater than in traditional courses. Conversely, Willging and Johnson (2009) found that a lack of frequent interaction among students and teachers in online courses leads to failure and eventual drop out.

## Problem Statement

At Career High School (pseudonym), a nontraditional adult high school in central Colorado, a blended learning model is used to increase student achievement and develop students who can apply content knowledge to real-world situations. The administration at

Career High implemented blended learning specifically to ensure more students complete high school and can apply content in career and other real-world situations (principal, personal communication, August 20, 2018). The problem at Career High School is that the online curriculum in the blended learning program is not promoting these desired student outcomes, and no data have been collected to explore if and how the research-based blended learning best practices (as discussed above) have been implemented in the blended learning online curriculum. These blended learning best practices, known to increase student outcomes, include establishing the role of teachers and students in online learning, connecting the face-to-face and online components of learning, embedding frequent online interactions with and between students, and including real-life problems in the curriculum (Garrison & Vaughan, 2008; Palmer et al., 2017). Two department chairs at Career High School (English & Science department chairs, personal communications, August 21, 2017) stated that a problem exists with the online curriculum used for blended instruction, and the current practice is failing to promote active learning. This problem is further evidenced at the local site by the 11% graduation rate in 2016 and a dropout rate of 48% (Colorado Department of Education, 2017). Students at the school do not score well on standardized tests when compared to their peers around the state or when evaluated by the state for workforce readiness. Attendance is also a major issue at Career High school and the result of many possible factors, one of which may be the blended curriculum (Colorado Department of Education, 2016).

As discussed above, the effective implementation of blended learning best practices has the potential to improve these student outcomes. According to recent

research on blended learning, using blended learning best practices, such as establishing the role of teachers and students in online learning, connecting face-to-face and online components of learning, embedding frequent online interactions with and between students, and varying the types of technological tools of learning is crucial to enhance student learning (Palmer et al., 2017). A gap in practice exists at the local level. Research asserts that when students experience blended learning best practices, both their achievement on standardized tests and their ability to apply content knowledge to real-life situations occur (Bidarra & Rusman, 2017; Donaldson et al., 2017; Kintu et al., 2017); however, at the local study site, these outcomes are not occurring. As evidenced by low test scores, low graduation rates, and statements from teachers and school leaders, the online curriculum is not promoting the desired outcomes for students. Hence a study was needed into the elements of blended learning best practices being implemented by teachers in the current online curriculum and to gather the information about adult students' perspectives on what factors enhance and constrain their learning outcomes from the current online curriculum at Career High School.

## Rationale

Career High School is a second chance school for at-risk students to graduate; however, school leaders believe that the current online curriculum is not promoting active learning (English department chair, personal communication, August 21, 2017). An expectation at the local district is that the blended learning program will be comprised of 80% of students' time spent interacting with online curriculum and 20% face-to-face interactions (District representative, personal communication, August 21, 2017).

However, according to some department chairs (English & Science, department chairs, personal communication, January 2018), students are off task during online instruction, playing games and texting. One department chair at Career High School (Science department chair, personal communication, August 21, 2017) believes that how the current curriculum is implemented is not engaging students and motivating them to participate on a regular basis. Students are often absent and do not utilize the opportunity to work on courses at home. Effective implementation of blended learning best practices should help students engage and allow them to participate even when they are absent. However, Career High School continues to see low attendance rates and low graduation rates. Blended programs were put in place to help nontraditional students not fall as far behind when attendance is an issue (Science department chair, personal communication, August 21, 2017). However, even with the blended curriculum, poor attendance and lack of involvement in learning contribute to low graduation rates (English & Science department chairs, personal communication, August 21, 2017).

This problem in blended learning effectiveness is of concern to researchers in the field. Factors such as students' perceptions of their role in online learning, lack of connections between the online and face-to-face components of blended learning, lack of interaction, and lack of varied materials and resources can limit student participation in online learning (Kintu et al., 2017; Palmer et al., 2017). The purpose of this qualitative case study was to explore which elements of blended learning best practices are currently implemented in the online curriculum at Career High School to increase the understanding of which factors are enhancing or constraining student learning outcomes.

Findings can inform both curriculum design and ways to train teachers to modify the intended curriculum so that blended learning best practices are used to promote student learning. Improved curriculum, instruction, and outcomes for nontraditional students in a blended learning environment could help to increase student achievement and subsequent completion of high school.

## Definition of Terms

*Active learning*: A student-centered approach to learning that requires students to construct meaning from the content and includes interactions with the content, peers, and teachers (Donaldson et al., 2017; Ott, Carpenter, Hamilton, & LaCourse, 2018).

*Adult alternative high school*: A nontraditional educational setting for high school students over the age of 18 who are at risk of not graduating on time or who have failed to graduate on time (Career High School, n.d.).

*Blended learning best practices*: Practices that create a CoI through cognitive presence, social presence, and teaching presence to promote learning, such as establishing the role of teachers and students in online learning, connecting face-to-face and online components of learning, embedding frequent online interactions with and between students, and including real-life problems in the curriculum (Garrison et al., 2000; Vaughan & Garrison, 2006).

*Blended learning*: A course in which part of the learning takes place in a brick-and-mortar location away from home and part of the learning takes place online; students have some control over when, where, and how quickly they learn (Horn & Staker, 2015)

*Cognitive presence*: Ability to construct and apply meaning in a CoI through problem identification, critical thinking, evaluation, exploration, integration, and application (Vaughan & Garrison, 2006)

*Community of inquiry (CoI)*: Use of critical analysis, construction, and confirmation by a group of peers to deepen understanding of content through cognitive presence, social presence, and teacher presence (Vaughan & Garrison, 2006)

*Online curriculum*: Content and experiences that students are expected to have using technology, such as videos, audio files, virtual labs, and virtual games (Garrison & Vaughan, 2008; Hamdi & Hamtini, 2016)

*Social presence*: Building trust and respect to facilitate open communication and group cohesion in a CoI and to establish one's self as a real person in an online environment (Vaughan & Garrison, 2006)

*Teaching presence*: The design, facilitation, and direct instruction that creates a personally meaningful and successful learning environment in blended programs (Vaughan & Garrison, 2006)

## Significance of the Study

The results of this study may help teachers and administrators improve learning outcomes and student participation in the online curriculum at the study site, which could help increase graduation rates and improve academic achievement. Closing the achievement gap and increasing student learning is important to Career High School and the district.

Findings from my study may provide information to teachers and administrators about how to improve the online curriculum so that it allows students to actively participate with materials connected to their interests and motivational needs. Professional development and training could be designed based on this research study's findings to improve student involvement in the blended curriculum by providing teachers with a better understanding of how to facilitate the online curriculum in ways that actively involve students in the learning. Nontraditional students, who are at risk, will benefit from this study because an improved blended curriculum could allow more of them opportunities to be involved in school and complete their high school diplomas. Understanding how students perceive the current levels of CoI—including teacher presence, cognitive presence, and social presence within the curriculum—could help teachers understand what needs to change in the current course curriculum. The findings from my study could lead to positive social change by decreasing the number of individuals who do not complete high school, which could lower the number of individuals needing government assistance and could decrease criminal activity (Lansford, Dodge, Pettit, & Bates, 2016).

## Research Questions

The research questions for this study were designed to explore the implementation of blended learning best practices in the online component of blended learning at Career High School and increase the understanding of what elements of blended learning best practices students and teachers perceive to enhance student success at achieving learning outcomes. While RQ1 and RQ2 were specific and designed to gain an understanding of

how blended learning best practices from the framework were implemented in the online curriculum, RQ3 was more general and asks about the factors that enhance or constrain learning from the perspectives of the teachers and adult students at Career High School.

RQ1: What elements of blended learning best practices from the CoI framework are inherent in the current online curriculum at Career High School?

RQ2: What elements of blended learning best practices from the CoI framework are being implemented by teachers in the current online curriculum at Career High School?

RQ3: From the teachers' and adult students' perspectives, what elements of blended learning best practices enhance and constrain student participation in a CoI while learning from the online curriculum at Career High School?

## Review of the Literature

This review of literature begins with a focus on the conceptual framework, blended learning model (BLM) and the CoI, which grounds this study and includes the elements of blended learning best practices, along with personal and outside factors that influence student participation with curriculum, the impact of program design, the importance of student perceptions, constructing meaning from the curriculum, the use of multimedia tools to improve curriculum, creating communities in blended learning, challenges with blended learning, and methods to measure students' connections with curriculum.

The review of literature continues with an examination of scholarly research related to the broader problem within online curriculum and instruction related to blended

learning best practices. The review has been broken down into engagement in blended learning, multimedia tools used in the online curriculum, the use of communities of inquiry in the blended curriculum to improve learning outcomes, challenges associated with blended learning, and ways to measure student participation and engagement. Google Scholar, Education Source, and Education Resource Information Center databases were used to find scholarly resources using key search terms including *blended learning, best practices, online curriculum, engagement, technology, communities of inquiry, alternative high school, student perceptions*, and *multimedia tools*. The theory used to frame this study was CoI (Garrison et al., 2000; Vaughan & Garrison, 2006).

## Conceptual Framework

The conceptual framework used for this study was Vaughan and Garrison's (2006) BLM, looking specifically at the CoI redesign from Garrison et al. (2000) to fit blended learning models. Vaughan and Garrison's (2006) BLM focuses on CoI and the role that interactions play in enhancing learning. According to Garrison and Vaughan (2008), CoI are the backbone for implementing blended learning best practices in blended learning. Interactions with the curriculum come in many forms, including peer-to-peer interactions, student-to-teacher interactions, community involvement, and students' interactions with the content itself (Vaughan & Garrison, 2006).

**Communities of inquiry**. CoI help to create deep learning and are essential to the online component of a blended learning program (Vaughan & Garrison, 2006). Hence, understanding how they work is important to student success. CoI are based on the idea that a group connects with an academic purpose in mind and works together to achieve

curriculum goals. Garrison et al. (2000) break CoI into three categories: (a) social presence, (b) teaching presence, and (c) cognitive presence. Social presence includes emotional expression, open communication, and group cohesion (Garrison et al., 2000). Teacher presence is comprised of instructional management, building understanding, and direct instruction. Cognitive presence appears through trigger events, exploration, integration, and resolution activities. Social presence, teaching presence, and cognitive presence are important to successful CoI and help with selecting content, help to set the climate, and support discourse (Garrison et al., 2000). Students should interact with their learning environment and make connections to their experiences and the world around them (Garrison & Vaughan, 2008).

As related to creating CoI, Breivik (2016) stated, “Thinking should not be understood as an inner process within a solitary subject disengaged from the world, but as toil to overcome and cope with problems in the world” (p. 9). Blended learning should provide a classroom community and allow students to solve problems that have relevance to the world outside the classroom. According to Vaughan and Garrison (2006), teachers should provide structure, support, and meaningful instruction during both face-to-face and online curriculums. The curriculum should be designed to promote communication and trust (social presence) and provoke students to reflect, ask questions, and think deeper (cognitive presence). Teachers should provide the necessary instruction and support to facilitate deep learning and inquiry, along with skills to help students stay on task and responsible for their learning (teacher presence). These recommendations from Vaughan and Garrison (2006) for establishing CoI reflect the blended learning best

practices defined above. Some practices in blended learning known to promote learning include (a) establishing the role of teachers and students in online learning, (b) connecting face-to-face and online components of learning, (c) embedding frequent online interactions with and between students, and (d) including real-life problems in the curriculum (Palmer et al., 2017). The elements identified by Palmer et al. (2017) that promote learning align with social presence, teacher presence, and cognitive presence outlined by Garrison et al. (2000).

In this study, teacher presence, social presence, and cognitive presence were explored through questionnaires, interviews, and classroom observations and were categorized using a priori codes. Garrison and Vaughan (2008) suggested possible interview questions to help guide discussion about blended curriculum and the use of CoI. For this study, the interview questions were modeled after the teacher interview suggestions provided by Garrison and Vaughan (2008). Understanding the students' perceptions about the factors that enhance and constrain their learning from the curriculum helps in the development of a solid blended learning environment. The research questions for my study are based on the need to gather information from teachers and students about the implementation of research-based blended learning best practices (or lack thereof) known to establish CoI in the online component of the blended curriculum. Observation protocols based on this framework were also designed to look for the features of CoI in blended classrooms.

Vaughan and Garrison's (2006) BLM, along with CoI (Garrison et al., 2000), guided the creation of the research questions, questionnaire, and interview questions in

this study. Vaughan and Garrison (2006) presented CoI as a key factor to enhance learning in blended learning. For this study, each element of blended learning best practices has been categorized as teacher presence, cognitive presence, social presence, or general curriculum and instruction factors that guide learning. Garrison et al. (2000) suggested many elements that fit into teacher presence (instructional management, building understanding, direct instruction), social presence (emotional expression, open communication, group cohesion), and cognitive presence (trigger events, exploration, integration, resolution), and I used these as a priori codes for open-ended questions to build the multiple selection questions in the questionnaire. These factors were addressed in the research questions and were studied with student questionnaires and individual interviews.

**Review of the Broader Problem**

To review the broader problem, I reviewed the literature on blended learning as a classroom structure, the role blended learning plays in promoting active engagement and building communities, the challenges with blended learning, how blended curriculum should be designed to promote learning, how best to implement CoI, and measurement of active learning. Implementation of blended learning best practices is important to achieving learning outcomes (Garrison & Vaughan, 2008). Many factors go into creating an environment that aligns with blended learning best practices, including the actual design and implementation of the curriculum and instruction so that social presence, teaching presence, and cognitive presence are embedded in the course. Research was conducted using key search terms, including *blended learning, best practices,*

*curriculum*, *instruction*, *student perceptions*, *active engagement*, *community of inquiry*, and *online curriculum*.

**Blended learning**. Blended learning takes the advantages of both online instruction and face-to-face instruction to create a more effective learning environment to promote communication, interaction, and higher-order thinking and learning (Garrison & Vaughan, 2008). Research indicates that blended learning helps to increase student engagement and improves achievement outcomes, but most research related to blended learning has been conducted with teachers at the college level. Researchers have found that blended learning enhances student achievement and engagement when blended learning best practices elements are implemented effectively (Donaldson et al., 2017; White, McGowan, & McDonald, 2018). With an increase in the use of technology in education, online curriculum is an important element of 21st-century learning (Donaldson et al., 2017).

Blended learning programs are becoming more popular, and research shows that student engagement is pliable and based on many factors, including curriculum (Manwaring, Larsen, Graham, Henrie, & Halverson, 2017). Pugliese (2016) found that students performed better in grammar, vocabulary, reading, and comprehension when the curriculum was presented in a blended learning format. Finding tools to enhance student participation in the rapidly changing educational setting is important to student success (Donaldson et al., 2017). Students who were not involved were at a higher risk of not completing school (Bilge, Tuzgol Dost, & Cetin, 2014). Many researchers have cited student participation as an important element in classroom success, and in Colorado,

engagement is one of four criteria alternative schools must document for accreditation (de Velasco & Gonzales, 2017).

**Active engagement with the blended learning curriculum**. Creating a curriculum that promotes active engagement with the content is an important element of online curriculum design for blended learning programs. Students who are actively engaged with the curriculum tend to be more enthusiastic about and invested in their learning experience (Donaldson et al., 2017). Students who do not participate in the curriculum become distracted. Amaka and Goeman (2017) found that interactive videos and lessons within the digital media curriculum promoted student learning and lead to higher levels of understanding. Many things influence levels of involvement, including personal characteristics, the design of the program, and individual student perceptions of the experience (Manwaring et al., 2017). According to Vaughan and Garrison (2006), "The goal is to create dynamic and vital communities of inquiry where students take responsibility to construct meaning and confirm understanding through active participation in the inquiry process." Focusing on the elements that promote students to take an active role in learning is important when designing the digital curriculum for a blended learning program.

**Communities in blended learning**. Creating an environment that promotes connection and collaboration through online biographies and profile pictures helps build relationships in online programs (Donaldson et al., 2017). Blended programs have the benefit of students not only having online interactions but also meeting face-to-face. Donaldson et al. (2017) found that by the end of a blended learning program, students

were not only interacting more within the online curriculum but also using outside digital tools to connect and setting up their face-to-face meetings. Many online tools exist to help students collaborate outside the face-to-face classroom, such as blogs, wikis, virtual worlds, and media productions (Bidarra & Rusman, 2017). However, having a person to refer to when a topic was challenging or directions were not clear was identified as a benefit to blended learning (Donaldson et al., 2017).

Successful implementation of this blended learning best practice element is important and allows for easy access to two-way communication between peers and between students and teachers (Tay, 2016). Vaughan and Garrison (2006) created a list based on student feedback of the most and least effective aspects of blended learning courses; many of the elements relate to course design and implementation, as well as communication. Discussions with peers about curriculum help build a deeper understanding and improved retention (Pool, Reitsma, & van den Berg, 2017). As a team of peers, students can critique and evaluate their assumptions and improve their understanding through evaluation and reflection (Breivik, 2016). Discussing with others helps to enhance participation and critical thinking. Group work and discussions were identified as the two most effective elements of Blended Learning by Vaughan and Garrison (2006). CoI, a key element of blended learning best practices, help to improve creativity, critical thinking, problem-solving, and productivity (Bidarra & Rusman, 2017).

Donaldson et al. (2017) found that students frequently used collaboration tools to directly answer given questions and not to collaborate with one another. However, when

students feel a sense of community, the way they communicate with one another, take responsibility for learning, and organize their activities changes (Pool et al., 2017). Many students miss the interactions in the online curriculum, and the isolation makes learning more difficult. CoI are important to a successful online curriculum and provides a network and structure to the virtual interactions.

**Challenges of blended learning**. Blended learning has many benefits, but it also presents challenges for teachers and students. Many teachers did not feel that adequate preparation and resources were available to create the needed community within the blended curriculum (Charbonneau-Gowdy & Cechova, 2017), which may lead to inadequate implementation of blended learning best practices. Even when creating a community was a focus of the program, many felt that a solid community network was missing (Tay, 2016). With the formatting of blended programs, teachers felt that they did not have the ability to guide the curriculum, and students did not participate actively during blended courses (Charbonneau-Gowdy & Cechova, 2017). Teacher and student involvement are important to academic success; however, students and teachers are not using the resources available through a blended program to facilitate deeper learning.

Preparation to create and implement an online curriculum that includes the elements of blended learning best practices is important to the success of a blended program. Research indicated that there is often a lack of understanding needed to navigate online resources (Manwaring et al., 2017). When teachers do not understand the collaborative tools of the digital curriculum, it is difficult for them to explain to students how to interact with the resources available (Donaldson et al., 2017). Students do not

seem to prefer a certain collaboration tool over others but must understand the tools they are using to benefit from them. Teachers tend to have limited knowledge of online teaching methods and struggle to provide a social presence. Student and teacher familiarity with the digital tools are a limiting factor for active learning in an online curriculum, along with unclear expectations and content.

Other challenges identified by participants in Donaldson et al.'s (2017) study include technical difficulties such as slow internet and costly access. Students indicated that time management was a challenge with the online curriculum (Pool et al., 2017). Technology can enhance learning, but it also serves as a distraction for many students (Bingham, 2016). Working with an online curriculum requires a higher level of self-motivation and self-direction, which many students are not prepared for. Many students also feel isolated in an online curriculum (Manwaring et al., 2017). According to Haselberger and Motschnig (2016), students enjoyed an online curriculum when it had a distinct purpose and aligned with the face-to-face learning, and was not for the sake of having an online curriculum. Limited resources exist to measure achievement in blended learning settings, and therefore, teachers struggle to adapt the curriculum to enhance learning (Mirriahi, Alonzo, & Fox, 2015). Teachers and students must work to overcome these challenges in blended learning programs and strive to enhance the curriculum to promote student success.

**Curriculum**. How the curriculum for a program is designed influences how effective the program is at helping the students learn, how effective it is at engaging students in the activities, and how students feel about engaging in the learning process. A

curriculum that facilitates exploration and construction of meaning through reflection, discussion, and application presents a cognitive presence (Vaughan & Garrison, 2006). The curriculum should also create an environment that brings students together in a safe and open setting (Stover & Ziswiler (2017). Students' understanding of the program, perception about the curriculum, and the ability to construct meaning from the curriculum all influence students' attitudes and willingness to engage in the learning process. The following sections look at what research says about curriculum design, perceptions of students about curriculum, constructing meaning from the curriculum, and tools to improve the curriculum.

***Program design of curriculum***. The design of the curriculum within a program is the main area that teachers can adapt to improve students' active learning. When designing a program, teachers should include social presence, cognitive presence, and teacher presence, and a plan to successfully implement the curriculum (Marshall, Hauze, Denman, Frazee, & Laumakis, 2017). The teacher should take into consideration the student population and the personal characteristics present in the population (Manwaring et al., 2017). Some aspects to consider when building an online curriculum include interactive activities, the navigability of the curriculum, the relatability of the content, flexibility of access, the richness of media, the ease of platform use, individualization, mobility and proximity of curriculum, and responsiveness of instructors and peers (Amaka & Goeman, 2017). Activities that promote active participation also promote teamwork, critical thinking, and communication (Hettler, 2015). Kintu et al. (2017) found that learner characteristics, design features, and learning outcomes were key components

for blended learning that need to be addressed for effective implementation. Blended learning promotes critical thinking, construction of meaning, and application of knowledge when correctly executed. Active learning takes the curriculum away from the teacher lecturing and focuses on students interacting and constructing the content's meaning (Hettler, 2015). Having the ability to view resources both online and in print, gives students another level of choice when it comes to how they want to engage with the curriculum (Carroll & White, 2017).

Blended learning is on the rise and is helping to increase active learning and student interaction (Acree et al., 2017). According to Manwaring et al. (2017), pedagogy played an important role in students' level of engagement with the curriculum. Students reported that they enjoyed working on their personal devices, and it was more convenient than learning in a traditional classroom (Acree et al., 2017). Teachers can provide more information and opportunities for students to participate and create deeper understandings. Having a deeper understanding of the content allows students to relate the content to outside situations and experiences (Hettler, 2015; Kintu et al., 2017). Learners are more engaged when they see relevance and play an active role in the learning process (Bidarra & Rusman, 2017; Haselberger & Motschnig, 2016). These factors all align with the conceptual framework and the elements of blended learning best practices using CoI (Vaughan & Garrison, 2006).

***Student perceptions about curriculum***. How students view curriculum determines how they choose to participate with the content. The leading factor that influenced participation in a blended curriculum, according to Manwaring et al. (2017),

were students' perceptions. Students who felt that the curriculum was important were more involved, as were the students who felt successful in the program. The curriculum should tie content to personal topics that help students relate to the lesson and gain an understanding of how the topic is relevant (Haselberger & Motschnig, 2016). A curriculum that relates to real-world situations helps interest learners (Bidarra & Rusman, 2017; Kintu et al., 2017). Building a curriculum that meets the needs of the learners, ties the content to real-life, and promotes critical thinking is an important element for teachers to focus on when developing an online curriculum that aligns with blended learning best practices for blended courses.

Blended learning allows teachers to modify the curriculum and tailor it to the needs of their class more easily (Tay, 2016). Creating a course to help promote student satisfaction and encourage positive views of personal characteristics such as self-esteem and self-efficacy can help to overcome some of the outside the box factors of engagement (Manwaring et al., 2017). Ho, Nakamori, Ho, and Lim (2016) indicated that students felt more satisfied with the blended curriculum and had higher levels of understanding than in traditional courses. Students want to feel like the curriculum was designed with them in mind (Tay, 2016). Research indicates that cognitive, behavioral, and social engagement all increase when the platform that the online curriculum is presented on, and the learners are taken into consideration. Continuous access to the curriculum helps promote active learning for students on a timeline that works for them (Acree et al., 2017). Students have more flexibility and mobility with an online curriculum and allow more ability for differentiated lessons. Designing a curriculum to meet the needs of students helps to

promote learning that is in line with blended learning best practices and the elements of CoI.

***Constructing meaning from the curriculum***. It is important for students to construct meaning from the curriculum to build a deeper connection and understanding of the content. Classrooms that encourage students to construct knowledge by interacting with one another, and the world, produce more engaged and academically successful students (Kintu et al., 2017; Ryu, 2015). The online curriculum allows students to construct meaning from the content using a variety of multimedia tools (Pugliese, 2016). Cheng and Chau (2016) found that activities that promoted individual constructivism and social interaction were more successful at enhancing student learning. Online curriculum activities were divided into four basic categories by Cheng and Chau: information access, interactive learning, networked learning, and materials development. Having a variety of activities and ways for students to access the curriculum was important to increasing active learning, although not all online tools are equally successful at promoting participation and meaningful learning (Tsankov & Damyanov, 2017). A strong online curriculum includes a variety of interactive and engaging activities and meets the needs of 21st- century learners.

***Multimedia tools to improve curriculum***. Today's learners have technology at their fingertips (Bidarra & Rusman, 2017). Most students have a smartphone with access to networking software, as well as access to learning applications and open educational resources. Digital tools can be used in blended programs to enhance learning through a more meaningful curriculum (Donaldson et al., 2017). When using collaborative online

tools to enhance the curriculum, students felt more engaged when the teachers also interacted with them. Curriculum embedded with multimedia resources allowed students to view the content in multiple formats to make sense of their learning (Donaldson et al., 2017). Students can build more meaning from the curriculum if they are able to access it in a variety of ways and construct meaning for themselves (Bidarra & Rusman, 2017). Many online curriculums include a combination of texts, images, audio files, and video files to help learners understand the content (Hamdi & Hamtini, 2016). However, many curriculums fail to include interactive activities that involve students in learning.

Hamdi and Hamtini (2016) explained that learning needs to be balanced between visual and verbal. The curriculum should include content that meets the individual needs of learners while providing adequate visual and verbal input to improve students' interest in the curriculum. A valuable curriculum encourages students to discover, create, and use their imagination, which involves them in the learning process. A curriculum that is embedded with a variety of multimedia tools maintains a student's interest for longer and leads to retention of more information (Aravopoulou, Stone, & Weinzierl, 2017). However, the videos and other digital multimedia tools need to be relevant to the learner and the program goals and not just for the sake of including multimedia tools. The item that seemed to have the greatest influence on students' interactions with learning was personal relevance, according to Magner, Glogger, and Renkl (2016). A few learning methods that have proven successful in engaging learners and incorporating multimedia e-learning include inquiry learning, problem-based learning, project-based learning, case-based learning, and discovery learning (Hamdi & Hamtini, 2016). The curriculum should

meet the standards of blended learning best practices, which helps to make content relevant and full of multimedia tools that promote interaction and critical thinking.

**Implementation of communities of inquiry and active learning**. Active learning environments helped students engage in learning and communicate with others (Stover & Ziswiler, 2017). Courses that required students to critically think, collaborate, and be responsible for their learning demonstrated an active learning model. Garrison and Vaughan (2008) explained that CoI allows students to share their experiences with one another and use each other's understanding to deepen their knowledge. Stover and Ziswiler (2017) explained that an active learning environment is one that requires students to do more than watch, listen, and take notes. When implementing CoI and an active learning environment, some elements to be aware of are the rigor, richness, real-world application, community building, power-sharing, and application of knowledge (Cullen, Harris, & Hill, 2012). Students should have interactions with teachers, peers, and community members (Vaughan & Garrison, 2006). A curriculum with value and purpose is important, especially in an active learning environment (Wiles & Bondi, 2015). Many online tools can help teachers promote active learning and communication in the classroom (Cullen et al., 2012).

To implement an effective CoI, teachers must design online curriculum and instruction in a way that promotes teacher presence, social presence, and cognitive presence (Vaughan & Garrison, 2006). Teacher presence in CoI appears in the form of design, facilitation, and guidance of student activities to promote learning (Stover & Ziswiler, 2017). Social presence appears as open communication, discussions, and asking

questions to deepen understanding. Reflection and construction of meaning from content shows cognitive presence. Stover and Ziswiler (2017) explained that classrooms that have effective active learning environments not only increased student success but also created students who take responsibility for their learning. Donaldson et al. (2017) stated that active learning opportunities help motivate students to ask questions and seek answers. Active learning also helps students engage with the curriculum and think about real-world answers. If used effectively, online tools allow teachers to increase CoI and active learning (Donaldson et al., 2017). Nair and Bindu (2016) also explained that the use of CoI and active learning could help students be more aware of social issues and active participants in change. Teachers should embed opportunities for students to look at current events in the curriculum and help students process what they are learning through interactions with one another and community individuals and groups. Students who participate in courses that effectively implement CoI and promote active learning are more responsible for their learning (Cullen et al., 2012) and more likely to be social change agents (Nair & Bindu, 2016).

**Methods to measure active learning in online curriculum**. Many different methods exist to measure active learning with a blended learning curriculum. Quantitative studies often refer to active learning in terms of engagement. Sinatra, Heddy, and Lombardi (2015) explored engagement using interviews, observations, attendance, response time, and teacher report. Charbonneau-Gowdy and Cechova (2017) used a variety of methods, including field notes from observations, document analysis, questionnaires, and focus group interviews to understand active learning. Student

engagement is a popular topic that can be examined through a variety of lenses. However, it can be challenging to determine what is causing a student to actively participate in specific activities (Sinatra et al., 2015). Looking at both the content and the individual is important to understanding active learning. When focusing on the individual, research often looks at cognitive engagement through motivation. Manwaring et al. (2017) addressed engagement in the institution, with the curriculum, and within individual activities. Students indicated their levels of enjoyment, interest, and excitement, along with their views about how passive or active an activity was, how focused or distracted they were, and how much they concentrated on the activity. Measuring students' attendance and punctuality can help to determine involvement in learning (de Velasco & Gonzales, 2017). A variety of tools used to measure active learning helps to triangulate data and develop a deeper understanding of what enhances and constrains learning in the online curriculum. A focus on individual interviews and focus groups seemed to be a theme throughout research about perceptions of active learning.

**Conclusion**

Using online curriculum combined with face-to-face activities, blended learning best practices have the potential to promote deeper learning for students. Technology is prevalent in society and an essential element of learning today. The broader problem is that many factors, including pedagogy, building community, and use of tools, influence learning, and all need to be considered when designing and implementing blended learning best practices to promote active learning. Using innovative pedagogy that promotes real-world application and problem-solving helps to enhance the curriculum.

Little research exists to understand the perceptions of students about the elements of blended learning best practices that enhance and constrain learning outcomes within the online curriculum as part of a blended learning program. By focusing on building communities of inquiry within blended programs and providing a curriculum that promotes blended learning best practices, teachers can help students succeed.

## Summary

Through a review of literature, the broader problem with the online, blended curriculum was examined relating to CoI, active learning environments, building community, challenges with blended learning, curriculum design and implementation, implementing active learning and communities of inquiry, and measuring active learning. Research indicated that blended learning has the potential to enhance participation and deepen a student's learning (Charbonneau-Gowdy & Cechova, 2017). Key factors to improving student success with online curriculum were creating active learning environments that align with CoI. Research shows that program design, student perceptions of curriculum, constructing meaning, the use of multimedia tools, and communities of inquiry help to promote student learning and increase student outcomes (Garrison & Vaughan, 2008; Hettler, 2015; Kintu et al., 2017; Ryu, 2015). These factors, which align with blended learning best practices, were examined in this study to help teachers understand the elements of blended learning best practices that were inherent in the online curriculum, blended learning best practices implemented by teachers outside the course shell, and what students and teachers perceived to enhance learning outcome

success. In the following section, I will discuss the methodology, data collection, and analysis.

## Section 2: The Methodology

The purpose of this qualitative case study was to explore which elements of blended learning best practices are implemented in the online curriculum at Career High School in order to increase the understanding of which factors are enhancing or constraining student learning outcomes. I collected data through open-ended questionnaires, semi structured interviews, and classroom observations. For this study, the research questions were as follows:

RQ1: What elements of blended learning best practices from the CoI framework are inherent in the current online curriculum at Career High School?

RQ2: What elements of blended learning best practices from the CoI framework are being implemented by teachers in the current online curriculum at Career High School?

RQ3: From the teacher and adult student perspective, what elements of blended learning best practices enhance and constrain student participation in a CoI while learning from the online curriculum at Career High School?

### Qualitative Research Design and Approach

These research questions informed my choice of a qualitative study because I was exploring blended learning best practices, students' perceptions and experiences, and teachers' perceptions of blended learning best practices implementation within the context of the curriculum at Career High School. Qualitative studies are conducted to examine peoples' views and experiences (Ravitch & Carl, 2016). "Qualitative researchers are precisely interested in people's subjective interpretations of their experiences, events,

and other inquiry domains" (Ravitch & Carl, 2016, pp 9). A qualitative case study would allow for interpretations of participants' experiences with online curriculum within a situated context.

A qualitative design was more appropriate for this study than a quantitative one would have been. A quantitative study would not have been appropriate because the research questions did not align with measurable variables (Burkholder, Cox, & Crawford, 2016). Instead, a qualitative study was selected to explore the implementation of blended learning best practices and increase the understanding of what elements of blended learning best practices students perceive to enhance their success at achieving learning outcomes.

A qualitative case study was selected over other qualitative methods because the problem and purpose of the study focused on a specific bounded location (Ravitch & Carl, 2016) in which the context was integral to the study (Baxter & Jack, 2008). A case study allowed the research questions in this study to be answered while participants holistically reflect on their experiences with online, blended learning in their natural setting (Orcutt & Dringus, 2017). The research questions informed the selection of a qualitative case study because the questions were designed to help me understand individuals' experiences through multiple lenses as participants reflected on their interactions with content, tools, teachers, peers, and society in a blended learning curriculum (Ravitch & Carl, 2016). Teachers reflected on how they implement blended learning best practices in their classroom and how students responded to the online curriculum. Multiple students were selected to look at multiple perspectives around the

same phenomenon of online, blended curriculum experiences (Orcutt & Dringus, 2017), along with teachers who looked at the same courses but from a different viewpoint.

The setting for this study was Career High School, and the adult students participating in blended courses and the teachers for the blended courses were the case for this study. A case study was the most relevant approach to obtain perceptions of students and teachers about their experiences with the blended curriculum at Career High School (Ravitch & Carl, 2016). A qualitative case study is used to obtain in-depth data from a small number of individuals about their perspectives and experiences. Using a qualitative study worked with the small population of Career High School and for understanding teacher and student perceptions of blended learning best practices implementation and the elements that enhance students' ability to achieve learning outcomes. The use of a qualitative case study allowed for interpretations of participants' experiences with the online, blended curriculum (Orcutt & Dringus, 2017). A qualitative case study was selected as the best method to align with this project study. I looked at each participant's experiences and perspectives through observation, self-report questionnaires, and semi structured interviews.

Several research methods were rejected for this study for various reasons. Phenomenology was considered because the study was intended to look at personal experiences, but I rejected this approach because a specific aspect of the experience was not identified (Ravitch & Carl, 2016). Ethnography involves participant observation through emergence. I have already been in the setting as a teacher, so ethnography would not have worked for this study due to teacher view bias (Ravitch & Carl, 2016).

Ethnography would also require a long-term study, which was not possible at this time and is not suggested for novice researchers (Spotless, 2017). Another possible approach could have been a narrative analysis. In a narrative analysis, the focus tends to be on details of specific stories shared by a few participants (Ravitch & Carl, 2016). A narrative analysis was rejected because the problem and purpose did not focus on specific individual stories. Grounded theory was rejected because the research did not seek to develop a new theory based on the findings but instead used current theories to understand the factors in the online curriculum in a blended program that enhance and constrain student learning outcomes (Ravitch & Carl, 2016). A case study would allow for participants' perspectives and experiences within a specific setting to be examined and lead to a deeper understanding of how blended learning best practices are implemented in the online curriculum at Career High School and to increase the understanding of which factors are enhancing or constraining learning outcomes.

## Participants

Career High School has a population of fewer than 400 students, of which an estimated 50 are adult students who are currently or have participated within the past year in blended courses at the school. Career High School has approximately 10 teachers who teach blended learning courses. In this section, I explain how participants were selected, how access was gained to participants, how building a relationship with participants occurred, and how I protected participants.

**Criteria for Participants**

Potential participants were all current teachers and adult students at Career High School who have participated in blended learning at Career High School. Study participants were selected based on their participation in a blended learning course at Career High School. This included all students who have taken blended courses in the last year and all teachers who have taught a blended learning course in the last year. To reduce bias and the perceived threat of coercion, adult student participants were not currently enrolled in my courses, and I did not hold a leadership position over participating teachers (Rubin & Rubin, 2012). All potential study participants received an informed consent letter. An initial asynchronous online questionnaire allowed individuals to participate as their timeline allowed, instead of having to be in a specific location at a certain time (Tay, 2016).

From those who agreed to participate by submitting an informed consent form and completing the questionnaire, a sample of three students and five teachers were selected to include different age ranges and teaching experience levels to achieve maximum variation (Burkholder et al., 2016). Participants included male and female students and students in the 18-to-25 and over 25 age ranges to best represent the sample population (Ravitch & Carl, 2016). Career High School has a population of fewer than 400 students, with approximately 30 taking blended courses. Removing from the sample my current students and those who have not participated in a blended course limited the possible student participant pool to around 20 students. There were approximately 10 teachers at Career High School who teach adult students and use a blended learning platform.

**Gaining Access to Participants**

The district and the principal at Career High School gave consent for me to conduct the study at the proposed site. First, I obtained permission from the district, and then I was able to contact the principal at Career High School. I have a letter stating that the assistant principal will allow me to use the adult program for my study. Once approval was granted, the assistant principal provided me with a list of teachers in the department, and the principal's secretary provided me access to email students who qualified to participate.

Participants were contacted through an informational email explaining the study and requesting their participation. The informational letter included an explanation of the study, time commitments, and an informed consent form. Participants' understanding of the study and what is required of them is important to a successful study (Rubin & Rubin, 2012). Participants were reminded that all participation was voluntary, and the data were kept confidential. Research shows that participants feel more comfortable when they know that what they say will not harm their current situation (Ravitch & Carl, 2016). Due to me working in the school and knowing many of the students, I limited participation to those who were not my current students. I did not hold a lead teacher or administrative position, so I was not in a position of authority over any of the teachers, and I am no longer in this building. Participants received their rights in writing and had the option to opt-out of the study at any time.

**Establishing a Researcher/Participant Relationship**

To establish a researcher/participant relationship, I introduced myself first in an informational letter sent to students and teachers that included study information and the informed consent form. For those interested in knowing more, I held two informational meetings at the study site (Rubin & Rubin, 2012), one for students and one for teachers. However, attending the informational meeting was not required to participate. At the informational meeting, I introduced myself in-person, explained the study, and answered potential participants' questions. At the meeting, I planned to also go over the informed consent form that participants received a week ahead of time and allow for questions about the form or clarification of details to be asked. Participants returned the consent form later by email, or by dropping it off at the school. It was important that all participants understood the research and how it would be used (Rubin & Rubin, 2012). Participants had to actively agree to participate by completing the informed consent form, filling out the initial questionnaire, and then by choosing to be part of the interview process. At each stage, participants had the right to remove themselves from the study (Ravitch & Carl, 2016).

Rubin and Rubin (2012) explained that participants often feel more comfortable if they have met the interviewer before participating. My connection to the school may have helped because I already had a rapport with some students and teachers, but I also had to be aware of the bias this could cause and use the interview as an opportunity to have students explain their side to me and for teachers to share what they do in their classrooms. In the letter to participants and the informed consent form, I explained to

participants that their participation was voluntary and in no way impacted their enrollment, grades, evaluations, or job continuation and that they could choose to terminate participation at any time (Rubin & Rubin, 2012). All participants had my email address if they had questions or concerns throughout the process or after.

Confidentiality is important in building a researcher participant relationship (Ravitch & Carl, 2016). I made sure that student participants understood that I worked for the district but that I had no access to their grades and would not be sharing any information about them with administration, teachers, or other staff members. For teacher participants, I made sure that they understood that I worked for the school but had no influence over their jobs or evaluations and that I would not share any information that revealed their identity with students, administration, or other staff members. All information shared with the school and or district had information that could identify the participants removed. I explained that the data collected would be used for the sole purpose of my project study and the creation of the project presented to the school. All participation was voluntary, and participants could withdraw from the study at any point.

**Protecting Participants' Rights**

All participants were provided an informed consent form, which contained a written copy of their rights ahead of time, along with a description of the study and expected time commitments. Informed consent protocols were followed to ensure that participants knew their rights and the expectations of the study (Ravitch & Carl, 2016). No treatment was applied to participants, but qualitative studies have the potential to activate emotions that can have consequences. An effort was made to keep situations

comfortable and open. All student participants were over the age of 18, not my current students, and understood that participation was voluntary. Teacher participants were over 18, not under my authority, and understood that all participation was voluntary.

Pseudonyms were used to protect identities once interviews were conducted. Interviews took place in a closed classroom or city library study room at a location that was comfortable for the participant, and all interview recordings and notes were kept confidential and will be disposed of after five-years (Ravitch & Carl, 2016). Forms and data are stored in a locked cabinet at my home and on my personal password-protected computer. All data were kept confidential, and I have used pseudonyms when necessary. The school will receive completed data, but no participant information will be included. I previously worked at the school but did not release the names of participants or have any influence on participants' grades or evaluations.

## Data Collection

Three forms of data were collected to address the research questions in this project study. Following Yin (2014), an effective case study requires more than one source of evidence for the triangulation of qualitative data. I collected data using both student and teacher questionnaires, classroom observations, and student and teacher interviews. The constructs of teacher presence, social presence, and cognitive presence that comprise the conceptual framework of CoI and the elements of blended learning best practices that promote these constructs (Vaughan & Garrison, 2006) were used to create the questionnaires and observation protocol, and to guide the semi structured interview

questions. Survey and interview questions were open-ended to draw the greatest amount of feedback from participants (Ravitch & Carl, 2016).

**Data Collection Instruments and Sources**

**Questionnaires**. Potential participants received a letter of introduction with an informed consent form. Once the informed consent form was returned, participants received an email with a link to the initial online questionnaire to be completed within two-weeks of receipt and a pseudonym to use moving forward. All data were kept confidential by using pseudonyms when necessary (Ravitch & Carl, 2016). The researcher designed questionnaire for students (Appendix B) included questions that gathered basic information such as age, blended courses participated in, forced response items that asked respondents to check what types of blended learning they had participated in, as well as questions that asked respondents to reflect on their level of satisfaction with blended learning, level of participation in the blended curriculum, and their thoughts on what enhanced and constrained learning and participation with online curriculum. The questionnaire for teachers asked questions about blended learning best practice elements present in their courses (Appendix C). These blended learning best practices were those identified in Section 1 above (specifically the problem and the review of literature section). Tay (2016) explained that online questionnaires help increase participation because it was more on the participants' timeline and allowed flexibility in response. Item creation was based on the conceptual framework (Vaughan & Garrison, 2006) and influenced by the CoI survey of Arbaugh et al. (2008). Vaughan and Garrison (2006) provided a sample of a teacher questionnaire about blended practices

that were used as a model for the questionnaires I created. Participants were asked to check all the elements that they have experienced in blended courses at the study site with several boxes corresponding to key components of a successful blended learning environment. Other questionnaire items asked students and teachers about specific learning resources and instructional practices they had experienced in the online curriculum during a blended learning course (Porter & Graham, 2016). Each teacher and student who chose to participate had the opportunity to share their experiences in the questionnaire responses. Questionnaires helped me to collect data from the group quickly and provided data from a wider range of participants (Ravitch & Carl, 2016).

**Observation**. Classroom observations of participants working with the blended curriculum in a blended learning environment were conducted to determine if Garrison and Vaughan's (2008) blended learning model was being followed in the online curriculum to meet the needs of students and create Communities of Inquiry (Vaughan & Garrison, (2006). Using the observation checklist in Appendix F, I looked for the ways that the current online, blended curriculum materials include teacher, social, and cognitive presence as they relate to CoI and guide a successful blended learning program. Classroom observations revealed how blended learning best practices was implemented in current blended learning courses. I recorded my observation in narrative form and used a checklist (Appendix F) created based on the key factors Vaughan and Garrison (2006) state are important in a successful blended learning program. Observations allowed me to make first-hand connections between the current curriculum and participants' perceptions of elements of blended learning best practices that enhance the achievement of learning

outcomes (Ravitch & Carl, 2016). This form of data collection helped to explore the current environment and validate findings from self-report data collection, such as questionnaires and interviews.

**Interviews**. Semi structured interviews took place within two-months of the initial questionnaire being closed and included a representative group of participants from the sample population, three students and five teachers, to allow for deeper exploration of student perceptions about online curriculum during blended instruction. Questionnaires administered to the larger population, followed by one-on-one interviews, allowed more students and teachers to participate and still provide a more in-depth examination of experience from a smaller group (Tay, 2016). Interviews helped gain a focused understanding of participants' perceptions of the blended curriculum (Ravitch & Carl, 2016). Interviews were conducted in closed classrooms or study rooms at area libraries based on participants' requests and outside of participants' scheduled courses. The use of interviews allowed participants to elaborate on the strengths and challenges associated with the online curriculum during blended instruction. To begin each interview, I asked the participant if they were okay with the session being recorded and then used Otter to create an audio recording of the semi structured interviews. The interview was guided by predetermined questions (Appendix D & E) created using Garrison and Vaughan's (2008) teacher questionnaire and other elements of blended learning best practices using CoI and through participants' answers to the initial questionnaire.

Interviews helped me understand how participants perceived the implementation of blended learning best practices and the elements of blended learning best practices that

enhanced learning success. Participants were asked to share stories about their experiences with blended learning and elaborate on the elements of blended learning best practices that enhanced and constrained their learning. All interviews were transcribed for coding purposes. After analysis, participants were given the opportunity to review my analysis of their data (i.e., member checking) to check for credibility and provide clarification of my interpretation of their data.

**Systems for Keeping Track of Data**

Google Forms was used to collect data online and store questionnaire data, and then data were downloaded as a spreadsheet, which was used to break open-ended responses into categories. I used an Excel spreadsheet to organize codes into a priori and open groups (Saldaña, 2016). I used the same spreadsheet to summarize the forced-choice responses. During interviews, I used audio recordings to capture interviews and then transcribe them into word documents (Saldaña, 2016). Using the transcripts, I identified common themes and ideas through a priori codes and open coding and recorded them in a spreadsheet (Ravitch & Carl, 2016). Observations were recorded using a checklist (Appendix F) and analyzed across participants looking for common indicators that were present and absent in each classroom. All the data were stored on my personal computer, which is password protected.

**Gaining Access to Participants**

I had spoken to the principal of Career High School for provisional approval; once I obtained IRB approval (#06-27-19-0637248), I submitted the district-specific application and received their approval. Once I had district approval, I could officially

request to do the study at Career High School and obtained permission to conduct research. A letter outlining the study and asking for participation was sent to all students over 18 that had taken a blended course at Career High School (Ravitch & Carl, 2016). An informational meeting was scheduled, and students who wished to learn more had the opportunity to attend this informational meeting held at the school. A separate letter was sent to teachers who had taught a blended course at Career High School, and a meeting was held. These letters also included the informed consent form, which could be returned with or without attending the informational meeting via email or to my mailbox at the school. The teachers were asked to allow for observations to take place in their unnamed classroom. Students and teachers who agreed to participate in the study were contacted directly to arrange a time and location that worked with their schedule (Rubin & Rubin, 2012). Online questionnaires and one-on-one interviews allowed individuals to participate on their timeline (Tay, 2016). All participation was voluntary, and agreement to participate could be retracted at any time during the study.

## Role of the Researcher

During data collection, I served as the interviewer and observer. I conducted the research with adult students who may know who may have known me as a teacher in the building but were not my current students. To limit perceived coercion, I did not have any access to the grades of participants (Ravitch & Carl, 2016). When beginning the study, I taught two periods at Career High School, one day a week. Although I did not have current students in the sample population, the perception of me as their superior could have created bias. Being explicit about the purpose of the study, the nature of

participation, and that I had no influence over their enrollment or grades was important to a valid study (Ravitch & Carl, 2016).

I worked to limit my bias and not impose my views of the blended curriculum on the participants. To help reduce bias, I practiced asking interview questions in a way that did not lead the participant (Rubin & Rubin, 2012). I also recorded interviews to limit recall bias. Trying to recall the conversations with each participant later could cause errors in what was said, but a recording allowed me to return to the actual conversation and hear what the participant said again (Rubin & Rubin, 2012). As a teacher, I have a different view of students' participation and achievement in blended learning, but I worked to focus on the participants' views instead of mine. Understanding that my views were not relevant to the research helped me focus on having the participants explain their perceptions to me to answer the research questions (Rubin & Rubin, 2012).

I also strived to remind participants that their participation in no way influenced their grades or graduation status and that they could remove themselves from the study at any time. I strived to make sure that participants understood that I valued their perceptions about the online curriculum. I followed a qualitative interviewing protocol as outlined by Rubin and Rubin (2012) for conducting interviews and valued participants' time and opinions. I reassessed my position and worked to remain objective when looking at classrooms and transcripts.

## Data Analysis

Following collection, the data were prepared and then analyzed to determine the common themes in participants' questionnaires, interview responses, and classroom

observations. A thematic analysis using a combination of a priori and emergent coding was used to help me determine which factors participants identify most as enhancing and constraining their learning and participation (Stewart, 2017). This analysis was triangulated by the analysis of the researcher's classroom observations. The constructs of teacher presence, social presence, and cognitive presence (Vaughan & Garrison, 2006) used to guide the closed responses were also used as a priori codes for the open-ended responses for level one coding. In addition, the following sub codes were used within the main a priori codes for this study: teacher presence—instructional management building understanding and direct instruction; social presence—emotional expression, open communication, and group cohesion; and cognitive presence—triggering events exploration, integration, and resolution. Garrison et al. (2000) found these indicators useful for assessing CoI and a valid method of data analysis. This first-level coding helped divide the data into manageable chunks of information (Ravitch & Carl, 2016). Following first-level coding of all data, second-level codes were identified by using pattern coding (Saldaña, 2016) across open-ended questionnaires, observation, and interview data. This allowed the linking concepts that appear throughout questionnaires, in multiple interviews, and during observations to be identified (Rubin & Rubin, 2012). Themes emerged based on teacher and student perceptions of the current online, blended curriculum. A representative sample of the coded responses for each of the three a priori codes and the themes derived from them are given in Table 1. The procedures for each data source are given in more detail below.

Table 1

*Representative Sample of Coded Responses*

| A priori codes | Sub a priori codes (second-level codes) | Third-level codes | Example | Themes |
|---|---|---|---|---|
| Teacher presence | Instructional management | Own pace | Your own pace but if you get stuck, the teachers, right there to help you | Self-paced and personalization is important and successful, but students also like some interaction with peers |
| Social presence | Open communication | Preparing students | School is all about how to prepare the student so they can make that engagement | Real world scenarios and examples help students relate to content and understand the application |
| Cognitive presence | Integration | Application | The goal of not just knowing those facts, but then being able to then have a conversation with an airplane professional, so that they can then be an edge, so they could have educated the questions when they talk to them | Real world scenarios and examples help students relate to content and understand the application |

**Questionnaires**

The questionnaire responses were analyzed both by looking for patterns in responses and descriptively. As discussed above, the forced-choice questionnaire items were designed and grouped so that respondents could select those elements of blended learning best practices associated with each of the main constructs of a CoI (teacher, peer, social and cognitive presence) that they think are present in the online curriculum. The

pattern of responses to these forced-choice questions that reflect blended learning best practices were recorded for each participant. A second level of a priori codes further broke the responses into subcategories.

Each of these groups of forced-choice items contained an open-ended prompt, responses to which were analyzed using third-level, open-ended coding (Saldaña, 2016). Through coding, I looked for commonalities and links between elements of blended learning best practices that participants identified as present and absent in the current curriculum and elements that participants said enhanced the achievement of student learning outcomes. Data from the questionnaires helped guide interview questions by providing which blended learning best practices to prompt interviewees to discuss. For example, on the questionnaire, Destiny checked the boxes under cognitive presence that stated, “constructing meaning from content is an ongoing process” and “opportunities to apply content to real-world situations,” so during her interview, I asked for clarification on how her class constructed meaning and applied to the real world. Open codes were then grouped based on repeated appearance and synthesis of meanings (Saldaña, 2016). Participants’ perceptions of the online curriculum were broken down into common answers and then grouped into central concepts that answer the research questions (Saldaña, 2016).

**Interviews**

Interview transcripts were analyzed using the Word document that they were transcribed into, as described above, using the a priori codes as a starting point for finding common categories within participants’ responses (Rubin & Rubin, 2012).

Throughout the analysis of the interviews, transcripts were reread and examined to make meaning of participants' perceptions and determine saturation (Hennink, Kaiser, & Marconi, 2016). The first level of coding looked at each line of the transcript and code according to the a priori codes that were based on the key elements of the framework and the blended learning best practices that support them (Stewart, 2017). The a priori codes were then divided into subcategories based on the framework to identify which elements were present or missing in the current curriculum and instruction. A third level of open-ended pattern coding (Saldaña, 2016) was conducted within the a priori coded text to form third-level codes. During level three coding, transcript texts were reread to mark them for emergent codes that are based on similarities or differences between participant responses and/or connections among the a priori coded text (Saldaña, 2016). These codes were then organized into groups to form categories (Saldaña, 2016). Themes were made up of multiple categories and based on meaningful connections among these categories (Saldaña, 2016).

**Observations**

The observation checklist (Appendix F) was completed for each teacher participant observation and coded by identifying the elements of blended learning best practices that were present and absent for each of the four sections of the checklist and in the narrative notes. The narrative notes were then coded using third level pattern coding as above (Saldaña, 2016). Any codes that emerged from the observations were then compared with the questionnaire and interview codes to see how the observations align with the reports of participants (Rubin & Rubin, 2012). These codes were added to the

code list. Looking for commonalities and differences between observations and participant reports in the questionnaire and interviews assisted me in gaining a better understanding of what was taking place in the classroom (Saldaña, 2016) and helped to triangulate the results. Comparing the categories identified in observation with the participant reports helped reduce the researcher bias of observation alone (Ravitch & Carl, 2016). Once all data were analyzed, themes based on meaningful associations among categories were found based on the research questions.

**Trustworthiness**

Without trustworthiness, the results of a study are not reliable. Trustworthiness is established by creating credibility, transferability, dependability, and confirmability in a study (Ravitch & Carl, 2016). The use of multiple forms of data and breaking the group into subgroups helped to triangulate the data in this study and increase credibility. Triangulation uses multiple forms of data collection to look at the same research questions (Ravitch & Carl, 2016). In this study, triangulation was established by analyzing the experiences of both teachers and students and looking at both individual report and researcher observation. For example, both teachers and students stated that group cohesion is lacking, and most of the work is done alone or one-on-one with the teacher. This was also evident during all my classroom observations. Using multiple methods of data collection improved the breadth of the data and improved the likelihood of saturation. Member checking, another method of establishing credibility and accuracy, allowed participants to look over my interpretation of their data in the form of a draft during the analysis process (Saldaña, 2016). Each participant was emailed a summary of

my interpretation of their data along with their interview transcript. Participants were given the opportunity to validate the data, as well as provide feedback about my interpretation of their data (Ravitch & Carl, 2016). Beginning data analysis throughout the data collection process helped to determine when saturation had occurred, and further analysis was not necessary (Hennink et al., 2016). The study was described in detail using a thick description, which will allow for it to be conducted at other sites, providing transferability of the study (Ravitch & Carl, 2016). The study can be recreated at other sites using the same key factors of Vaughan and Garrison's (2006) BLM and CoI. Although this study was being conducted at an alternative high school for adults, results are relatable to other blended classrooms. The participants in this study were high school students over the age of 18 and teachers implementing blended learning. As a teacher at this site and the only researcher in this study, I worked on awareness of my assumptions and focused on allowing participants to answer my questions without guiding them with my bias (Rubin & Rubin, 2012). I was aware that I believed students were not using their time wisely and not taking advantage of the tools available, but this opinion is irrelevant to the study. I worked to identify my bias going into this project and continued to reflect on my bias throughout the process to help improve confirmability. My research was reviewed by my committee, which also helped with dependability by having the work looked at by an outside observer. These factors help to promote trustworthiness in the study.

## Data Analysis Results

Once participants submitted their consent form, they received the link for the questionnaire as an initial data collection tool. The students and teacher questionnaires were created using elements of blended learning best practices from the framework Garrison and Vaughan's (2008) Blended Learning Model (BLM) and Communities of Inquiry (Vaughan & Garrison, 2006). A multiple selection option was added instead of open-ended responses to help clarify the elements of CoI. The multiple selection option allowed participants to choose which elements of blended learning best practices were present in the courses they have participated in, for example, under teacher presence, some of the options to select include: "teacher explanation about online material," "Teacher led activities that promote communication," and "Teacher led activities that promote critical thinking." An "other" response was added to the multiple selection options to let participants add more if something does not fit the provided categories. Questions were adapted from Vaughan and Garrison's (2006) study and from Garrison and Vaughan's (2008) book on blended learning. I received six student consent forms and six teacher consent forms. Of those, five students and all six teachers responded to the questionnaire. I was able to arrange interviews with five teachers and three students.

Questionnaire answers and interviews were first divided into manageable chunks (Ravitch & Carl, 2016) using the a priori codes for teacher presence, social presence, and cognitive presence. Each group was then further broken down into sub a priori categories that fit within the larger a priori codes, which can be seen with examples in Table 2 below. These codes can also be seen in the Audit Trail (Appendix G). Third level pattern

coding then coded the remaining content with emergent codes (Appendix H) (Saldaña, 2016). Examples of the coding process can be seen above in Table 1, but patterns are not recognizable from this excerpt. The observations sheet was broken into categories based on the a priori codes (Appendix F), and then the notes from the observation were also coded (Appendix G), looking for similarities between observations, as well as similarities between questionnaires, interview responses, and observations (Rubin & Rubin, 2012). Initial findings were sent to participants for member checking. Data were triangulated looking for similarities and discrepancies between participants, specifically between teacher participants and student participants views of the experience. Self-report answers were also compared with observations to help triangulate the data, which provided trustworthy results. All but one participant accepted findings as written in their member checking email. One participant responded with clarification, which was noted, and my interpretation of findings was modified based on feedback. The flowchart below, in Figure 1, shows the process of moving from a priori codes to themes and how patterns were identified; examples can also be seen in Appendix H.

Table 2

*A Priori Codes, Sub Codes, and Examples*

| A priori code | Sub a priori code | Examples |
|---|---|---|
| Teacher presence | Instructional management | Content structure, topic selection, formation of groups |
| | Building understanding | Sharing personal meaning, expressing agreement, seeking consensus |
| | Direct instruction | Focusing discussion, pacing activities, answering questions, reexplaining misconceptions, summarizing outcomes, modeling discussion |
| Social presence | Emotional expression | Autobiographical narratives, establishing trust, showing respect |
| | Open communication | Risk-free expression, acknowledgment, encouragement |
| | Group cohesion | Encouraging collaboration, working in teams, helping one another, supporting one another learning from one another |
| Cognitive presence | Trigger events | Recognizing problems, realizing gaps in understanding, inciting curiosity, formulating questions |
| | Exploration | Exchanging information, discussing differences, seeking answers |
| | Integration | Connecting ideas, constructing projects, creating solutions |
| | Resolution | Applying new ideas, critically assessing solutions |

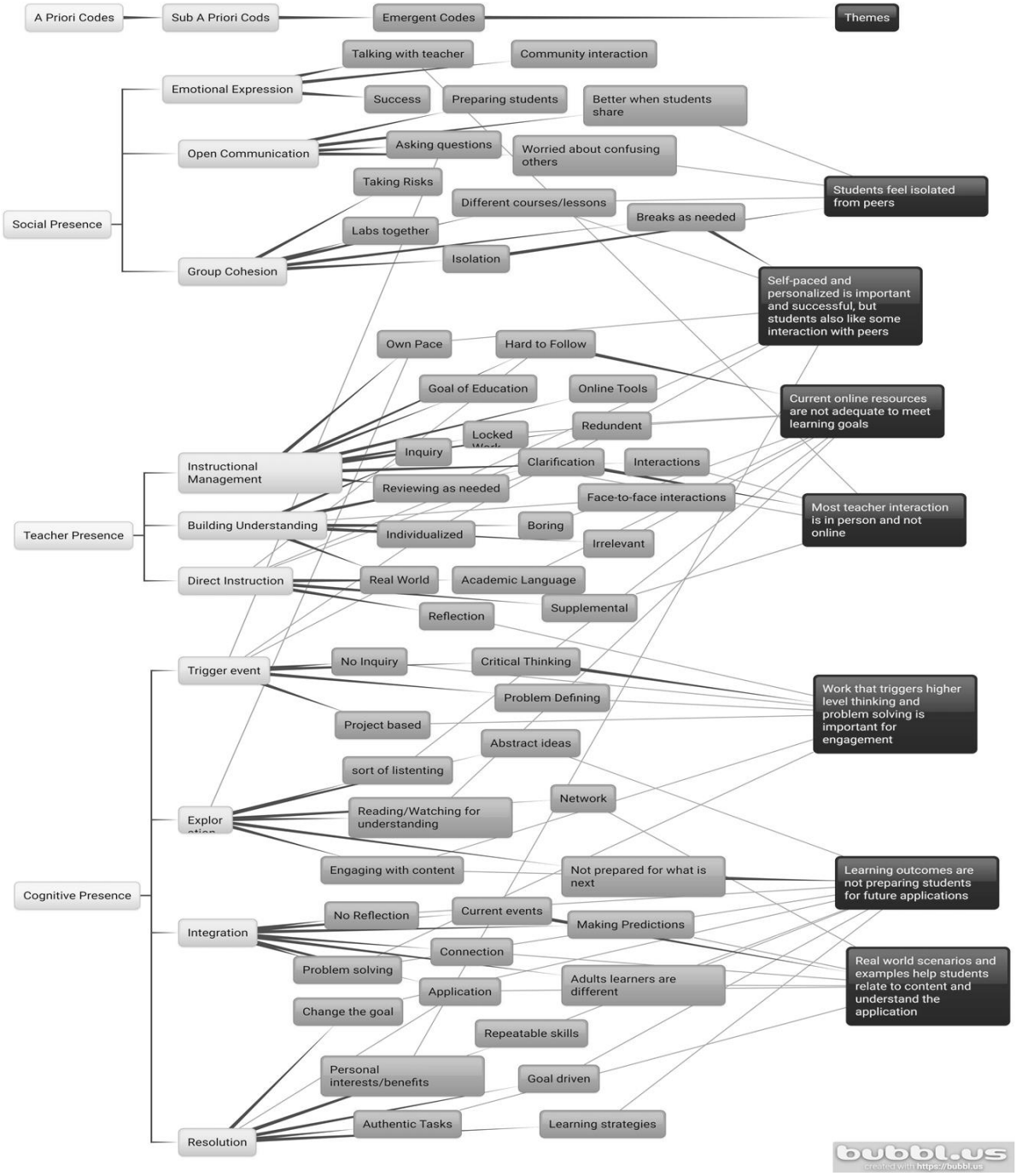


*Figure 1*. Coding flowchart.

## Emerging Themes

### Students Feel Isolated From Peers

While students and teachers both enjoy the self-paced aspect of the current practice, students stated that they felt isolated from their peers. Little to no interaction occurs between students. Sidiropoulou and Mavroidis (2019) explained that online curriculum has the potential to cause insecurity, isolation, and discouragement. However, cognitive and social presence have the potential to decrease insecurity, isolation and discouragement. In science, Cynthia and Marcus stated that they work together in-person on labs but not at all online. Marcus stated that he was concerned about confusing other students, so he does not talk to them about the topics at all. Destiny stated that

> I think there's a little bit of shame in what I'm going through now so I kind of like the isolation where like not everybody knows what we're going through and I can just hide, but from a learning point of view, if I really want to learn the material I think I'm personally going to learn better if there's better interaction there are people involved.

All three students interviewed stated that no interaction happens between peers during online lessons. Phirangee and Malec (2017) explained that isolation and disconnect often increase dropout rates and resources are needed to improve student retention. During all my observation, I saw very little interaction even in-person, and no online interactions among peers. My observation on December 19 included a teacher interacting with a student but both from their desk and very brief.

Teachers indicated that they are teaching multiple classes at the same time. Only one teacher interviewed had a single class taking place at a time. Kim stated, “We have five to six different classes going at the same time.” Justin covers multiple content areas, as well as multiple classes within each content area. The current system seems to be focused on students getting work done quickly and not on interacting or discussing experiences and content. Hsiao et al. (2017) explained the importance of the teacher engaging individual differences, while also helping students work in groups. During my observation on December 13, students were interacting in the classroom through an open discussion following a video, but I was told by the teacher that these interactions are only in the in-person setting and not online. Kim stated, “I don’t see what we do at night of having guest speakers and that kind of stuff. That’s not what kids are here for. They’re here to get their work done.” Marcus agreed that the goal was to get a diploma.

**Self-paced and Personalized Instruction is Important and Successful, but Students Also Like Some Interaction with Peers**

When students register at Career High School, they come in requiring different courses to fulfill graduation requirements and have various personal situations that dictate a need for a flexible learning environment. The nontraditional setting of Career High School provides learners with differentiated methods to obtain a high school diploma. “The old model didn’t work with this population. That’s why they’re here,” stated Michael. Jackson and Evans (2017) point out the importance of differentiated instruction for student success. At Career High School, students can apply work experience toward credits and can attend school during the day, at night, or both. All the participants felt that

the self-paced and personalized options were important to student success. However, Destiny pointed out that options for electives were limited and did not fit her interests. She stated that “I asked if I could do a Spanish course. You know, because in my [career], we do have a lot of Spanish-speaking clients and I don’t know Spanish.” However, no such course was offered. Cynthia felt that courses were not designed with the individuals in mind and were sometimes hard to relate to the examples. Another student indicated that when in-person, the teacher tried to fill the gap between the understanding of online content by providing relevant examples and reexplaining the concepts in terms that she understood. Cynthia stated that

> During observations, I noticed that most classrooms had multiple courses going at one time and many courses only had one student working on it at a time. I also noticed that the teachers were making modifications for students and giving multiple opportunities to succeed on a regular basis.

Although personalization was important to all participants, student participants were also interested in peer interaction. Cynthia pointed out that “I think you can understand it better when the students explain it in different ways, was like good there. They understand it, and then they can turn it around into that way so that I can understand it.” Destiny said she would be willing to slow down the pace in order to hear from peers and learn more about the topics by working together. Marcus felt that it was difficult to even do labs together as they got to the lab at different times, but explained that sometimes you did the lab early or waited for someone else to need that same lab so that you could do it together still. He stated that he could “work with another student which is

nice that it doesn't feel so much on you and stuff and you can have someone else that if you don't understand one aspect of the lab, they might, or you can work together to figure it out." Although students felt working together had benefits, the social presence was limited, and very little interaction took place in any of the classes.

**Current Online Resources are Not Adequate to Meet Learning Goals**

Students and teachers indicated that the current online content is hard to follow and not engaging for most students. Two students called the online content redundant and stated that the presenter would get off task or keep repeating themselves. Teachers agreed with the students that the provided online materials were not academically suited to the audience and were sometimes confusing. Diana stated, "I think the language is too academic for our demographic. I don't think I could explain some of the concepts they explained in the [Subject] as convolutedly as they do if I tried." Patrick stated, "[schools need to] Change the goal of education that's how we teach the system, which has been a question. I've been asking for a very long time. It's what do you want your graduates to look like, what is our end goal." He feels that Career High School needs to change the goal of education to prepare students for careers they want instead of to pass a test by asking the question "What kind of prediction or what do you, what are you going to do for the future with that information?"

Students are unable to understand the content and apply it to real-world situations with the current listen and regurgitate facts system. Through my observations, I could tell that many students were not actively listening to the online content and were simply playing the video because it was required to move on. On December 4, I watched

students staring away from the computer during the video instruction. Again, on December 13 and December 19, I watched students doodling and playing on their phones during online lessons. Diana pointed out that

> if somebody stopped, every half an hour to check because they were waiting for some message, that's cool. But, if it's happening every five-minutes, then that disruption of attention means that you have to resettle yourself and if you're in the middle of trying to understand a concept. You might as well just start over.

Having provided video lectures that teachers had not even viewed seemed to be a challenge of the current practice. Diana explained that when a student is stumped, she sometimes must go and watch the video herself to figure out the confusion. Diana also stated that she does not have enough time to do videos herself and that the current videos are just to get the basic information and then she must explain it in-person. Based on findings, the online content is not adequately meeting the goals of Career High School and is impeding student success.

**Most Teacher Interactions are In-person and Not Online**

Based on participant questionnaires and interviews, as well as observation, teachers and students do not interact online. Marcus stated that he just waits until he gets to class to ask his questions. Destiny said she has the teacher clarify the content in-person instead of sending a message. When asked about student teacher interactions, Justin stated that "it's probably 95% face-to-face." According to Kim, "I don't see us as teachers so much as facilitators." Diana referred to herself as a "tutor with a little bit of management." During my five observations, I saw no online interaction. In-person

interaction was limited in several classrooms with teachers sitting at their desk and not engaging with students unless the student came to them. My observation on December 4 had the most student teacher interactions; I watched the teacher engage with students and help them work through concepts. On December 19, the teacher sat at her desk for the entire class period. Teachers and students reported in the questionnaire that teachers are explaining the content, promoting asking questions, aligning objectives, providing clear objectives, providing structure, and supporting students. As evidenced by the questionnaires, teacher presence is more prevalent in the preparation and reexplaining of concepts than through regular interactions online or in-person.

**Work That Triggers Higher Level Thinking is Important for Engagement**

Cognitive presence was seen in a few courses, and students, as well as teachers, felt that deeper learning happened when connections were made. In my observation on December 13, students were asking questions and making connections between historical events and current events. On January 13, I witnessed a student applying fitness concepts to their routine. Destiny stated that she would be willing for courses to take a little longer if they could hear from people in the field about the topics they were discussing, like

> if you were a personal trainer, you can do this if you were a physical therapist, these are the things that you would focus on for injury prevention, you know, those sorts of things I could see how those elements could play into it, but it's not, it's not in the material.

Students and teachers mentioned concepts like project-based learning, problem defining, and critical thinking. Patrick explained, "I would say not only problem-solving, but

problem also defining know that piece of you know what, again, urban growth. Why do we care that we're building apartments?" Marcus explained what class looks like for him, "I write down the notes because I know that helps me retain the information, but sometimes you can get away with through a lesson without having to take notes and that's just because sometimes the lesson itself is just more common knowledge." Michael explained some of the blended tools he uses as "little bits of it with project-based learning and back in the day we called it web quests. I've always had multiple models of learning in my classroom." These topics tie into cognitive presence but were not easily seen in observation or through participant interviews. On January 3, I observed no indicators of cognitive presence from the checklist, and on December 4, I only observed one where students were demonstrating a knowledge-building process. Three observations had students applying new ideas. Patrick talked about how he has students look at situations and define the problem. He also has them reflect on how they will use this in the future. According to Patrick, "Why do we care" is how we get students interested and invested in the learning. Marcus stated, "I could get a better grasp of the lessons, and I could maybe hold on to that information, a bit better instead of just going through lesson after lesson and not really retaining any of the information" in regard to taking longer but applying the information.

**Learning Outcomes are Not Preparing Students for Future Application**

Patrick explained that Career High Schools learning outcomes are not aligned with teaching students how to solve problems and transfer knowledge, but instead about checking a box and getting done. Jackson and Evans (2017) explained that curriculum

that provided multiple ways to access content and have students apply content are more successful. They also explained that giving students choices and allowing their creativity to be accessed helped students retain information and improve understanding. The goal of education needs to change; according to Patrick, “the system is set up to check the box. They’re in there to check a box. And that’s the that’s the system. I can’t fault them for doing that.” When asked about bringing in speakers and real-world application, Kim stated that “That’s not what kids are here for. They’re here to get their work done.” Many students at Career High School are already working and do not plan to obtain higher education after completing their diploma. Others are working in the career field they are interested in and just need the diploma to move up. Either way, the learning outcomes are not tailored toward future application and instead are focused on the short-term goal of finishing a high school diploma. Two students stated that they just want to finish. Cynthia said she did not see how these classes would impact her working life. Destiny suggested courses such as foreign language that she would use in her career. Cognitive presence is not embedded in the current online courses, which would help students explore, integrate, and reflect on their learning and how it applies to other areas.

### Real-World Scenarios and Examples Helps Students Relate to Content and Understand the Application

Real-world scenarios are important to teachers and students but are limited in the current curriculum and instruction. Hsiao, Mikolaj, and Shih (2017) found that students learned better when the project was based on a real-world situation that they could relate to. Kim stated that she uses current events to relate content to the real world. Justin and

Patrick have students do activities that they could apply to their lives. Patrick talked about the importance of authentic tasks, and students need to know how the content applies to the real world. “So that’s the teacher role. Get the kid ready for the real world,” stated Patrick. However, most students and teachers did not discuss ways that the current courses relate to the real-world. Although students and teachers stated that it was important to student learning, it was not seen in the current content in most lessons. During my five observations, I only saw or heard discussion of real-world scenarios in one class. During my observation on December 13, students were comparing past events with current situations and discussing similarities and differences. Palmer et al. (2017) suggest that online content be direct, applicable, and focused to engage students with clear objectives that are relevant to them. At Career High School, the teacher guided students through the discussion and asked them to think deeper about the concept. Building cognitive presence that increases students’ understanding by using real-world situations would help students engage, connect, and transfer content.

## Addressing the Research Questions

RQ1: What elements of blended learning best practices from the CoI framework are inherent in the current online curriculum at Career High School?

The participants’ responses showed that teachers are working on teacher presence over social and cognitive presence. The main factor that students and teachers mentioned was the instructional management and how teachers select topics, form classes, and prepare content. In the initial questionnaire, all but one teacher indicated that teachers provide structure for the course within the online platform. Four out of six teachers also

indicated that teachers explain about online materials, that teacher interactions promote students to ask questions, that the assessments align with the objectives, and that teachers have designed meaningful objectives. All five students agreed that teachers were doing a good job of explaining the online materials. During interviews, all three students and four of the five teachers mentioned that they liked the self-pacing that the blended model provided for students. Students felt that they were able to get done more quickly in a self-paced model. Cynthia stated that "It's your own pace, but if you get stuck, the teacher's right there to help you. And then talk you through anything that is confusing you and helps you like connected to things that you already know." Many also mentioned the use of direct instruction, but there were mixed feelings as to the quality of the instruction in the online portion of the class. During observations, I saw most teachers explaining online material, promoting communication, asking students questions, supporting the online curriculum, and interacting with students demonstrating teacher presence. However, I observed that most of the conversation and interactions between teachers and students occurred in-person and not actually in the online platforms.

Teacher Diana stated that "I think the language is too academic for our demographic. I do not think I could explain some of the concepts they explained in as convolutedly as they do if I tried. I think it makes it harder rather than easier." While Teacher Justin believed that students were engaged with the online lesson if they could get across to the student the importance of listening and taking notes. During the eight interviews and five observations, it was apparent that most of the modeling, explaining, and discussion happened one-on-one in the classroom and not as part of the online

curriculum. During my observations, I did not observe any teachers or students sending or receiving emails or digital messages about the course content. I also did not observe any students participating in online discussions or peer interactions. According to Pool, Reitsma, & van Berg (2017), peer interactions facilitate deeper understanding and greater retention of content. I did observe a few students discussing the material in the physical classroom. Discussing concepts and clarifying misconceptions and assumptions helps students to improve their understanding through evaluation and reflection (Breivik, 2016). During my observation on December 13, the teacher specifically offered a time for students to ask questions or share ideas about the material they were to view online prior to class. On December 4, the teacher had a student pull-up the online material to show her what she was struggling with so that the teacher could better reexplain the material.

In the initial questionnaires, zero out of six teachers believed that their class promotes inquiry to solve problems or opportunities to apply content to real-world situations. Students were slightly more optimistic in their initial questionnaires about cognitive presence, with 60% of them believing that problem-solving, inquiry, real-world experiences, and applications were present in their classes. All the students indicated that the curriculum promotes critical thinking. During interviews, three of the teachers mentioned real-world problem-solving and application in the form of projects and looking at current events. Palmer et al. (2017) explained the importance of real-world application of content. During observations, cognitive presence was seen by asking students to recognize problems, ask questions, and apply concepts. I observed one teacher prompting students for corrections when they would miss a question. This seemed to

engage the students in understanding why they missed the question while helping them find the correct answer. Problem-solving and applying concepts seemed to be more common in the PE courses than in other content areas. Both students who have taken a PE course felt good about the cognitive presence, as did the teacher, but cognitive presence was not well represented in the other courses. Two courses I observed required students to solve some sort of problem while I was present. I also observed two courses that had students working to construct meaning from the content and two courses that related the content to real-world experiences. These were not all the same two courses. Various classes demonstrated cognitive presence during my observations in different ways.

Throughout interviews and during my observations, it was apparent that the online curriculum does not inherently contain much social presence. However, teachers are using the face-to-face portion of class to add some social presence. Social presence was not well represented in the responses for the initial questionnaire, with five out of eleven participants saying there was time for students to ask peers questions and fewer participants answering positively about experiencing other indicators of social presence in the classroom. During interviews, all three students and five teachers stated that they interact very little outside the physical classroom. This was also apparent during my five observations when I saw no online interactions. During interviews, two teachers stated that they have had a few students who email them with questions or discussion points but that it is not the norm. Marcus stated that he usually just waits until he gets to class to talk to the teacher instead of doing so digitally.

RQ2: What elements of blended learning best practices from the CoI framework are being implemented by teachers in the current online curriculum at Career High School?

Teachers appear to be working to increase teacher presence beyond what is built into the course. When asked what needed done to increase student learning and engagement, Teacher Justin responded,

> Get some teachers that are in love with this. People that know how to use a computer, know how to do anything on a computer, not just sit behind the desk and eat and, you know, avoid the students. Discussions often occur in the face-to-face portion of the course, but it has not been well established in the online curriculum.

Teacher Kim stated that online discussions do not work and do not accomplish her goal. She believed that they are a "big farce." It seemed to be a common thought among teachers that students were not at Career High School to build group cohesion or communicate with peers, but instead just wanted to get in and finish. Students seemed hesitant to help one another for fear of confusing the other student, or they were embarrassed to ask for help. Teachers seemed to have a good grasp on how to use cognitive presence in the face-to-face classroom, but they have not had the time or resources available to build cognitive presence into the course shell they were given. Charbonneau-Gowdy and Cechova (2017) found that teachers often did not have adequate resources or preparation to be successful in implementing blended learning best practices.

Two teachers noted the number of courses they are simultaneously teaching and the challenge that can present when trying to incorporate blended learning best practices. Diana pointed out that she works two other jobs and does not have time to do work she is not getting paid for. Kim stated that the courses are hard for her to see what the students see and so she must wait for students to ask questions. Justin explained that the shells are mostly set up for the core classes but that they can modify and individualize courses for student needs. In science, they use labs to incorporate both social presence and cognitive presence during the face-to-face portion of the class instead of having students interact online. Tay (2016) stated that networking and a community feel was often a struggle even when teachers tried to focus on creating a community feeling. Based on my observations, all but one of the teachers observed had at least four classes going during one class period. Teachers are working to include blended learning best practices in their classes, but social and cognitive presence is limited in the online portion of the class. More resources and preparation are needed for teachers to successfully implement blended learning best practices (Charbonneau-Gowdy & Cechova, 2017).

RQ3: From the teacher and adult student perspective, what elements of blended learning best practices enhance and constrain student participation in a CoI while learning from the online curriculum at Career High School?

Student responses indicated that students find cognitive presence helps to improve their understanding and retention of information. They also felt that sharing personal meaning and discussing how the content applies to them would be beneficial. Donaldson et al. (2017) explained that collaborating with peers allows everyone to further their

understanding and reflect on the content. This collaboration and engagement improved retention and allowed for a deeper understanding, as well as helped students apply the content later (Breivik, 2016). Seven out of eleven participants mentioned the importance of self-paced instruction. The self-paced format of direct instruction was believed to enhance learning, and students felt it even improved the speed at which they could accomplish a task. Students enjoyed the teachers that built a relationship with them. Destiny stated that it would be worth slowing down the pace to be able to hear from real people in the field they were studying in her fitness class. Two of the students stated that they just want to get done.

On December 13, I observed students asking questions and relating current events to a graphic presented. This observation led me to believe some students are interested in slowing down the pace to make real-world connections. Four of the teachers mentioned that most of their students were not there to make relationships and do field trips. Teacher Kim stated that "I don't see what we do at night of having guest speakers and that kind of stuff. That's not what kids are here for. They're here to get their work done. I mean, during the day, that's a whole different story." During my observations, it was apparent that the format of the daytime program and the night program was very different as was the mindset of many of the teachers. Teacher Patrick indicated that the real-world application was what the students were there for but that the goal of education needed to change so that they could focus on what was important to them. Teachers felt like they were teaching so many different classes simultaneously that it was difficult to improve the content and instruction. I observed multiple courses taking place simultaneously in all

but two classrooms, and one of those rooms only had one student present the day I observed. During my five observations, I noticed that attendance was a major issue in many classrooms, which related to student and teachers' interest in asynchronous courses as opposed to synchronous courses. Based on teacher feedback, most teachers would like to have more time to improve their instruction and build in more social presence and cognitive presence. The conceptual framework outlined the importance of social presence, cognitive presence, and teacher presence as elements of best practices in blended learning (Garrison et al., 2000). Andrews and Richmond (2019) explained that teachers who are currently practicing are more suited to training that provide them with resources to implement right away. Teachers need training in blended learning best practices that corresponds with their current courses of instruction. From the conceptual framework, the elements of social and cognitive presence were the limiting factors in blended learning success identified from the data.

## Conclusion

A thematic analysis was conducted to analyze data from initial questionnaires, semi structured interviews, and classroom observations. Triangulation and detailed descriptions of the study process were used to create trustworthiness (Ravitch & Carl, 2016). Codes that helped to answer the research questions and supported the conceptual framework were identified through determining category relationships and common answers (Saldaña, 2016). Initial a priori codes were identified from the framework and included in the questionnaires, interview questions, and observation checklist. All data were evaluated and considered valid feedback; discrepant cases were identified by the

lack of commonality (Ravitch & Carl, 2016). In general, participants believed that teacher presence was the best represented of Garrison and Vaughan's (2008) best practices and that social presence and cognitive presence needed improvement. Both teacher and student responses indicated that they enjoy the self-paced feel of the courses but recognized that that means limited interactions, reduced communication, and decreased cognitive processes in the current model. Observations supported questionnaire and interview responses.

## Outcomes

In Section 2, the findings from my data analysis indicated that teachers understand how to implement teacher presence in a blended classroom but needed assistance on improving the social presence and cognitive presence at Career High School. Both Career High School (Career High School, n.d.) and the district (Site Public Schools, n.d.) were interested in improving student learning outcomes. Based on these findings, a three-day professional development was created to train teachers on the best practices of blended learning, which include teacher presence, cognitive presence, and social presence (Garrison & Vaughan, 2008). The training included an introduction to best practices with CoI in blended learning, strategies for implementation of best practices, personal reflection on a current unit, rebuilding a unit, and reflection on the process of incorporating blended learning best practices. Section 3 will outline the purpose, goals, learning outcomes, and target audience for the professional development and outline the components, activities, and resources provided for the three-day training on CoI implementation.

Section 3: The Project

## Introduction

In Section 3, I provide rationale, support for, and a description of the 3-day professional development created for this project study. In this project, I focused on providing teachers with tools and knowledge to implement CoI to enhance the success of student learning outcomes. Based on the findings of my research, teachers at Career High School understand teacher presence, including instructional management, tools to build understanding, and direct instruction, but they have less of an understanding in the areas of social presence and cognitive presence. Although teachers and students stated that the goal was for students to obtain their diplomas quickly, two of the three students interviewed were also interested in real-world applications. These data will be shared with teachers to help them understand that real-world application does not mean taking significantly longer and provides an important advantage for students. The professional development created for this project will help support teachers in these areas to help support the goal of this study and the district by closing the achievement gap through successful implementation of blended learning best practices that include teacher presence, social presence, and cognitive presence. The professional development will be available to all teachers at Career High School, with an emphasis on those who currently teach blended courses.

## Rationale

I chose to create a professional development plan for my project because both teachers and students indicated a lack of social and cognitive presence in the blended

learning courses. Professional development will provide teachers with a better understanding of the concepts of social presence and cognitive presence as elements that enhance success for student learning outcomes. Because the goal of the professional development is for teachers to enhance their skills creating and delivering blended learning, I chose to model this method and use a hybrid professional development format. Teachers feel more prepared to use digital tools when they have practiced using them (Moore, Haviland, Moore, & Tran, 2016). Showing teachers how to use social and cognitive presence in an online setting can help them when later developing their own curriculum and instruction. Garrison and Vaughan (2008) stated that often a motivating factor for faculty to participate in a blended learning professional development is to redesign a course they are already teaching. The goal of this professional development is to help prepare teachers to implement blended learning best practices in their courses.

I used the findings from my study to design a 3-day professional development program that begins with teachers learning about and discussing CoI in a digital setting and culminates with a usable product and reflection on the process of creating CoI. The discussions are directed and purposeful to enhance engagement and retention of information (Garrison & Vaughan, 2008). Then teachers will meet for 2 additional days of face-to-face training in which they will assess a current unit in regard to its teacher presence, social presence, and cognitive presence. The teachers will evaluate their current level of success with CoI and rework a unit to include more social and cognitive presence.

## Review of the Literature

For this review of literature, I focused on cognitive and social presence, the use of blended professional development, and learner-centered teaching practices. Using Education Source and Education Resource Information Center databases, I searched for scholarly resources using key terms including *cognitive presence, social presence, implementation, Community of Inquiry, blended learning, hybrid learning, learner-centered,* and *teacher training*. These peer-reviewed sources provided me with information about the implementation of CoI and guided the development of my project.

The review of literature in Section 1 provided information to help understand the conceptual framework, which consists of the BLM and CoI (Vaughan & Garrison, 2006) and the direction for the project study. In that review, I focused on the elements of blended learning best practices, along with active learning environments, building community, challenges with blended learning, curriculum design and implementation, implementing active learning and communities of inquiry, and measuring active learning. Through the review of literature in Section 1, I determined that a key factor to improving student success with online curriculum was to create active learning environments that aligned with CoI. Participants in this study indicated that teacher presence was visible at Career High School, but social and cognitive presence were limited.

In this review of literature, I focus on key elements of hybrid professional development and strategies to train teachers on how to build lessons that include more social and cognitive presence. Based on the data analysis, teachers do not have these key elements of blended learning built into their courses, and teachers indicated that they

needed time and resources to make this change. According to Stover, Heilmann, and Hubbard (2018), most teachers rely on lectures as the main form of instruction. Research has indicated that when instruction is learner-centered, students have better retention and are more prepared when leaving the course. The goal of my 3-day professional development program is to help prepare teachers to implement blended learning best practices.

**Use of Blended Professional Development**

Blended professional development provides opportunities that a traditional face-to-face setting does not give while also providing benefits that are missed in a solely online platform. It is important that hybrid professional developments take the advantages of online and face-to-face training and improve professional development (Brysch, 2020). Melton, Miller, and Brobst (2019) stated that a blended professional development helps decrease the cost of professional developments and still allows the teacher professional development to be scaled to meet the needs of the learner by having a face-to-face element. Professional developments should focus on the practices and technologies that teachers are being asked to use in their classrooms (Brysch, 2020). The use of blended learning has the potential to provide the best of both online training and face-to-face training.

Brysch (2020) explained that hybrid models are great tools for incorporating asynchronous communication and reducing costs, but the disadvantage is that there can be discrepancies in participants' abilities to access the materials and infrastructure to be successful in the online portion. Andrews and Richmond (2019) stated, "Educators need

access to the kinds of learning experiences that will help them grow as professionals" (p. 408). Brysch (2020) pointed out that many teachers enjoy the personal and social interactions that come with face-to-face training but struggle with face-to-face training being a fragmented lesson with little follow-up. Foster (2017) explained that professional development needs to take place over an extended period with opportunities to learn, practice, implement, and reflect. Training that does not provide adequate time is less successful in implementing new tools. According to research, one-time trainings are not effective (Ilaria, 2017).

Brysch (2020) indicated that teachers like the idea of watching a video or gaining information in an online format ahead of face-to-face training. Teachers also want to be able to have follow-up conversations and interaction online after face-to-face training (Brysch, 2020). Blended professional development can more easily be spread out over time, which increases the success of teachers implementing the tools they are learning about (Moore et al., 2016). Ilaria (2017) stated that online professional development enhances teachers' use of best practices and active learning while decreasing costs and providing the convenience of access. Moore et al. (2016) indicated that teachers felt more prepared, more positive about community, more comfortable with the training, and more competent to apply the concepts in their classroom when attending a hybrid professional development. The content online and face-to-face should be content-focused, should provide examples of what effective practice would look like, should contain authentic tasks with opportunities for teachers to design activities, and should provide opportunities for feedback and reflection (Foster, 2017). Experienced teachers understand the content

and know the challenges of their students (Andrews & Richmond, 2019), and it is important to consider these experiences when working to enhance meaningful tools and resources in the classroom. When teachers share these experiences with one another, it helps to build better equity in education for all students and teachers. McElearney, Murphy, and Radcliffe (2019) found that teachers prefer professional development that includes group work, interactive sessions, and breakout groups.

**Tools to Enhance Social Presence**

Social presence establishes a sense of community and provides the opportunity for open communication and collaboration (Garrison & Vaughan, 2008). Lowenthal and Dennen (2017) found that in an online setting, social presence is about how people communicate using media. Social presence can be difficult to create online but is essential to successful online learning (Akcaoglu & Lee, 2016). In online discourse, social presence has the potential to reduce insecurity, isolation, and discouragement (Sidiropoulou & Mavroidis, 2019). According to Vigness (2019), "Social presence refers to the students' ability to be an active participant in an online course just as they would in a face-to-face classroom" (p. 116). Both positive and negative interactions shape a learner's identity and success in a course (Lowenthal & Dennen, 2017). Even in online courses, people want to feel connected and learn better when they are comfortable and supported (Akcaoglu & Lee, 2016). Social presence is seen through interactions between peers and interactions with the teacher (Taft, Kesten, & El-Banna, 2019). Stover et al. (2018) explained that when the instruction was learner-centered, students collaborated more and built from one another's ideas.

Increased social presence helps students feel connected, allows them to better engage, increases student satisfaction, and improves attrition rates (Vigness, 2019). Phirangee and Malec (2017) explained that dropout rates are higher in online courses and that it was often attributed to feelings of isolation and disconnect from the teacher and peers. Research shows that social presence in a class not only helps students academically but also increases students' feelings of inclusion and participation, improves attitudes toward instruction, and allows for better diversity inclusion and support (Stover et al., 2018). Akcaoglu and Lee (2016) pointed out that online learning does not need to be isolated and task focused. It is important early on to build relationships and establish a sense of belonging (Phirangee & Malec, 2017). Online learning needs social interactions that can be developed in both synchronous and asynchronous courses (Akcaoglu & Lee, 2016). Early on, participants need to establish their online identity not only to build relationships with one another but also to help the instructor understand the core beliefs and cultures within the online course to better moderate discussions and prevent othering in the group (Phirangee & Malec, 2017). According to Phirangee and Malec (2017), three main types of othering that cause social presence to decrease for students include academic, professional, and ethical. The teacher's role is to moderate online environments to decrease the othering for students. Increasing social presence is important for student retention and success (Vigness, 2019).

Social presence often improved in online environments when group sizes were smaller (Taft et al., 2019). One way to accomplish this in larger courses was to break the group into smaller groups; however, this still provided a large workload for the teacher,

and decreased social presence from the teacher was often seen. However, when working in small groups, the repetitiveness decreased, the sense of community increased, and higher-order thinking increased (Akcaoglu & Lee, 2016). Teachers can build in activities that encourage students to talk through their thought processes and engage with one another leading to social presence and higher-order thinking that lasts for longer than the one activity (Taft et al., 2019). It is important for students to get to know one another, but also to find a group that works well for them (Phirangee & Malec, 2017). Small groups increase belonging and help participants (Akcaoglu & Lee, 2016). As a teacher, building small groups that limit the othering factor is important (Phirangee & Malec, 2017). While teachers must make a conscious effort to not disengage when they have several students and multiple class loads, it is possible for teachers to build social presence into the online course through peer-to-peer interactions and scheduled teacher interactions that demonstrate the teacher is actively teaching the course and not just providing a shell of content (Taft et al., 2019).

It is important to remember that social presence is more about the perception of the learner than the presenter (Akcaoglu & Lee, 2016). Social presence is multi-faceted, including elements such as emotional expression, confidence, open communication, recognizing others, respecting other views, and relying on one another (DuBois, Krasny, & Russ, 2019). Elements to consider when building social presence into a lesson include group cohesion, working relationships, social cohesiveness, satisfaction, trust, respect, rich interaction, purposeful interactions, support, and critical dialog (Akcaoglu & Lee, 2016). Activities should include time for students to share ideas about the content and

generate new ideas (DuBois et al., 2019). Social presence is provided when students write comments of support for each other and share their ideas. When all members of the group have an opportunity to share their ideas and be part of the discussion, students are more successful. According to DuBois et al. (2019), students perceived social presence to be higher when using social media such as Facebook compared to online discussion boards in the classroom. Social presence is necessary for cognitive presence to take place successfully (Majeski, Stover, & Valais, 2018).

**Tools to Enhance Cognitive Presence**

Cognitive presence is a major factor in success for students (Abe, 2020). When cognitive presence is built into the course, students are more invested in their learning (Stover et al., 2018). Cognitive presence is especially important in blended courses; students must take responsibility for their learning to be successful (Stover & Houston, 2019). Cognitive presence allows students the opportunity to reflect on their learning and understanding and adapt strategies to improve learning (Stover et al., 2018). One way to increase cognitive presence is by using frequent assessment activities that allow students to adjust based on feedback about their mistakes and understandings (Stover et al., 2018). However, it is also important that students know that there is not one right answer to most questions (Stewart, 2018). Micsky and Foels (2019) stated, “Cognitive presence centers on supporting the development of skills, knowledge, and understanding, which would include exploring and examining content, integrating material into assignments, and resolving dilemmas” (p. 294).

It is important that assessments are used to evaluate the process students go through to get to an answer and not just the final answer (Stewart, 2018). A learner-centered approach is ideal for enhancing cognitive presence (Stover et al., 2018). Cognitive presence is about how students engage with the learning process (Micsky & Foels, 2019). One such way is working together to solve problems and come up with new ideas is empowering for learners (Stewart, 2018). Molnar and Kearney (2017) found that synchronous video discussions were more successful for enhancing cognitive presence than asynchronous discussions. However, the exploration phase of cognitive presence was best represented in the asynchronous discussion boards (DuBois et al., 2019; Molnar & Kearney, 2017). A combination of synchronous and asynchronous tools may be best to build a cognitive presence in a blended classroom. When students feel supported by peers and the teacher, they tend to display higher levels of cognitive presence (Stover et al., 2018). Sidiropoulou and Mavroidis (2019) found that cognitive presence has a positive correlation with learning styles, perception, and understanding, which leads to overall higher levels of learning success.

For successful cognitive presence, teachers need to model the process of inquiry for students and teach them how to ask questions, how to explore ideas, how to make connections, and how to apply new ideas (Micsky & Foels, 2019). If students have these skills, then they can apply them to new problems. For the teacher, a big part of cognitive presence is designing a problem or task for learners to explore and engage with (Stewart, 2018). Once the task is determined, students can use digital tools to discuss and collaborate to explore the topic further (DuBois et al., 2019). Molnar and Kearney (2017)

found synchronous video discussions more successful for the higher-order cognitive presence of integration and resolution. It is important to design the questions and courses so that discussion questions require students to not only explore but also to integrate their findings (DuBois et al., 2019). Google documents are another way to collaborate remotely, which allows for synchronous and asynchronous work to be shared, reflected on, and modified; however, it is also easy for it to become separated, and no resolution occurs (Stewart, 2018). Probes must include items that will cause students to share multiple views and discuss to find common ground or solution to the task. Negotiating ideas is a key factor in cognitive presence and required for higher-level problem-solving (Majeski et al., 2018). Limiting rules and encouraging open discussion helps to promote cognitive presence in an online discussion (Abe, 2020). Cognitive presence allows students to build ideas and confirm their understanding of concepts through reflection and discussion (Sidiropoulou & Mavroidis, 2019).

**Learner-Centered Blended Learning**

Programs with a learner-centered model have seen better retention of content, and students who are better prepared for real-world tasks (Stover et al., 2018). Gao et al. (2019) explained learner-centered teaching as having some part of the process being self-directed. A blended course helps students focus on when and how they want to learn instead of what is best for the teacher (Tekin, Ilgaz, Adanir, Yildirim, & Gulbahar, 2020). A learner-centered approach works well with the CoI framework (Hilliard & Stewart, 2019). Much like in CoI, during learner-centered instruction, students are constructing meaning from their experiences and research (Hsiao, Mikolaj, & Shih, 2017). During

learner-centered instruction, students do activities, watch videos, or read lessons to help their learning and then use that information to participate in problem-solving, discussion, and projects (Gao et al., 2019). Successful blended learning uses a variety of activities, including asynchronous and synchronous lessons, discussions and reflections, and some activities are geared toward group efforts while others are independent (Sharoff, 2019; Stover et al., 2018). Research shows that students are more successful when they are engaged and interested in what they are learning (Campbell, Abel, & Lucio, 2019; Jackson & Evans, 2017). By having students identify problems, find information, and connect ideas, students are engaging with the content and areas that interest them personally (Gao et al., 2019; Hsiao et al., 2017). A few online friendly learner-centered strategies suggested by Tekin et al. (2020) included collaborative learning, problem-solving, and discussion. When students invested in their learning by actively participating in the acquisition of content, construction of meaning, and application, they were more successful (Campbell et al., 2019; Hsiao et al., 2017).

According to Broughan and Prinsloo (2020), learner-centered strategies reengage not only the students but also the teachers and school. Rebuilding a classroom to focus on the student allows them to have input on how their learning will be measured. When students are self-reflective, they tend to be more successful and prepared for future work (Broughan & Prinsloo, 2020). Frequent assessments that are purposeful and informative are important to help students reflect on their learning (Jackson & Evans, 2017). Learning should not simply be defined by passing a test or writing a paper, but instead determined by the student's ability to participate in the inquiry and learning process (Broughan &

Prinsloo, 2020). Learner-centered instruction allows for authentic activities that prepare students for life after school. Although it is harder on teachers, students do not all need to be doing the exact same task at the same time (Jackson & Evans, 2017). Allowing students to build their pathways can be engaging and successful for instruction (Stover et al., 2018). Learning can easily be scaffolded and individualized with the use of educational technologies (Hamad & Metwally, 2019). Differentiating instruction to meet individual needs is important to closing the gap and helping all students be successful (Hsiao et al., 2017; Jackson & Evans, 2017). However, a fine line exists between maintaining control to meet the goals of the course and collaborating with students to meet their needs (Broughan & Prinsloo, 2020).

As the facilitator, a teacher must balance their role of providing support and guidance with allowing students to explore on their own and reflect on the process and finding to enhance learning (Sharoff, 2019). Students enjoy flexibility when it comes to instruction and assessment (Jackson & Evans, 2017). According to Hanewicz, Platt, and Arendt (2017), the five elements that help students learn include current global issues, activating existing knowledge, demonstrating new knowledge, applying new knowledge, and integrating learning into real-world situations. When students can go through these steps, learning becomes meaningful and is better retained. The use of technology is a great way to make learning learner-centered, with each student focusing on what they want to learn and practicing learning skills (Hamad & Metwally, 2019). Teachers must find the balance and learn to be moderators and mentors instead of providing students with answers (Sharoff, 2019).

How a class implements learner-centered instruction can vary based on the needs of the classroom and the training available for teachers (Jackson & Evans, 2017; Stover et al., 2018). Many teachers worry about making the change because of students' connection to traditional learning methods and the concern about student evaluations. Education has used traditional methods for a long time, and changing them could cause failures initially, which worries many institutions (Broughan & Prinsloo, 2020). For a successful online learner-centered classroom, a teacher must be actively present and set clear expectations and boundaries while allowing students to direct their exploration and learning within the content (Sharoff, 2019). Another concern for learner-centered instruction is students' ability to access and benefit from certain resources and tasks (Gao et al., 2019). Attention needs to be given to individuals to overcome learner-centered instruction challenges both for students and teachers (Stover et al., 2018).

## Summary

The literature review in Section 3 focused on key elements of hybrid professional development and strategies to train teachers on how to build lessons that include more social and cognitive presence. Findings suggested that blended professional development can enhance understanding while costing less and taking less time at once (Brysch, 2020; Ilaria, 2017; Melton et al., 2019). Professional development should occur over a period and have follow-up opportunities available (Foster, 2017; Ilaria, 2017). The research found that social presence is best implemented through students establishing an online persona early and using group work (Phirangee & Malec, 2017; Vigness, 2019). Online learning does not have to be isolated (Akcaoglu & Lee, 2016). Research indicated that

when the instruction is learner-centered, students have better retention and are more prepared when leaving the course (Stover et al., 2018). Including a cognitive presence in blended courses allows students the opportunity to reflect on their learning process and deepen their understanding through frequent assessment and modifications to learning (Stover et al., 2018). In a course with successful cognitive presence, teachers model the inquiry process and students learn how to apply it to other situations by learning the process and reflecting on their work (Micsky & Foels, 2019). In the following section, I will use the information from the review of literature and my research findings to create a 3-day blended professional development to help prepare teachers to implement blended learning best practices.

## Project Description

I designed the CoI 3-day professional development to train teachers on how to implement blended learning best practices (Appendix A). My research indicated that students and teachers felt confident in the levels and success of teacher presence in the blended courses; however, it was apparent that there was limited social and cognitive presence in the current classes. The school and district both have the goal to increase student success and provide opportunities for nontraditional students to obtain their high school diploma (Site Public Schools, n.d.; Career High School, n.d.), therefore, training the teachers to use CoI is an important step to decreasing the gap in practice.

Teachers need continuing education hours, and many are moving to a blended learning model both at Career High School and throughout the district. I created this professional development with the goal of increasing teachers' understanding of CoI and

building confidence in how to implement CoI in their classroom. Melton et al. (2019) found that teachers who were involved in a hybrid professional development program were better able to focus on student learning and better able to use the blended learning model effectively. Having experience in an area proved to allow teachers to better relate to what was going on in an online environment. Based on these findings, I created my professional development to have both online and face-to-face elements. The online curriculum was built using Google Classroom, which is a common tool for teachers at Career High School and throughout the district. On face-to-face days, teachers work together to evaluate and rebuild one of their current units.

**Needed Resources**

For the 3-day professional development for Career High School teachers, teachers will need access to a computer and internet, as well as resources for one of their units. As the trainer, I will need a computer, a projector and screen, and extra-large post-it note posters. For the 2 face-to-face training days, I will also need access to a large room, such as the library or cafeteria.

**Timetable**

The professional development will take place over 3-days, with sessions lasting approximately 6 hours each. The assistant principal at Career High School would like to offer this training as a back to school professional development. The first day of training will be done by teachers prior to face-to-face training in an asynchronous fashion. Teachers will need to log on and complete the introduction, pre knowledge survey, instruction, and discussion tasks. On the first face-to-face meeting, I will model how to

look at a unit critically to assess current levels of CoI, and teachers will evaluate their current level of teacher presence, social presence, and cognitive presence and decide on their strengths and weaknesses. On the second day face-to-face, teachers will brainstorm tools to improve CoI and then work on rebuilding their current unit. At the completion of day three, teachers will be asked to take a post training survey to assess their learning and evaluate the training and trainer.

## Project Evaluation Plan

Glerum, Joseph, McKenny, and Fritzsche 2020 suggested evaluations of professional development sessions should look at four key elements: (a) participants reaction to the training; (b) knowledge or skills acquired from the training; (c) transfer of skills learned to practice; (d) the results seen from a change in practice. Based on this concept, I will evaluate participants' prior knowledge and current practice of CoI before beginning and then give the same evaluation after the professional development (Appendix A). The pre evaluation of knowledge will be given as a Google form before viewing modules in the online training. Participants will be given a checklist of indicators to evaluate their current practice based on the indicators of best practices. The results of these pre evaluations will help guide the introduction at the first face-to-face meeting. Then, as part of the exit process, participants will be asked to evaluate their understanding of CoI. Participants will be given the same questions from the pre evaluation as a post evaluation of their plans to implement best practices.

At the conclusion of the training, participants will also be asked to evaluate the training and the trainer. Participants will have an opportunity to share their level of

satisfaction with the training, suggestions for improving the training, and plans to implement the training in their classroom (Foschi, 2020). The feedback about the professional development will help guide future presentations and lead to improvements to the structure and content of the course. Feedback will also serve as an opportunity for reflection for participants. Formative assessments allow for ongoing adaptation to the training program (Foschi, 2020). The training allows participants to reflect on their learning and make plans for the application. Formative assessments are built into the professional development and allow participants to reflect on where their unit was before and after the training. Participants will share the lessons they adapted during the training to demonstrate their ability to apply what they have learned. Participants will engage in reflective evaluation at various stages during the training both alone and in small groups. At the conclusion of the training, the students will be asked about signing up for follow up communication and be given an opportunity to join a chat group to continue the discussion about improving implementation and discuss how they have put their learning into practice. I will also give the administrators at the school a copy of the observation checklist that they could use for continuous reflection on the implementation of best practices.

## Project Implications

### Local Community

The importance of my project at Career High School is to work to improve teachers' understanding of CoI, specifically social and cognitive presence. The study showed that current courses are missing key parts of CoI needed to be successful. The

project may help teachers with the implementation of blended learning best practices and increase learner-centered instruction. As teachers gain a better understanding of best practices and have time to work on reworking lessons to include best practices, teachers may be able to better support student needs in blended learning. This professional development project might help teachers create a curriculum that challenges, engages, and supports student learning success. A positive social change could occur because teachers have a better understanding of blended learning, and we can provide data to help educational leaders close the achievement gap at the local site and increase student success, which could lead to lower dropout rates and more successful members of society

### Global Community

Understanding blended learning best practices is important beyond Career High School. My project can be generalized to fit any school that uses an online curriculum, especially those participating in blended learning classrooms. Other schools could use this project to provide teachers an opportunity to learn more about blended learning best practices and to model how to create lessons that include the key elements of CoI. Improved use of CoI in online curriculum and instruction could improve overall dropout rates, retention of learning, and increase success after school.

## Conclusion

The overall purpose of this project is to improve teachers' understanding of blended learning best practices and provide them with resources and time to implement CoI. Successful implementation of CoI in an online curriculum has the potential to improve achievement on student outcomes and increase students' ability to apply

learning to real-world situations. Section 4 will describe the strengths and limitations of the project and look at alternative approaches, scholarship, project development and evaluation, change, reflection, and future research ideas.

Section 4: Reflections and Conclusions

## Project Strengths

The project strengths are based on the use of a blended model to promote best practices in blended learning and through modeling blended learning best practices during the professional development course. I created a professional development course that was one third online and two thirds in person. Teachers had to complete the basic content knowledge sections, along with interactive activities, online before the in-person learning days. The project was designed based on the research findings from feedback from teachers and students through questionnaires, semi structured interviews, and observation. The data indicated that teachers were not prepared to implement blended learning best practices to include CoI elements.

The project I developed provided content knowledge for teachers about CoI and allowed teachers to participate in a training that allowed for reflection of current practice, revision to a current unit, and concluded with a final usable product that teachers could take back to their classrooms. Brysch (2020) explained that teachers like watching content ahead of time, but they also want to interact, ask questions, and have a chance to follow up in person. The training I designed allowed for these things. Andrews and Richmond (2019) noted that teachers want something they can take back to their classroom instead of an abstract theory or idea that they never use because it becomes lost. By creating a useable lesson, the hope was that this would not happen with this training.

## Project Limitations

One limitation is that the project will have to be adjusted to meet the needs of each group taking the training. The project provides an outline for the training, but initial findings and reflections of the staff during the first day of training will determine some of the other elements of the training. The staff and students at Career High School have a unique dynamic, and adjustment may have to be made to generalize the training. The training was designed with me as the presenter in mind, although others could present the content and do the activities.

## Recommendations for Alternative Approaches

Although the project was designed to be 1 day online and 2 days in person, an alternative could be to do the full training online with 1 day being asynchronous and the 2 days that would have been in-person being synchronous but still online. It is also possible for Day 1 activities to be spread out over a longer period, with each unit being a daily lesson instead of completing all the units in one day as currently designed.

# Scholarship, Project Development and Evaluation, and Leadership and Change

## Scholarship and Project Development

The research in this study was focused on best practices in blended learning at a nontraditional high school. I used my research findings to design a professional development course for teachers to improve their understanding and implementation of blended learning best practices. Reflecting on the process, I realize that I have learned a lot about blended learning and ways to help other teachers understand best practices. I learned the importance of cognitive presence in an online classroom and for me as a

scholar, practitioner, and project developer. Helping teachers recognize the problem, exchange information, discuss differences, create solutions, and apply new ideas and concepts is important in the training process.

Throughout the research process, I learned to be flexible when working with organizations. The application and data collection process did not go as smoothly as I had hoped, but the process reminded me of the importance of open communication, flexibility, and perseverance. I also learned a lot about myself and my biases. It is important to recognize inherent biases so that they can be minimized both during research and when working with students and teachers (Rubin & Rubin, 2012). I was able to practice being mindful of my biases and working past my preconceived ideas about the research site. During research and analysis and during project development, I had to be aware of my biases to mitigate their influence on my findings and writing.

I conducted literature reviews to help me understand the topic and to create a better research study and project. A qualitative case study was selected based on my research and was determined to be the best option to allow participants to reflect on their experiences at a specific location (Orcutt & Dringus, 2017; Ravitch & Carl, 2016). The literature helped me understand blended learning best practices and provided insight on how to present the information to teaches. A blended model was selected for the project because research indicated that professional development should incorporate the practices that teachers are being asked to use in their classrooms (Brysch, 2020).

This project study has helped me gain knowledge and skills to be a better scholar, practitioner, and project developer. I am a more critical reader, I am better at recognizing

problems and gaps in understanding and practice, I am more equipped to help other teachers, and I am better at presenting my findings. Conducting this project study has made me more aware of my biases, helped me become less judgmental, and has helped me focus on seeking answers through multiple lenses. I am a better teacher because of this project study, and I am better prepared to help others.

**Leadership and Change**

Most teachers are passionate about improving learning and building successful students. A change leader also must be passionate about understanding different views, energizing topics, and motivating others (Fullan, 2011). I learned that leadership is much more than what is visible through an outcome. Leadership begins long before the end process that others see. Brainstorming and research take a lot of patience and perseverance.

To be an effective leader, you must be dedicated even when no one is pushing you. A good leader has those they lead in mind even when they are not around (Fullan, 2011). A good leader is always thinking of better ways to present the information, engage the audience, and motivate the masses. Elements of leadership became apparent on sleepless nights when the project development was circling in my head. Creating training that provided teachers with an opportunity to reflect on current practices, discuss with one another, and create a tangible resource to return to their classroom was important (Andrews & Richmond, 2019). I learned that I am driven by change, and creating a project that helped teachers implement change was important to me.

Based on findings from my research and peer-reviewed articles, I determined that teachers have a basic understanding of how to implement CoI but need more information and practice to implement it in their classrooms successfully. I did not want to create another training that provided lots of information without realistic implementation options. Based on my findings, I developed a 3-day professional development course that incorporated CoI and provided teaches with practice and knowledge about CoI. This professional development can be used to help teachers understand CoI and implement blended learning best practices in their classrooms. The project can be used for future training and could become a foundation for other workshops focused on blended learning best practices.

## Reflection on the Importance of the Work

The purpose of this qualitative case study was to explore which elements of blended learning best practices were currently implemented in the online, blended curriculum at Career High School to increase the understanding of which factors were enhancing or constraining student learning outcomes. The findings from the research then allowed me to create a project to help prepare teachers to implement blended learning best practices. This work is important because many schools are moving to an online or hybrid model in which at least part of the courses are taught using online resources. Adequate professional development is important so that teachers are prepared for this new method of teaching. Teachers, administrators, and students are all stakeholders in blended learning, and adequate training is important to the success of the classroom.

This project study has provided me with insight into teacher training and resources that need modification. My project study was conducted on a small scale at a specific site, but research could be done on a larger scale to see if the same weaknesses exist across the board. The study findings could be generalized to larger populations and beyond the local setting. Professional development and continuing education are important as educators and required for continuing licensure. Providing teachers with training that can be easily applied to their current classroom is important (Andrews & Richmond, 2019). Networking and partnerships with other districts will make social change more achievable.

## Implications, Applications, and Directions for Future Research

In this project study, I focused on the implementation of blended learning best practices and created a professional development to help teachers improve the implementation of CoI. This project may bring social change by educating teachers and school administrators. I am excited to collaborate with schools to enhance the implementation of CoI in blended learning programs and to improve student learning in a blended setting. The training I created is designed to educate teachers about blended learning best practices, allow them to reflect on current practices, and create a tangible lesson to use in their classroom that implements CoI. The study findings indicated that teachers needed more understanding of how to implement CoI with a focus on social and cognitive presence. The training focuses on helping teachers learn how to implement CoI in their classrooms.

## Future Research

Future research could include other settings such as a traditional high school, middle school, or even elementary school. My research focused on adult high school students. Future research could build on the findings by expanding the population to understand if the same gaps exist. Future research could also evaluate implementation before and after attending a training like the three-day professional development I created.

Ongoing training is important for educators (Foschi, 2020). Educators want to implement the information they obtain at training, but it is often lost between training and implantation without follow-up. The importance of this project is to improve teacher implementation of CoI to improve student learning outcomes. Teachers must keep up with the changing education system.

## Conclusion

In Section 4, I reflected on my project study and my personal growth. The purpose of this qualitative case study was to explore which elements of blended learning best practices were currently implemented in the online, blended curriculum at Career High School to increase the understanding of which factors were enhancing or constraining student learning outcomes. The findings of my research lead me to create a three-day professional development to help teachers understand CoI and implement blended learning best practices. Stakeholders can choose to use my findings to provide training for teachers to improve the implementation of best practices. Teachers must adapt to the current learning environment, which is technology-based. The results of this

study can be used to train teachers in implementing blended learning best practices. Feedback from participants will help me improve the training and provide me with input for future research and training.

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# Appendix A: The Project

Based on the study findings, a three-day training has been designed using a blended learning model. Teachers will access the online portions of the training using Google Classroom. I will address the purpose and goals, the target audience, and training activities. Based on findings from the research and themes that emerged, I will focus on improving teacher understanding of CoI and implementation tools. During the training, teachers will have time to reflect on their current practice and work with support to rebuild a current unit into a usable product that includes CoI. A pre and post assessment will be used to understand participants understanding of concepts, as well as an evaluation of the presenter and training.

## Presenter Guide

| | |
|---|---|
| Purpose | The overall purpose of this project is to improve teachers understanding of blended learning best practices and provide them with resources to implement CoI. |
| Goal | Teachers will gain a better understanding of CoI and leave the training with a usable product to implement CoI in their content area |
| Target Audience | Teachers at Career High School with focus on Online and blended learning teacher |
| Materials and Resources | Presenter<br>• Computer and internet<br>• Projector<br>• Projection screen<br>• Extra Large Post It Notes Posters<br>• Large meeting room<br>Participants<br>• Computer and internet<br>• Current Unit outline and resources |
| Schedule | Day 1 – Introduction and building understanding<br>• Online in Google Classroom Units 1 through 6<br>Day 2 – Looking at a Unit<br>Day 3 – Rebuilding a Unit |

**Agenda: Day 1**

Day 1 is online and self-paced. Participants need to complete all 6 units prior to attending the face-to-face training days. Brain breaks and stretches will be suggested between units, but flow is up to the participant. Approximate time expectation to complete each unit is listed in the agenda.

| | |
|---|---|
| Unit 1: Welcome and Introduction<br>Approximately 90 minutes | Watch Presenter's welcome video<br>Create a welcome video<br>Video discussion<br>Prior Knowledge assessment<br>Philosophy of online/hybrid education<br>Philosophy discussion<br>Communities of Inquiry Summary Presentation |
| 15-minute Brain Break | |
| Unit 2: Assessing your current practice<br>Approximately 100 minutes | Assessment of current practice<br>Current practice reflection activity<br>Current practice discussion<br>Virtual Brainstorm: Current tools in place |
| 15-minute Brain Break | |
| Unit 3: Social Presence<br>Approximately 60 minutes | Social presence explained presentation<br>Discussion<br>-Do you have students working in groups?<br>-What factors do you find most important building a trusting, risk-free, open communication culture in your classroom?<br>-How do you limit "Othering" in your classroom?<br>Virtual Brainstorm: Social presence tools to add |
| 15-minute Brain Break | |
| Unit 4: Community Partners<br>Approximately 60 minutes | Discussion<br>-How do students benefit from interacting with community members?<br>-How do you partner with people in the community?<br>Community Outreach Presentation<br>Networking to build better engagement activity<br>Discussion: During which unit/lesson could you incorporate students contacting a |

| | |
|---|---|
| | community member to explore the concepts and gather information? How might this look in your classroom. |
| 15-minute Brain Break | |
| Unit 5: Critical Thinking<br>Approximately 30 minutes | Discussion: How do you define critical thinking?<br>Cognitive presence presentation<br>Discussion<br>- How do you have students recognize problems or gaps in understanding in your class?<br>- What methods of content acquisition do you currently use? Do you give them to students or ask them to find the resources?<br>- How do you include reflection opportunities in your lessons? |
| Unit 6: Reflection<br>Approximately 30 minutes | Reflections on Learning Activity<br>Review and Reflection Day 1 Exit Survey |

**Day 2 Agenda**

| | |
|---|---|
| 08:00-08:30 | Gather and Socialize<br>- Get materials<br>- Check in<br>- Coffee and treats |
| 08:30-08:45 | Welcome |
| 08:45-09:00 | Study Findings Presentation |
| 09:00-09:20 | Teacher Reflection findings from Day 1 |
| 09:20-09:30 | Review content from Day 1 |
| 09:30-09:45 | Bathroom/Coffee break |
| 09:45-10:05 | Model scanning a unit for Teacher Presence |
| 10:05-10:15 | Brain break exercise |
| 10:15-10:45 | Teachers scan their selected unit for teacher presence |
| 10:45-11:00 | Small group breakouts<br>• What do you do in person vs online?<br>• Why did it score best in research?<br>• What resources are in place?<br>• -What do you already do for teacher presence?<br>• Identify an area of strength |

| | |
|---|---|
| | • Identify an area that needs improvement<br>• Rate your teacher presence on a scale of 1-10<br>• What tools are currently in place for teacher presence |
| 11:00-11:15 | Discuss transferring modeling of looking for teacher presence to looking for social and cognitive presence |
| 11:15-11:30 | Discuss Group scores from Teacher Presence |
| 11:30-12:30 | Lunch |
| 12:30-12:45 | Small groups share with whole group<br>Write ideas on a poster |
| 12:45-13:30 | Teachers scan their selected unit for social presence |
| 13:30-13:45 | Afternoon Break |
| 13:45-14:00 | Small Group discussion<br>• What do you do in person vs online?<br>• What resources are in place?<br>• -What do you already do for social presence?<br>• Identify an area of strength<br>• Identify an area that needs improvement<br>• Rate your social presence on a scale of 1-10<br>• What tools are currently in place for social presence? |
| 14:00-14:45 | Teachers scan their selected unit for cognitive presence |
| 14:45-15:00 | Small group discussion<br>• What do you do in person vs online?<br>• What resources are in place?<br>• -What do you already do for cognitive presence?<br>• Identify an area of strength<br>• Identify an area that needs improvement |

| | |
|---|---|
| | • Rate your cognitive presence on a scale of 1-10<br>• What tools are currently in place for cognitive presence? |
| 15:00-15:10 | Look at scores self-reflection scores for social and cognitive presence |
| 15:10-15:30 | Make posters for tools in place for social presence and cognitive presence |
| 15:30-15:45 | Closing Reflection: Strengths and Areas for Improvement<br>-will help guide day 3 presentation |

**Day 3 Agenda**

| | |
|---|---|
| 08:00-8:30 | Recap |
| 08:30-08:50 | Small group activity: Create posters with ideas on how to improve CoI<br>-each group will be given either Teacher presence, cognitive presence, or social presence |
| 08:50-09:00 | Hang posters and do a gallery walk |
| 09:00-09:10 | Coffee break |
| 09:10-09:30 | Presentation on CoI |
| 09:30-10:00 | Reflection on Strengths and Areas for improvement<br>-each participant picks 2 of their own areas of improvement to focus on<br>-use strengths to help other in a small group<br>Discuss with others how you can improve your areas of need. |
| 10:00-11:00 | With a partner, look at your current unit and how you can improve it focusing on your 2 areas of need |
| 11:00-11:30 | Group share<br>• What have you learned that you can apply to other units?<br>• How do you think CoI will help in your classroom?<br>• What challenges do you see with implementing CoI in your classroom? |
| 11:30-12:30 | Lunch |

| | |
|---|---|
| 12:30-13:00 | Address concerns with implementation stated in group share |
| 13:00-14:00 | Rebuild your unit to include CoI |
| 14:00-14:30 | Share rebuilt units with the group |
| 14:30-15:00 | Post Training Survey and Evaluation |

# Presenter Notes

**Presenter Notes**

Day 1: Online Asynchronous self-presentation

- Communities of Inquiry
- Social Presence
- Community Outreach in the Classroom
- Cognitive Presence

Day 2: Implementation of CoI

- Slide 3 – Explain findings from local site from survey and observation
  - Will vary by site
- Slide 4 – Explain findings from Day 1 reflections
  - Will vary by site
- Slides 5 thru 9 Review from Day 1
  - Go over key terms
  - Answer questions
- Slide 12 – Pick a sample Unit
  - Highlight examples of instructional management in yellow
  - Highlight examples of building instruction in green
  - Highlight examples of direct instruction in pink
  - Add notes and think aloud information about the ways each are seen but not written down
    - Having a plan shows instructional management
    - The process of picking the topic and forming groups shows instructional management
    - Pacing shows how you will use direct instruction
    - Allowing time for reteaching or addressing misunderstandings shows the use of direct instruction
    - Asking students to reach a consensus shows building understanding
- Slide 14 – Transferring
  - Ask group for their input
  - We will do the same steps but for social presence we will be looking for emotional expression, open communication, and group cohesion; and for cognitive presence we will look for trigger events, exploration, integration, and resolution
- Slide 18 – Unit Scan for Social Presence
  - Walk around and provide reminders of what social presence looks like
    - Emotional expression: autobiographical narratives, building a sense of self online, trust, respect
    - Open communication: safe zone to share, acknowledgement, encouragement, groups that work well together, two sided discussions, no othering
    - Group Cohesion: encouragement, collaborating, teamwork, helping each other, leaning on one another for help

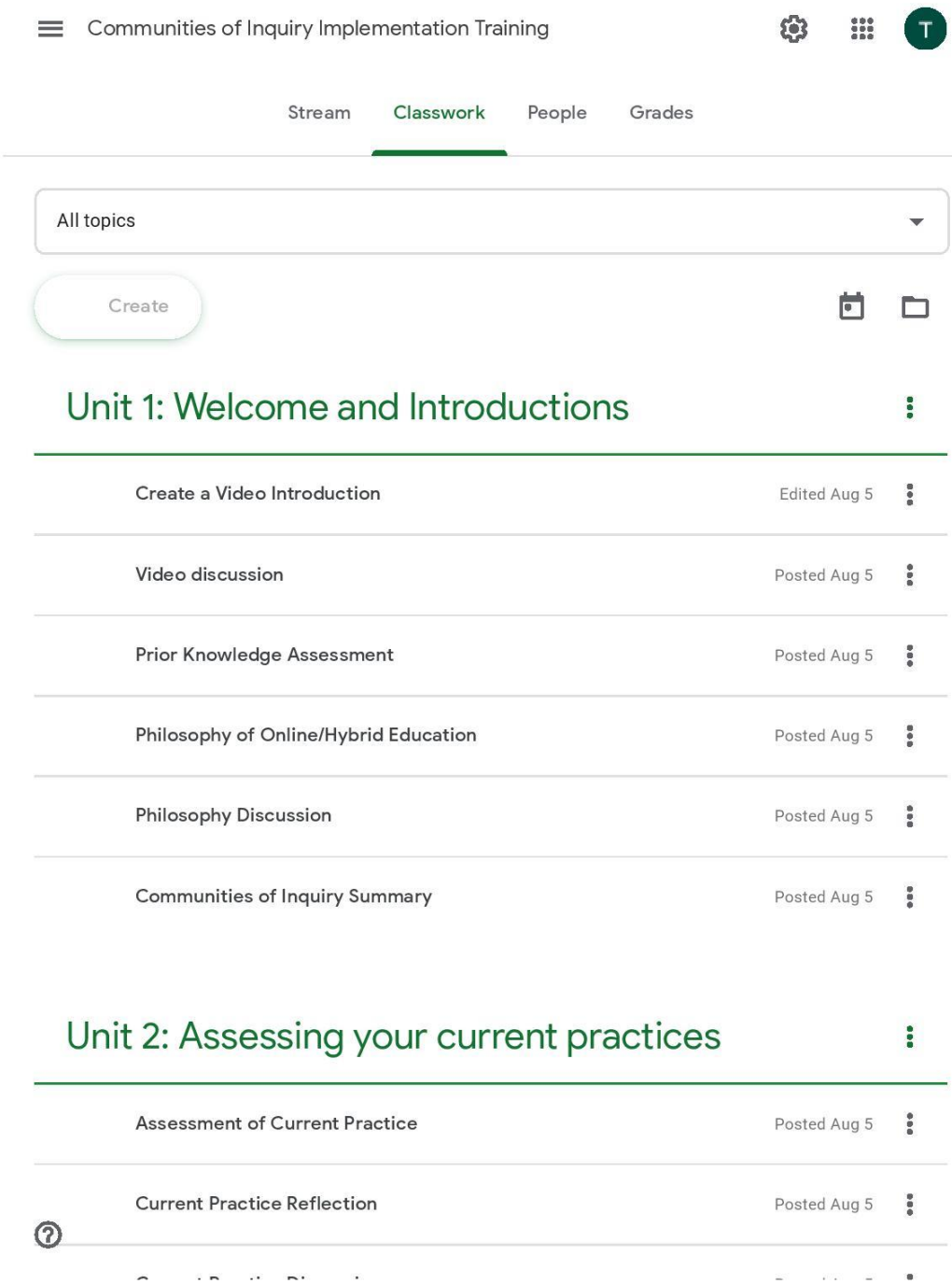
- Slide 21 – Unit Scan for Cognitive Presence
    - Walk around and provide reminders of what cognitive presence looks like
        - Trigger events: recognizing the problems, finding gaps in understanding, coming up with questions, building curiosity
        - Exploration: exchanging information, discussing differences in data/findings, looking for answers
        - Integration: making connections, constructing meaning, doing projects, finding solutions
        - Resolution: applying new concepts, critical reflection, assessing solutions

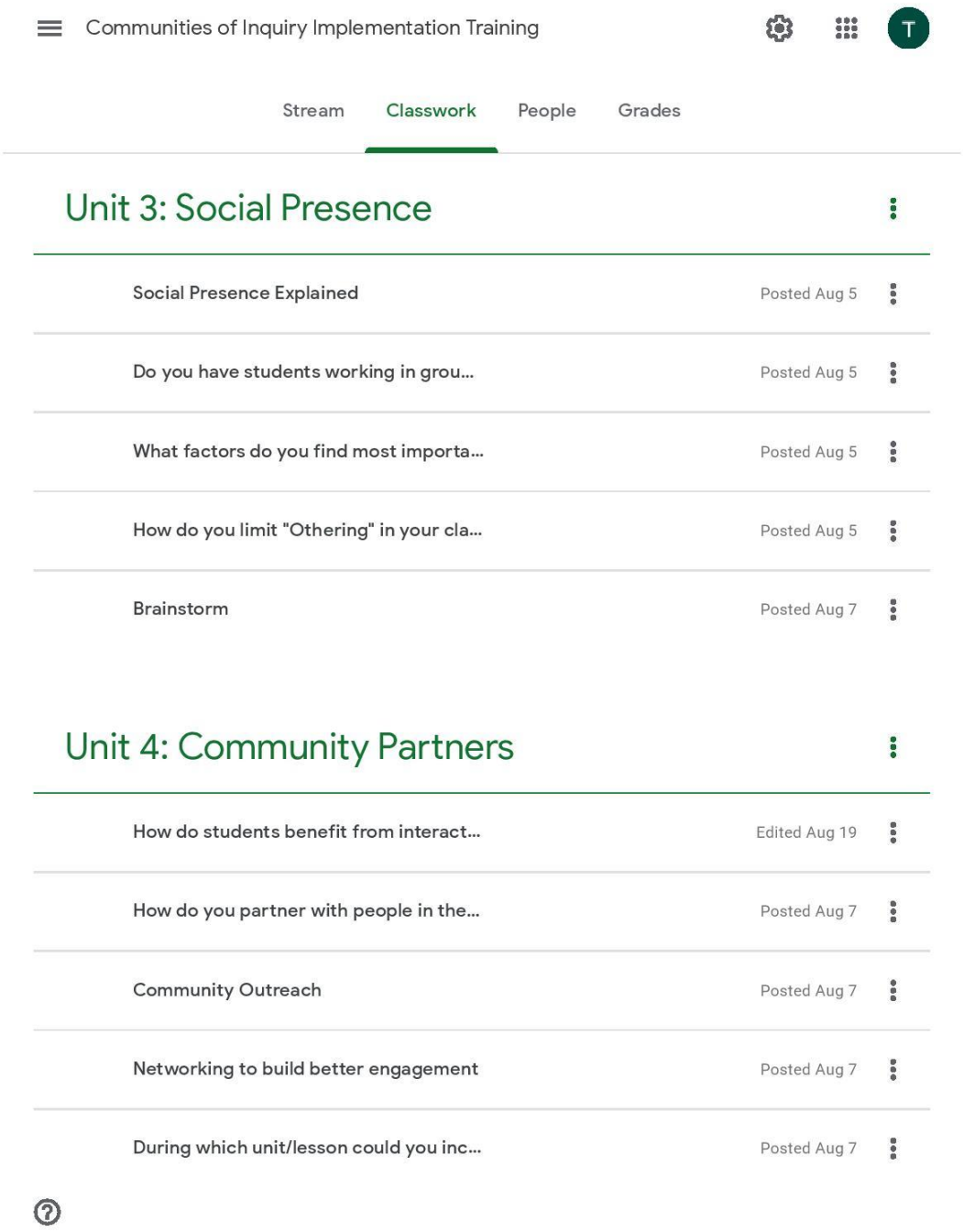
Day 3: Implementation of CoI

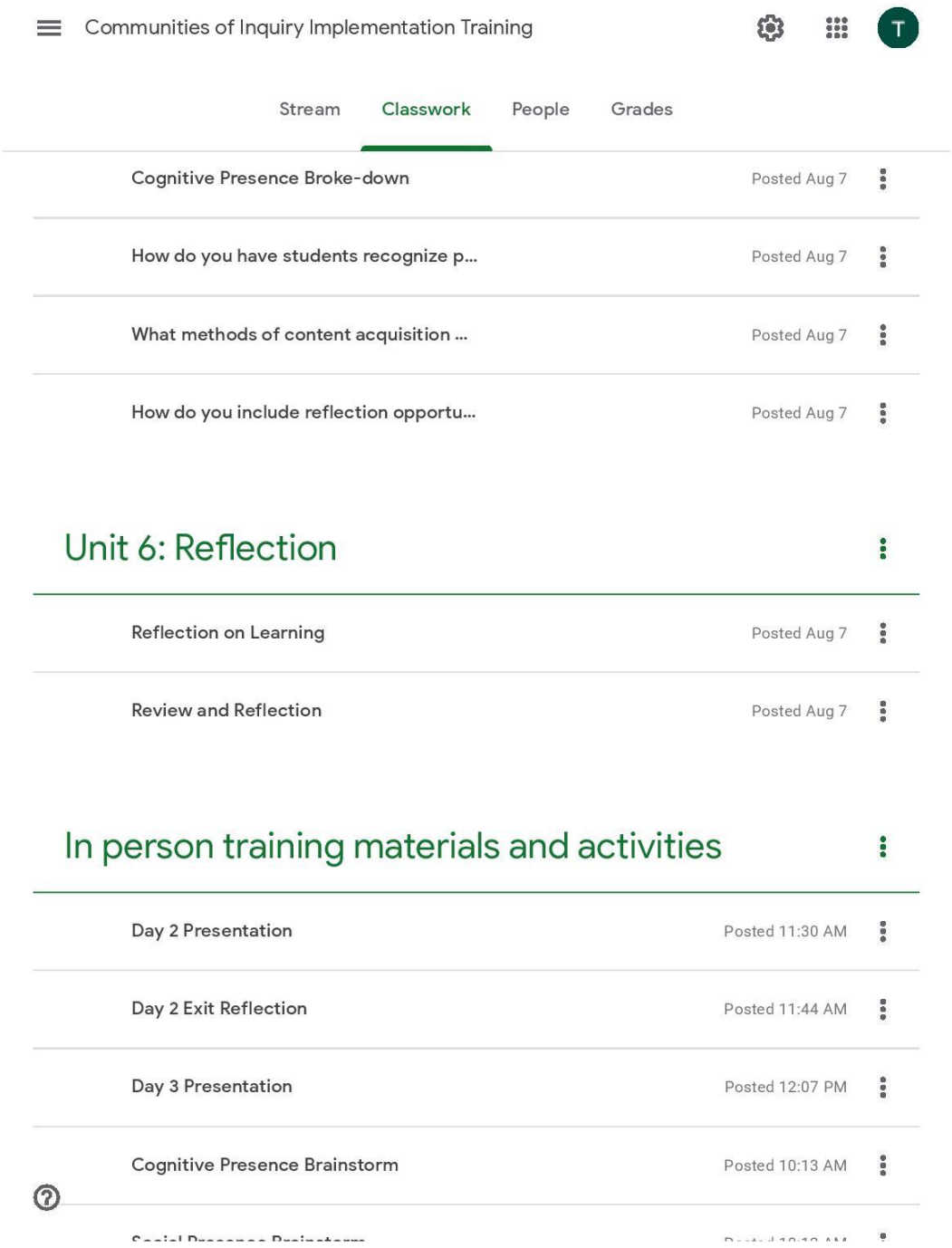
- Slide 2 & 3 – Review Terms
- Slide 4 – Review Day 2
- Slide 5 – Walk around and help groups if stuck on ideas
    - See suggestions above
- Slide 7 – Discuss Day 2 Reflections
    - Varies based on site
- Slide 10 – Write down concerns and find answers for after break
- Slide 12 – Discuss specific concerns and answers from research
- Slide 13 – Rebuilding
    - Review poster ideas for improving each area
    - Also provide ideas listed above if not on posters
    - Walk around and listen to ideas and offer suggestions
- Slide 15 – Remind everyone to fill out the reflection and evaluation form

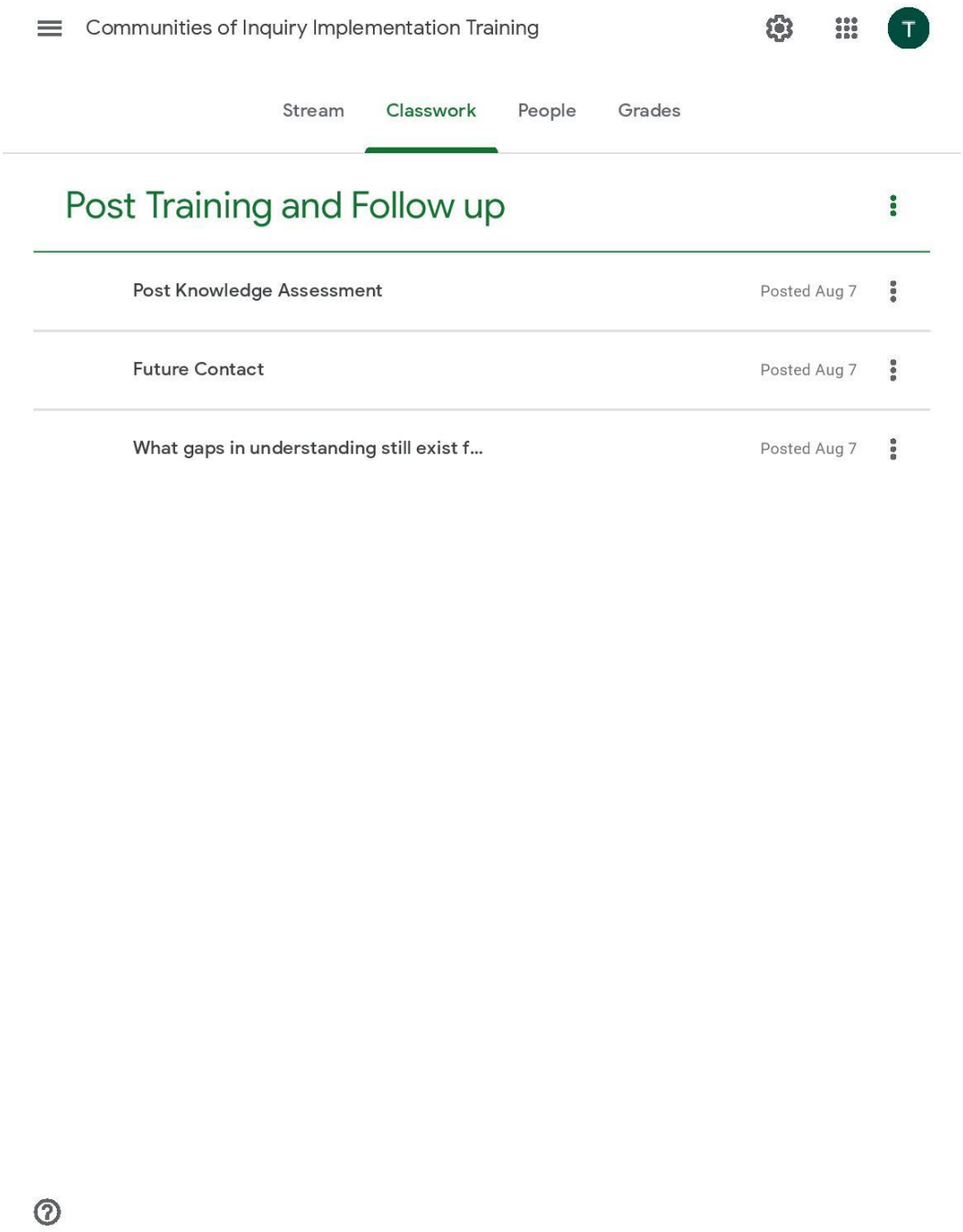
## Google Classroom Classwork Outline

The first day of training will be done asynchronously using a Google Classroom platform. Teachers will complete the 6 units prior to attending the in-person training days. The online training includes units on each of the main elements of Communities of Inquiry, as well as self-reflection activities about current practices.

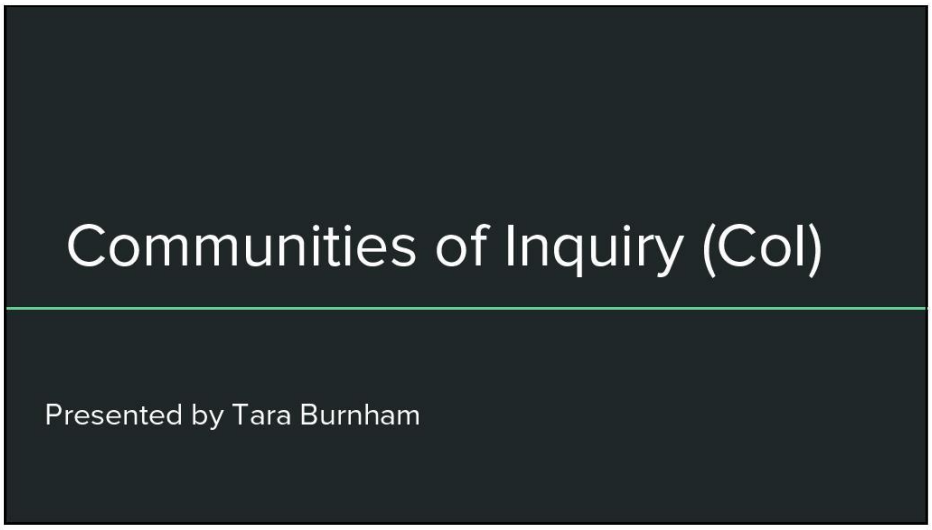

Communities of Inquiry Implementation Training
T
Stream
Classwork
People
Grades
All topics
Create
Unit 1: Welcome and Introductions
Create a Video Introduction
Edited Aug 5
Video discussion
Posted Aug 5
Prior Knowledge Assessment
Posted Aug 5
Philosophy of Online/Hybrid Education
Posted Aug 5
Philosophy Discussion
Posted Aug 5
Communities of Inquiry Summary
Posted Aug 5
Unit 2: Assessing your current practices
Assessment of Current Practice
Posted Aug 5
Current Practice Reflection
Posted Aug 5


Communities of Inquiry Implementation Training
T
Stream
Classwork
People
Grades
Unit 3: Social Presence
Social Presence Explained
Posted Aug 5
Do you have students working in grou...
Posted Aug 5
What factors do you find most importa...
Posted Aug 5
How do you limit "Othering" in your cla...
Posted Aug 5
Brainstorm
Posted Aug 7
Unit 4: Community Partners
How do students benefit from interact...
Edited Aug 19
How do you partner with people in the...
Posted Aug 7
Community Outreach
Posted Aug 7
Networking to build better engagement
Posted Aug 7
During which unit/lesson could you inc...
Posted Aug 7


Communities of Inquiry Implementation Training
T
Stream
Classwork
People
Grades
Cognitive Presence Broke-down
Posted Aug 7
How do you have students recognize p...
Posted Aug 7
What methods of content acquisition ...
Posted Aug 7
How do you include reflection opportu...
Posted Aug 7
Unit 6: Reflection
Reflection on Learning
Posted Aug 7
Review and Reflection
Posted Aug 7
In person training materials and activities
Day 2 Presentation
Posted 11:30 AM
Day 2 Exit Reflection
Posted 11:44 AM
Day 3 Presentation
Posted 12:07 PM
Cognitive Presence Brainstorm
Posted 10:13 AM


Communities of Inquiry Implementation Training
T
Stream
Classwork
People
Grades
Post Training and Follow up
Post Knowledge Assessment
Posted Aug 7
Future Contact
Posted Aug 7
What gaps in understanding still exist f...
Posted Aug 7

**PowerPoint Presentation**

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## Key Terms

***Active Learning:*** Active learning is a student-centered approach to learning that requires students to construct meaning from the content and includes interactions with the content, peers, and teachers (Ott, Carpenter, Hamilton, & LaCourse, 2018; Donaldson et al., 2017).

***Blended (Hybrid) learning*:** A course in which part of the learning takes place in a brick-and-mortar location away from home and part of the learning takes place online in which student have some control over when, where, and how quickly (Horn & Staker, 2015)

***Online curriculum***: Content and experiences that students are expected to have using technology such as videos, audio files, virtual labs, and virtual games (Hamdi & Hamtini, 2016; Garrison & Vaughan, 2008)

2

## Key Terms

***Community of Inquiry*:** the use of critical analysis, construction, and confirmation by a group of peers to deepen understanding of content through cognitive presence, social presence, and teacher presence (Vaughan & Garrison, 2006)

***Social Presence:*** Building trust and respect to facilitate open communication and group cohesion in a Community of Inquiry and to establish one's self as a real person in an online environment (Vaughan & Garrison, 2006)

***Teaching Presence:*** The design, facilitation, and direct instruction that creates a personally meaningful and successful learning environment in blended programs through (Vaughan & Garrison, 2006)

***Cognitive Presence:*** Ability to construct and apply meaning in a Community of Inquiry through problem identification, critical thinking, evaluation, exploration, integration, and application (Vaughan & Garrison, 2006)

3

## Blended Learning Best Practice

Those practices which create Communities of Inquiry (CoI) through cognitive presence, social presence, and teaching presence to promote learning such as establishing the role of teachers and students in online learning, connecting face to face and online components of learning, embedding frequent online interactions with and between students, and including real-life problems in the curriculum (Garrison et al., 2000; Vaughan & Garrison, 2006).

4

## Teacher Presence

**Instructional Management**

- This includes things such as content structure, topic selection, and group formations
- This is an area most teachers feel comfortable with
- Many of these tools translate will from a traditional classroom

**Building Understanding**

- This includes making personal connections, sharing personal meaning, seeking consensus, and expressing agreement or disagreement

**Direct Instruction**

- This includes focusing discussions, pacing activities, answering questions, re-explaining concepts, summarizing, and modeling
- This can be intimidating online but is similar to a traditional classroom

5

## Social Presence

**Emotional expression**

- This includes autobiographical narratives, establishing trust, and showing respect for each other

**Open communication**

- This includes a safe place to share, acknowledgement, encouragement, and ongoing conversation

**Group Cohesion**

- This includes encouraging collaboration, working in teams, peers helping one another, and learning from one another

6

## Cognitive Presence

**Trigger Event**

- This includes recognizing problems, realizing gaps in understanding, sparking curiosity, and formulating questions

**Exploration**

- This includes exchanging information, discussing differences, and seeking answers

**Integration**

- This includes making connections between concepts, constructing projects, and creating solutions

**Resolution**

- This includes applying new ideas, reflecting on solutions, and critically assessing concepts and solutions

7

## Implementation

- When students experience blended learning best practice, achievement on standardized tests goes up and ability to apply content to real-life situations improves
- This training serves to help teachers better implement blended learning best practices to improve student learning outcomes.

8

# References


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Donaldson, L., Matthews, A., Walsh, A., Brugha, R., Manda-Taylor, L., Mwapasa, V., & Byrne, E. (2017). Collaborative tools to enhance engagement in a blended learning master's programme. *AISHE-J: The All Ireland Journal Of Teaching & Learning In Higher Education*, *9*(1), 2921-29220. Retrieved from http://ojs.aishe.org/index.php/aishe-j/index

Garrison, D. R., & Vaughan, N. D. (2008). *Blended learning in higher education: framework, principles, and guidelines*. San Francisco: Jossey-Bass.

Hamdi, M., & Hamtini, T. (2016). Designing an effective e-content development framework for the enhancement of learning programming. *International Journal Of Emerging Technologies In Learning, 11*(4), 131-141. doi:10.3991/ijet.v11i04.5574

Horn, M. B., & Staker, H. (2015). *Blended: Using disruptive innovation to improve schools*. San Francisco, CA: Jossey-Bass.

Kintu, M. J., Zhu, C., & Kagambe, E. (2017). Blended learning effectiveness: The relationship between student characteristics, design features and outcomes. *International Journal of Educational Technology in Higher Education, 14*(1). doi:10.1186/s41239-017-0043-4

Ott, L.E., Carpenter, T.S., Hamilton, D.S., & LaCourse, W.R. (2018) Discovery learning: Development of a Unique active learning environment for introductory chemistry. *Journal of Scholarship of Teaching & Learning, 18*(4), 161-180. Retrieved from https://scholarworks.iu.edu/journals/index.php/josotl/index

Vaughan, N., & Garrison, R. (2006). A blended faculty Community of Inquiry: Linking leadership, course redesign, and evaluation. *Canadian Journal of University Continuing Education, 32*(2), 67–92. Retrieved from https://journals.library.ualberta.ca/cjuce-rcepu/index.php/cjuce-rcepu/issue/archive


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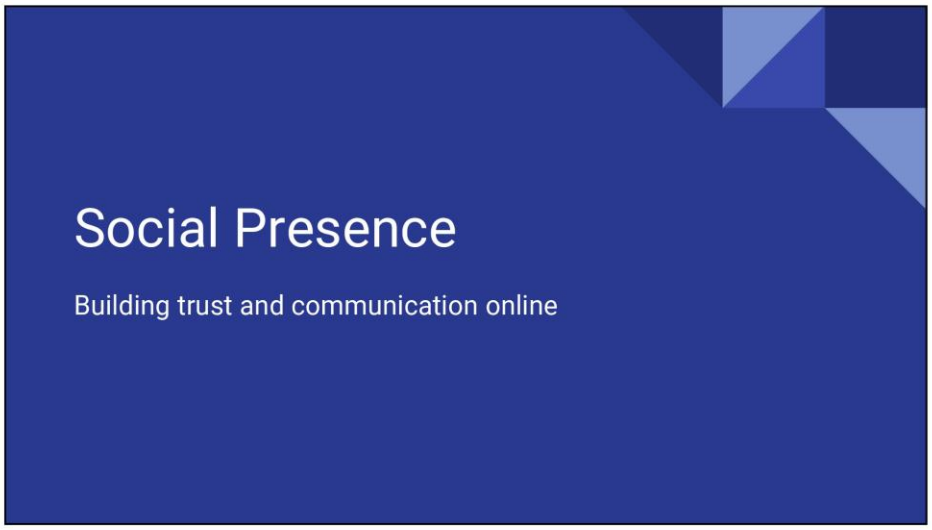
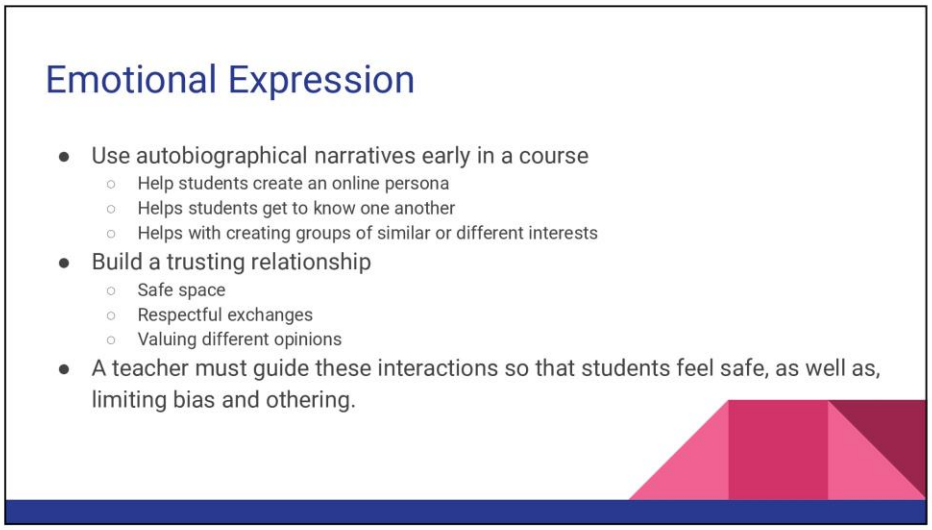



1

According to Vigness (2019), "Social presence refers to the students' ability to be an active participant in an online course just as they would in a face-to-face classroom."

People want to feel connected and learn better when they are comfortable and supported (Akcaoglu & Lee, 2016).

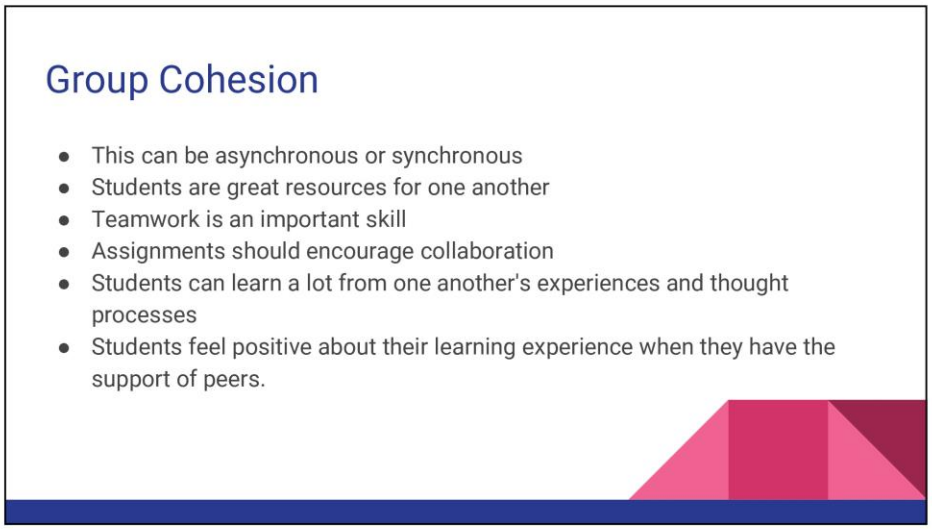
2


Emotional Expression
Use autobiographical narratives early in a course
Help students create an online persona
Helps students get to know one another
Helps with creating groups of similar or different interests
Build a trusting relationship
Safe space
Respectful exchanges
Valuing different opinions
A teacher must guide these interactions so that students feel safe, as well as, limiting bias and othering.

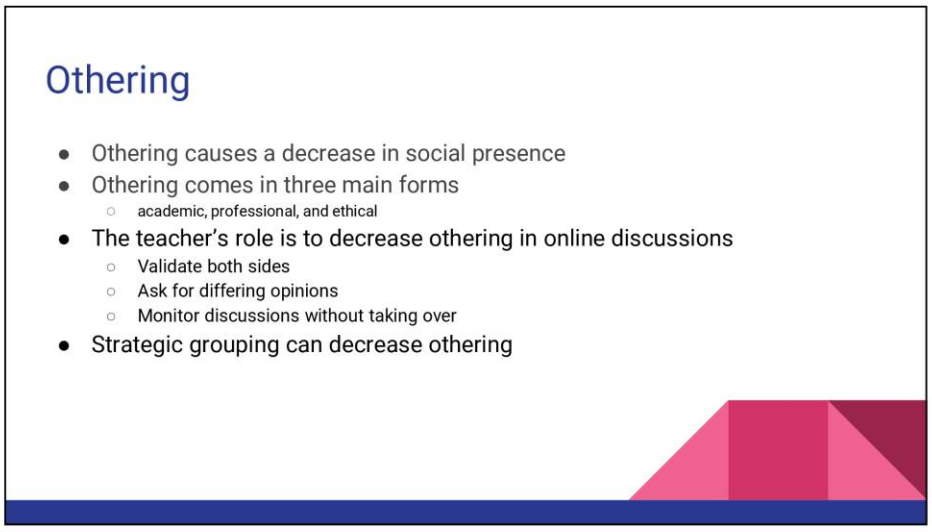
3


Open Communication
Students need to know that their opinion is valid
Students need to feel safe to express themselves
Othering is a major issue with open communication
There is often the popular opinion/though/answer and then the other group
Students need to see that both the popular opinion and the other opinion are both valid and needed for the discussion
Students need encouragement
Students need to know that you and other hear what they are saying
Students need their posts acknowledged

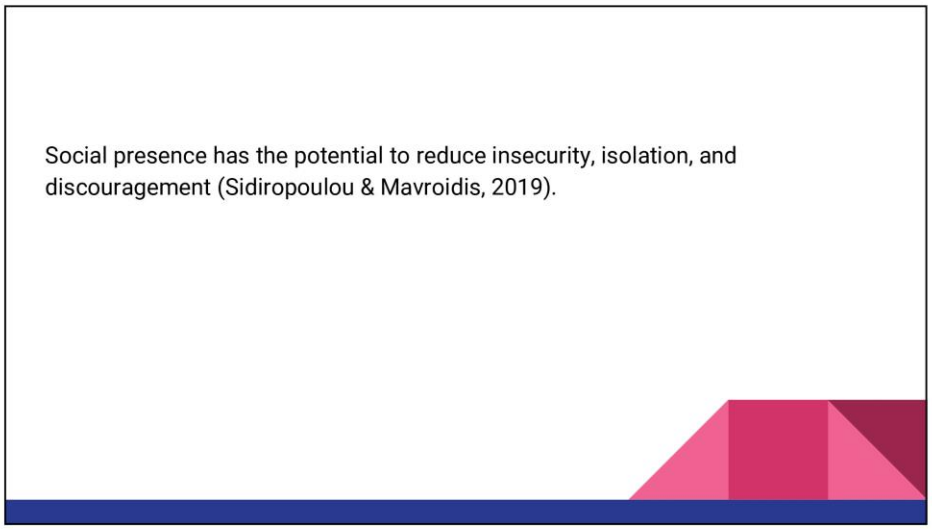
4


Group Cohesion
This can be asynchronous or synchronous
Students are great resources for one another
Teamwork is an important skill
Assignments should encourage collaboration
Students can learn a lot from one another's experiences and thought processes
Students feel positive about their learning experience when they have the support of peers.

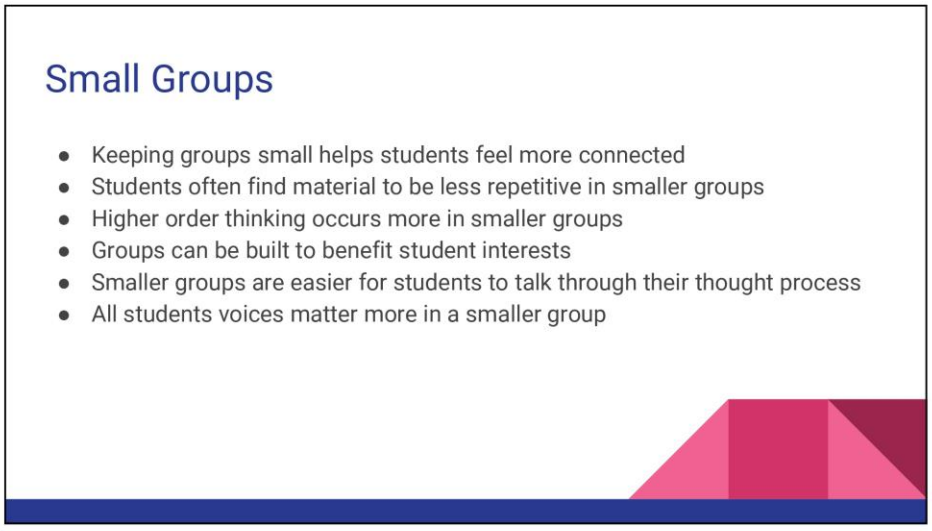
5


Othering
Othering causes a decrease in social presence
Othering comes in three main forms
academic, professional, and ethical
The teacher's role is to decrease othering in online discussions
Validate both sides
Ask for differing opinions
Monitor discussions without taking over
Strategic grouping can decrease othering

6


Social presence has the potential to reduce insecurity, isolation, and discouragement (Sidiropoulou & Mavroidis, 2019).

7


Small Groups
Keeping groups small helps students feel more connected
Students often find material to be less repetitive in smaller groups
Higher order thinking occurs more in smaller groups
Groups can be built to benefit student interests
Smaller groups are easier for students to talk through their thought process
All students voices matter more in a smaller group

8

## Elements to consider

- Are interactions purposeful?
- Do interactions support learning?
- Are students learning to work together?
- Do the groups promote trust, satisfaction, and respect?
- Is critical dialog taking place?
- Are students sharing their ideas?
- Are students generating new ideas?
- Are peers respecting one another's views?

9

## References


Akcaoglu, M., & Lee, E. (2016). Increasing Social Presence in Online Learning through Small Group Discussions. International Review of Research in Open and Distributed Learning, 17(3), 1–17.

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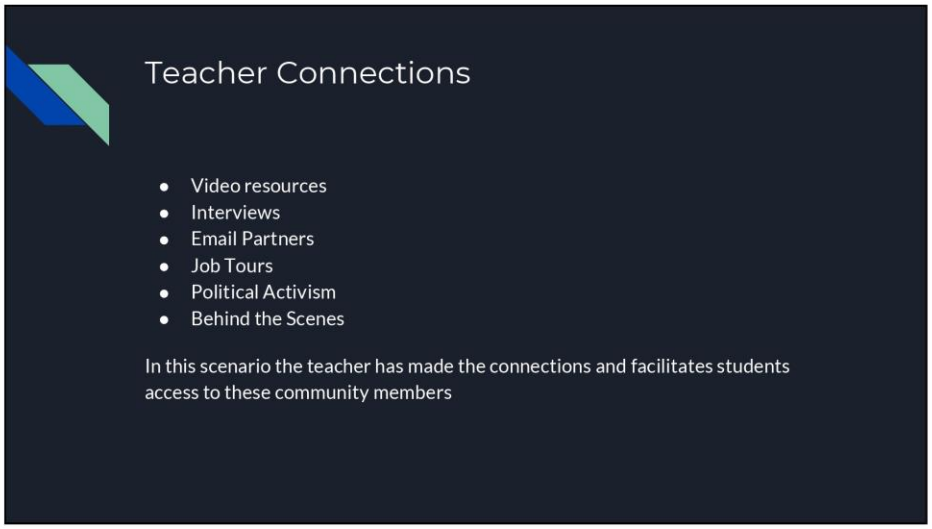
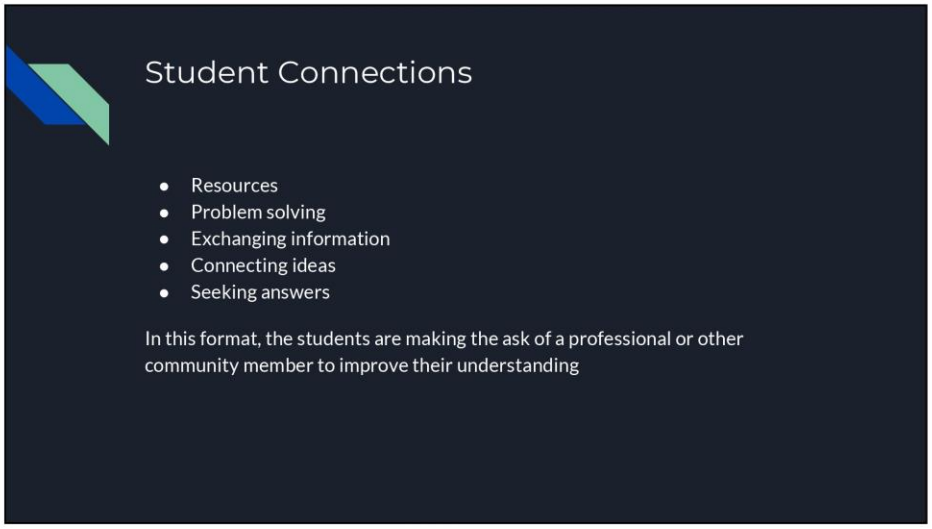
10


Community Outreach in the Classroom

1


Teacher Connections
Video resources
Interviews
Email Partners
Job Tours
Political Activism
Behind the Scenes
In this scenario the teacher has made the connections and facilitates students access to these community members

2


Student Connections
Resources
Problem solving
Exchanging information
Connecting ideas
Seeking answers
In this format, the students are making the ask of a professional or other community member to improve their understanding

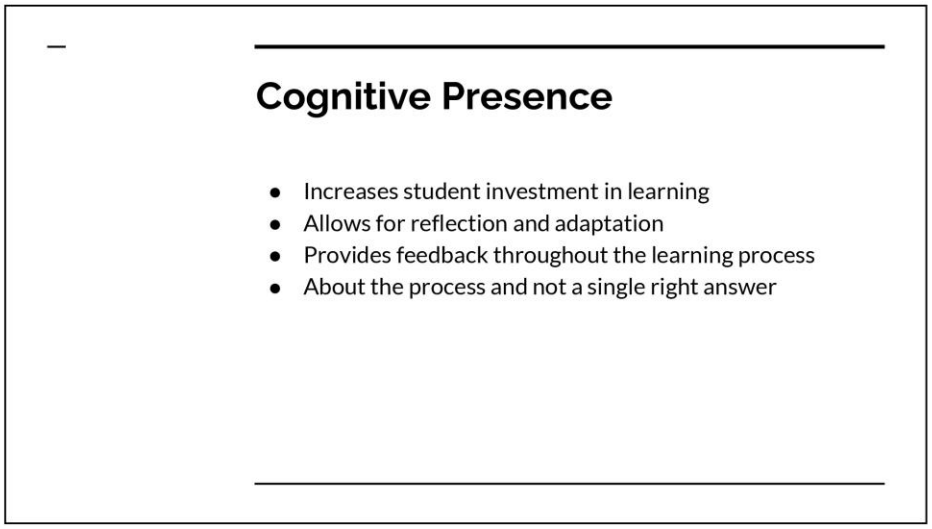
3


Real-World Application
Higher retention
Critical thinking
Problem solving
Application of content

4


Cognitive Presence

1


Cognitive Presence
Increases student investment in learning
Allows for reflection and adaptation
Provides feedback throughout the learning process
About the process and not a single right answer

2

## Cognitive Presence

- Trigger Events
- Exploration
- Integration
- Resolution

3

## Trigger Events

- Students must recognize a problem or problems
- Students must figure out what they already know and what information is missing
- Students must ask their own questions
- Students must have a role in deciding what about the problem interests them

4

## Exploration

- Students seek answers to the questions presented to them, as well as, the questions they have created
- Students discuss differences
- Students break down information
- Students discuss findings to explore opinions, facts, and findings
- Students seek answers and possible solutions

5

## Integration

- Students make connections between content and their experiences
- Students connect new ideas
- Students construct projects and presentations
- Students come up with solutions to the problem

6

## Resolution

- Students apply the new ideas
- Students evaluate the solutions
- Students reflect on the process
- Students reflect on their findings

7

## Teacher's Role

- Teachers need to model the process of inquiry for students
  - Inquiry isn't just a scientific method thing
- Teachers need to teach students how to ask questions
- Teachers need to show students how to explore ideas
- Teachers need to show students how to make connections
- Teacher need to show students how to apply new ideas

8

## Teacher's Role

- Probes must include items that will cause students to share multiple views
- Probes must require students to discuss to find a common ground or solution to the task
- Negotiating ideas is a key factor in cognitive presence and required for higher level problem solving
- Teachers must not expect one right answer

9

## References

DuBois, B., Krasny, M. E., & Russ, A. (2019). Online Professional Development for Environmental Educators: Strategies to Foster Critical Thinking and Social Interactions. Environmental Education Research, 25(10), 1479–1494. https://doi.org/10.1080/13504622.2018.1564247

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10

# Implementation of CoI

Day 2 of Training

Tara Burnham

1

## Welcome

- Please gather your materials and find a seat
- Coffee and treats are available

2

## Study Findings

- Of teacher, social, and cognitive presence, teacher presence is the most visible in instruction
- Themes
  - Students feel isolated from peers
  - Self-paced and personalized is important and successful, bur students also lie some interaction with peers
  - Current online resources are not adequate to meet learning goals
  - Most teacher interaction is in person and not online
  - Work that triggers higher level thinking is important for engagement
  - Learning outcomes are not preparing students for future application
  - Real world scenarios and examples help students relate to content and understand te application

3

## Reflection from Day 1 findings

***To be edited based on findings from Day 1 of training*

4

## CoI Review: Key Terms

- ***Blended (Hybrid) learning*:** A course in which part of the learning takes place in a brick-and-mortar location away from home and part of the learning takes place online in which student have some control over when, where, and how quickly (Horn & Staker, 2015)
- ***Community of Inquiry*:** the use of critical analysis, construction, and confirmation by a group of peers to deepen understanding of content through cognitive presence, social presence, and teacher presence (Vaughan & Garrison, 2006)
- ***Social Presence:*** Building trust and respect to facilitate open communication and group cohesion in a Community of Inquiry and to establish one's self as a real person in an online environment (Vaughan & Garrison, 2006)
- ***Teaching Presence:*** The design, facilitation, and direct instruction that creates a personally meaningful and successful learning environment in blended programs through (Vaughan & Garrison, 2006)
- ***Cognitive Presence:*** Ability to construct and apply meaning in a Community of Inquiry through problem identification, critical thinking, evaluation, exploration, integration, and application (Vaughan & Garrison, 2006)

5

## CoI Review: Teacher Presence

**Instructional Management**

- This includes things such as content structure, topic selection, and group formations
- This is an area most teachers feel comfortable with
- Many of these tools translate will from a traditional classroom

**Building Understanding**

- This includes making personal connections, sharing personal meaning, seeking consensus, and expressing agreement or disagreement

**Direct Instruction**

- This includes focusing discussions, pacing activities, answering questions, re-explaining concepts, summarizing, and modeling

This can

6

## CoI Review: Social Presence

**Emotional expression**

- This includes autobiographical narratives, establishing trust, and showing respect for each other

**Open communication**

- This includes a safe place to share, acknowledgement, encouragement, and ongoing conversation

**Group Cohesion**

- This includes encouraging collaboration, working in teams, peers helping one another, and learning from one another

7

## CoI Review: Cognitive Presence

**Trigger Event**

- This includes recognizing problems, realizing gaps in understanding, sparking curiosity, and formulating questions

**Exploration**

- This includes exchanging information, discussing differences, and seeking answers

**Integration**

- This includes making connections between concepts, constructing projects, and creating solutions

**Resolution**

- This includes applying new ideas, reflecting on solutions, and critically assessing concepts and solutions

8

## CoI Review: Othering

- Othering causes a decrease in social presence
- The teacher's role is to decrease othering in online discussions
- Strategic grouping can decrease othering

9

# Break Time

10

## Brain Break Exercise


11

## Unit Scan: Teacher Presence

Look at your unit and see how you have teacher presence built in

- Instructional management
- Building understanding
- Direct instruction

I will be looking at a sample unit and doing a think aloud to help you see the process.

12

## Small Group Breakout Session

- What do you do in person vs online?
- Why did it score best in research?
- What resources are in place?
- What do you already do for teacher presence?
- Identify an area of strength
- Identify an area that needs improvement
- Rate your teacher presence on a scale of 1-10
- What tools are currently in place for teacher presence

13

## Transfering scanning tools

We just scanned our units for teacher presence, how will we apply this to scanning for cognitive and social presence?

14

## Small Group Share Out: Self-rating for Teacher presence

1-10 with 10 being your are a rock star

You just discussed these with your small group, how do we rate ourselves?

15

# Lunch Break

16

## Small Group Share Out

- I need a volunteer to write on the poster
- Each group is going to share ideas round robin style (1 idea per group at a time) for tools currently in place for teacher presence in online classrooms

17

## Unit Scan: Social Presence

On your own, look at your unit and how you have social presence currently built in.

- Emotional expression
- Open communication
- Group Cohesion

45 minutes

18

# Break Time

19

## Small Group Breakout Session

- What do you do in person vs online?
- What resources are in place?
- What do you already do for social presence?
- Identify an area of strength
- Identify an area that needs improvement
- Rate your social presence on a scale of 1-10
- What tools are currently in place for social presence?

20

## Unit Scan: Cognitive Presence

Look at your unit, how do you have cognitive presence built in?

- Trigger events
- Exploration
- Integration
- Resolution

45 minutes

21

## Small Group Breakout Session

- What do you do in person vs online?
- What resources are in place?
- What do you already do for cognitive presence?
- Identify an area of strength
- Identify an area that needs improvement
- Rate your social presence on a scale of 1-10
- What tools are currently in place for cognitive presence?

22

## Small Group Share Out: Self-rating for Cognitive and Social Presence

1-10 with 10 being your are a rock star

You just discussed these with your small group, how do we rate ourselves?

23

## Small Group Share Out

- I need a volunteer to write on the posters
- First, each group is going to share ideas round robin style (1 idea per group at a time) for tools currently in place for social presence in online classrooms
- Then, each group is going to share ideas round robin style for tools currently in place for cognitive presence in online classrooms

24

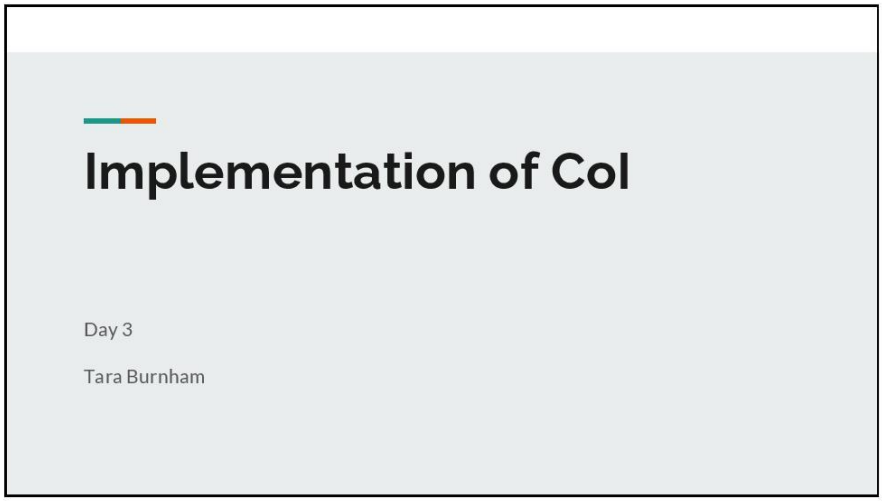
## Closing Reflection

Identify at least 3 areas of strength and 3 areas that need improvement for each area of CoI teacher presence, cognitive presence, and social presence.

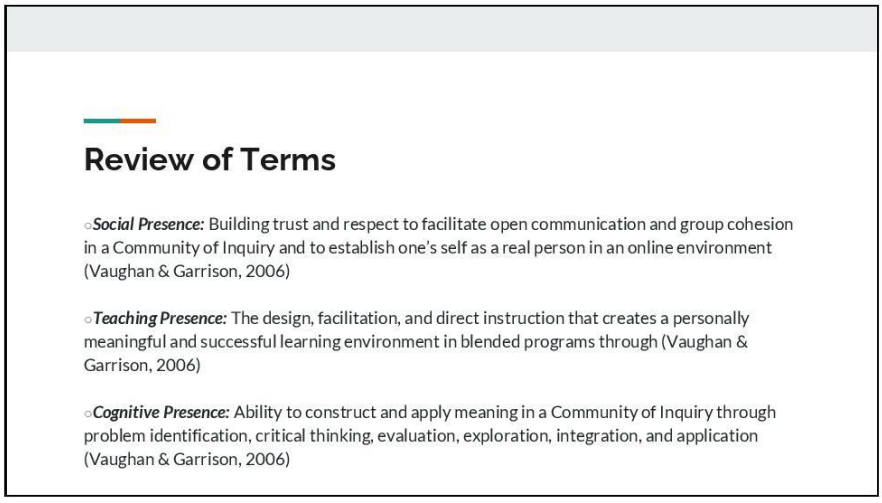
Open the Google Form and submit your day 2 exit reflection

https://forms.gle/1v2Q9Wff38wbMtn8A

25


Implementation of CoI
Day 3
Tara Burnham

1


Review of Terms
○Social Presence: Building trust and respect to facilitate open communication and group cohesion in a Community of Inquiry and to establish one's self as a real person in an online environment (Vaughan & Garrison, 2006)
○Teaching Presence: The design, facilitation, and direct instruction that creates a personally meaningful and successful learning environment in blended programs through (Vaughan & Garrison, 2006)
○Cognitive Presence: Ability to construct and apply meaning in a Community of Inquiry through problem identification, critical thinking, evaluation, exploration, integration, and application (Vaughan & Garrison, 2006)

2

## Review of CoI

- Teacher Presence: instructional management, building understanding, direct instruction
- Social Presence: emotional expression, open communication, group cohesion
- Cognitive Presence: trigger event, exploration, integration, reflection

3

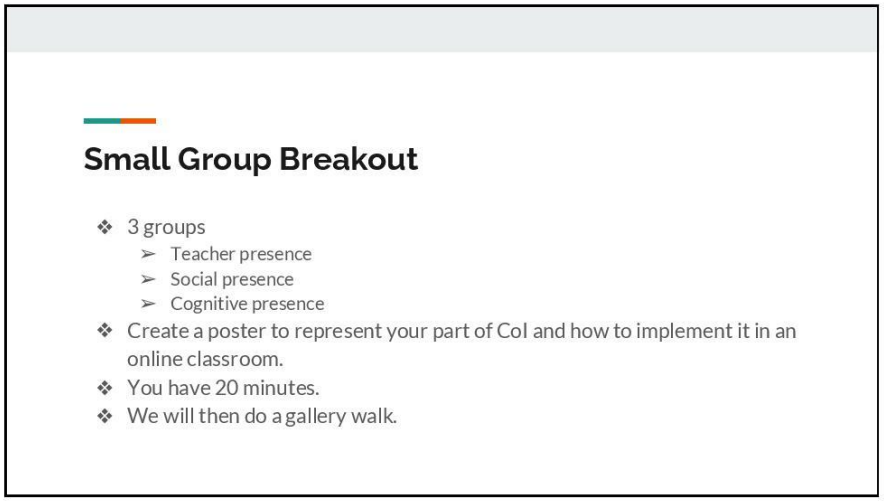
## Review of Day 2

Last time we scanned our units to see what we were currently doing.

We brainstormed about tools currently in place to help with CoI.

We also reflected on strengths and areas that need improvement.

4


Small Group Breakout
3 groups
Teacher presence
Social presence
Cognitive presence
Create a poster to represent your part of CoI and how to implement it in an online classroom.
You have 20 minutes.
We will then do a gallery walk.

5


Break Time

6

## Review of Day 2 Exit Reflection

**This will be built based on feedback from Day 2

7

## Small Group Breakout

- Pick 2 of your areas of improvement to focus on
- Discuss with the small group why this is an area you need to improve
- Have the group share possible ways to improve this area

Teachers have many tools, but sometimes we forget to share our great tools with one another.

8

**Partner Breakout**

- With a partner, look at your current unit and how you can improve it focusing on your 2 areas of need.
- Work together to brainstorm specific ideas to improve each others unit.
- Search for resource to help improve your unit to implement CoI.

9

## Group Share

- What have you learned that you can apply to other units?
- How do you think CoI will help in your classroom?
- What challenges do you see with implementing CoI in your classroom?

10

# Lunch Break

11

## Concerns

Before lunch I heard your concerns and want to discuss some of them further

**Discussion will be built over lunch based on concerns stated during group share

12

## Rebuilding Time

- Let's focus on improving a unit you have in place
- Please pull up the unit you selected to work with
- The administrators and I are here to help.

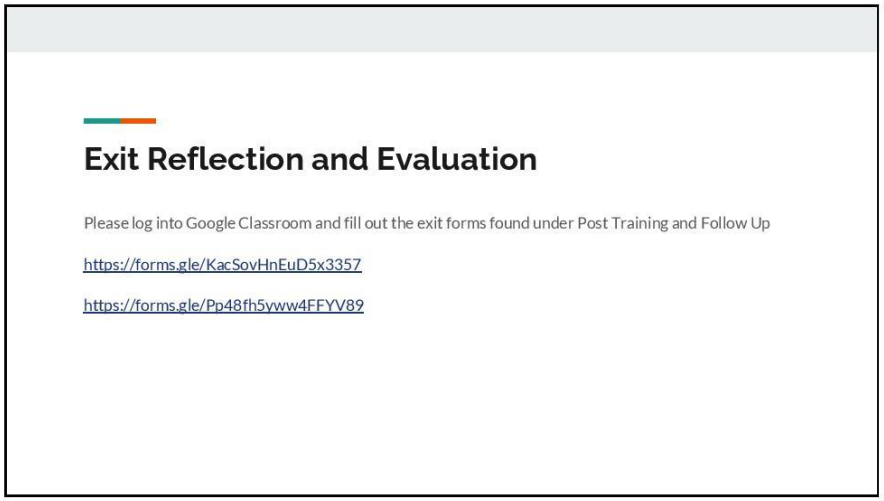
Let's spend about 1 hour working on this and asking questions.

13

## Share outs

Everyone will share about how they have modified their unit to implement CoI

14


Exit Reflection and Evaluation
Please log into Google Classroom and fill out the exit forms found under Post Training and Follow Up
https://forms.gle/KacSovHnEuD5x3357
https://forms.gle/Pp48fh5yww4FFYV89
15

# Project Evaluation Tools

## Prior Knowledge Assessment

1. Teacher presence is identified by which of the following: 5 points

*Check all that apply.*

- [ ] Instructional Management
- [ ] Building Understanding
- [ ] Emotional Expression
- [ ] Open Communcation
- [ ] Direct Instruction
- [ ] Exploration
- [ ] Trigger Event
- [ ] Group Cohesion
- [ ] Intergration
- [ ] Resolution

2. Social presence is identified by which of the following: 5 points

*Check all that apply.*

- [ ] Instructional Management
- [ ] Building Understanding
- [ ] Emotional Expression
- [ ] Open Communcation
- [ ] Direct Instruction
- [ ] Exploration
- [ ] Trigger Events
- [ ] Group Cohesion
- [ ] Integration
- [ ] Resolution

6. What do you do to get students to identify problems and gaps in their understanding? 5 points

7. How does your class link to real-world problem solving and application? 5 points

8. What do you have in place to allow for reflection of understanding? 5 points

9. Define active learning 5 points

10. How are you actively present in an online learning environment? 5 points

# Current Blended Learning Practice

1. Check all the factors that you believe are present in your online curriculum that display teacher presence

*Check all that apply.*

- [ ] Teacher explanation about online materials
- [ ] Teacher led activities that promote communication
- [ ] Teacher led activities that promote critical thinking
- [ ] Teacher interactions that promotes students to ask questions
- [ ] Assessments that align with objectives/outcomes
- [ ] Teacher presents clear objectives/outcomes
- [ ] Teacher designs meaningful objectives/outcomes
- [ ] Teachers that provide structure for the course within the online platform
- [ ] Teachers that provide support
- [ ] Other: _____

2. Check all the factors that you believe are present your online curriculum that display peer presence

*Check all that apply.*

- [ ] Curriculum that promotes problem solving with peers
- [ ] Curriculum that provides opportunity for reflection with peers
- [ ] Opportunity to work with peers to accomplish goals
- [ ] Opportunities to ask classmates questions about the content
- [ ] Opportunities to share personal connection to content with peers
- [ ] Other: _____

3. Check all the factors that you believe are present in your online curriculum that display cognitive presence

*Check all that apply.*

- [ ] Objectives/Outcomes that relate to real-world experiences
- [ ] Curriculum that promotes critical thinking
- [ ] Curriculum that promotes problem identification
- [ ] Curriculum that promotes inquiry processing to solve problems
- [ ] Curriculum that provides opportunities for reflection
- [ ] Constructing meaning from content is an ongoing process
- [ ] Opportunities to apply content to real-world situations
- [ ] Other: _____

4. Please describe/define what it means to you for students to actively participate in learning or with the online curriculum?

5. What resources do you currently have to help you implement teacher presence?

6. What resources do you currently have to help you implement social presence?

7. What resources do you currently have to help you implement cognitive presence?

# Review and Reflection

1. Social presence is building trust and respect to facilitate _____ and _____ in a Community of Inquiry. 4 points

2. Social presence is used to establish one's self as _____ in an online environment 2 points

3. Teacher presence is identified by which of the following? 6 points

*Check all that apply.*

- [ ] Instructional Management
- [ ] Emotional Expression
- [ ] Building Understanding
- [ ] Exploration
- [ ] Group Cohesion
- [ ] Direct Instruction

4. Cognitive presence is about the _____ not one set answer. 2 points

5. Feedback and reflection is important to _____. 2 points

*Mark only one oval.*

- ◯ Teacher presence
- ◯ Cognitive presence
- ◯ Social presence

6. How can you use this training to improve your teaching? 3 points

7. How could have this portion of the training been improved? 1 point

# Knowledge Assessment

1. Teacher presence is identified by which of the following: 5 points

*Check all that apply.*

- [ ] Instructional Management
- [ ] Building Understanding
- [ ] Emotional Expression
- [ ] Open Communcation
- [ ] Direct Instruction
- [ ] Exploration
- [ ] Trigger Event
- [ ] Group Cohesion
- [ ] Intergration
- [ ] Resolution

2. Social presence is identified by which of the following: 5 points

*Check all that apply.*

- [ ] Instructional Management
- [ ] Building Understanding
- [ ] Emotional Expression
- [ ] Open Communcation
- [ ] Direct Instruction
- [ ] Exploration
- [ ] Trigger Events
- [ ] Group Cohesion
- [ ] Integration
- [ ] Resolution

3. Cognitive presence is identified by which of the following: 5 points

*Check all that apply.*

- [ ] Instructional Management
- [ ] Building Understanding
- [ ] Emotional Expression
- [ ] Open Communcation
- [ ] Direct Instruction
- [ ] Exploration
- [ ] Trigger Events
- [ ] Group Cohesion
- [ ] Integration
- [ ] Resolution

4. How will you establish open communication in an online environment? 5 points

5. How will you create a persona in an online environment? 5 points

6. What will you do to get students to identify problems and gaps in their understanding? 5 points

7. How will you link your class to real-world problem solving and application? 5 points

8. What will you have in place to allow for reflection of understanding? 5 points

9. Define active learning 5 points

10. How will you be actively present in an online learning environment? 5 points

11. What is your biggest take away from this training?

12. What questions do you still have for me?

13. How could I improve this training for future groups?

# Future Contact

* Required

1. Email address *

2. Name *

3. Subject Taught *

4. Would you like to receive follow-up emails from me? *

   *Mark only one oval.*

   - ◯ Yes
   - ◯ No

5. Would you like me to check in on your progress with implementing CoI? *

   *Mark only one oval.*

   - ◯ Yes
   - ◯ No

6. Would you like added to my Google Meet Chat group? *

*Mark only one oval.*

- ◯ Yes
- ◯ No

7. Would you be interested in further training? *

*Mark only one oval.*

- ◯ Yes
- ◯ No
- ◯ Maybe

# Appendix B: Online Student Questionnaire

Blended Learning Assessment Questionnaire

How old are you?

- ☐ 18 to 21
- ☐ 22 to 30
- ☐ over 30

What blended (online with face-to-face) courses have you taken at this school?

Check all the factors that you have experienced with online curriculum in blended courses at this school that show ways teacher's input in the classroom

- ☐ Teacher explanation about online materials
- ☐ Teacher led activities promote communication
- ☐ Teacher led activities that promote critical thinking
- ☐ Teacher presence that promotes students to ask questions
- ☐ Assessment that align with objectives/outcomes
- ☐ Teacher presents clear objectives/outcomes
- ☐ Teacher designs meaningful objectives/outcomes
- ☐ Teachers that provide structure for the course within the online platform
- ☐ Teachers provide support to the learning process
- ☐ Teachers modeling leads students to ask questions

- ☐ Other (please specify)

Check all the factors that you have experienced with online curriculum in blended courses at this school that display group cohesion

- ☐ Curriculum that promotes problem solving with peers
- ☐ Curriculum that provides opportunity for reflection with peers
- ☐ Opportunity to work with peers to accomplish goals
- ☐ Opportunities to ask classmates questions about the content
- ☐ Opportunities to share personal connection to content with peers

Other (please specify)

Check all the factors that you have experienced with online curriculum in blended courses at this school that display cognitive presence

- ☐ Objectives/Outcomes that relate to real-world experiences
- ☐ Curriculum that promotes critical thinking
- ☐ Curriculum that promotes problem identification

- Curriculum that promotes inquiry processing to solve problems
- Curriculum that provides opportunity for reflection
- Students use a knowledge-building process to learn how to learn
- Online inquiry is used to process information and construct meaning
- Constructing meaning from content is an ongoing process
- Opportunities to apply content to real-world situations
- Other (please specify)

Check all the factors that you have experienced with online curriculum in blended courses at this school related to the curriculum and instruction

- Assessment align with objectives/outcomes
- Objectives/outcomes are meaningful and clearly defined
- Objectives Outcomes that relate to real-world experiences
- Curriculum that provides opportunity for reflection
- Use of personal experience to relate to curriculum
- Course requires students to interact with the content
- Students are asked to construct meaning from content

Other (please specify)

Which factors above helped you to participate in your learning within the online, blended curriculum?

Which factors above made it difficult for you to participate with the online, blended curriculum?

How satisfied are you with the implementation of blended curriculum at this school?

- Very satisfied
- Satisfied
- Neither satisfied nor dissatisfied
- Dissatisfied
- Very dissatisfied

Please describe/define what it means to you to actively participate in learning or with the online curriculum?

Approximately how much time are/were you actively participating with online curriculum in blended courses?

- 90+ % of the time
- 75-90% of the time
- 60-75% of the time
- less than 60% of the time
- less than 50% of the time

# Appendix C: Online Teacher Questionnaire

Blended Learning Assessment Questionnaire

How long have you been teaching?

a. 1-4 years
b. 5-10 years
c. Over 10 years

What blended (online with face-to-face) coursed have you taught at this school?

Check all the factors that you believe are present in the current online curriculum in blended courses at this school that show ways teacher's input in the classroom

- ☐ Teacher explanation about online materials
- ☐ Teacher led activities that promote communication
- ☐ Teacher led activities that promote critical thinking
- ☐ Teacher interactions that promotes students to ask questions☐
- ☐ Assessment that align with objectives/outcomes
- ☐ Teacher presents clear objectives/outcomes
- ☐ Teacher designs meaningful objectives/outcomes
- ☐ Teachers that provide structure for the course within the online platform
- ☐ Teachers that provide support

Other (please specify)

Check all the factors that you believe are present in the current online curriculum in blended courses at this school that display group cohesion

- ☐ Curriculum that promotes problem solving with peers
- ☐ Curriculum that provides opportunity for reflection with peers
- ☐ Opportunity to work with peers to accomplish goals
- ☐ Opportunities to ask classmates questions about the content
- ☐ Opportunities to share personal connection to content with peers

Other (please specify)

Check all the factors that you believe are present in the current online curriculum in blended courses at this school that display cognitive presence

- ☐ Objectives/Outcomes that relate to real-world experiences
- ☐ Curriculum that promotes critical thinking

- Curriculum that promotes problem identification
- Curriculum that promotes inquiry processing to solve problems
- Curriculum that provides opportunity for reflection
- Constructing meaning from content is an ongoing process
- Opportunities to apply content to real-world situations

- Other (please specify)

Check all the factors that you believe are present in the current online curriculum in blended courses at this school related to the curriculum and instruction

- Assessment align with objectives/outcomes
- Objectives/outcomes are meaningful and clearly defined
- Objectives Outcomes that relate to real-world experiences
- Curriculum that provides opportunity for reflection
- Use of personal experience to relate to curriculum
- Course requires students to interact with the content
- Students are asked to construct meaning from content
- Other (please specify)

In what ways do you feel online curriculum enhances learning outcomes?
How satisfied at you with the blended learning curriculum at this school?

Very satisfied
Satisfied
Neither satisfied nor dissatisfied
Dissatisfied
Very dissatisfied + -

Please describe/define what it means to you for students to actively participate in learning or with the online curriculum?
Approximately how much time do you believe students actively participate with online curriculum in blended courses?

a. 90+ % of the time
b. 75-90% of the time
c. 60-75% of the time
d. Less than 60% of the time

## Appendix D: Semi structured Interview Questions for Students

The interview questions were based off elements of blended learning best practices associated with blended learning as outlined by Garrison and Vaughan (2008) and Communities of Inquiry outlined by Vaughan and Garrison (2006) and Garrison et al. (2000). Some questions were adapted from the teacher questionnaire presented by Garrison and Vaughan (2008) to make them applicable to student experiences. The interview questions were used to guide the interview but were not followed in order or asked verbatim during all semi structured interviews.

1. How long have you been attending this school?
2. In your questionnaire you stated that active participation was _____. Please elaborate on that.
3. Tell me more about the blended courses you have taken.
4. How do you divide your work load between class time and outside time?
    a. Do you work on your virtual curriculum outside of the school?
    b. Do you have certain tasks you try to complete while at school? What?
    c. How often do you access the online content?
5. How do you view online curriculum in blended learning courses?
    a. In your questionnaire you said __ about the factors that enhance learning during online curriculum. Please elaborate on that.
    b. In your questionnaire you said _ about the factors that constrain learning during online curriculum. Please elaborate on that.

6. How do you think curriculum and instruction impacts the way students interact with learning?
7. What is the community of inquiry culture in your blended learning program?
    a. Group Cohesion
        i. How do you participate in group work?
        ii. How are you able to deepen your understanding through communication with classmates?
    b. Teacher presence
        i. How do your teachers help you engage in digital curriculum?
        ii. How often do you interact with your teacher?
        iii. Does your teacher communicate with you in the virtual aspects of the course?
    c. Community presence
        i. What Networking opportunities exist?
        ii. How is content applied in the community?
        iii. How are professionals in the community used to present content?
        iv. How are real-world situations incorporated into the curriculum and instruction?

13. How would you like to see online curriculum changed to help enhance learning and participation in blended programs?

14.How does the curriculum relate to real world situation?

15. What features of the online curriculum are most engaging?

a. Why?

16. What features of the online curriculum are least engaging?

a. Why?

## Appendix E: Semi structured Interview Questions for Teachers

The teacher interview questions were based off elements of blended learning best practices associated with blended learning as outlined by Garrison and Vaughan (2008) and from Communities of Inquiry outlined by Vaughan and Garrison (2006) and Garrison et al. (2000). Some questions were adapted from the teacher questionnaire presented by Garrison and Vaughan (2008). The interview questions were used to guide the interview but were not followed in order or asked verbatim during all semi structured interviews.

1. How long have you been taught at this school?
2. What does online, blended curriculum mean to you?
3. In your questionnaire you stated that active participation was _____. Please elaborate on that.
4. Tell me more about the blended courses you have taught.
5. How often do you think most students are actively participating with the online curriculum?
    a. What does active participation look like in your class?
    b. What activities do you provide for students to actively participate?
6. What actives are inherent in the course sell to promote social presence, cognitive presence, and teaching presence?
    a. How do you enhance these elements in your class?
7. What is the community of inquiry culture in your blended learning program?
    a. Peer presence
        i. How do students participate in group work?

ii. Are students able to deepen their understanding through communication with classmates?

b. Teacher presence

i. How do you help students engage in digital curriculum?

ii. How often do you interact with your students?

iii. How do you communicate with students in the virtual aspects of the course?

d. Community presence

i. What networking opportunities exist?

ii. How is content applied in the community?

iii. How are professionals in the community used to present content?

iv. How are real-world situations incorporated into the curriculum and instruction?

13.How would you like to see online curriculum changed to help enhance learning and participation in blended programs?

14.How does the curriculum relate to real world situations?

15. What features of the online curriculum are most engaging?

a. Why?

16. What features of the online curriculum are least engaging?

a. Why?

17. What part of the curriculum is provided for you and what parts do you create as the teacher?

18. How do you implement Communities of Inquiry in your blended courses?

Appendix F: Observation Checklist

The observation checklist was created using elements of blended learning best practices from Garrison and Vaughan's (2008) Blended Learning Model including Communities of Inquiry which has three main elements: teacher presence, social presence, and cognitive presence (Vaughan & Garrison, 2006). Each element was observed by various activities and indicators. I looked at general curriculum, instruction, and assessment indicators that help promote learning. Observations took place in participating teachers' classrooms. No notes were made about specific students or with identifying characteristics. Observations looked at the curriculum and instruction and how it relates to blended learning best practices.

# Classroom Observation Checklist

Teachers name
Content area
Date

1. Teacher Presence

☐ Teacher explains online materials
☐ Teacher promotes communication
☐ Teacher promotes students asking questions
☐ Teacher provides support to go along with online instruction
☐ Teacher interacts with students

2. Social Presence

☐ Student work together to accomplish goals
☐ Students ask one another questions
☐ Students work together to solve problems
☐ Opportunities to look at and address real-world situations are present
☐ Opportunities to see how curriculum relates to the community are available
☐ Students have the opportunity to interact with their learning environment
☐ Students are actively participating in the learning community

4. Cognitive Presence

☐ Students recognize problems
☐ Students identify gaps in understanding
☐ Students participate in reflection activities
☐ Students formulate and ask questions
☐ Students demonstrate a knowledge-building process
☐ Students participate in constructive and collaborative activities
☐ Students use online inquiry to process information and construct meaning
☐ Students apply new ideas
☐ Students create solutions

5. Curriculum, Instruction, & Assessment

☐ Activities that require students to solve problems are present in the curriculum
☐ Curriculum provides opportunities for reflection
☐ Curriculum requires students to construct meaning from the content
☐ Assessments align to outcomes
☐ Curriculum relates to real-world experiences
☐ Students express personal connections to the curriculum during discussions
☐ Curriculum provides clear expectations and outcomes
☐ Instruction requires students to apply content to real world situations

5. Other Narrative Notes

# Appendix G: Audit Trail

September 25, 2019 – Approval from school administration to begin research
September 26, 2019 – Requested potential participant contact information from administration
September 30, 2019 – Received list of potential teacher participants
October 15, 2019 – Letter sent to potential teacher participants
October 23, 2019 – Informational meeting for teachers
October 23, 2019 – Received contact for potential student participants
October 23, 2019 – Letter sent to potential student participants
October 30, 2019 – Informational meeting for students
October 30, 2019 – Emailed questionnaire to participants who had signed up so far
November 8, 2019 – Began looking at initial questionnaire responses
November 8, 2019 – Began contacting participants to schedule interviews
November 14, 2019 – Began Conducting Interviews
November 20, 2019 – Began transcribing interviews

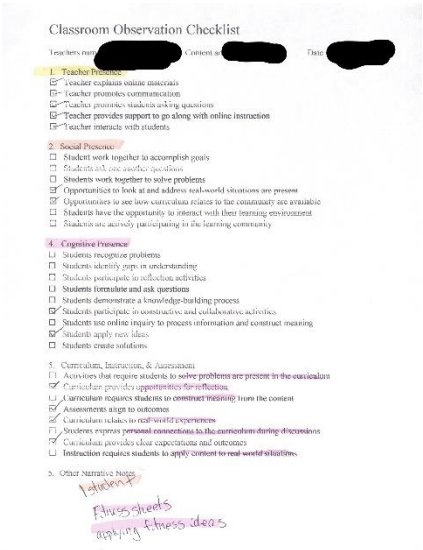
- Example from a student interview:
    - Interviewer: So, what do you think about this format enhances or helps you learn opposed to the traditional classroom?
    - Participant: The classroom setting like stresses me out. And I lose focus really easily, with this, I can pause it, go get a drink of water without like interrupting. But stand up and walk around without anything. So, it just makes it easier to learn.
    - Interviewer: So, you can take breaks as you need to not as a whole class. So, is there anything about this curriculum that makes it harder for you to learn?
    - Participant: Just how fast a talker. I can't keep up with notes.
    - Interviewer: Can you go back and like rewatch stuff?
    - Participant: Like after you watch the whole video all the way through then you can go through and rewatch certain points of it.
    - Interviewer: But you have to watch it once clear through?
    - Participant: Yeah
    - Interviewer: What do you think about the curriculum and instruction? Does the way you get that curriculum impact the way you actually interact with the materials?
    - Participant: Depending on what it is it's kind of confusing for them. Also, easier to understand.
    - Interviewer: And what did your teacher do to help you understand that piece?
    - Participant: Um, they try to explain it in like different ways where like connected to like things that I would run into the real world.

- Interviewer: Do you get to work with classmates at all or is it more one on one?
- Participant: We could work with classmates, like if there's someone else taking the same course you can kind of work together and bounce ideas off work, but like, I'm taking a different course, my friends, of course, and she gets stuck and I know it I can help her.

November 27, 2019 – Began highlighting transcripts using the a priori codes

- Teacher Presence – highlighted in yellow
  - Example from a teacher interview: "I think the way it's going is that it means that some of the teaching is being done by something on technology rather than a live human."
- Social Presence – highlighted in orange
  - Example from a student interview: "I'm personally going to learn better if there's better interaction, there are people involved"
- Cognitive Presence – highlighted in pink
  - Example from a student interview: "It would be great if I could learn something that was going to apply to my current situation"

December 4, 2019 – Began conducted observations



Classroom Observation Checklist

Teacher's name [redacted] Content a[redacted] Date [redacted]

1. Teacher Presence
- ☑ Teacher explains online materials
- ☑ Teacher promotes communication
- ☑ Teacher promotes students asking questions
- ☑ Teacher provides support to go along with online instruction
- ☑ Teacher interacts with students

2. Social Presence
- ☐ Student work together to accomplish goals
- ☐ Students can use emoji's/gif/etc.
- ☐ Students work together to solve problems
- ☑ Opportunities to look at and address real-world situations are present
- ☑ Opportunities to see how curriculum relates to the community are available
- ☐ Students have the opportunity to interact with their learning environment
- ☐ Students are actively participating in the learning community

4. Cognitive Presence
- ☐ Students recognize problems
- ☐ Students identify gaps in understanding
- ☐ Students participate in reflection activities
- ☐ Students formulate and ask questions
- ☐ Students demonstrate a knowledge-building process
- ☑ Students participate in constructive and collaborative activities
- ☐ Students use online inquiry to process information and construct meaning
- ☑ Students apply new ideas
- ☐ Students create solutions

5. Curriculum, Instruction, & Assessment
- ☐ Activities that require students to solve problems are present in the curriculum
- ☑ Curriculum provides opportunities for reflection
- ☐ Curriculum requires students to construct meaning from the content
- ☑ Assessments align to outcomes
- ☑ Curriculum relates to real-world experiences
- ☐ Students express personal connections to the curriculum during discussions
- ☑ Curriculum provides clear expectations and outcomes
- ☐ Instruction requires students to apply content to real-world situations.

6. Other Narrative Notes
Student
Fitness sheets
applying fitness ideas

January 9, 2020 – Finished conducting interviews – 8 total
January 13, 2020 – Finished conducting observations – 5 total
January 13, 2020 – Contacted new semester of potential student participants
February 7, 2020 – Attempted to get more student participants
February 23, 2020 – Sub-coded text based on framework

- Teacher Presence: instructional management, building understanding, & direct instruction

    - Instructional management – Teacher example: “There’s no discussions. I left essays in. I know when James built his courses, he took essays out, but I left them in.”
    - Building Understanding – Teacher example: “the goal of not just knowing those facts, but then being able to then have a conversation with an airplane professional, so that they can then be an edge, so they could have educated the questions when they talk to them”
    - Direct Instruction – Teacher example: “I don’t think Edgenuity is very good. I think the language is too academic for our demographic. I don’t think I could explain some of the concepts they explained in the math as convolutedly as they do if I tried.”
- Social Presence: emotional expression, open communication, & group cohesion
    - Emotional Expression – Teacher example: “The student will be a little more willing to raise their hand, ask questions, feel more comfortable with the teacher, you know, if you’re hiding behind the desk.”
    - Open Communication – Student example: “There’s no discussions.”
    - Group Cohesion – Student example: don’t want to appear like you’re behind to the class or you’re holding up the class.
- Cognitive Presence: trigger events exploration, integration, & resolution
    - Trigger Events – Teacher example: “I use a variety of pieces of information, I’m able to pull in video snippets, I’m able to pull in height, I’m able to crank up interest level where there may not have been in content because I can do something that’s relevant.”
    - Exploration – Teacher example: “You can do activities and stuff like that if you need to, or labs or projects or whatever but I think so he communicated better”
    - Integration – Student example: “it kind of refrains the question a little bit so you have to think about your answer and how you’re going to put that together and that’s what I was thinking of when I answered was more.”
    - Resolution – Teacher example: “having authentic tasks in front of students that are not that are not just mimicking sort of things but are like real genuine experiences and until we actually bridge that gap. I think that’s that’s always going to be”

February 24, 2020 – Began putting coded chunks into an excel spreadsheet and broke them down based on the parts of each a priori code identified in the framework

    - Teacher Presence: instructional management, building understanding, & direct instruction

- Social Presence: emotional expression, open communication, & group cohesion
- Cognitive Presence: trigger events exploration, integration, & resolution

March 1, 2020 – Began sending member checking emails
March 13, 2020 – Began third level coding looking for common patterns among the 1st and 2nd level codes in teacher and student interviews. Began identifying missing and present elements to answer research questions.

- Teacher Presence – Examples: Content, Boring, Frustrated, Individualized
- Social Presence – Examples: Shame, Isolation, Different Classes, Student Preparation
- Cognitive Presence – Examples: Problem defining, problem solving, application, asking questions

April 20, 2020 – Began drafting data analysis results based on findings from questionnaires, interviews, and observations

# Appendix H: Coding Chart With Examples

| A Priori Codes | Sub a priori codes (Second Level Codes) | Third Level Codes | Example |
|---|---|---|---|
| Teacher Presence | Instructional management | Own Pace | your own pace but if you get stuck, the teachers, right there to help you |
| | | Locked Work | Sometimes, everything's locked, so there's not a lot that I can do, |
| | | Reviewing | watch the whole video although it or you can go through and rewatch certain points of it. |
| | | Hard to Follow | unnecessary rambling (in online videos) |
| | | Redundant | this is primarily video, test |
| | | Interactions | The student will be a little more willing to raise their hand, ask questions, feel more comfortable with the teacher, you know, if you're hiding behind the desk. |
| | | Goal of Education | Change the goal of education that's how we teach the system, which has been a question. |
| | | Online tools | monotony of vocab, instruction, online content |
| | Building understanding | Boring | Khan Academy is boring, but it's not bad. |
| | | Clarification | you talk through anything that is confusing you |
| | | Individualized | I want you to go away with some information about aeronautics, the field is plenty big enough to have 25, different questions, and you can, you know, delve deep into what you care about. |
| | | Inquiry | the goal of not just knowing those facts, but then being able to then have a conversation with an airplane professional, so that they can then be an edge, so they could have educated the questions when they talk to them |
| | | Real World | real world piece? Yeah, I don't have enough of that for my students. So, I think what my goal was to really create this structure of saying, Here's content and I have yet to have the chance to really go and build the application piece. |
| | | Irrelevant | it feels like it's very focused on a male athlete |
| | Direct instruction | Hard to Follow | fast talker, can't keep up with like notes |
| | | Face-to-face interactions | only interact with in person |
| | | Clarification | Watch the video and then explain where I got confused |

| | | | |
|---|---|---|---|
| | | Academic Language | I don't think ingenuity is very good. I think the language is too academic for our demographic. I don't think I could explain some of the concepts they explained in the math as convolutedly as they do if I tried. |
| | | Supplemental | well like using ingenuity for the instruction part of it. And then, building on that by using supplementary stuff, such as labs or papers or any of those kind of things. |
| | | Redundant | watch a video answer question it's a little bit of reading regurgitate or listen to regurgitate, anything that's going to do more than that. |
| | | Reflection | I think that's the role of a teacher is to help the student reflect. |
| Social presence | Emotional Expression | Talking | she's constantly just talking to everybody all the time. Which is a good thing. |
| | | Success | We need to redefine success. |
| | | Community | we went out into the community |
| | Open communication | Preparing students | School is all about how to prepare the student so they can make that engagement |
| | | Asking Questions | Very rarely once in a while a student will know that somebody else was in there and ask questions about it or something that |
| | | Worried about confusing others | I don't want to confuse them either so I try to avoid helping them but if they do need help and I feel I can I try to. |
| | | Little to no discussion | There's no discussions |
| | | Better when students share | I think you can understand it better when the students |
| | Group cohesion | Taking risks | This is a time, no school is the time to figure things out and to risk, doing things that you don't know in a safe place. |
| | | Labs together | well sometimes you have labs. Now, which then you do work with another student which is nice that it doesn't feel so much on you and stuff and you can have someone else that if you don't understand one aspect of the lab, they might, or you can work together to figure it out. |
| | | Isolation | completely separate |
| | | Inconvenient | I can ask questions or take a break without inconveniencing others |

| | | | |
|---|---|---|---|
| | | Different course / lessons | We could work with classmates, like if there's someone else taking the same course you can kind of work together and bounce ideas off work, like, I'm taking a different course, my friends, of course, and she gets stuck and I know it I can help her. |
| | | Breaks as needed | I can pause it, go get a drink of water without like interrupting |
| | | Project based | |
| | | Personalized | variety of pieces of information, I'm able to pull in video snippets, I'm able to pull in height, I'm able to crank up interest level where there may not have been in content because I can do something that's relevant. |
| | | Asking Questions | learning how to ask good questions |
| | Trigger events | Problem defining | And I would say problem solving. Problem defining know that piece of you know what, again, urban growth. Why do we care that we're building apartments? |
| | | Critical thinking | Critical thinking and problem solving, not rote memorization |
| | | No Inquiry | No inquiry based asking questions, formulating any thoughts or opinions |
| | | Real World Problems | Getting them to register to vote, get on websites for their electors, visiting the hot spots and becoming active. |
| Cognitive presence | | Reading/Watching for understanding | look at an online content you actually read for it you don't just scan for specific words or anything you actually try to understand |
| | | Abstract ideas | I talk about how we're all basically mathematical. I talked about the idea that math is hard because it's an abstraction rather than concrete, but that we are a society that abstracts. |
| | | Sort of listening | (During video lectures) students start playing on the phones or closing their eyes |
| | | Engaging with content | [Online content] pretty engaging and most students seem to take a lot more time doing that [the virtual labs] just because they're either messing with it or just trying different things out and I mean that's pretty good. |
| | | Self-paced | They really feel like they can be successful by moving through at their own pace and like and then and then being you know, and then being able to ask for that, you know, the problem solving when it's there. |

| | | |
|---|---|---|
| | Network | Being able to sort of access experts that are our global, and then have that guided by a teacher in some general lecture conversation |
| | Not prepared for what is next | But that's not really preparing you for what's next that that collaboration, that communication, that connection that can come from that problem solving will help you more than just the content. |
| Integration | Problem solving | with the whole idea of right information and wrong information this one I want the kids to know the paperwork is ok so now I know this, what am I going to do. |
| | Application | the goal of not just knowing those facts, but then being able to then have a conversation with an airplane professional, so that they can then be an edge, so they could have educated the questions when they talk to them |
| | Connections | connected to like things that I would run into the real world. |
| | No reflection | There is no journals, there's there's an activity log but that's not related to the video that's just something that, that (the teacher) gave me that I need to put I need to log my time working out. |
| | Current events | analysis of current issues looking at movements and markets, looking at data analysis. |
| | Making predictions | What kind of prediction or what do you, what are you going to do for the future with that information. |
| | Adult Learners are different | I don't see what we do at night of having guest speakers and that kind of stuff. That's not what kids are here for. |
| Resolution | Change the goal | Change the goal of education that's how we teach the system, which has been a question. I've been asking for a very long time. It's what do you want your graduates to look like, what it what is our end goal, to me, is much more powerful angle, a student who has learned how to learn along the motto, learn to love to learn. |
| | Personal interest/benefit | actually, see the benefits of it rather than just reading about the benefits, so you can actually see them in action. |
| | Repeatable skills | skills that can keep getting repeated. |

| | |
|---|---|
| Applying ideas | it would be great if I could learn something that was going to apply to my current situation, you know i mean i get that pe's important. |
| Authentic tasks | real world piece? Yeah, I don't have enough of that for my students. So, I think what my goal was to really create this structure of saying, Here's content and I have yet to have the chance to really go and build the application piece |
| Goal Driven | by the time we get these young adults they are going in specific directions. |
| Learning strategies | I've given them a strategy on how to solve whatever to whatever they want to solve. |