

THE LEARNING EXPERIENCES OF STUDENTS IN A FACE-TO-FACE  
LEARNING ENVIRONMENT COMPARED TO AN ONLINE LEARNING  
ENVIRONMENT

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by

Julie Anne Gatlin

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## ABSTRACT

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The purpose of this study was to explore high school students' and teachers' experiences and perceptions of effective online learning compared to a face-to-face learning environment. A great deal of evidence exists showing that no significant difference should be expected regarding a well-designed online learning environment compared with well-designed in-person learning environment (Clark, 1983). Significant differences still exist in the way students perceive their online experiences during learning (Paul & Jefferson, 2019). Districts offer online courses because it is considered to be more cost-effective. For example, online courses allow districts to eliminate the need for additional physical space (Krafcik 2010; Olster, 2010).

This was a mixed methods study that included a single subject case study that examined the experiences and perceptions of one high school teacher. Data instruments include a student survey using a 5-point Likert Scale that measures teacher presence, social presence, and cognitive presence. A teacher survey consisted of ten open-ended questions on the planning and delivery of the online course and traditional face-to-face course. The survey aligns with student responses from interviews and focus group discussions. The researcher was the primary instrument for data collection and analysis.

This study pointed out important differences in the student-teacher relationship between online and face-to-face instruction. It was concluded that important differences between the two modalities were found regarding the teachers' perceptions of the

students and regarding ways that the teacher and students communicated. These findings deepen the understanding of the teacher-student relationship in online learning, as compared to face-to-face learning. These findings could assist in thinking of ways to promote better student-teacher relationships in online teaching.

**KEY WORDS:** Online learning environment, Face-to-face learning environment, Learning management system, Teacher presence, Social presence, Cognitive presence, Student perception, Teacher perception.

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## **CHAPTER I**

### **Introduction**

As the popularity of the Internet grows, so does the potential for online learning. Online learning has been on the rise in the United States since the early nineties (Muilenburg & Berge, 2005). According to the Evergreen Education Group (2015), there are many public schools at the secondary level that are offering online courses for high school credit. Newman, Couturier, and Scurry (2004) estimated that over time the traditional face-to-face class and the online class will look more alike to the student. Both will use technology, command active learning, student-centered communication, and feature instructors as facilitators.

There were over 1.3 million high school students enrolled in distance education courses in 2009-2010, an increase of over 1 million enrollments from 2004-2005 when there were just over 300,000 enrollments (National Center for Education Statistics, 2003). Online learning has steadily become a more integral strategy for schools and districts in their efforts to offer students greater access to the courses they need (Evergreen Education Group, 2015).

#### **Purpose of the Study**

The purpose of this study is to explore high school students' and teachers' experiences and perceptions of effective online learning compared to a face-to-face learning environment. A great deal of evidence exists showing that no significant difference should be expected regarding a well-designed online learning environment compared with well-designed in-person learning environment (Clark, 1983). Significant differences still exist in the way students perceive their online experiences during

learning (Paul & Jefferson, 2019). Districts offer online courses because it is considered to be more cost-effective. For example, online courses allow districts to eliminate the need for additional physical space (Krafcik 2010; Olster, 2010).

Student readiness for online learning can be a concern of teachers. According to Collins (2002), successful students for K-12 online courses should be able to prioritize work, balance the demands of online coursework with other activities, have the ability to work independently, approach online courses with the same commitment and motivation as a traditional classroom, be able to dedicate eight to ten hours a week for each online course, and reserve a class period a day for online coursework. The online learning environment requires students to take responsibility for their learning (Wood, 2005).

## **Background**

Institutions are making decisions to invest in online learning programs despite the many questions about the online learning environment (Virtual Schooling, 2002). Prior to making these decisions, institutions need to identify characteristics and behaviors that enable students to be successful in an online learning environment. Too often, ideas regarding the implementation of class strategies, specifically for an online environment, is often improvised. Students find themselves in online classes at times for questionable reasons (Feeler, 2012).

Educational systems are under increasing pressure to reduce costs while maintaining and improving outcomes for students. To improve educational experiences many school districts are turning to online learning because online learning has the ability to serve a greater number of secondary students. Therefore, it is essential to understand

whether online learning is equal or more productive than other forms of instruction (Bakia, 2012).

In North America, distance education for secondary students is seen as a solution to several educational problems, including crowded schools, a shortage of secondary courses for remedial or accelerated students, a lack of access to qualified teachers in local schools, and the challenge to accommodate students who need to learn at a pace or in a place different from a school classroom (Cavanaugh & Clark, 2007). The convenience of learning online can also provide educational opportunities for more learners who have difficulty coming to campus or attending during the times of a normal school day, which leads to the catch phrase “anytime and anywhere” (Berge, 1997). This means that students would have access to their courses 24 hours a day, as long as they have access to the Internet and the appropriate technology/devices.

Distance education has historically contained little or no learner-learner interactions (Borup, 2016). Distance learning began in 1837 when Sir Isaac Pitman began delivering shorthand courses by mail (Matthews, 1999). When K-12 distance education programs began in the 1920s, learning materials were mailed to students who then mailed the completed work back to the instructor for grading (Clark, 2007). But by the 1990s a new generation of computer-based instruction was being delivered over networks (Moore & Kearsley, 2005). The Internet’s combination of text, graphics, audio, and video would be used to form what is now referred to as online learning. Dabbagh and Bannon-Ritland (2005) defined online learning as an open and distributed learning environment that uses pedagogical tools, enabled by the Internet and web-based technologies to facilitate learning and knowledge building through meaningful action and

interactions. Since 1997, virtual schools have been the early pioneers in providing online learning options to K-12 schools to supplement a student's learning in the traditional classroom setting (Evergreen Education Group, 2015).

The pedagogy of online learning has been the subject of concerns at every level of education. Educators express concerns and perceptions that online learning is not as effective as face-to-face instruction. These concerns related to the student's motivation and maturity levels, study habits, and organizational skills, as well as their academic preparedness (Bakia, 2012). Regardless of the concerns, the decision to embrace online learning has been made and the vast majority of schools are moving forward with their programs and looking to expand them in the future. Online learning is seen as an opportunity to broaden and expand student experiences. It allows students looking for more advanced work to test and challenge their skills by taking more demanding courses. Due to the COVID-19 pandemic of 2020 many school districts turned to providing students with more online learning opportunities.

### **Model of Inquiry**

This study used a Straussian Grounded Theory and Active Interviewing to guide in collecting and coding of interview data in order to identify emerging categories and generate a substantive theory. Straussian grounded theory model was first developed by Glaser and Strauss (1967) and later improved by Strauss (1987). This method is described as a two-fold method to maximize the discovery process and to generate a theory mapped closely to the data. It is aimed at improving research by linking theory and data more thoroughly. Its purpose is to introduce rigorous new methods of qualitative research that will enable systematic collection of data, coding, and analysis of data

(Feeler, 2012). A grounded-theory approach is well suited to an exploration of student perceptions because of its appreciation for and attention to the data.

The Active Interviewing Model, developed by Holstein and Gubrium (1995), has the purpose of creating a “conceptual sensitizing device” to enable interviewers as researchers to capture both the “how’s” of social process and the “what’s” of experience. It is a collaborative conversation in which both interviewer and respondent engage in making meaning of what is being said and turn their attention to what that means (i.e., the content). In Active Interviewing Sunstein and Chiseri-Strater (2012) recommended three important approaches to interviewing: (a) expecting the unexpected, (b) asking a limited number of closed questions to gain insights into the respondents and their backgrounds, and (c) asking primarily open questions during the interview itself.

### **Statement of the Problem**

Online learning has roots in the tradition of distance education, which goes back at least 100 years to early correspondence coursework (Matthews, 1999). With the potential for reaching learners around the world increasing greatly, today’s online learning offers rich educational resources in multiple media formats and can support synchronous and asynchronous communication between teachers and students. According to Collins (2002), appropriate students for K-12 online courses should be able to prioritize work, balance the demands of online coursework with other activities, have the ability to work independently, approach online courses with the same commitment and motivation as face-to-face classes.

The basis of effective online learning is comparable to the foundation of effective learning in general. Effective online instruction depends on learning experiences



appropriately designed and facilitated by knowledgeable educators (Gayton & McEwen, 2007). Learning online can be especially challenging because students need to simultaneously learn both the course content and how to learn online (Lowes & Lin, 2015), although, students can assist each other in the development of skills, and knowledge with or without the teacher's direction.

In a face-to-face classroom, an engaging environment needs to be established early, consistently maintained, and sustained through positive interactions that build trust and promote student involvement in higher-level learning (Meyer & Turner, 2006). A common element for learning in a typical classroom environment is the social and communicative interactions between student and teacher, and student and student (Picciano, 2002). Teachers focus on creating an environment in which all students feel a sense of belonging, but the question persists as to what that looks like in an online environment. Few studies have focused on learner satisfaction with online instruction; particularly the transitions to online learning from traditional approaches (Smart & Cappel, 2006).

According to Boekaerts (2008), most studies of online programs have focused on their technical aspects, neglecting the importance of students' perceptions. Bollinger and Martindale (2004) and Tallent-Runnels (2006) argued that the growth in online education should prompt more research that addresses students' satisfaction with online instruction. There has been a lack of recent studies to address these concerns. To understand the potential for educational productivity offered by online learning opportunities it is necessary to look at the pedagogical and practical affordances through which productivity gains might be realized. Online learning is often suggested as a means for improving

educational outcomes, expanding access at lower costs than conventional approaches or allowing talented teachers to focus on what they do best by automating or offloading more routine tasks (Christensen and Horn, 2008). Much of the research on K-12 online learning reports the steady growth and focuses on benefits, challenges, and broad effectiveness. While K-12 online learning programs have evolved and grown over the past decade, the amount of published research on virtual schools or online learning is limited (Cavanaugh, Barbour, & Clark, 2009).

### **Research Questions**

The following research questions are addressed in this study.

1. What did one teacher perceive to be important components of developing and teaching a course for high school students in an online learning environment as compared to developing and teaching the same course for high school students in a face-to-face learning environment?
2. How did high school students perceive and describe their learning experiences in a senior-level English course taught in a face-to-face learning environment?
3. How did high school students perceive and describe their learning experiences in a senior-level English course taught in an online learning environment?
4. What similarities and differences exist between an online learning environment and a face-to-face learning environment?

### **Definition of Terms**

*Asynchronous*-a type of communication that has features of the World Wide Web, such as email, and allows for time-and place independent interactions (Jung, Choi, Lim, & Leem, 2002).

*Cognitive presence*-a social phenomenon of the online environment in which learning is achieved through and marked by the construction of meaning within community interaction (Feeler, 2012).

*Community of Inquiry*-an online learning environment in which members are engaged in active learning (Feeler, 2012)

*Digital Immigrant*-people born before the advent of digital technology (DeGraff, 2014).

*Digital Native*-the generation of people born during or after the rise of digital technologies (DeGraff, 2014).

*Distance education*-also known as distance learning or online learning. The teacher and learners are geographically separated. Instruction and learning take place either through the Internet connection or another form of interactive technology (Marino, 2012).

*e-Learning (electronic learning)*-can be implemented in a variety of ways, such as, through the use of self-paced independent study units, asynchronous interactive setting, or synchronous interactive setting (Ryan, 2001).

*Learning Management System (LMS)*-an application that provides structure to an online learning environment. Examples are *Its Learning* or *Blackboard* (Marino, 2012).

*Learning style*- distinct and personalized unique ways to learn and memorize a new knowledge (Dunn, & Dunn, 1993).

*Online course*- a virtual space requiring an Internet connection. It usually will take place in a learning management system (Marino, 2012).

*Online education*-the use of a computer network to present or distribute educational content. The provision of two-way communication via a computer network so that students may benefit from communication with each other, teachers, and staff. (Paulsen, 2002).

*Online learning*- an open and distributed learning environment that uses pedagogical tools, enabled by the Internet and web-based technologies to facilitate learning and knowledge building through meaningful action and interactions. Online learning has also been referred to as web-based instruction or virtual learning (Dabbagh & Bannan-Ritland, 2005).

*Social presence*- the degree to which learners perceive each other as “real.” A theory that embodies the constructs of immediacy, intimacy, and interactivity (Marino, 2012).

*Synchronous*- a type of communication that features virtual chatting, and real-time video conferencing for real-time interaction (Jung, Choi, Lim, & Leem, 2002).

*Teacher presence*- refers to the activities of a teacher in an online course that are comprised of the instructor’s roles, instructional design, organization, facilitation, feedback and assessment, communication, selection of readings, curriculum, and technical support (Feeler, 2012).

*Web-Based Instruction (WBI)*-known as a media-rich, online environment allowing people to interact with others asynchronously or synchronously in a collaborative or distributed environment (Dede, 1995).

**Summary**

The learners' attitudes, beliefs, and values towards the content and learning experience encompass effective learning (Bloom, 1956). Learning online has enabled a new type of learning community that provides a virtual space for group discussions and access to other students for socializing and communication. Online learning has progressively come to be regarded as effective, or even superior in some ways to traditional, face-to-face learning (Norris & Lefrere, 2011). The next chapter focuses on the benefits, challenges, and broad effectiveness of online K-12 learning. Therefore, questions arise as to the perceptions of both student and teacher as to the quality and challenges of online versus face-to-face learning.

## **CHAPTER II**

### **Literature Review**

#### **Problem Statement**

To create an online course that is effective the following must be considered: (a) learning style and demographics of the learners (Colorado & Eberle, 2010), (b) ethical issues the teacher might encounter (Hanover Research Council, 2009) and, (c) ability to analyze the effectiveness of online strategies (Gaytan & McEwen, 2007). Because everyone is different in learning capacities and preferences, online learning may not be of benefit for everyone. Students offer a wealth of data for gathering student perspective as it relates to the learning experience because they experience it firsthand every day.

#### **Demographics of the online learner.**

Surveys from Education Dynamics show that totally online programs are attracting primarily Caucasian women in their 30's, that were fully employed workers with average income; many of whom want degrees in business (Kolowich, 2012). In researching what makes up a diverse learner many studies indicate a commonality of age. Often online learners were people from the ages of 25-50. In reviewing a description of a distance learner, "in comparisons of adult learners, younger learners tend to have difficulties in distance learning courses" (Colorado, & Eberle, 2010). Haynie (2015) stated that the Aslanian Market Research shows a shift in online learners under the age of 25 because many high schools are requiring an online course for students to expose them to online learning. The research also indicates that teachers still have concerns that younger online learners lack self-motivation for their online course (Haynie, 2015).

**Gender.** The role of gender experiences in online learning environments has been challenging to research because there are many variables. For example, experiences can

vary depending on the level of the online course and for whom it its being offered. Carol Aslanian of Education Dynamics conducted a survey showing that business was a popular degree for online learning, and these types of courses and degrees that were offered could be a factor in determining who would be interested in these types of programs (Kolowich, 2012). Again, this can vary depending on where and on whom was the focus. This survey indicated that more women taught online courses and more women enrolled in online courses (Kolowich, 2012). As in most other areas of higher education, women dominate the market for fully online programs; seventy percent of respondents to the survey conducted by Education Dynamics were women, sixty percent were Caucasian., twenty percent were African American, and eight percent identified as Hispanic (Kolowich, 2012).

### **Course Design and The Ethical Issues Inherent of Online Students.**

While the demographics of online learning is important, another important area to consider is the creation of a successful course. The type of hardware, software and connectivity is important and can bring up specific questions (Hardware and Software You'll Need for E-learning, n.d.). For example:

- Is the learner going to be expected to purchase a subscription to an LMS or need special software to complete assignments?
- Does a student need a computer with certain hardware capabilities to be successful in the course?
- Is adding additional hardware or software reasonable, or is it acceptable to ask a student to purchase these in order to complete the course?

An effective online course can be created with basic hardware and software. Students need a basic computer setup including computer, printer, microphone, and speakers. Basic software would include an up-to-date operating system, email address, Microsoft office, Adobe Acrobat, and a media player (Hardware and Software You'll Need for E-Learning, n.d.).

***Rigor of Course.*** Rigorous courses can better help students understand the topic being covered. There is a time and place to memorize facts and vocabulary, but more importantly, application of material must be considered. Rigor is a fundamental piece of the learning experience and creates purpose for what you were asking the student to learn (Orlin, 2013).

***Engaged and Authentic Learning.*** Engaged and authentic instruction can motivate students in solving real-world problems. “Authentic learning typically focuses on real-world, complex problems and their solutions, using role-playing exercises, problem-based activities, case studies, and participation in virtual communities of practice” (Lombardi, 2007, p. 2). This type of learning can be beneficial because students can look for connections and see how what they were learning can be useful outside of the course. Fact memorization can have varying effects. Some believe that simply memorizing is not learning. There are two basic approaches in memorizing: raw rehearsal and mnemonics (Orlin, 2013). Raw rehearsal can be ineffective because students will memorize for that assignment but not be able to fully comprehend or apply the knowledge. Mnemonics, which are mental devices used to memorize, whether it is a song, rhyme, or acronyms, provide a way for students to recall facts and possibly apply



them later. In online courses the idea of repeated use for students can be viewed as a successful strategy in the student's learning (Orlin, 2013).

***Cheating.*** A concern of teachers in any type of class, but with an online setting, cheating can look different than what you might see in a face-to-face class (Cercone, n.d.). It is not necessarily looking over someone's shoulder or copying their homework, but plagiarism, as well. Teachers of online courses can implement different plugins or websites that can be incorporated into a Learning Management System to detect plagiarism. An example is TurnItIn. This tool is used for detecting plagiarism and can also help students improve their writing. This can also be used for instant formative feedback on student writing. The design of the course can reduce cheating by requiring students to participate on discussion groups, keep writing styles of students, group projects and portfolios.

### **Community of Inquiry**

Garrison, Anderson, and Archer presented a conceptual model of "community of inquiry" in 2000 that constitutes elements essential to an educational transaction (p. 87). Those elements are cognitive presence, social presence, and teaching presence (p. 89). The community of inquiry itself is a learning environment that must be built up through cultivating in students an inquisitive nature, a desire to learn actively, and an orientation toward critical thinking (Garrison, Anderson, & Archer, 2000).

The Community of Inquiry (COI) is seen as the foundation for the concept of instructor presence. The COI, in itself, is a learning environment that must be built through developing students with the desire to learn actively, and an orientation toward critical thinking. Garrison (2000) explained that practical inquiry, as used in the COI, is

grounded in experience but includes imagination and reflection leading back to experience and practice. This allows students to engage in cognitive development marked by movements from fact to idea or perception to conception. With this, students can encounter and identify issues, dilemmas, or problems that emerge from experience, then students construct the meaning generated in exploration. Students work towards a resolution by means of direct or vicarious action (Garrison, 2000).

This COI model also shows the transactions between instructor and learner and the course materials. This model was developed to identify those elements crucial for a successful higher education experience, where teachers and students interact around content and with one another to develop a true community of inquiry. Garrison identified three key elements of online learning: Social Presence, Teacher Presence, and Cognitive Presence.

### **Social Presence**

According to Garrison (2000), defines social presence as the ability of participants in the Community of Inquiry to project their personal characteristics into the community and presenting themselves as “real people.” While Shea, Pickett, and Petz (2003) see social presence as the ability of students to project themselves socially and effectively into a community of inquiry and the social interaction component provides meaning; much of what is learned depends upon communication among learners (Vygotsky, 1981). Vygotsky (1981) explains that teachers, more abled peers, or both, can assist students in the learning process by modeling the correct behavior and scaffolding student learning using psychological and physical tools. There is a

correlation between student perception of social presence and their sense of satisfaction and cognitive accomplishments (Alsadoon, 2018).

The concept of social presence was introduced by Short, Williams, & Christie (1976). These social psychologists base their concept of social presence on previous research of one-to-one communication. Learning online has enabled a potentially new type of learning community that involves a virtual space for group discussion for students to socialize and communicate. Instructional communication has focused on the use of teachers verbal and nonverbal behaviors. The impact of those behaviors on students in traditional face-to-face learning environments the teacher's behaviors can include smiling, eye contact, body orientation, and gestures. Research on social presence has identified a relationship between social presence and communication cues (verbal and nonverbal) associated with the constructs of intimacy, immediacy, and interactivity.

Social presence has emerged as a significant social factor in the field of distance learning and it is suggested that the instructor has the primary responsibility for creating social presence (Gunawardena & Zittle, 1997). The interactions in an online environment between teacher and student is asynchronous in a learning management system (LMS), which has the capacity to bridge the distance between both asynchronous and synchronous communication. Rovai (2000) describes the impact of the lack of social presence and online learning environment learners will have little contact with the teacher or other learners and can feel isolated.

Focusing on the development of an effective classroom, the environment and the deficiency needs provide the instructional needs, which, can significantly impact the growth needs. Development is optimized when students are provided with challenging

tasks in a mastery-oriented environment, along with good emotional and cognitive support, meaningful material to learn, and master, that was adequate for their own autonomy and initiative (Steinberg& Lerner, 2004).

### **Teacher Presence**

Teacher presence refers to being salient and visible to learners in either distance or face-to-face classrooms (Reupert, 2009). The first function of teaching presence is the design of the educational experience (Garrison, 2000). There has been concern about a teacher's role and the impact learning over distance, and barriers to online learning. Students and teachers alike can fear faceless education (Berge and Collins, 1995).

According to Buehler et al. (2015) there is a positive correlation between increased engagement, positive learning, support, and care from teachers through students with historically higher grades. Classroom environment is designed intentionally to educate students to include the student voice within the context of needs and the learner experience. Voelkl (1997) argued that student perception of their learning experience is important in understanding how to help students be successful. It is important to also account for student perspectives when discussing needs, motivation, and the learning experience.

Online learning has the potential to improve learning outcomes by replacing lecture time with group and individual work that will engage students more actively in learning, enabling greater motivation, and deeper learning (Twigg, 2003a). These activities include online discussions and continuous assessments with immediate feedback. A student's physical presence in a face-to-face class assumes that the student has a sense of belonging to the class or group of students enrolled in the course (Dağ &

Geçer, 2009). In a class the student listens to the discussion and can choose to raise their hand to comment, to answer, or to ask a question. With this a student can develop a relationship with other students. This assumption may not always be true because some students can also feel alienated in a face-to-face class and not feel part of the group. In an online course a student's sense of belonging and the ability to interact with other students and the instructor are being refined to include telepresence, cognitive presence, social presence, teaching presence, and other forms of presence.

The most important aspect of teaching is learning. The connection between a teacher's behavior and a student's learning has been investigated over the past decades (Seidel & Shavelson, 2007). Researchers have studied teacher behaviors in a face-to-face classroom and established that teacher immediacy vastly connected to a student's attitude (Andersen, 1994). Face-to-face instruction provides the greatest degree of social presence due to its capability of providing nonverbal and verbal communications cues, and cognitive and effective interpersonal interactions. Newman, Couturier, and Scurry (2004) estimated that over time the traditional and the online class would look more alike to the student. Both would use technology, command active learning, use student-student communication, and feature teachers as facilitators. Although online education represents a different form of course delivery, it is subject to the same need for monitoring and assessment as traditional forms of instruction (Greener, 2008).

### **Cognitive Presence**

Cognitive presence has many definitions. Garrison, Anderson, and Archer (2001) define cognitive presence as the element that is most basic to success. The ability of the student to construct meaning from content through sustained communication with other

members of the community of inquiry. Garrison, Anderson, and Archer (2001) view cognitive presence as active learning through critical thinking and practical inquiry, while Shea, Pickett, and Petz (2003) define cognitive presence as the extent to which students are able to construct and confirm meaning through sustained discourse in a community of inquiry. Cognitive presence is the most critical to student success as it represents a vital part of critical thinking, which is the goal of all higher education.

Today's students are often better prepared than their teachers to use new technology (Jacobsen, Clifford, & Friesen, 2002). The cognitive theory of constructivism fosters student-centered learning using self-discovery, exploration, and authentic collaborative projects (Stokes, 2005). Several characteristics of the constructivism models are easily adapted for online learning. These include learner construction of meaning; social interaction to help students learn, and student problem-solving in real world contexts (Abbey, 2000). Research on expert teaching, human tutoring, and collaboration has established that the quality of a student's relationship with peers and teachers directly affect learning (Martin & Dowsen, 2009).

The online experience can be different for everyone. To compare socialization to cognitive learning requires a definition of these terms. According to dictionary.com, socialization is defined as a continuing process whereby an individual acquires a personal identity and learns the norms, values, behavior, and social skills appropriate to his or her social position (Dictionary.com, 2016). Cognitive learning is the information processing habits of an individual. Unlike individual differences in abilities, cognition describes a person's typical mode of thinking, perceiving, remembering, or problem solving. Cognitive style is usually described as a personality dimension that influenced attitudes,

values, and social interaction (Cognitive Learning Styles, 2016). The different learning styles of an online learner can mean different things to different people. To be successful in the learning process variety is needed. When building an online course, the designer must consider the learner and what they might accomplish on their own while working at their own pace. Socialization is giving the learner the opportunity to work with others in a setting that can be similar to a face-to-face setting but instead, online. This type of cognitive learning encourages student-centered learning through the use of self-discovery, exploration, and authentic collaborative projects (Stokes, 2005).

### **Communication Skills**

One of the most important factors for an online course is communication skills. This is an expectation for both the teacher and student (Venable, 2011). Communication in a face-to-face setting includes interactions and the communication necessary between the teacher and students to ensure that learning is taking place. According to Farrell (2009), teachers use communication in the classroom in order to accomplish three things: to elicit relevant knowledge from students, to respond to things that students say, and to describe the experiences that they share with students. Research indicates that interpersonal and communication skills and fluency in the use of collaborative online learning technologies are critical competencies for the online learner (Dabbagh & Bannan-Ritland, 2005).

Online learning has evolved over the years. Starting with shorthand courses being delivered by mail, which became known as distance learning courses that have evolved into what we today know as online learning. Examining the evolution of online learning helps provide a better understanding of current trends in online learning. Distance

learning is defined as institution-based where the learning groups are separated and where interactive telecommunications systems is used to connect learners, resources, and instructors (Schlosser & Simonson, 2006, p.1). In the 1990s, distance learning became computer-based and instruction was delivered on the Internet, which became known as online learning (Colorado & Eberle, 2010). Online learning requires the student to take responsibility for their own learning. Most students are attracted to the convenience and flexibility of the course.

Identifying students as digital natives to digital immigrants, depends only on the student's ability to adapt to the technology tools being used. Students born into the technology world known as *digital natives* while others may be referred to as *digital immigrants*; students who may struggle with new technology. The real concern is how each communicate. "The truth is that this generational gap between the so-called digital natives and the digital immigrants do not actually have to do with technology. The real issue is that the two worldviews that they represent are so different" (DeGraff, 2014). In associating the two it is not the difference in ability to use technology but rather their perception of technology. Both types of students can learn from each other. Digital natives can teach digital immigrants how to collaborate with a variety of people. Digital immigrants can teach digital natives how to achieve goals.

Incorporating needs theories, such as Abraham Maslow's and William Glassers' (Simonson, Smaldino, Albright, & Zvacek, 2009) into student learning experiences provides an accessible framework for evaluating the learner experiences through the student perspective. It is important that students' needs are addressed in an effort to



foster effective learning environments. Student's perceptions is their reality, so it is critical that educators take time to survey, understand, and respond to learners' ideas.

### **Maslow's Hierarchy of Needs**

Using Maslow's hierarchy of needs alongside Glasser's (1998) choice theory provides a framework for evaluating the school learning environment. Maslow developed the hierarchy of needs based upon significant research surrounding motivation. The theory starts with from the most basic level and moves to higher-level needs, such as physiological needs, safety, belongingness, esteem, and self-actualization. Maslow's belief is that one may only begin to address higher-level needs if the preceding lower-level need has been largely satisfied (Maslow, 1943).

According to Maslow's theory, self-actualized people are characterized by being problem-focused, incorporating an ongoing freshness of appreciation of life, a concern about personal growth, and the ability to have peak experiences. Comparable to its use in other fields, Maslow's hierarchy of the needs model can also be applied in the distance education, particularly with respect to student motivation and satisfaction within an online learning environment.

Student perception is vital in understanding their educational experience (Voelkl, 1997). A perceived learning experience has a strong influence in student participation and motivation in a face-to-face learning environment and in an online learning environment. The presence or absence of strong relationships within school has a significant impact in shaping the student learning experience. Understanding how positive classroom environments are developed and sustained is essential for improving

educational opportunities through the quality of instructional interactions (Meyer & Turner, 2006).

### **Glasser's Choice Theory**

Glasser's (1998) choice theory addresses student needs that are considered higher-level needs within Maslow's hierarchy. Choice theory suggests that humans are driven by the: need to survive, need to belong, need for power, need for freedom, and the need for fun (Glasser, 1998).

Offering choice and providing opportunities for students to fulfill these additional needs according to Glasser (1998) arguably increases engagement and inspires students to take ownership of their learning. Glasser's choice theory is one that works well to build upon Maslow's findings. Students cannot be forced to learn; rather, students choose whether or not to include learning experiences in their quality world.

According to Ryan and Patrick (2001), good classroom management includes having a set routine and guidelines, adequate planning, and fair consequences for misbehaviors. This is critical in establishing a positive school environment and increasing school connectedness. Students dedication to their own education is associated with the degree to which they perceive their peers and important adults in their lives and exhibit behavioral traits, such as persistence, effort sustained attention to tasks, and a higher level of preference for challenge and mastery outcomes (Center for Disease Control and Prevention, 2009).

### **Social Cognitive Theory**

Albert Bandura (1977) has researched and taught social learning theory that shows how the reproductions of an observed behaviors is influenced by the interaction of

the following determinants: personal, behavioral and environment. The personal interaction will get the learner to believe in his or her ability to complete a behavior; while the behavioral interaction provides opportunities for the learner to experience successful learning as a result of performing the behavior correctly. Finally, the environment interaction makes the environmental conditions conducive for improving self-efficacy by providing appropriate support and material. This later became known as the Social Cognitive Theory in which he poses the idea that approximately 70% of all learning behaviors occur through modeling the behavior.

According to Bandura (1977) self-efficacy is one's perception of the abilities, influenced achievement, and propensities to expand their knowledge and take academic risks. The notion of self-efficacy theorized that students' belief in regulating their own learning and in mastering academic activities to determine their aspirational levels of motivation, and academic accomplishments.

### **School Connectedness**

School connectedness is the belief by students that adults and peers in the school care about their learning, as well as, about themselves as individuals. Students are more likely to engage in healthy behaviors and succeed academically when they feel connected to school. Research has also demonstrated a strong relationship between school connectedness and educational outcomes (Center for Disease Control and Prevention, 2009).

In the school setting students feel supported and cared for when they see school staff dedicating their time, interest, attention, and emotional support to them. Students need to feel that adults care about them as individuals, as well as, about their academic

achievements. Smaller schools can encourage more personal relationships among students and staff and allow for personalized learning, such as the one in this study.

Connectedness is enhanced by a healthy and safe school environment and a supportive psychosocial climate (Center for Disease Control and Prevention, 2009). A clean and pleasant physical environment raise expectations for safety and sets the stage for positive, respectful relationships. A positive school environment, often called school climate, is characterized by caring and supportive interpersonal relationships, opportunities to participate in school activities and decision-making, and shared positive norms, goals, and values.

### **The Theory of Establishing and Sustaining Instructor Presence to Enable Student Learning**

The Theory of Establishing and Sustaining Instructor Presence to Enable Student Learning states that the perception of instructor presence results from the student-instructor relationship established and sustained through instructor activity and student response; the conditional phase in which students and instructor respond to perceived needs, especially the need for flexibility by choosing an online course (Feeler, 2012).

Online learning can increase educational productivity by improving learning opportunities, including broadening access to resources; engaging students in active learning; individualizing and differentiating instructional personalize learning; and maximizing teacher and student time. Personalized learning can tap student's innate curiosity and help deepen their learning. Online learning often requires students to take on greater responsibility for their own learning. According to Knowles and Kerkman, (2007, p. 72) "they cannot simply follow the herd of students attending class"

## **Self-Regulated Theory**

The Self-Regulated Learning theory and research that was developed in the mid-1980s addressed how a student can master their own learning processes (Zimmerman, 2001). Students will need to adjust the use of cognitive strategies to control their own actions. According to Jean Piaget, schemata is defined as “a cohesive, repeatable action sequence possessing component actions that are tightly interconnected and governed by a core meaning” (McLeod, 2018, p. 7). In an online environment it can be significant to focus on the process of learning instead of the end product.

According to Cercone (n.d.) many formal and informal studies have been conducted on the biases present in student course evaluations. It is not the teacher’s teaching style that is graded but their tone of voice, sense of humor, or even their fashion sense (Ford, 2016). For students to get a clear idea of teacher expectations it has been expressed by Mupinga, Nora, and Yaw (2006) that teachers will provide sample assignments, clear expectations, and instructions on the assignments. Trying to interpret the requirements for an assignment can be a challenge for students, so providing a detailed rubric can help a student to be successful (Mupinga, Nora, & Yaw, 2006).

In an online world it is important for teachers to get to know their students. As an introduction to a course teachers can introduce themselves, followed by an assignment for students to do the same, as well as to comment on fellow students within the course, is helpful (Making a Personal Connection in Your Online Classroom, 2013). This type of assignment can help a teacher understand the students in the class. An important consideration with students in online learning is to have them complete an online learning assessment, which can prove to be beneficial in helping students know what to expect in

an online environment and to help the teacher gauge the level of student's understanding of an online course. In order to establish a connection with students, communication is important. Lessons can include an introduction activity, the use of discussion boards, email and meeting with each student or small groups. (Make a Personal Connections in Your Online Classroom, 2013). In order to make connections and building relationships with students, teachers need to make themselves available.

In creating an online course there are certain factors that need to be considered in the design. A course that is safe and provides a healthy environment, as well as following all copyright and legal use of information (Cavanaugh & Blomeyer, 2007). For students to be safe, teachers need to demonstrate digital citizenship, and model and promote equitable access to digital tools and resources (Crompton, 2015). Not only is teaching cyber safety important, but students also need to understand how material on the Internet is copyright-protected, and teachers need to promote and enforce privacy, and security.

Consideration of the diversity of learners is important in all online courses because all learners should have the same opportunity to learn online (Narozny, 2010). By referring to Universal Design and America Disability Act guidelines, courses can be created to promote access to all learners. The Department of Education recognizes specific learning disabilities as, speech and language impairments, mental retardation, emotional disturbance, orthopedic differences, and hearing or visual impairments. In creating courses with differentiated instruction to meet the needs of all learners, teachers should remember to create flexibility or alternatives by presenting the content in multiple ways, multiple modes for student expressions and multiple means for engaging student

interest (Cavanaugh, 2007). There needs be great attention to detail in the design and the navigation accessibility of a course to meet the needs of exceptional learners.

Technology has permeated all aspects of our economy and culture. Every learner now in school needs a range of literacies that is much broader and more inclusive to their learning needs (National Center in Universal Design for Learning, 2014).

Creating an online course can present technical and pedagogical challenges. Possessing the technical skill level to build in the accessibility is another potential challenge. Having an understanding and awareness of these tools could be powerful as teachers interact with other instructors and students throughout the term. Key concepts to remember for online learning is accessibility, awareness, communication, and acceptance (National Center on Universal Design for Learning, 2014). Embracing the diversity of learners is essential to the overall process.

### **Determine Techniques for Online Instruction and Analyzing the Effectiveness of Online Strategies.**

Individual assignments and group assignments are both beneficial in online instruction and can provide immediate feedback (Center for Instructional Technology & Training, n.d.). In group assignments, student giving feedback though peer assessment can improve learning. By engaging in these types of assignments students are responsible for their own learning while participating with others to interact and promote a community through projects. Research has shown that students can learn from other students (Weimer, 2013). Group assignments can demonstrate students' ability to work with others and be productive. It is believed that groups can make better decisions than individuals because the different perspectives, questioning and critical analysis can result

in better solutions and performance (Weimer, 2013). Group work is a powerful instructional strategy that encourages deep engagement with content through active and social learning. Successful group assignments and activities allow students to exercise collaborative skills in order to create something together that they would not or could not achieve individually (Weimer, 2013)

### **Synchronous and Asynchronous**

Synchronous and asynchronous are both effective online strategies (Jung, Choi, Lim, & Leem, 2002). Synchronous communication methods can include phone or live video chats in real-time. Asynchronous communication methods can include the sending of communication through email, United State Postal Service, discussion boards, or multimedia that can include graphics, video, and animation. One strategy is group work that can be done in electronic meeting rooms. This can support both synchronous and asynchronous communication. There are benefits and drawbacks to both designs. Some students prefer synchronous courses because they need to feel involved, in real-time, with the class experience (Haslam, n.d.). In an asynchronous course the teacher and student do not meet at the time of content delivery, but through discussion boards, and emails (Dağ & Geçer, 2009). The two learning types can be integrated and utilized to support student needs within an online learning environment called blended learning.

Encouraging teachers to get students to become active and involved in their learning can be achieved with designing activities that promote student interactions and can build a sense of community among the students and faculty (Lombardi, 2007). Engaged and authentic learning can include assignments that determine if learning outcomes are being met. For example, threaded discussions can promote the



understanding of assignments. To support authentic learning activities, the activities need to involve real-world problems, open-ended inquiry, thinking skills and metacognition, students engaging in discourse and social learning and student-directed learning (Rule, 2007).

### **Direct Instruction**

Direct instruction is an instructional model that consists of three main components: Modeling, Guided Practice, and Independent Practice (Bronkey, 2015). This might be a video of the teacher demonstrating a technique or a “how-to” that can be used to complete an assignment. Direct teach in an online learning environment can also be a PDF handout on lecture notes that cover a topic, or a PowerPoint presentation that explains the topic.

### **Game-based learning**

Game-based learning can be an effective strategy to assess student learning of presented material (Chapman, 2016). Game-based learning will not be effective in all online courses. Advanced courses or courses that are made up of adult learners might not benefit from game-based learning because of the possible sense that their time is being wasted. Game-based learning can be effective in a K-12 online classroom, and can offer custom learning experiences for students, which is important as every student learns differently. In games, students can make mistakes, and revisit concepts, allowing them to better understand course material and specific concepts. Another important benefit is that game-based learning can be fun, and students enjoy learning in this fashion (Chapman, 2016). As opposed to some traditional education tactics that can feel passive or dull,

game-based learning engages and motivates students, allowing them to actively learn, acquire skills and build thought processes.

Students who have chosen to learn in an online learning environment need to know the expectations of the course from the beginning. Creating an online course for a teacher needs to be well-developed and organized. Teachers need a layout of all assignments, due dates, and rubrics with which the assignments will be graded. The types of assessments are important because different types of learners require options on assignments to promote student success. Self-assessment, peer evaluation and weekly assignments with immediate feedback are key factors in online learning (Gaytan & McEwen, 2007).

### **Assessment**

Formative assessment is a way to offer ongoing feedback. By doing this, students are provided with identified areas for improvement, as well as identification of their strengths, instead of just receiving a grade. This type of assessment is one of the most beneficial. In selecting and implementing a formative assessment in an online course there are several types from which to choose, such as goal checks that can be used at the beginning and end of a lesson. Also, individual discussions with each student to discuss expectations and observe students as they complete their activities online are useful. Additionally, online learning logs to be completed individually and from group presentations can be used and are effective (Pappas, 2015).

Summative assessments are used to determine if the student has achieved the learning objectives and has shown a level of proficiency. Typically, a summative assessment is administered at the end of an e-Learning course, and provide learners with

a final grade (Pappas, 2015). There are several types of assessments that can be given. For example, one might choose from online multiple-choice exams, online presentations, website creation, blog creation, portfolios, and group projects. These are similar to a formative assessment but instead an assessment given throughout the course instead of given at the end (Pappas, 2015).

Integration of a peer assessment into coursework can enhance students' learning in a number of ways: it helps build trust and intellectual community; it leads to more thoughtful and reflective discussions; and it can help students cultivate a greater capacity for critical thinking and evaluative judgment (Peer Assessment in Online Courses, n.d.). These types of assessments help promote learning and can be used in any type of course. Peer assessments allow students to give a score or some type of measurement of the team members with their level of participation and contribution. In using a peer assessment, as with any other assessment, the use of a rubric can help students with a clear understanding of the expectations of the assignment.

Self-assessment can be beneficial because students can test new knowledge, receive meaningful feedback, and use what they have learned outside of the online course (Mupinga, Nora, & Yaw, 2006). In designing online courses, the use of a self-assessment can help track the learners progress, focus on learning, measure if content is meeting the learning objectives (O'Keefe, 2005). Self-Assessment can be made up of pre-tests and post-tests to measure the learning gain. Basic assessments can include multiple choice, fill in the blank and true/false can test knowledge and provide immediate feedback. Another type of self-assessment can be decision makers or decision trees. This allows the learner to apply concepts they have learned in certain situations, which you could also

do simulations that is similar. This will allow the learner to make decisions based on real-world problems. These can be valuable tools for the designer of the course and the learners.

In evaluating a teacher's effectiveness in an online course there is no system that is going to be perfect. A teacher's effectiveness can be based on the different approaches they took in their online course. An assessment on teachers is a tool that would give valuable feedback that can help improve their practice (Hull, 2013).

In order to create an online course with differentiate instruction there are many factors to consider including the variety of learning styles, demographics and ethical issues (Colorado & Eberle, 2010; Hanover Research Council, 2009; Gaytan & McEwen, 2007). It has been argued that an effective online assessment can be based on traditional teaching and learning (Marshall, 2003). Online learning and classroom learning can have similarities, but it does address a different type of student. According to Moore and Kearsley (2005) studies identified that certain student demographics can relate to the success of that online course. Teachers also need to create meaningful assignments for students to promote the sense of community in the online class. Time and effort can be directed to the development of an effective rubric that will support the assessment activities (Gaytan & McEwen, 2007).

### **Summary**

In this chapter establishing guidelines for effective learning, both online and face-to-face has been discussed. The social interaction component providing meaning, and much of what is learned depends upon communication among learners (Vygotsky, 1981). There is a growing need to examine online instruction in K-12 schools, especially at the

secondary levels in order, to inform policymakers, at federal, state, and local governing agencies who are considering how to expand the use of this technology to improve instruction (Picciano & Seaman, 2010). In the next chapter, the design process and procedures will be discussed. The chapter will also address the data collection and analysis, along with the data instruments that will be used in the research.

## CHAPTER III

### Methodology

#### Purpose of the Study

The purpose of this study was to explore high school students' and teachers' experiences and perceptions of effective online learning compared to a face-to-face learning environment. A great deal of evidence exists showing that no significant difference should be expected regarding a well-designed online learning environment compared with well-designed in-person learning environment (Clark, 1983). Significant differences still existed in the way students perceived their online experiences during learning (Paul & Jefferson, 2019). Districts offered online courses because it was considered to be more cost-effective. For example: Online courses allowed districts to eliminate the need for additional classrooms (Krafcik 2010; Olster, 2010).

Student readiness for online learning could be a concern of teachers. According to Collins (2002), appropriate students for K-12 online courses should be able to prioritize work, balance the demands of online coursework with other activities, have the ability to work independently, approach online courses with the same commitment and motivation as a traditional classroom, be able to dedicate eight to ten hours a week for each online course, and reserve a class period a day for online coursework. The online learning environment required students to take responsibility for their learning (Wood, 2005).

Online learning could be defined as an approach to the learning and teaching process that utilized acquisition and usage of the knowledge in an educational context by using primarily Internet and communication in collaboration (Dağ & Geçer, 2009).

Student readiness for online learning could be a concern of many. Berge (1997) did a

qualitative study of the barriers to online education and identified that some of the barriers were student problems, but the research only examined the perspective of online teachers. Other barriers included faceless teaching, faculty culture, and resistance to change.

This study was being conducted to further the research between examining course structure and student's interaction in the online program. When describing effective instructional design of K-12 online courses, Repetto and Spitler (2014) recommended that programs use an any-pace model that would provide students ample time to master specific learning objectives and then stated that programs also should foster positive interaction and collaboration among students through cooperative learning opportunities incorporated into the curriculum. However, more was needed that highlighted best practices on how to blend these different approaches (Borup, 2016).

### **Research Questions**

The following research questions are addressed in this study.

1. What did one teacher perceive to be important components of developing and teaching a course for high school students in an online learning environment as compared to developing and teaching the same course for high school students in a face-to-face learning environment?
2. How did high school students perceive and describe their learning experiences in a senior-level English course taught in a face-to-face learning environment?
3. How did high school students perceive and describe their learning experiences in a senior-level English course taught in an online learning environment?

4. What similarities and differences exist between an online learning environment and a face-to-face learning environment?

### **Research Design**

This was a mixed methods study that included a single subject case study that examined the experiences and perceptions of one high school teacher. The overall purpose of qualitative research was to achieve an understanding of how people make sense out of their lives, delineate the process (rather than the outcome or product) of making meaning of what was said and describe how people interpret what they experience (Merriam, 2009). Qualitative research was especially helpful when it provided someone's perception of a situation that permitted the understanding of his or her behavior (Kratwohl, 1998).

In using a case study for this research, evidence showed a teacher's approach and perception of a process of designing and implementing an online course. With reviewing one teacher the study compared a traditional face-to-face classroom with the same class that was offered online. Students were able to explain their learning experiences to compare the similarities and differences.

### **Site Selection**

The study was conducted at a high school district classified as a 4A by the classification of the state. There are approximately 1,040 students enrolled in the high school located in the southwestern United States. The high school which was in a rural area outside of a major city. The student body was made up of 745 Caucasians, 22 African Americans, 242 Hispanics, and 31 others. This school district had offered online courses for high school credit for three years. The senior level online English course was



the only online course that has been available for the last three years. The senior level online English course was a high school graduation requirement.

### **Participants**

The participants selected for this study were high school students enrolled in the senior level English online course and students enrolled in a face-to-face senior English class. The students were in the twelfth grade and average in age from 17-19 years old. There were a total 259 students in the twelfth grade: 133 males, and 126 females. Since the class was a graduation requirement all twelfth grade students were either enrolled in a traditional face-to-face or online course. In the 2019-2020 school year there were 219 students in the traditional face-to-face course and 40 students in the online course.

This teacher had been selected for this study because the teacher taught both the online and face-to-face courses. This teacher was a female that had twenty-five years of teaching experience with eleven of those years being in the same district in which the study was being conducted. Also, the teacher was in her third-year teaching online and it should be noted that the teacher was not provided any type of training for teaching online. Also, teaching in the two modalities the courses were not parallel to each other. The face-to-face class included the instructional strategies of lecture, discussions, and small group, while the online course students worked independently.

Participation in this study was voluntary, and participants had the right to withdraw at any time.

## **Data Collection**

Data was generated through observations, interviews, a survey, and a focus group. The data collected via written responses to open-ended questions, interviews, or conversations would not contain names or any identifiers of the participants.

During the observation process, the state-mandated evaluation support systems rubric was utilized. The system was designed by educators to support teachers in their professional growth. This state-mandated evaluation support system strived to capture the holistic nature of teaching; the idea that a constant feedback loop existed between teachers and students and gauging the effectiveness of teachers require a consistent focus on how students responded to their teacher's instructional practices. For those reasons, each of the observable domains in the state-mandated evaluation support system focuses on teachers and students rather than separating them into different domains. Ultimately, this support system was a process that seeks to develop habits of continuous improvement, and the process itself best leads to that outcome when appraisers and teachers focus on evidence-based feedback and professional development decisions based on that feedback through ongoing dialogue and collaboration.

Surveys were collected from students at the beginning of the study. According to Mills (2014), surveys were generally accepted as a part of the school culture, and they provide a great deal of information in a relatively short amount of time. The Likert scale was used because it is an accessible format that provides data to measure the intensity or extent of the opinions of participants. The survey was not forced, so that a participant could not answer a question, meaning they could skip a question.

Interviewing is often the primary data collection strategy in a qualitative study. This type of data collection was on the belief that knowledge was constructed by people in an ongoing fashion as they engaged in and made meaning of activity, experience, or phenomenon (Merriam, 2009). In this study, the interview process would consist of open-ended questions related to the initial survey questions.

Glaser and Strauss (1967) emphasized the need to make data collection rigorous in qualitative research; thus, it was important that an entire interview was conducted within a strong but flexible plan. Using interviews with online and face-to-face students for data collection would allow flexibility to student observations with follow-up questions sensitive to word choices and the direction of the narrative production; elicit narratives that illustrates emerging concepts and revealed tacit and hidden perceptions; and pursue a deeper revelation, even to encourage respondents to assist in the making of meaning.

The in-depth interview strategy embodied the research genre of “individual lived experience,” “relying on a single primary method for gathering data” (Marshall & Rossman, 1999). Interviews with students, or respondents, attempted to achieve what Sunstein and Chiseri-Strater (2012) called collaboration between interviewer and respondent in the spirit of a “friendly talk.” A good interview was not just asking questions and recording answers. Rather it was researching people: and it involved listening and asking for clarification and delving deeper into discussion or explanation. It was “close and personal” and involved a time of moving into another person’s world to see things from the perspective of the other. It took place in a shared space in which both interviewer and respondent affect the process of data collection. Based on this

information for this study the interview process, the semi-structured interview was best suited for gathering descriptive insights (Bogdan and Bicklen, 2003).

During an interview, a researcher could observe body language or tone of voice or level of emotional intensity; the researcher could include such observations in the field notes or memos, which become part of the artifacts of the study along with the transcripts of interviews. The interviewer must listen well, use good personal interaction skills, frame questions well and use gentle probing to elicit valuable and detailed responses (Marshall & Rossman, 1999; Sunstein & Chiseri-Strater, 2012). Moreover, the interviewer needed to communicate that the subjective view of the respondent was what matters (Holstein & Gubrium, 1995, p. 110). In this study, the interviewer asked permission from the participants that the interviews be record. According to Okoli and Pawlowski (2004), follow-up interviews could yield additional data.

Focus groups were a qualitative method of assessment that would allow a free flow of ideas from students (Administration methods, 2010). The focus group would consist of students from the traditional face-to-face and online classes. This would allow the observations and note taking of visual aspects of the students' body language and facial expressions as they were given topics to discuss. The use of focus groups was useful to triangulate with the interviews, surveys, and observations. The students in the focus group were asked three questions to describe their experiences and differences in their classes.

### **Data Analysis**

The researcher was the primary instrument for data collection and analysis. Since understanding was the goal of this research, the human instrument, which could

immediately be responsive and adaptive, would seem to be the ideal means of collecting and analyzing data. A sample selection in qualitative research was usually but not always nonrandom, purposeful, and small, as opposed to larger, more random sampling in quantitative research. Finally, the investigation in qualitative research often spends a substantial amount of time in the natural setting (the field) of the study often in intense contact with participants (Merriam, 1998). Glaser and Strauss had noted that it was often a natural impulse for a person to generate a theory, but they were distinguished purposive generation of theory as a distinct process requiring a controlled methodology (Glaser & Strauss, 1967).

*Constant comparative analysis.* In grounded-theory research, the controlled methodology for analyzing data was called constant comparative analysis. This method was comparative because it involved, first, systematic comparison of units of study, indicators to each other and, second, to data collected in the next phase of collection (Strauss, 1987). The process of comparative analysis itself was related to what Glaser and Strauss (1987) called the cumulative nature of knowledge and theory. It involves a progressive building up from facts (p. 85). In this study, data collection began with analyzing data from the surveys that would involve the first systematic comparison of indicators to each other, and to the next phase of collection.

### **Coding**

Corbin and Strauss (2008) suggested that the research begin with open coding which developed into axial coding and selective coding (Strauss, 1987, Corbin & Strauss, 1998). In the interview research phase, the analysis of the first interview through the use of memo writing and could continue by subjecting all the data collected.

***Open Coding.*** Corbin and Strauss (2008) described open coding as breaking the data down into parts, examine closely, comparing and contrasting, and asking questions. Strauss (1987) said that the basis for the grounded theory was the concept-indicator model that “directs the conceptual coding of a set of empirical indicators. Open coding used indicators—words, phrases, statements from data, or observations to develop concepts. The indicator was constantly compared with each other as the researcher worked to identify new insights until theoretical saturation was reached. Strauss (1987) explained that the more detailed the analysis, the less the chance of missing categories and the greater the chance of discovering appropriate categories and reaching saturation.

Memo writing was an important aspect of open coding. The key to developing new concepts was asking generative questions, questions that push the researcher to think more abstractly and theoretically (LaRossa, 2005). The progressive building up from facts involved the constant and continual study of the data in search of emerging categories. This phase of the process must be joined carefully to the coding of categories and rigorous analysis of the body of data in light of new categories. During the interview, memo writing would help note the similarities and differences that could enable inductive coding and the generating of concepts, hypotheses, and theories.

***Axial coding.*** Strauss (1987) explained the term “axial coding” was a reference to the practice of analysis that took place around the axis of one category at a time. Axial coding was further coding within a category, involved the procedures towards discovery of other subcategories relating to the who, what, when, where, and why of the category. Collection of qualitative data proceeds simultaneously with open coding and axial coding. The process was not linear but concurrent, iterative, and integrative, with data

collection, analysis and conceptual theorizing occurring in parallel and from the outset of the research process (McGheem & Atkinson, 2007). In this study, axial coding would help identify the core categories from the results of the survey, interview, and discussion in the focus group and how they begin to link to each other.

***Selective coding.*** Once the core category had been identified, the researcher would then be able to turn to selective coding, a more limited and more focused kind of coding. According to Strauss (1987), this kind of coding pertains to coding systematically and concertedly for the core category. The core category became the center of concentration for the researcher's analysis, and it became the guide to further theoretical sampling and data collection. During the coding process the selective coding helped move towards developing a theory of the teacher and students' perceptions of online learning to a face-to-face setting.

***Triangulation*** In this study, data were triangulated to ensure that conflicting information was avoided, while constant comparison ensured that the data was adequately validated (Lodico, Spaulding, & Voegtle., 2006). Triangulation was achieved by cross-checking coded transcripts; notes taken during interviews and the focus group. Triangulation of data from multiples sources was carried out to strengthen the study's conclusion and reduces threats to validity. Creswell (2008) defined triangulation as "the process of corroborating evidence from different individuals, types of data, or methods of data collection."

### **Data Instruments**

In the survey the questions were designed using the Likert scale. The student survey would consist of twenty-four questions using a 5-point Likert Scale that referred

to the teacher presence, social presence, and cognitive presence (Appendix A). The student survey was the student's perception using a modified version of the Community of Inquiry (CoI) survey to determine the teacher presence, cognitive presence, and social presence within the online course and traditional face-to-face course (Arbaugh et al, 2008). The teacher survey would consist of ten open-ended questions that would refer to the planning and delivery of the online course and traditional face-to-face course (Appendix B). The survey would comply alongside student responses from the interviews, and discussions from the focus group.

The teacher interview would consist of six open-ended questions that would address the teachers' presence in the online environment and the traditional face-to-face classroom (Appendix C). The student interview would consist of six open-ended questions for online students and six open-ended question for students in the traditional face-to-face class. See Appendices D and E. The focus group were made up of both online students and traditional face-to-face students. There were three questions asked to initiate the discussion (Appendix F). The interviews and conversation from the focus group was recorded and transcribed.

The survey instrument was evaluated by a panel using the Survey/Interview Validation Rubric for Expert Panel (VREP) and was determined to be valid. The VREP created by Dr. Marilyn Simon and Jacqueline White (n.d.) could be a useful tool to assess the validity and credibility of the instrument and the resulting data.

The data collected from the survey questions, interviews, and conversations would not contain names or any other identifiable information of the participants. Any data collected or stored electronically in the form of a word document, spreadsheet, or



email would be stored on a flash drive that was password-protected. The process for this study involved submitting the proper forms to the Institutional Review Board (IRB) of the university with which the researcher was affiliated along with consent from the school where the case study would take place. Before the completion of the research, participants consent forms were obtained.

Due to the COVID-19 pandemic of 2020 modifications were made to collect the data for this study. All individual interviews and the focus group interview had to be conducted via the video conferencing tool, LifeSize. The survey and the teacher assessments were completed electronically. Students were instructed prior to completing the survey and answering questions in the interview that responses were based on the time in both learning environments prior to the COVID-19 pandemic.

### **Summary**

In Chapter Three the methods used to study the research questions were addressed. The mixed methods approach was used to collect qualitative and quantitative data (observations, surveys, and interviews). In Chapter Four the findings of this study will be included along with discussing the findings as they relate to current research surrounding the student perspective and the learning experience.

## **CHAPTER IV**

### **Findings**

#### **Purpose of the Study**

The purpose of this study was to explore high school students' and teachers' experiences and perceptions of online learning when compared to a face-to-face learning environment. A great deal of evidence exists showing that no significant difference should be expected regarding a well-designed online learning environment compared with well-designed in-person learning environment (Clark, 1983).

During this study, the process of collecting data was modified due to the COVID-19 pandemic of 2020. According to the Center for Disease Control and Prevention (2020), on February 11, 2020, the World Health Organization announced an official name for the disease that caused the 2019 coronavirus outbreak, first identified in Wuhan China. The new name assigned to this disease was coronavirus disease 2019, abbreviated as COVID-19. The virus that causes COVID-19 is thought to spread mainly from person to person, through respiratory droplets produced when an infected person coughs, sneezes, or talks. Spread was more likely when people are in close contact with one another (within about 6 feet). This virus led to temporarily closures of educational institutions and in an attempt to contain the spread of COVID-19, thus affecting the process for the collection of data used in this study.

#### **Research Questions**

Answers to the following research questions were sought through the data collected in this study.

1. What did one teacher perceive to be important components of developing and teaching a class for high school students in an online learning environment as

compared to developing and teaching the same class for high school students in a face-to-face learning environment?

2. How did high school students perceive and describe their learning experiences in a senior-level English class taught in a face-to-face learning environment?
3. How did high school students perceive and describe their learning experiences in a senior-level English class taught in an online learning environment?
4. What similarities and differences exist between an online learning environment and a face-to-face learning environment?

### **Data Analysis**

The findings in the data analysis for this study were presented in two sections. The first section focused on the teacher's perception, organized by the findings of the pre-assessment, interview, and post assessment. See Appendices B, C, and G. The findings were organized to relate to the first research question.

1. What did one teacher perceive to be as important components of developing and teaching a class for high school students in an online learning environment as compared to developing and teaching the same class for high school students in a face-to-face learning environment?

The second section focused on the students' perception organized by the findings of the survey, interviews, and focus group. These findings were organized to relate to the remaining research questions, 2-4.

2. How did high school students perceive and describe their learning experiences in a senior-level English class taught in a face-to-face learning environment?

3. How did high school students perceive and describe their learning experiences in a senior-level English class taught in an online learning environment?
4. What similarities and differences exist between an online learning environment and a face-to-face learning environment?

Data collected from students for this study included consent forms, interviews, recordings, transcripts, and analyzed data. These data would be kept for at least three years in a secured storage and disposed in accordance with the university's policy on disposal of research data. Throughout the study, respect for participants was a priority.

### **Teacher Findings**

Before starting the assessments and interview, the teacher's state-mandated evaluation from the previous year was reviewed. This instrument was made up of four domains: Planning, Instruction, Learning Environment, and Professional Practices and Responsibilities and was completed by the school administrator. The rubric consists of five performance levels that were based on evidence collected during the observation and define where practices are occurring. Performance levels are as follows: 5-Distinguished, 4-Accomplished, 3-Proficient, 2-Developing, and 1-Improvement Needed. The median rating of Proficient was the expected level for a fully developed teacher.

The teacher was scored as "Proficient" overall in the domain of planning and instruction. The teacher received, a rating of "Accomplished" marking in Dimension 1.4 Activities. The teacher planned engaging flexible lessons that encouraged higher order thinking, persistence, and achievement. In the Learning Environment Dimension 3.1 Classroom Environment, the teacher earned high marks from the school administrator in organizing a safe, accessible, and efficient classroom, and with managing students'

behaviors. It could be inferred then that the teacher establishes, communicates, and maintains clear expectations for student behavior. The Learning Environment domain and Professional Practice and Responsibilities domain were scored with the highest performance levels on the teacher's evaluation with the Distinguished Performance level given in Dimension 4.4-school community involvement. In reviewing the evaluation, the teacher demonstrated leaderships with students, colleagues and community members in the school, district, and community through effective communication outreach. This led to a "Proficient" performance level overall and the teacher was considered to be fully developed and effective teacher.

The assessments and interview questions for use with the teacher were created by the researcher to gather data to address the research questions. These questions focused on the teacher's process for teaching in both types of learning environments. The first research question explained the teacher's perceptions of the important components for creating both online and face-to-face learning environments. Initial data were collected with a pre-assessment from the teacher. This was then followed by an interview and a post assessment. See Appendices B, C, and F. The post assessment was completed after the student findings were shared with the teacher.

The teacher completed a ten-question pre-assessment comparing the differences between teaching the online class and face-to-face class. Referring to Figure 1, the pre-assessment addresses five different areas: Planning, Communication, Relationship, Discussion, and Feedback.

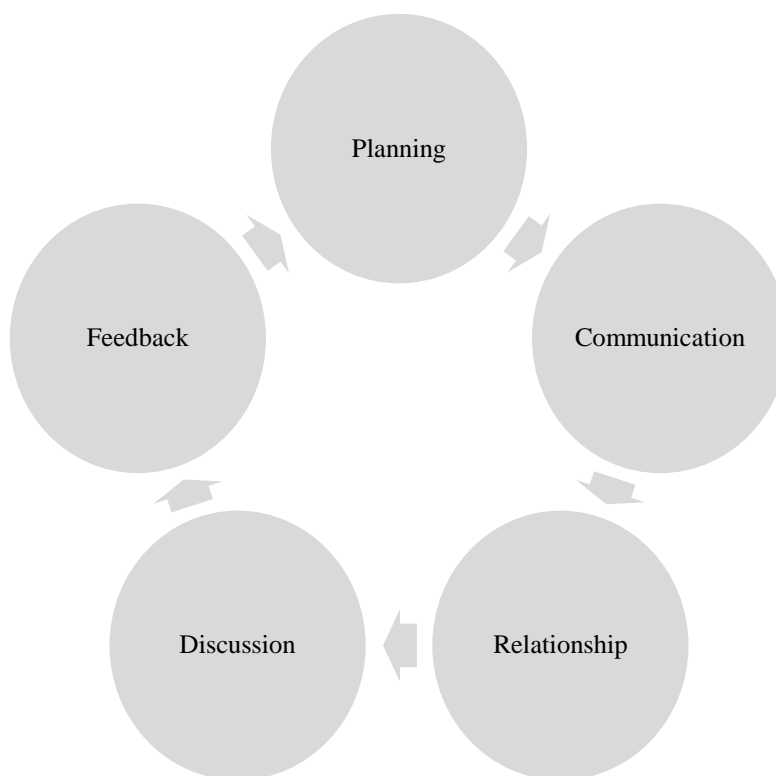


Figure 1. Teacher Pre-Assessment Components.

**Planning.** The teacher reported that she planned both the face-to-face and online classes the same. She planned to deliver content in the same format in both teaching modalities by converting all materials that the face-to-face class would receive into a digital format for the online class. The length of time allotted by the school for the face-to-face class was considered when planning because the teacher used a daily schedule. Lesson plans were created for each week in the face-to-face class, then the teacher would take all the assignments, discussions, and worksheets, and upload them into the Learning Management System (LMS) for the online class. The teacher noted that the different levels of learning and modifications to support students were considered when planning, and she would revise or modify assignments based on the student's needs.

**Communication.** There were similarities between the two types of classes with the posting of announcements for students. The teacher would post announcements on the whiteboard in the classroom and would post the same announcements on the bulletin board in the LMS. The teacher expressed concern that the only communication with the online students was through email or through the LMS messaging option. This means she did not see the online students on a daily basis as she did her face-to-face class, so she is not sure if the online students were actually reading the announcements.

**Relationship.** Although the design of the classes was similar the building of relationships with students in the online learning environment was a struggle for the teacher. This was due to not physically seeing these students. Relationships could be built through conversation but with the online class, in an asynchronous format, those forms of communication were limited. Instead, the only type of communication was in a digital format through email and discussions. The teacher could have arranged synchronous sessions for students to help in build those relationships with the online students.

**Discussion.** The teacher set the expectation that students should participate in discussions. She believed there was more interaction in the face-to-face setting than in the online setting. The teacher was able to better assess understanding of the material through students' body language, questions, and responses to the discussion. With these types of discussions occurring naturally, students would continue to build the discussion based on responses. In the online class, the teacher believed that the answers submitted on the discussion board were not as authentic and did not continue to solicit additional responses.

**Feedback.** In the online class students posted their responses but the interaction between teacher-student and student-student was limited. According to the teacher this was because students were only doing the bare minimum. The teacher provided feedback to the students, but the online students lacked the knowledge or training of referring to refer to given feedback. In the face-to-face setting, feedback looked different, because new discussions would transpire based on the teacher's prompting.

In the interview, the teacher was asked three open-ended questions about teacher presence, challenges, and strategies (Appendix B). According to the teacher, presence in both types of classes look vastly different. In the face-to-face class, the teacher found that relationships were easier to build because she saw and interacted with those students daily. In the online class she described the relationship was lacking because she did not see these students unless they physically came into her class to ask a question or take a quiz. The teacher believed that the barrier developing a strong relationship with these students was due to the online class structure.

### **Challenges**

The teacher faced challenges in teaching the same content and the same type of assignments in the two modalities. One challenge was that she could work with the face-to-face students in person but did not have this opportunity with the online students. In the face-to-face class, the teacher was able to answer their questions and they could read the required passages, poems, and books together. Online students had to function independently to listen to the audio books, and recordings. Students received delayed answers to their questions due to the time needed by the teacher to respond to student



emails. There were many times the teacher assumed that the online students understood the material because she did not hear a response from the students.

Students' performances on quizzes was another way to help the teacher determined if the material was being understood. Due to the design of the online class, the teacher's quizzes were not automatically graded. The delay in grading from the teacher made it more difficult for her to determine if the students understood the presented material before moving forward with new material. Furthermore, there was no evidence of reteaching the material for the online students because the teacher was concerned that these students would get behind on future assignments. Another challenge for the teacher was the online students failing to consistently submit their work by the due date. The same standard late policy was designed to be implemented in both learning environments, but the teacher accepted more late work from online students compared to face-to-face students. The teacher felt she was doing the right thing because she believed that accepting late work could help in relationship building with the online students. She believed that there should be a level of compassion because of the extenuating circumstances in the lives of the online students that precluded them choosing to take the class online when they had the face-to-face option. Many of the online students held jobs; some of them, full-time. Some were dealing with family concerns or handling other obligations. So, in the teacher view, these students needed compassion and empathy. Conversely, she also understood that some of the excuses given for the late work were fabricated. The teacher expressed that looking out for the students' best interest could go far in terms of building long lasting relationships.

## Strategies

The teacher stated the importance of constant communication as a successful strategy. She believed that this was important, and yet challenging for all parties involved. Another stated important strategy was checking for understanding. The teacher incorporated this strategy into warm-ups and class discussions. She indicated that this was a struggle in the online learning environment. The strategy was used in both formats, but the results were not the same.

During the interview, the teacher provided brief answers; however, the answers did address both learning environments in great detail. The teacher believed the online students showed a lack of understanding of how to learn online, and that the online learning environment required more work for the students than the face-to-face students experienced. Additionally, motivation and time-management skills were needed by the students in order for them to be successful. Consequently, the teacher felt that the lack of physical interaction with the students was the biggest challenge, and that this was a missing component of building healthy relationships with students.

After the completion of the student survey, interviews, and focus group, the teacher was given a summary of the findings. The summary included highlights from the survey in the areas of teacher, social, and cognitive presence. The summary highlighted those areas with answer choices of Disagree and Strongly Disagree. A list of indicators from the interviews was also shared with the teacher. The summary did not provide any student's personal information. The purpose of the teacher reviewing the findings was to give her an understanding of what the students perception was of each class in the different learning environments. After reviewing the findings, the teacher could

complete the post assessment more accurately with the changes she felt should be considered.

The purpose of the post assessment was to give the teacher the opportunity to reevaluate how she could teach in both face-to-face and online learning environments in the future and potential changes she could make. The post assessment consisted of ten - questions and was designed to demonstrate how the teacher could communicate, plan, build relationships, facilitate discussion, and provide timely feedback (Appendix G). It was especially important for the teacher to understand the findings because during this time period, school districts were turning to an online learning environment due to the temporarily closures of educational institutions in an attempt to contain the spread of COVID-19, during the global pandemic of 2020.

The first two questions of the post assessment referenced how planning could change for both face-to-face and online. The teacher realized that more time was needed for planning for the online class and that she needed to envision the format of the assignments in an online setting. Since she did not see those students daily, as she did with the face-to-face students, a different approach needed to be taken. By spending more time in the planning process, she could think strategically and possibly predict any problems or issues the students might encounter in completing their assignments. Additionally, she could consider new strategies and technology that could be used.

In questions three and four the teacher explained how she planned to improve communication. In the face-to-face classes, she realized that even though she circulated about and answered questions, she was still overlooking students that would benefit from additional teacher assistance. By knowing this, a new process could be implemented that

would make certain that all questions were being answered along with new ways to check for understanding. In the online class, more time could be spent on replying to emails from students with questions, providing responses in a more timely manner. She determined that additional ways for communicating could be incorporated by adding new tools and strategies into the online class. One example of a new communication tool was a backchannel chat; this was a safe and secure way for a teacher to have classroom discussions with their students. For online students, this type of tool could be helpful in providing a resource where students could help students and the teacher could address questions that several students might have. This approach would help limit the number of emails received by the teacher and help ensure that questions were not overlooked. This type of platform also would give students the opportunity for peer assistance and collaboration.

The next set of questions in the post assessment addressed how the teacher could enhance relationship building. She commented:

*I will make getting to know my online students more personal. I need to make them feel like I value them as much as my face-to-face students. I need to set the tone on the first day that I want them to feel comfortable with me and my teaching style and try to establish relationships with all of them.*

Facilitating a discussion could look different for the teacher after understanding the need for more interaction between teacher and student, and student to student. A new understanding for the teacher was that incorporating more discussions would be followed with more interactions. This could help with building relationships with students in both the face-to-face and online classes.

The last two questions focused on feedback that connects all of the other questions in the post assessment. A newly developed understanding of the significance of providing feedback in a timely manner and more frequently was exemplified when, the teacher stated that she could look for new strategies to address this area for improvement. The teacher perceived that planning, relationships, communications, discussion, and feedback were all important components in developing any class. In studying all responses to the assessments and interviews, relationships were determined to be the important component that tied all the other components together. Without building a strong relationship with students the teacher could struggle with teaching the content, having students participate in discussions, and completing assignments, especially for the online students.

### **Student Findings**

Initial data were collected to measure the student's perception using a modified version of the Community of Inquiry (CoI) survey. This was used to determine the teacher presence, cognitive presence, and social presence within both the online class and face-to-face class (Arbaugh et al, 2008). Based on information gained from the literature review, the survey was created and reviewed by an expert panel to ensure the appropriateness of the items for each construct and to ensure construct validity. The survey instrument was evaluated using the Survey/Interview Validation Rubric for Expert Panel (VREP) created by Dr. Marilyn Simon and Jacqueline White (n.d.). This was a useful tool for assessing the validity and credibility of the instrument and the data that results. It was administered by a panel of curriculum and assessment experts. The VREP

was found to have a validity score of 3.6 out of 4.0, more than meeting expectations according to this instrument.

The survey was conducted with all the senior level English classes. Participation in the study was voluntary and students were provided consent forms. They were permitted to opt out of the survey without consequence. The initial population invited to participate in the survey consisted of 162 students enrolled in a senior English class. Of the 162 students asked to participate 85 students (52.5%) participated in the survey. From the survey, 15 students (17.6%) participated in the interviews, and 8 students (9%) participated in the focus group. Descriptive analysis was conducted for the demographic profile of the study subjects. The respondent survey profile was conducted to identify the ratio of age and gender and to learn students' preference for the type of enrolled learning environment. Frequencies and percentages of enrolled learning environment are presented in Table 1.

Table 1

*Frequencies and Percentages of Enrolled Learning Environment*

Enrolled Learning Environment	<i>n</i>	Percent
Face-to-face	57	67%
Online	28	32%

Of the students who data were examined 57 students were in the face-to-face learning environment and 28 students were in the online learning environment. Table 2 contains the frequencies and percentages by student's gender.

Table 2

*Frequencies and Percentages by Student Gender*

Gender	<i>n</i>	Percent
Male	40	47%
Female	45	53%

Of the 85 students whose data were examined 40 were male students and 45 were female students. Table 3 contains the frequencies and percentages by student age.

Table 3

*Frequencies and Percentages by Student Age*

Age	<i>n</i>	Percent
17	33	39%
18	46	54%
19	6	7%

From the total sample of students 39% were 17 years old, while 54% were 18 years old, and 7% were 19 years old.

**Student Surveys**

The student survey consisted of twenty-four questions using a 5-point Likert Scale that assessed Teacher Presence, Social Presence, and Cognitive Presence (Appendix D). It was designed so that, each participant completed and submitted the survey, after which the student responses were captured into an output file and imported into Statistical Package for the Social Sciences (SPSS). The survey was not forced so

that a participant could not answer a question, meaning they could skip a question. The response survey profile indicated that participants answered all questions.

### **Reliability Analysis**

Reliability analysis was conducted to measure the internal consistency of the scale. Reliability analysis was the fact or measure that stated a scale must be consistent enough to reflect the construct it is measuring (Melchers & Beck, 2018). It was used when the researcher had conducted the reliability analysis with two observations in the study and they are equal to each other with respect to the construct being measured and to having an equal outcome. Out of 85 cases, no single case has been excluded from the test. Table 4 showed the reliability analysis of the student survey,

Table 4

#### *Reliability Analysis of the Student Survey (N=24)*

Scale	Items Number	Cronbach's Alpha
Student Survey	21	.978

The table showed the Cronbach Alpha value that demonstrated the internal consistency of the scale. The value stated that it was more than 0.6 which concluded that the internal consistency of the internal scale was adequate for further investigation. The higher value stated that the respondents were able to easily understand the questions and respond to them. Table 5 presented the data regarding the relationship between teacher presence, social presence, and cognitive presence.



Table 5

*Correlation Between the Teacher, Social and Cognitive Presence*

		Teacher Presence	Social Presence	Cognitive Presence
Teacher Presence	Pearson	1	.719	.788
	Correlation			
	Sig. (2-tailed)		.000	.000
	N	85	85	85
Social Presence	Pearson	.719	1	.842
	Correlation			
	Sig. (2-tailed)	.000		.000
	N	85	85	85
Cognitive Presence	Pearson	.788	.842	1
	Correlation			
	Sig. (2-tailed)	.000	.000	
	N	85	85	85

Pearson correlation analysis was the technique to assess the relationship between the continuous variables (Mansson et al., 2004). It was defined as the measure of the strength of association among the variables. Pearson correlation analysis was conducted to measure the association amongst the variables within the study. The analysis indicated that for the first variable of teacher presence, there was a strong and positive correlation of the variable with students' preference to traditional teaching. This showed that the

more the teacher presence existed, the more likely it could lead to higher student motivation. On the other hand, cognitive and social presence was noted as having a strong and positive correlation as compared to teacher presence. This indicated that positivity in the social and cognitive presence and demonstrated that in this case, cognitive and social presence of the teacher contributes to students' ability to construct meaning. Correlation is significant at the 0.01 level (2-tailed).

### **ANOVA**

ANOVA analysis had been conducted to measure the mean difference amongst the variables of the study. One-way ANOVA was a method used to compare the means of two or more than two samples (Kim, 2017). This method was used for the quantitative analysis of the response data which was denoted as Y and the input data which was denoted as X. Table 6 presented the descriptive statistics for the variances of teacher, social, and cognitive presence.

Table 6

*Descriptive Statistics for Homogeneity of Variances of Teacher, Social and Cognitive Presence*

Variances	Levene Statistics	df1	df2	Sig
Teacher Presence	2.675	1	83	.106
Social Presence	.654	1	83	.421
Cognitive Presence	.989	1	83	.323

Table 6 indicated the homogeneity of variances where the sig value states that the P value for all of the variables are more than .05 which means the study had met the assumption of homogeneity of variances. This defined that the study could conduct a one-way ANOVA. Table 7 presented the findings of the one-way ANOVA.

Table 7

*ANOVA*

Variables	Sum of Squares	df	Mean Squares	F	Sig
<b>Teacher Presence</b>					
Between Groups	562.695	8	562.695	9.576	.003
Within Group	4876.999	83	58.759		
Total	5439.694	83			
<b>Social Presence</b>					
Between Groups	10.668	1	10.668	.707	.403
Within Group	1252.438	83	15.090		
Total	1263.106	84			

Table 7 continues

Cognitive					
Presence					
Between	57.462	1	57.462	1.060	.306
Groups					
Within	4497.644	83	54.188		
Group					
Total	4555.106	84			

---

For the first variable indicator of teacher presence, the sig value of ANOVA was less than p-value. This stated that some of the group means were different. The F value for teacher presence showed that the mean difference is statistically significant for teacher presence. For the second variable, social presence, the sig value was noted to be more than p value which means that the group means are not different for social presence nor for cognitive presence. The sig value was noted to be more than the p value which also means that the group means are not different for the other two variables. Table 8 showed the descriptive statistics for students' perception.

Table 8

*Descriptive Statistics for Students Perception*

Cognitive Measure	<i>M</i>	<i>SD</i>
Teacher Presence	35.63	8.04
Social Presence	14.54	3.87
Cognitive Presence	29.45	7.36

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The descriptive statistics showed that the mean value of the teacher presence was 35.6 and social presence was 14.5. On the other hand, cognitive presence mean value was noted to be 29.4. Table 9 presented the descriptive statistics of the students' responses to the survey.

Table 9

*Descriptive Statistics of Students' Responses to the Student Survey*

Question	Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)
4. The teacher clearly communicated important class topics.	3 4%	3 4%	16 19%	30 35%	33 39%
5. The teacher clearly communicated important class goals.	2 2%	4 5%	21 25%	29 34%	29 34%
6. The teacher provided clear instruction on how to participate in class learning activities.	3 4%	2 2%	17 20%	30 35%	33 39%
7. The teacher clearly communicated important due dates/times frames for learning activities.	2 4%	1 1%	16 19%	29 34%	37 44%
8. The teacher helped participants understand the lesson topic.	1 1%	2 2%	22 26%	28 33%	32 38%
9. The teacher helped participants engage and participate in productive dialogue.	2 2%	3 4%	22 26%	29 34%	29 34%
10. The teacher encouraged participants to explore new concepts in this course.	2 2%	4 5%	27 32%	27 32%	25 29%

Table 9 continues

11. The feedback provided by the teacher helped me understand my strengths.	3 4%	3 4%	28 33%	23 27%	28 33%
12. The feedback provided by the teacher helped me understand opportunities for improvements.	2 2%	2 2%	26 31%	26 31%	29 34%
13. Getting to know other participants gave me a sense of belonging in a course.	1 1%	8 9%	40 47%	18 21%	18 21%
14. I felt comfortable participating in the class discussions.	6 7%	5 6%	29 34%	18 21%	27 32%
15. I felt comfortable interacting with other participants.	4 5%	6 7%	29 34%	23 27%	23 27%
16. I felt comfortable respectfully disagreeing with other participants while still maintaining a sense of trust.	4 5%	5 6%	27 32%	23 27%	26 31%
17. I felt motivated to explore content related questions.	2 2%	5 6%	31 36%	26 31%	21 25%
18. I used a variety of information sources to explore problems posed in this class.	2 2%	6 7%	33 39%	25 29%	19 22%
19. Discussions were valuable in helping me appreciate different perspectives.	1 1%	11 13%	30 35%	22 26%	21 25%
20. Combining new information helped me answer questions raised in class activities.	3 4%	5 6%	32 38%	26 31%	19 22%

Table 9 continues

21. Learning activities helped me construct explanations/solutions.	2 2%	6 7%	27 32%	26 31%	24 28%
22. Reflections on class content and discussions helped me understand fundamental concepts in this class.	1 1%	5 6%	34 40%	23 27%	22 26%
23. I can describe ways to test and apply the knowledge created in this course.	2 2%	7 8%	27 32%	22 26%	27 32%
24. I can apply knowledge created in this class to my work or other non-class related activities.	4 5%	6 7%	25 29%	27 32%	23 27%

The descriptive statistics in Table 9 showed the breakdown of responses to each question. Responses were higher in the neutral, agree, and strongly agree areas. Of the survey responses, question 13 showed 47% of students were neutral in getting to know participants and having a sense of belonging. This question had the highest response compared to other questions. These responses led to a better understanding of the teacher, social, and cognitive presence.

### **Student Interviews**

Interviews were conducted with students (n=85) who returned consent forms. All interviews were conducted via video conferencing using LifeSize. Due to the COVID-19 pandemic of 2020, all interviews were conducted in a virtual setting. Interviews were recorded and later fully transcribed. Appendix D lists the interview questions that were asked of each student. With each interview, the process of collection indicators—that is words, phrases, and statements, from data was conducted. Table 10 showed a list of the indicators collected from the interviews of the face-to-face students.

Table 10

*List of Initial Indicators from Face-to-Face Interviews*


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Active	Doing great	Like how she teaches	Reading poems
Agenda	Easy	Like the class as is	Reading stories
Always pushing to get work done	Easy going	Listen	Really attentive
Always there	Easy to ask questions	Listening to audio	Really helpful
Answer questions	Efficient	Lots of talking	Resources that are available
Ask for help	Engaged	Lots of work	Review
Ask questions	Explain	Make notes on papers	Right there to ask questions
Availability	Feedback	Make sure everyone is on task	Routine
Be available more after school	Focus on work	Memory book	Set time aside to meet 1:1
Be harsher	Forgets about you when answering questions	More active	Socialize
Be more serious	Fun	More detail	Speeches
Be quiet	Get out early with online but no friendliness	More interactive hands on activities	Staying involved

Table 10 continues



Be there as much as she can	Get my work done	More involved	Stories
Class is very talkative; talk less	Gives assignment and I complete them	More learning	Tactile learner
Class not bad	Giving me time on my own	Moves around the room helps others	Talk to people
Class pushes the limits	Go to face-to-face class; not online	Need to be seen more serious	Talkative people
Complete work in class	Goes over what we are doing	Not be absent	Talks 1:1
Completing work	Good	Not good with group projects	Teacher that cares about you
Convenient	Good about to talking to people	Not hard	Text lines (group chat)
Definitions	Grade faster	Not learning by watching someone else doing it	There when I need help
Discipline better	Great teacher	Off topic	Time on own
Discipline differently	Human feel	Online missing friendships	Try not to miss a day
Do not be afraid to ask questions	Information	Paperwork	Tutoring
Do not be in there with friends	Instant feedback	Participate	Understand better
Do not get on her bad side	Interactive hands-on assignments	Pay attention	Understand material

Table 10 continues

Do not laugh with the class	Involved	Push limits	Use resources available
Do not socialize	Involvement	Pushing you to finish work	Vocabulary
Do you work in class; much easier	Kids talk too much	Put grades in faster	What to do if she is not there
Do your work	Learn better	Quizzes	Willing to help
Does not enforce rules much	Learn definitions	Read books	Write essays
Does not give feedback	Less preaching; more teaching	Reading	Writing

Open coding, according to Corbin and Strauss (2008), entails close examination of the data, breaking it down in to parts, and making comparisons. The indicators identified from the data collected were examined and categories were determined. From the list of indicators, face-to-face students frequently expressed the availability of the teacher to ask questions 18 times during the interviews.

Table 11 presented a list of the indicators collected from the interviews of the online students. As with the face-to-face student interviews these indicators were gathered from the data collected.

Table 11

*List of Initial Indicators from Online Interviews*

All information posted	Easy to forget things	Missing notifications	Problem with program
Announcements, tasks, due dates on itsLearning	Easy, just complete assignments.	More detail oriented	Procedures

Table 11 continues

Assignment is linked to a book	Email instead of going to a class	More organized	Procrastinator
Assignments need help	Email us to give us that extra push	More responsive to emails	Provides resources
Assume no assignments when work isn't posted	Explain the grading	Must go to class to get answers	Put grades in a little faster
Be more detailed	Feedback like the other classes	Need more detail in assignments/directions	Put grades in faster
Be more organized	Flexibility	Need to know when I can come in for questions	Questions must be emailed
Check emails more often	Fun to be at own pace but easy to neglect assignments	Need to know where to get answers to questions	Questions, when I need help
Check in with teacher	Get confused; not knowing if I am doing good	Never get a reply from emails	Reminders to do assignments
Check it every morning	Give main due dates	No interaction	Respond to email
Check it every night	Gives bullet points in itsLearning with due dates	Not as difficult as you think	Share feedback like face-to-face gets
Check it every week	Go to face-to-face; not as easy as face-to-face	Not as easy as face to face	Simple
Check twice daily	Hard to tell if I am getting everything completed	Not difficult	Stay on top of assignments

Table 11 continues

Come in or email with questions	Have class once a week	Not posted	Stay one day a week
Complete assignments	Have to check in with the teacher to get information because not everything is posted	Not really learning	Take test and quizzes in class
Descriptions on instructions	Have to go to class to get questions answered	Not sure what counts as grade on writing assignments	Takes me awhile to do my work
Descriptions, due, dates, announcements	If I have questions, I can go in and ask her	Not sure what I am doing	Teacher needs to email for that extra push to complete work
Did not get the point across	If we cannot access online, she will print it out	Nothing online	Too easy to forget
Does enough	Keep looking at due dates	Notifications not popping up	Turn work in late
Do not always go back and check after Monday	Learning better from home	Own pace	Turn work in on time
Do not do it	Links to resources	Post on time	We can just look up answers
Do not get information like face-to-face class	Little but more detailed	Posted at the beginning of the week	We do not get the same discussions
Do not procrastinate	Make sure I get everything done	Posts a description	When confused no one there to ask questions
Due dates	Meet at least once a week	Pretty easy	When I have questions not like face to face
Easier to be in class	Miss postings	Pretty simple	When we email and do not get a response

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In the online student interview several of the indicators revealed that the students would have liked to see more detail in the assignments and that the teacher was not easily available to answer questions. Many of the face-to-face students, as well as the online students identified communication and planning as important components. There were some similarities between both types of learning environments. The similarities included the content covered and the importance of asking questions.

The purpose of identifying the indicators was to use them to generate categories.

These categories consisted of:

- Communication
- Feedback
- Planning
- Relationship

The indicators passed the test of Glasser and Strauss (1967) in that they are both analytic and sensitizing. An indicator was analytic if it was abstract enough to be analyzed into properties or characteristics; it was sensitizing if it produced a picture that facilitates an understanding accessible through personal experience. The set of indicators were characterized by overlap and gap that demonstrated the need for analysis and re-grouping into categories.

### **Communication**

Communication had been noted as one of the most important indicators and categories of learning in both the face-to-face and in the online learning environment. Communication was mentioned 52 times in total during all of the interviews. Of the 52 times, 38 were positive indicators while 16 were negative indicators towards

communication. For the online students it was the lack of communication as compared to the face-to-face learning environment. For example, an online student stated:

*She says we can email her, but a lot of the times when we do email her, I've never gotten a reply. I guess she doesn't check her emails and I heard a lot of people saying that she doesn't reply back to their questions on email.*

Interaction and communication are key to the initiation and development of interpersonal relationship. As they are inherently different in online education as compared to traditional setting of teaching and learning, interaction and communication between students and teachers have been a prominent field of study in context of online education. Communicating and interacting from online learning takes into account the idea of social presence in some way, an extension of our understanding of physical presence-which was mostly situated in the context of behavioral engagement, that was, strongly associated with student-teacher relationship. Furthermore, text-based communications, the basis of many configurations of student-teacher communication in distance learning formats, could have an important social role in learning and teaching.

The list below shows the indicators associated with communication:

- Ask questions
- Availability
- Due dates
- Engaged
- Explain
- Helpful
- Listen
- Pay attention

- Tutoring
- Walks the room

### **Feedback**

Feedback was a category that was mentioned many times in regard to the differences between face-to-face and online learning. During the individual interviews and focus group interview the indicators related to feedback was mentioned 27 times; this included 14 positive indicators and 13 negative indicators toward the feedback that was received. These indicators include grading, commenting on papers, answering questions from email or on discussions, and clarifications or corrections. One student pointed out in their interview the lack of feedback that online students received. Another suggested the teacher could:

*...make sure all the information is posted for the kids and if there was any feedback in her regular classes to share it with her online classes and other things too and let them know that she's available at any time for them.*

A summary of indicators for the feedback category was:

- Answer questions
- Does not give feedback
- Grading
- Instant feedback
- Makes notes on paper

### **Planning**

Proper planning was important in teaching the content of the class, regardless of format. All classes received the same assignments, but the online students struggled to find the assignments in the LMS. Planning for the classroom was an important part of

education and behavior management (Stephney, 2016). Proper classroom planning could keep teachers organized and on track while teaching, thus allowing teachers to teach more and manage less (Stephney, 2016). Important aspects of teaching online and success often depended upon taking the time to consider all the different components of the online learning experience before beginning. In this study, there was over 30 positive indicators towards planning while there were 12 negative indicators. One online student commented during the interview a preference for the teacher to add more detail to the assignments and instructions. Therefore, in the planning process the teacher could consider adding more detail in the assignments and any other material presented in the LMS.

Online education was not intended to be a different kind of education, and what was known to be effective in face-to-face education is also applicable to online education; therefore teacher-student interactions and relationships are crucial in online learning (Bollinger & Martindale, 2004). A change in the practice of teaching and learning (i.e., implementing new pedagogies from a distance) could help in leveling these relationships. A list of indicators that was significant to planning are:

- Agenda
- Definitions
- Information
- Memory book
- More detail
- Reading
- Resources



- Quizzes
- Vocabulary
- Writing

### **Relationships**

Research had shown that students require availability and support from their teacher (Martin & Dowsen, 2009). During the interviews, the participants mentioned indicators related to relationship over 34 times. This included 12 positive indicators, but 22 negative indicators directed towards relationships. Teacher-student interpersonal relationships could be key to students' academic, social, and emotional development, and could consequently affect social and learning environments of classrooms and schools. On the other hand, strong, supporting student-teacher relationships could promote students' feelings of safety, security, and belonging, which in turn could lead to higher academic achievements. Importantly, positive, or negative teacher-student relationship could also influence teachers' well-being and professional development. In this study the list of indicators related to the concept of relationship are:

- Ask for help
- Engaged
- Human feel
- Involvement
- No friendliness
- Talks 1:1
- Willing to help

### **Focus Group Interview**

A focus group interview with eight students was conducted; five students were in the face-to-face class and three were in the online class. The focus group was selected from students who agreed to participate and who returned their consent forms. This interview was also conducted in a virtual setting using the LifeSize program due to the COVID-19 pandemic of 2020. Interviews were recorded and later fully transcribed. The interview consisted of three questions. Refer to Appendix F to review the focus group questions.

Bringing both types of students together for an interview did not reveal any new information but provided an assurance of the information gathered from the survey and individual interviews. The inconsistencies between the two types of learning environments was evident. Students discussed the variation in due dates for the same assignments in both formats. Online students had extended time on assignments and the late work policy was different for those students in the face-to-face class. The students believed that the teacher was more lenient with the online students. The interaction between the students was interesting because if one student mentioned something that happened in the face-to-face class, the response from an online student was “she doesn’t do that for us.” All students spoke highly of the teacher, but there were things they believed could be incorporated to make the class even better. These were discussed earlier in the individual interviews (i.e. more detail in the directions and on assignments).

After reviewing the findings from surveys, interviews, and the focus groups the data showed some differences between the two learning environments. In research question two, students describe their experiences as an environment where the teacher

was available to answer questions and they had fellow students in the class for discussions about the content. Additionally, it was an environment of learning with which they were familiar.

In response to research question three, the online students had a different view of their learning experiences. Several students were confused about how to learn the content, how to get their questions answered, and felt alone in taking the class. For some students it was no longer about learning the content but became more about what needed to be completed for a grade.

The last research question addressed the similarities and differences between an online learning environment and a face-to-face learning environment. The main similarity between the two classes was content. All students were expected to learn and master the same standards for graduation. The same content was being delivered, but in different formats, which led to differences in the students learning experiences. Students did not have the same experience in the online class. The lack of communication and building of relationships between the teacher and students was not the same for the students in the face-to-face class. This explained the planning component of the class. In the online class content was placed in the LMS for students to find assignments, read the material, participate in discussions, and research on their own with little guidance. All students were given the same assignments but had different due dates between the two types of classes. Data from the students in the online class indicated a belief that they had barely any interaction with the teacher and other students.

**Summary**

This chapter described the findings for each research question in the study. A break-down of perceptions and experiences of the teacher and students' responses from the survey and interviews were collected. The findings were presented through tables and lists to demonstrate the indicators and categories that were created based on the data collected from both learning environments. The data revealed similarities and differences between the perceptions of the teacher and students in the face-to-face and online learning environments. Chapter Five provides conclusions of the study and recommendations in relation to the research questions, discussions, and strategies. Additionally, other areas for further consideration are discussed, along with recommendations of future research.

## CHAPTER V

### Summary, Discussions, and Suggestions for Future Research

#### Summary

The purpose of this study was to examine the experiences and perceptions of one teacher and her students related to their learning in a face-to-face learning environment compared to an online learning environment. The study pointed out important differences in the student-teacher relationship between online and face-to-face instruction. It was concluded that important differences exist between the two teaching modalities regarding the teachers' perceptions of the students and regarding ways that the teacher and students communicated with each other. These findings could deepen the understanding of the teacher-student relationship in online learning, as compared to face-to-face learning. These findings could assist in thinking of ways to promote better student-teacher relationships in online teaching. It was important for the teacher to recognize the need for continuous, supporting, and caring communications with students in all formats. This way, the teacher and her students could be exposed to aspects of each other that are not normally present when the communication was focused solely on learning related discussions. Consequently, this could help in compensating for the absence of physical presence in online environments.

The teacher's perception of her relationship with her online students focused on the lack of a relationship with them, contrary to the way she perceived relationships with her face-to-face students. Ideal teacher-student relationships are built on a continuous dialogue between the two, in a way that allows the teacher to know the student and provide the student with guidance from the teacher. Student-to-student and student-to-teacher interactions are essential for a feeling of social presence and community within

the classroom. As students' feeling of community increases, their willingness to ask questions, participate in class assignments, and share information also increases (Yamada, 2009). The isolated nature of an asynchronous online course placed an increased level of importance on the integration of socialization and community building activities within the course. The findings of this study demonstrated that the integration of technologies to assist students in feeling a sense of community within their groups was needed.

To better understand students' perceptions of teacher-student relationships in both a face-to-face learning environment and an online learning environment, data were collected using semi-structured interviews. Interviews were conducted via video conferencing using LifeSize. Interviews were recorded and later fully transcribed. The resulting full transcripts were qualitatively analyzed using the conventional content analysis approach, where coding categories were derived directly from the text data. The transcripts revealed theories and patterns that emerged from the data. Qualitative measures in the study captured the perception and adaptation of the students' regard to learning in both traditional face-to-face and online learning environments. The qualitative analysis approach was necessary to understand the perceptions of the teacher and students.

### **Challenges**

There were challenges in completing this study. First, while the study was distributed to 162 students, 52.5% of students participated in the survey. Participation in the study could have been more likely for students who have greater satisfaction with their learning experience and are therefore more willing to share their perspective.

Another challenge was conducting the interviews. The interviews were originally planned to be conducted in person on campus, along with the focus group interview. Due to the COVID-19 pandemic of 2020 and the resulting shutdown of the participants' school all interviews were completed in a virtual setting for health and safety purposes. Therefore, all communication for students were conducted electronically, and interviews were completed using the Life Size virtual conferencing tool. Students were instructed prior to completing the survey and answering questions in the interview that responses were based on the time in class prior to the COVID-19 pandemic.

### **Discussion**

The first research question, addressed what one teacher perceived as important components of developing and teaching a class for high school students in an online learning environment as compared to developing and teaching the same class for high school students in a face-to-face learning environment. The teacher perceived that planning, relationships, communications, discussion, and feedback are all important components in developing any class. The teacher understood the challenges of teaching the same content in two types of learning environments. The importance of communication and building relationships with all students could be addressed in the designing of these classes.

The second research question addressed how high school students perceived and described their learning experiences in a senior-level English class taught in a face-to-face learning environment. Students in a face-to-face learning environment completed a survey that indicated that for the first variable of teacher presence, there was a strong and positive correlation of the variable with students' preference to traditional teaching.

These findings indicated that the more teacher presence exists, the more likely it could lead to higher student motivation. In the interviews, students expressed that in this type of learning environment the teacher was more available, helpful, and it was easier to ask questions and receive feedback.

The third research question asked how high school students perceived and described their learning experiences in a senior-level English class taught in an online learning environment and showed different findings. Students revealed that there was a lack of availability of their teacher when there were questions or confusion of what needed to be completed. Students also wanted to receive the same information and feedback like the face-to-face students. Online learning was not a different kind of education, those students are still required to meet the same objectives as students in the face-to-face class; therefore, teacher-student interactions and relationships are crucial in the online learning environment.

The last research question addressed the similarities and differences that exist between an online learning environment and a face-to-face learning environment. The main similarity between the two classes was content. The differences were the lack of communication and building of relationships between the teacher and students. The learning experience was not the same for the students in these two types of learning environments. Although, all students were still expected to learn and master the same standards for graduation.

### **Strategies**

Cao, Griffin, and Bai (2005) found that some synchronous online interaction, such as a chat room, was needed for stronger student satisfaction. Brady and Bedient (2003)



identified weekly synchronous chat and instant messaging beneficial as well. They also heralded the importance of “detailed feedback” regarding “cognitive, affective, behavioral, and personal” issues to increase sense of community and belonging (p. 3). Furthermore, just as positive social interactions fostered a sense of community and increased motivation, negative interaction created a sense of isolation and unmotivated students.

Communication was a key aspect and teachers should focus on how to facilitate an online class that requires more interaction amongst students to promote this. Teachers are given the responsibility to provide students with the tools and an environment to be successful learners; however, if student needs within the classroom are overlooked, students could disengage or withdraw, negatively affecting their learning experience, academic success and ultimately their future (Glasser, 1998). It was important for teachers to understand the factors that contribute to the learning experience and seek sustainable solutions with their classrooms, either in a face-to-face environment or online learning environment. According to Buehler et al (2015), when students perceive the learning environment to be positive, safe, and supportive, their school experience is more enjoyable, and they are more positively engaged in the learning process.

### **Recommendation of Future Research**

Further research was needed for validating these findings, including studies that examine students’ perspectives for student-teacher relationships in such settings as online learning. This study described some important differences in student-teacher relationships between online learning and face-to-face learning, based on the experiences of one high school teacher and her students. Summarizing the findings, it was concluded

that important differences between two configurations were found regarding teachers' perceptions of the students and regarding their ways the teacher and students communicate. These findings deepen the understanding of teacher-student relationship in online learning. Importantly, it could assist in thinking of ways to promote better student-teacher relationship when teaching in an online setting. Teachers should recognize the need of continuous, supporting, and caring communications with their students via various platforms. This way, the teacher and his or her students could be exposed to aspect of each other that are not normally present when the communication was focused solely on discussions related to learning. Consequently, this could help in compensating for the absence of physical presence. It would be important for the teacher to receive the appropriate training for teaching online instruction. In addition, it would be important that the instruction in both types of learning environment be parallel.

As online education grows, research to support online teaching and learning has struggled to keep the pace (Archambault & Kennedy, 2014). In particular, the growth and development of teachers within their online experience was still a new, largely unexplored territory. The successful learning experience of an effective teacher was considered a major factor in a successful learning experience in any setting. Relatively little was known about the experience of online teachers (Rakes & Dunn, 2015)

### **Theoretical Significance**

This study could be significant to future researchers who might conduct the study with a larger sample size to gather more information about best practices in both face-to-face and online teaching. This study could be important because it uncovers factors about the teacher, social, and cognitive presence in the online classroom. The findings of

this study reinforced that the instructional design should be student friendly. Students want the teacher to be more engaging in their interactions with the online students.

Feedback should be timely, constructive, positive, and corrective.

The teacher's perception of the relationship with online students were mostly around academic-related issues, in contrast to the way they perceived relationships with their traditional classroom students. Ideal teacher-student relationships are built on a continuous dialogue between the two in a way that allows the teacher to know the student and supports the student in getting guidance from the teacher. While distance communication serves as a "clean" channel that helps teachers focus on more teaching and content delivery, with no disciplinary or personal issues interrupting, it was still not ideal for creating and maintaining a continuous dialogue between the lessons.

Student differences between face-to-face and online settings represent additional concerns for some teachers. According to the Evergreen Education Group (2015) the growth of online learning can be explained, in part, by increased access for at-risk students, migrant youth, incarcerated students, sick or homebound students, and elite athletes and performers needing options, among many others. Research in online learning have revealed some significant pedagogical, operational, and student-related concerns faced by online teachers, but it was unclear of these concerns follow typical patterns that could be anticipated and subsequently addressed. A greater understanding of the concerns of online teachers could inform the design of educator preparation programs and professional development opportunities. With the COVID-19 pandemic of 2020 the opportunity and need for online learning has increased. More than ever teachers

and students are now faced with decisions on how they want to learn and what that learning will look like.

### **Conclusion**

Communication was an integral, crucial component of teaching and learning and of teacher-student relationships in a face-to-face setting. It seems that communication becomes even more important in an online setting. Additionally, promoting better teacher-student relationships could be achieved by increasing the teacher's presence. For example, the teacher could keep an ongoing caring, empathic dialogue with students.

Garrison and Shale (1990) stated that "in its most fundamental form, education was an interaction among instructor, student, and subject-content (p.1)." In a world that was expanded through technological advances, online learning is predicted to continue to grow, and the challenges facing online learners are expected to require ongoing attention. Students perception of online learning was critical to their motivation and success. Similarly, interaction in an online learning environment was important because it influences student's satisfaction and academic success. Teachers wishing to develop a strong relationship with their online students need to implement new learner-centered pedagogies. By using the wide range of options enabled by today's digital technology, it is easy to change the way teaching online is done.

Teacher-student interpersonal relationships were key to students' academic, social, and emotional development, and could consequently affect social and learning environments of classrooms and schools. On the other hand, strong, supportive student-teacher relationships could promote students' feelings of safety, security, and belonging, which in turn, could lead to higher academic achievements. Additionally, positive, or

negative teacher-student relationship could also influence teachers' well-being and professional development. A change in the practice of teaching and learning (i.e., implementing new pedagogies for online learning) could help in leveling these relationships.

There were multiple factors concluded from the students' perception that were addressed in this study. The teacher presence remains a critical factor in both the face-to-face and online learning environments, especially in the online environment because the instructor needs to work to establish and maintain student engagement. Students understand what they need to be successful and could communicate that with the teacher. Where the teacher skills lack it becomes more critical to identify and address those potential barriers. Communication played a pivotal role in enhancing the online learning environment through teacher-student conversation.

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## APPENDIX A

### Student Survey

Directions: Answer the following questions as completely as you can. For questions 4-24 mark the level which best describes your answers: 1 for strongly disagree through 5 for strongly agree.

1. Age: \_\_\_\_\_
2. Gender: \_\_\_\_\_
3. \_\_\_ Face-to-face \_\_\_ Online class
4. The teacher clearly communicated important class topics.  
\_\_\_ (1=strongly disagree) \_\_\_ (2=disagree) \_\_\_ (3=neutral) \_\_\_ (4= agree) \_\_\_ (5=strongly agree)
5. The teacher clearly communicated important class goals.  
\_\_\_ (1=strongly disagree) \_\_\_ (2=disagree) \_\_\_ (3=neutral) \_\_\_ (4= agree) \_\_\_ (5=strongly agree)
6. The teacher provided clear instruction on how to participate in class learning activities.  
\_\_\_ (1=strongly disagree) \_\_\_ (2=disagree) \_\_\_ (3=neutral) \_\_\_ (4= agree) \_\_\_ (5=strongly agree)
7. The teacher clearly communicated important due dates/times frames for learning activities.  
\_\_\_ (1=strongly disagree) \_\_\_ (2=disagree) \_\_\_ (3=neutral) \_\_\_ (4= agree) \_\_\_ (5=strongly agree)
8. The teacher helped participants understand the lesson topic.  
\_\_\_ (1=strongly disagree) \_\_\_ (2=disagree) \_\_\_ (3=neutral) \_\_\_ (4= agree) \_\_\_ (5=strongly agree)
9. The teacher helped participants engage and participate in productive dialogue.  
\_\_\_ (1=strongly disagree) \_\_\_ (2=disagree) \_\_\_ (3=neutral) \_\_\_ (4= agree) \_\_\_ (5=strongly agree)
10. The teacher encouraged participants to explore new concepts in this course.  
\_\_\_ (1=strongly disagree) \_\_\_ (2=disagree) \_\_\_ (3=neutral) \_\_\_ (4= agree) \_\_\_ (5=strongly agree)
11. The feedback provided by the teacher helped me understand my strengths.

\_\_\_ (1=strongly disagree) \_\_\_ (2=disagree) \_\_\_ (3=neutral) \_\_\_ (4= agree) \_\_\_ (5=strongly agree)

12. The feedback provided by the teacher helped me understand opportunities for improvements.

\_\_\_ (1=strongly disagree) \_\_\_ (2=disagree) \_\_\_ (3=neutral) \_\_\_ (4= agree) \_\_\_ (5=strongly agree)

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

\_\_\_ (1=strongly disagree) \_\_\_ (2=disagree) \_\_\_ (3=neutral) \_\_\_ (4= agree) \_\_\_ (5=strongly agree)

14. I felt comfortable participating in the class discussions.

\_\_\_ (1=strongly disagree) \_\_\_ (2=disagree) \_\_\_ (3=neutral) \_\_\_ (4= agree) \_\_\_ (5=strongly agree)

15. I felt comfortable interacting with other participants.

\_\_\_ (1=strongly disagree) \_\_\_ (2=disagree) \_\_\_ (3=neutral) \_\_\_ (4= agree) \_\_\_ (5=strongly agree)

16. I felt comfortable respectfully disagreeing with other participants while still maintaining a sense of trust.

\_\_\_ (1=strongly disagree) \_\_\_ (2=disagree) \_\_\_ (3=neutral) \_\_\_ (4= agree) \_\_\_ (5=strongly agree)

17. I felt motivated to explore content related questions.

\_\_\_ (1=strongly disagree) \_\_\_ (2=disagree) \_\_\_ (3=neutral) \_\_\_ (4= agree) \_\_\_ (5=strongly agree)

18. I used a variety of information sources to explore problems posed in this class.

\_\_\_ (1=strongly disagree) \_\_\_ (2=disagree) \_\_\_ (3=neutral) \_\_\_ (4= agree) \_\_\_ (5=strongly agree)

19. Discussions were valuable in helping me appreciate different perspectives.

\_\_\_ (1=strongly disagree) \_\_\_ (2=disagree) \_\_\_ (3=neutral) \_\_\_ (4= agree) \_\_\_ (5=strongly agree)

20. Combining new information helped me answer questions raised in class activities.

\_\_\_ (1=strongly disagree) \_\_\_ (2=disagree) \_\_\_ (3=neutral) \_\_\_ (4= agree) \_\_\_ (5=strongly agree)

21. Learning activities helped me construct explanations/solutions.

\_\_\_ (1=strongly disagree) \_\_\_ (2=disagree) \_\_\_ (3=neutral) \_\_\_ (4= agree) \_\_\_ (5=strongly agree)

22. Reflections on class content and discussions helped me understand fundamental concepts in this class.

\_\_\_ (1=strongly disagree) \_\_\_ (2=disagree) \_\_\_ (3=neutral) \_\_\_ (4= agree) \_\_\_ (5=strongly agree)

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

\_\_\_ (1=strongly disagree) \_\_\_ (2=disagree) \_\_\_ (3=neutral) \_\_\_ (4= agree) \_\_\_ (5=strongly agree)

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

\_\_\_ (1=strongly disagree) \_\_\_ (2=disagree) \_\_\_ (3=neutral) \_\_\_ (4= agree) \_\_\_ (5=strongly agree)



**APPENDIX B****Teacher Pre-Assessment (Written Response)**

Directions: Answer the following questions as completely as you can - use the space provided and the back of this page if necessary.

1. What are some considerations in planning for a face-to-face class?
2. What are some considerations in planning for an online class?
3. Describe your approach communicating with your students in the face-to-face class.
4. Describe your approach communicating with your students in the online class.
5. How do you get to know your students in your face-to-face class?
6. How do you get to know your students in your online class?
7. How do you facilitate the discussion between students in your face-to-face class?
8. How do you facilitate the discussion between students in your online class?
9. Describe how you would provide timely feedback to your students in your face-to-face class?

10. Describe how you would provide timely feedback to your students in your online class?

## APPENDIX C

### Interview Questions for Teacher

Directions: Record the participant's answers either in complete sentences or keywords.

Answers are transcribed after the interview is completed.

1. How would you describe “teacher presence” in your online class?
2. How would you describe “teacher presence” in you face-to-face class?
3. Describe the differences of teaching the same content in both your online and face-to-face class.
4. Describe the challenges of teaching the same content in both your online and face-to-face class.
5. Describe the teaching strategies that work best for your online class?
6. Describe the teaching strategies that work best for your face-to-face class?

## **APPENDIX D**

### **Interview Questions for Online Students**

Directions: Record the participant's answers either in complete sentences or keywords.

Answers are transcribed after the interview is completed.

1. How would you describe “participation” in your online class?
2. In your experience taking an online class, why is it important for you as a student to feel as if the teacher is available to you?
3. Describe what the teacher can do to be available to you in the online class?
4. Describe your learning experience in your online English class.
5. What suggestions would you give to a student who is taking an online class for the first time?
6. What suggestions would you give the teacher teaching an online class?

## APPENDIX E

### Interview Questions for Face-to-face Students

Directions: Record the participant's answers either in complete sentences or keywords.

Answers are transcribed after the interview is completed.

1. How would you describe “participation” in your face-to-face class?
2. In your experience in your face-to-face class, why is it important for you as a student to feel as if the teacher is available to you?
3. Describe what the teacher can do to be available to you in the face-to-face class?
4. Describe your learning experience in your face-to-face English class.
5. What suggestions would you give to a student in a face-to-face class?
6. What suggestions would you give the teacher teaching a face-to-face class?



**APPENDIX G****Teacher Post-Assessment (Written Response)**

Directions: Answer the following questions as completely as you can - use the space provided and the back of this page if necessary.

1. How did planning change for a face-to-face class?
  
2. How did planning change for an online class?
  
3. How did communicating change with your students in the face-to-face class.
  
4. How did communicating change with your students in the online class.
  
5. How would you change how you get to know your students in your face-to-face class?
  
6. How would you change how you get to know your students in your online class?
  
7. How would you change how you facilitate the discussion between students in your face-to-face class?
  
8. How would you change how you facilitate the discussion between students in your online class?

9. How would you change how you provide timely feedback to your students in your face-to-face class?
10. How would you change how you provide timely feedback to your students in your online class?



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#### Education

Doctor of Education in Instructional Systems Design and Technology, Sam Houston State University, Huntsville, TX, December, 2020

Dissertation: The learning experiences of students in a face-to-face learning environment compared to an online learning environment.

Master of Education in Educational Technology Leadership, Lamar University Beaumont, TX, December, 2013

Bachelor of Business Administration in Information System Technology, Amberton University Garland, Texas, December, 2004

Associate of Applied Science in Computer Information Systems-PC Help Desk, Lone Star College, Kingwood, TX, August, 1999

Associate of Applied Science in Accounting, Navarro College, Corsicana, TX, May, 1993

#### Teaching Certifications

Master Technology Teacher (EC-12), Texas  
Technology Applications (EC-12), Texas  
Business Education (6-12), Texas  
Physical Education (EC-12), Texas

#### Other Certifications

IT Support: Cloud Fundamentals Education, Microsoft Certificate  
TCEA Remote Educator

#### Administrative and Leadership Experience

Assistant Director of Technology, Huffman Independent School, District Huffman, TX, 2020

- Works collaboratively and effectively with faculty throughout the district to provide pedagogical and technical consulting to design, develop, and implement instructional content, courses and projects that enrich teaching and learning through the use of technology in online and traditional courses, including the integration of student learning outcomes.
- Develops and maintains an online repository of resources to provide information on current best practices, innovations, and emerging trends for faculty and

students (e.g. tutorials, interactive programs, websites) to promote sharing of resources.

- Coordinate instruction and documentation for the effective use of technology.
- Coordinate instruction to encourage integration of technology into the curriculum.

Director of Career and Technical Education Huffman Independent School District, Huffman, TX, 2013-2020

- Direct and manage district career and technical education programs and facilities to meet student needs.
- Serve as an instructional leader in development and improvement of instructional programs in career and technical education.
- Manage the career and technology budget and ensure that programs are cost effective and that funds are managed.
- Monitor all graduation plans for students in grades 9-12 for completion of an endorsement and industry certification.

Technology Mentor Teacher, Huffman Independent School District, Huffman, TX, 2010-2020

- Evaluate teacher's use of technology in the classroom.
- Survey and design training classes based on need for teachers.
- Provide one-on-one technology trainings for teachers.
- Implement technology professional development.

District Education Improvement Council (DEIC) Site Member Hargrave High School, Huffman Independent School District Huffman, TX, 2010-2020

- Serve as representative for the district in improving district goals.
- Evaluate district programs for success.
- Create district school calendar.

Career and Technical Education Department Head, Hargrave High School, Huffman Independent School District, Huffman, TX, 2010-2013; 2016-2020

- Design and expand career pathways for students.
- Monitor CTE teachers in preparing students for certifications
- Present professional development in classroom management, instruction, and student success.
- Mentor new CTE teachers.

District Technology Committee, Member Huffman Independent School District Huffman, TX, 2006-Present

- Serve as a representative for campus in improving technology needs.
- Evaluate district technology plan.
- Design technology professional development for faculty/staff.

Vice President of Development Huffman Education Foundation, Huffman, TX 2015-2017

- Oversee fundraising and campaign development.
- Develop funding levels and donor database.
- Create and maintain education foundation website.

Campus Education Improvement Council (CEIC) Chairperson, Hargrave High School, Huffman, TX, 2012-2013

- Compose campus improvement plan and incorporate new leadership programs.
- Work with principal on budget to fund programs aligned with campus improvement plan.
- Evaluate campus programs and collaborate with other members to continue or implement new programs to achieve student success.
- Plan and schedule monthly meetings, agenda, minutes, and materials needed.

### **Teaching Experience**

High School Teacher, Hargrave High School, Huffman, TX, 2007-Present

- Created and teach online courses: Global Business and Virtual Business.
- Designed and implemented video production classes: Principles of Audio Video, Audio/Video Production, Broadcasting and Digital Audio Technology.
- Developed Animation and Video Game Design classes.
- Created a successful Business Professional of America organization for students to learn and experience real life business experiences in competitions.
- Design and implement a video program with live footage for district events (football, track, soccer games, livestock show, award, concerts, and graduation).

Middle School Technology, Huffman Middle School, Huffman, TX, 2004-2007

- Created a technology curriculum for technology classes.
- Published an electronic a monthly newsletter to teachers and parents.

Computer Lab Aide, Huffman Elementary, Huffman, TX, 2000-2004

- Evaluated and tracked student's skill level in basic computer skills.
- Assisted teachers with working with students in using technology.

### **Presentations**

Gatlin, J. (2019, March). *Is Online for Everyone?* Presentation at Texas Distance Learning Association Conference, Galveston, TX

Gatlin, J. (2010-Present). *District Technology Trainings*. Huffman ISD, Huffman, TX

Deen, J. and Shropshire, K. (2012, February). *Project Share: Not Just for Teachers*. Presentation at Texas Computer Education Association Conference, Austin, TX.

Deen, J. and Morrison, M. (2012, January). *Technology in the 21<sup>st</sup> Century*. Presentation at Huffman ISD School Board Meeting, Huffman, TX

### **Professional Affiliations**

Texas Distance Learning Association, 2015-present  
Gulf Coast Career and Technical Education, 2015-present  
International Society for Technology in Education, 2014-present  
Texas Computer Education Association, 2007-present  
Career and Technology Association of Texas, 2010-present  
Association for Career and Technical Education, 2010-present