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HOW TECHNOLOGY MEDIATED SOCIAL LEARNING DURING THE COVID-19 PANDEMIC: A PHENOMENOLOGICAL CASE STUDY

A dissertation submitted in partial satisfaction

of the requirements for the degree of

Doctor of Education in Educational Technology

by

Rashi Seth-Parmar

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This dissertation, written by

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DEDICATION

This dissertation is dedicated to my three boys. To my husband, Hiren, thank you for your unwavering support and encouragement throughout this LONG journey. Thank you for always believing in me and for giving me the time and space to work on this. To my first-born, Kiaan, for bringing me so much joy and happiness. Thank you for making me a mama. I am so proud to be YOUR mama and thank you for your patience with me as I finish this dissertation. Lastly, to Baby Parmar #2, thank you for lighting the fire under me to complete this dissertation before your earthside arrival.

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ABSTRACT

Due to the COVID-19 pandemic, schools in California were forced to shut their doors to students and staff during spring semester 2020. The school closures forced teachers to migrate their lessons to online platforms and forced students to learn using various online modalities. Students no longer had the traditional access to their teachers, administrators, or peers, which caused an imbalance in their social learning. This phenomenological qualitative study offers administrators and teachers best practices in fostering student social learning while utilizing distance learning or online learning specifically for K–12 students. The best practices are derived from the lived experiences of a group of students and teachers from one specific charter high school in Orange County, California. The lived experiences describe how technology mediated the social learning of students during the COVID-19 pandemic and distance learning. The data in this study were captured by utilizing semi structured interviews. The research participants consisted of nine students and teachers who attended or worked at the specific site during the 2019–2020 and 2020–2021 school years. The findings showed that technology mediated the social connections of students and teachers during the distance learning period due to the COVID-19 pandemic. However, at the time, technology did not adequately meet the learning needs of the students. This study provides teachers, administrators, policymakers, and students with practical implications based on the findings from the research.

Chapter 1: Introduction

During the 2020 global COVID-19 pandemic, all schools in California were forced to transition to online learning (Centers for Disease Control and Prevention [CDC], 2020a; Education Week, 2020b). This case study looked specifically at an independent public charter high school in Orange County, CA, and the way it handled student learning during the COVID-19 pandemic for the 2019–2020 and 2020–2021 school years. This chapter provides a background and context to the problem. It also provides the purpose of the study, an overview of the research questions, rationale behind the study, definitions of terms specific to this study, and assumptions and limitations of the study. This dissertation specifically considered social learning as the lens through which learning occurs by examining the intersection of a COVID-19 impacted school, technology, and social learning theories.

Background and Case Setting

In March 2020, the United States was hit with the COVID-19 pandemic. This caused most sectors of the economy, including education, to shut down temporarily. On March 19, 2020, California Governor Gavin Newsom signed Executive Order N-33-20 (2020) mandating that the state was under a stay-at-home order (State of California, n.d.). This, along with the CDC's (2020) recommendation (Education Week, 2020b), resulted in all in-person schools closing their doors to students and staff. Students suddenly had to learn from home, which caused local school districts and schools to reimagine how to teach students during this time. There was a lot of uncertainty regarding how long the stay-at-home order would last and whether when they came back to campus would students be safe. Administrators and leaders would have to think about how schools would handle an outbreak at their school site or in their district.

Governor Newsom said, “Even though a school may be physically closed, educating, and feeding our kids shouldn’t stop. Students still need instruction” (State of California, 2020, para. 3). One thing was for certain, students were not getting an extended vacation; learning needed to continue. The quick answer was to move everyone online. This was the time for technology to shine. However, there are several barriers when it comes to using or adopting technology in the classroom and as a school. The main barriers to technology adoption are lack of vision, lack of leadership, lack of funding, curriculum, infrastructure, parent resistance, and the need for time (Brickenhoff, 2006). Although switching to an online model seemed like the quick fix, the barriers to technology adoption were present, with one that posed a larger challenge than others: infrastructure. Schools and school districts had to figure out how to get internet and technology devices to all their students in a safe and affordable way.

Spring 2020 was not distance learning or e-learning for most educators; it was emergency learning (Barbour et al., 2020). Haythornwaite and Andrews (2011) defined e-learning as:

> E learning as a transformative movement in learning, not just the transfer of learning to an online stage…[e-learning] embraces the way learning flows across physical, geographical, and disciplinary borders…it is perpetual sustained over a lifetime and enacted in multiple daily occurrences as we search for information to satisfy our learning needs and contribute content that promotes our and others’ understanding…[e-learning] is an engaged act created through both technical and social decisions. A technology does not make e-learning, but rather teachers and learners use technology to create the social space in which learning occurs. (p. 2)

As COVID-19 continued into Fall 2020, educators all around the country were more equipped to handle distance learning, and many of the one-time barriers were no longer present.

The problem that arose was within the social aspect of learning. For most students, especially younger students, learning is an extremely social experience. This study addresses the question, how did technology help mediate the learning in K–12 schools in the United States during COVID? The purpose of this research was to understand how technology does not have to be a barrier to learning. This research is also to create a framework for future use of technology in emergency situations—specifically regarding K–12 schools in the United States.

Background on Independent Charter Schools

There are two main distinctions between charter schools: dependent or independent. According to Sacramento City Unified School District:

> A dependent charter school is considered a charter school that has been created by the district board and is an integral part of the district's portfolio of schools. An independent charter school is typically a charter that is formed by parents, teachers, community members or charter management organizations. (Sacramento City Unified School District, 2016, para. 2)

In Los Angeles County and many locations around California charter management organizations operate groups of charter schools, such as the Alliance schools or the Kipp schools. There are, however, independent charter schools that are not run by a charter management organization. Oftentimes, middle college high schools fall under that category. Unity Middle College is one of those instances. In California, charter schools are 100% free, nonprofit, and open to all students.

Statement of the Problem

The coronavirus pandemic forced a near-total shutdown of school buildings in the spring 2020. At their peak, the closures affected at least 55.1 million students in 124,000 U.S. public and private schools. Nearly every state either ordered or recommended that schools remain

closed through the end of the 2019–2020 school year (Education Week, 2020b). Due to the COVID-19 global pandemic and school closures, students and teachers in K–12 schools had to switch models of instruction and learning from in-person to online (Education Week, 2020a, 2020b).

The problem that arose from every teacher and student moving online was the disconnect of the social interaction students had during class because of lack of access to or proper use of technology. Learning occurs in a complex social environment and thus should not be limited to being examined or perceived as something that happens on an individual level. Instead, it is necessary to think of learning as a social activity involving people, the things they use, the words they speak, the cultural context they are in, and the actions they take (Bransford et al., 2006; Rogoff, 1998). Even though students could not be face-to-face with their peers and teachers, technology needed to help facilitate the continuity of learning and advancement of student learning. It is not known to what extent technology mediated learning through the COVID-19 pandemic at the high school level. What is now known is that students suffered significant learning loss due to the school closures in the 2019–2020 and 2020–2021 school years (Dorn et al., 2021).

Data on learning loss during the lockdown have been slow to emerge. As mentioned previously, schools and teachers have been struggling to adopt online solutions for instruction and assessments. Many states halted standardized testing, so obtaining the data has been even more difficult. Dorn et al. (2021) analyzed assessment data from i-Ready assessments. The data showed that by the end of the 2020–2021 school year, students were, on average, five months behind in math and four months behind in reading. Thus, while learning loss is real, was technology able to help mediate the learning loss?

Purpose of Research

The purpose of this case study was to understand the experiences of a group of high school teachers and students who continued instruction and learning through various forms of remote instruction (or distance learning) March 2020 and June 2021 of the COVID-19 pandemic. Teachers pivoted from on-site classroom instruction to various forms of distance learning with little warning, minimal preparation, and quick turnaround times (Kaden, 2020). This type of educational shutdown in the United States was unprecedented, and thus little was known about how teachers would pursue and engage in instruction with their students during a global crisis. The one thing that was known at this local school was that kindness and grace guided instruction. Students who were met with kindness and respect, especially when facing uncertainty and emotional upheaval, were engaged with learning, and performed better than peers who were not met with the same kindness (Binfet, 2015).

A social learning perspective was used in this case study, supporting an interpretive approach to the research with an emphasis on the lived experiences, instructional actions, and realities of the subjects (Creswell & Creswell, 2018). This was an interactive process, where meaning was co-constructed with the subjects through an interview process that explored their experiences with distance learning during the COVID-19 pandemic.

Learning is generally defined as:

> The acquisition of novel information, behaviors, or abilities after practice, observation, or other experiences, as evidenced by change in behavior, knowledge, or brain function. Learning involves consciously or unconsciously attending to relevant aspects of incoming information, mentally organizing the information into a coherent cognitive

representation, and integrating it with relevant existing knowledge activated from long-term memory. (American Psychological Association, n.d.)

Research Questions

This case study was based on one overarching research question and three sub questions. The questions were utilized to explore how technology facilitated learning during the COVID-19 global pandemic in an independent public charter school from the point of view of students and teachers. The questions were also used to identify barriers to learning throughout the pandemic.

- RQ: What was learned during the COVID-19 pandemic from the point of view of the teachers and students about the social learning needs at the school?
- SQ1: How did teachers and the school modify instruction for distance learning?
- SQ2: How did teachers and the school meet the learning needs of the diverse students via technology during the pandemic?
- SQ3: How did teachers maintain a social connection with their students?

Methodological Approach

This study conducted a phenomenological case study. A case study was chosen as the research design because the focus was on one case, and the aim of the research was to understand the different relationships concerning a certain phenomenon, as well as the context and the variables within a particular bounded system (Yamagata-Lynch, 2010).

Data were gathered from semi structured interviews with stakeholders at the school who described their lived experience during the COVID-19 pandemic school closures. A purposeful selection method was chosen for selecting participants from the study site. Data collection was conducted virtually using platforms such as Zoom video collections.

Theoretical Frameworks

I examined three main learning theories and how they relate to K–12 student learning during the COVID 19 pandemic. The three theories discussed are social learning theory (SLT), social constructivist theory (SCT), and cultural historical activity theory (CHAT).

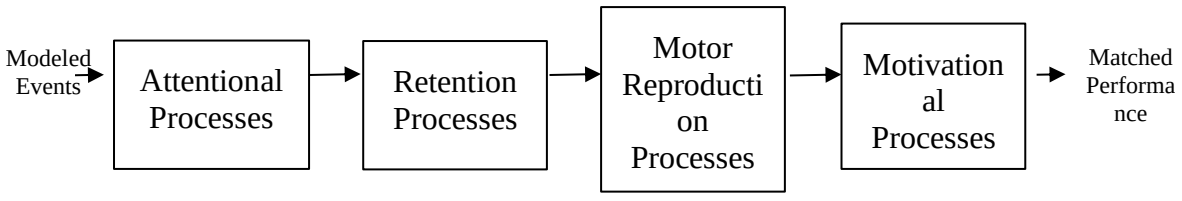
Social Learning Theory

The foundation of SLT is simple: one learns by watching others. One can learn from anyone including teachers, family, friends, peers, social media influencers, etc. (Bandura, 1977). Bandura (1977) said, "Learning would be exceedingly laborious, not to mention hazardous if people had to rely solely on the effects of their own actions to inform them what to do" (p. 22). Bandura (1977) went on to explain that "fortunately, most human behavior is learned observationally through modeling: from observing others one forms an idea of how new behaviors are performed, and on later occasions, this coded information serves as a guide for action" (p. 22).

When exploring Bandura's (1977) theory, there are foundational connections to *how* students learn and *what* is learned. It is important to note that not all observed behaviors are learned effectively. There are four key factors that contribute to observational learning in SLT: attention, retention, reproduction, and motivation (Bandura, 1977).

Figure 1

Social Learning Theory Process



Social Constructivism

Social constructivists see knowledge as what students do in collaboration with other students, teachers, and peers. SCT is a variety of cognitive constructivism that emphasizes the collaborative nature of learning under the guidance of a facilitator and with other students.

Vygotsky (1978), founder of the SCT, stated that knowledge is co-constructed in the environment (interpsychological) with others. According to Vygotsky, knowledge is constructed by exchanging dialogues and interacting with others in a social setting (Vygotsky, 1978). There is a distinction between knowledge and learning. Individual learning is a product of knowledge creation, and this happens when collaboration takes place and knowledge itself gets co-created in the environment. The key factors to Vygotsky's (1978) social constructivist theory are the role of language in cognitive development, the role of social context and cultural factors in cognitive development, the role of a more knowledgeable other, and the principle of the zone of proximal development.

Cultural Historical Activity Theory

CHAT assumes that any human activity can be described and analyzed and that all activities have a structure, happen under certain conditions, and can be assisted by particular tools, instruments, or artifacts. It also assumes that human activities are performed to meet a purpose. CHAT's aim is to describe the relationship among the individual, tools or artifacts, other individuals, and the conditions where a purposeful activity can be undertaken to achieve an intended or desirable outcome (Vygotsky, 1978).

CHAT centers on three core ideas: (a) humans act collectively, learn by doing, and communicate in and via their actions; (b) humans make, employ, and adapt tools of all kinds to

learn and communicate; and (c) community is central to the process of making and interpreting meaning—and thus to all forms of learning, communicating, and acting (Vygotsky, 1978).

Significance of Conducting the Case Study

This study is significant in several ways. It adds new knowledge regarding how teachers can respond and adapt during times of crisis, even with a local and temporary school closure that might occur after an earthquake, fire, other human-made or natural disaster. The results of this study provide an understanding regarding the challenges high school teachers face when directed to continue instruction via remote learning programs with the country's underserved students who are continually learning fundamental skills and processes.

This study offers insights about decisions teachers, school districts, and states make during emergency circumstances and provides information that could guide development of future procedures and plans with remote methods of instruction, specifically regarding students' social learning. The study also offers insights regarding instruction, technology integration, and remote learning at the high school level. Information gained provides an understanding of the levels of preparedness perceived by teachers regarding remote methods of instruction. It also provides valuable information regarding guidance for future teacher training opportunities, professional development, and teacher-preparation programs with regards to student social learning.

Assumptions

There are two primary assumptions in this study. The principal investigator assumes that participants were honest, forthright, and provided accurate narratives of their lived experiences. The principal investigator also assumed that the individuals' answers to the interview questions

can be generalized to reflect the experiences of all teachers and students within the specific independent charter school studied.

Limitations

The main data collection method used for this study was interviews. According to Creswell and Creswell (2018), utilizing this method may have some constraints. As its relevance to this phenomenological case study, the constraints are as follows. First, the study was limited to the data collected from the participating school and was delimited to teachers and students at this specific school. Therefore, only teachers and students during the 2019–2020 and 2020–2021 school years were candidates for the study. Secondly, this methodology relied on the interviewees' memories, which may not be accurate. Lastly, this study was limited to one specific school and thus may not apply to larger school districts.

Researcher's Role

The principal investigator's role in qualitative research is critical as they collected data and conducted the analysis (Creswell & Poth, 2018). Therefore, the principal investigator's role in this study was that of an observer-as-participant; as they were the primary apparatus of data collection, coding, and analyzing the data from interviews, to uncover the emerging concepts and patterns. Based on the principal investigator's relationships with the participants, there was the potential for bias, which one was aware of and mitigated using the following tools. They utilized member checking, where the responses were verified after each question. They also used a second rater in the coding process of the data analysis. In this case, an educational expert was asked to code the data and meet with me to confer and discuss any discrepancies. They also considered any discrepancies and adjusted accordingly.

Bias could also have aided me in data collection, inductive analysis, and the understanding of the process and phenomenon studied because it is something that needs to be experienced before one can clearly write about it. That is why the use of epoch, bracketing field notes, and memos were vital in reporting and analyzing the data. In addition, a personal journal was kept to document the principal investigators own thoughts and feelings through the process, which were used to further document the relationship they may have with the data and analysis.

Definition of Terms

- *Asynchronous learning.* Asynchronous learning is where learning occurs at different times and different places. Typically, this type of learning is done independently, and the student gets to set the pace of learning (Ohio State Online, 2021).
- *Coronavirus disease 2019 (COVID-19).* Coronavirus disease 2019 (COVID-19) is caused by a new coronavirus first identified in Wuhan, China, in December 2019. Because it is a new virus, scientists are learning more each day. Although most people who have COVID-19 have mild symptoms, COVID-19 can also cause severe illness and even death.

On February 11, 2020, the World Health Organization (WHO) announced an official name for the disease that was causing the 2019 novel coronavirus outbreak. The new name of this disease is coronavirus disease 2019, abbreviated as COVID-19. In COVID-19, "CO" stands for "corona," "VI" for 'virus," and "D" for disease. Formerly, this disease was referred to as "2019 novel coronavirus" or "2019-nCoV " (World Health Organization, n.d.).

Coronaviruses, named for the crown-like spikes on their surfaces, are a large family of viruses that are common in people and many different species of animals, including camels, cattle, cats, and bats. There are many types of human coronaviruses, including some that

commonly cause mild upper-respiratory tract illnesses. COVID-19 is a new disease, caused by a novel (or new) coronavirus that has not previously been seen in humans.

Animal coronaviruses rarely infect people and then spread between people. This occurred with two earlier coronaviruses, MERS-CoV and SARS-CoV. SARS-CoV-2 virus is a beta coronavirus, like MERS-CoV and SARS-CoV. All three of these viruses have their origins in bats. The sequences from U.S. patients are similar to the one that China initially posted, suggesting a likely single, recent emergence of this virus from an animal reservoir. However, the exact source of this virus has not been identified (CDC, n.d.).

- *Distance learning.* Per the California Department of Education (n.d.-d),

> distance learning means instruction in which the student and instructor are in different locations. This may include interacting through the use of a computer and communications technology, as well as delivering instruction and check-in time with the teacher. Distance learning may include video or audio instruction in which the primary mode of communication between the student and instructor is online interaction, instructional television, video, telecourses, or other instruction that relies on computer or communications technology. It may also include the use of print materials incorporating assignments that are the subject of written or oral feedback. (para.2)

For the purposes of this dissertation, distance learning will refer to teachers teaching students via synchronous Zoom sessions and asynchronous independent work.

- *Hybrid learning.* Per the Colorado Department of Education (n.d.), hybrid learning is

> a technology dependent and organizationally driven instructional approach that allows for flexible face-to-face student and teacher learning sessions and both

> synchronous and asynchronous remote access to coursework and learning sessions. (para. 4)

Throughout this dissertation, hybrid learning refers to students meeting with teachers virtually via Zoom synchronously part of the week and face-to-face on campus the other rest of the week.

- *Independent public charter school.* Charter schools are independent public schools with rigorous curriculum programs and unique educational approaches. In exchange for operational freedom and flexibility, charter schools are subject to higher levels of accountability than traditional public schools. Charter schools are tuition-free, open to all students, and offer quality and choice in the public education system.

The charter establishing each such school is a contract detailing the school's mission, program, goals, students served, methods of assessment, and ways to measure success. In California, charters are granted for five years. At the end of the term, the entity granting the charter ("authorizer") may renew the school's contract. Charter schools are accountable to their authorizer and to the students and families they serve to produce positive academic results and to adhere to the charter contract.

Like traditional public schools, charters receive state funding based on a formula for each child enrolled in the school. Many charters also do additional fundraising to obtain grants and donations to pay for programs that are not fully funded by state or school district formulas (California Charter Schools Association, n.d.-a).

- *Synchronous learning.* Synchronous learning refers to all types of learning where the learner and instructor are in the same place at the same time. This can include face-to-face on campus, live Zoom sessions, and even smaller group meetings (Bryn Mawr College, n.d.).

- *Zoom*. A communications platform that allows users to connect with video, audio, phone, and chat.

Summary and Organization of the Dissertation

This study investigates how technology mediated learning during the COVID-19 pandemic at an independent charter high school during March 2020 through June 2021. While independent charter schools can make decisions and implement policy faster than a large district, there were still barriers to learning during this period. Specifically, one looks at whether learning can still be a social construct in an online environment where many students have their screens turned off.

This study consists of five chapters. Chapter 1 includes the statement of the problem, purpose statement, the research question and sub questions, and the definitions of terms. Chapter 2 introduces the literature on three specific learning theories and how they were applied to distance learning through the COVID-19 global pandemic at an independent charter high school. Chapter 3 describes the study's methodology, including data collection and analysis processes. In Chapter 4 the findings of the study are presented and organized according to the research question and sub questions. Lastly, in Chapter 5, the summary of key findings, interpretation of the results, implications, recommendations, limitations, and suggestions for further research are presented.

Chapter 2: Literature Review

To fully contextualize this study, this chapter provides an overview of the governance of an independent charter school in Orange County, California. It then follows up with the history of school closures and reported attempts to continue the schooling of children during those closures. It then provides a review of how the COVID-19 pandemic has affected the K–12 education system in the United States. This chapter then explores SLT, SCT, and CHAT as frameworks for this study. Lastly, this chapter reviews how technology has been used in K–12 classrooms, prior to the COVID-19 pandemic and during the pandemic.

Independent Charter School Governance

California has only 20 years of experience with charter schools, but in that short time over 1,200 of these independently operated public schools have been created (California Charter Schools, n.d.-b). Independent charter schools have a complex approach to governance, which requires careful coordination among authorizers, boards, school leaders, and in some cases operators (Finn et al., 2017). For this study, I have omitted operators, as many California charter schools do not use them.

Authorizers are also known as the sponsors, the state-sanctioned entity that licenses a school to operate and is responsible for monitoring its performance and renewing its charter if that performance is satisfactory (Finn et al., 2017). In the state of California, authorizers can be local school districts, the county board of education, or the state board of education (Kemer & Sansom, 2013). Charter schools are monitored by their authorizing entity, which must conduct annual visits and perform specific oversight activities. These oversight reviews include financials, academic programs, enrollment, and day-to-day operations. Oftentimes, oversight

visits include classroom observations and interviews with school administrators, teachers, parents, and students (Kemer & Sansom, 2013).

The governing board is the school's board of directors, which is responsible for the school as a corporate entity. The board adopts the budget, has fiduciary responsibility, is accountable for academic results, and is legally responsible if anything goes wrong. The board is generally also responsible for hiring the school's leadership (Finn et al., 2017). California Education codes stipulate that governing board meetings are to be conducted in accordance with the terms of the Brown Act (Educ. 35145, and following sections; Ferguson, 2015). In conformity with the Brown Act, the education code specifically requires agendas to be posted and minutes be taken and made available to the public; members of the public able to place matters on the board agenda (Kemer & Sansom, 2013).

In most charters, principals have wide-ranging authority and weighty responsibility. They resemble independent-school heads more than typical public-school principals, as they have the power to make staffing, budget, and curriculum decisions and must also deal with boards, parents, community leaders, and local politicians (Finn et al., 2017). On many occasions, the principal and the executive director are one and the same, leading to a gauntlet of responsibilities and decisions.

In spring 2020 when Covid-19 was starting to spread around the country, charter leaders looked to other districts and the State Board of Education for direction on what should be done for student safety. To formalize the decision, not only did school leadership get guidance from state officials (State of California, 2020), but they also had to pass board resolutions and notify their authorizers of their decisions.

History of School Closures

Historically, school closure is not a unique anomaly. Across the globe, schools have had to close for a wide array of reasons including natural disasters, conflicts, weather, violence or the threat of violence, construction, refugee situations, and health crises (Baytiyeh, 2019; Tsai et al., 2017; Wong et al., 2014). In some of these instances, limited efforts were made to continue the education of children. Distance learning or remote learning via the resources available at a particular period in history is not a recent marvel. For example, during the second world war, educational materials were sent by mail or post to students in France. With the introduction of the television to many households in the 1950s, Turkey and several other countries experimented with educating its young citizens via that medium (Reich et al., 2020). Research in regards to school closures is scarce; however, there is some literature available addressing the success of school closures in mitigating the spread of past respiratory viruses, similar to the COVID-19 virus, including the Asian influenza pandemic in the United Kingdom in1957 (Vynnycky & Edmunds, 2008) and the novel H1N1 virus in Bangkok, Hong Kong, the United Kingdom, and Australia in 2009 (Chieochansin et al., 2010; Effler et al., 2010; Wu et al., 2010). However, there is no research with reference to the continuation of teaching and learning during these school closures. It may be understood that largely in the past when schools closed, the formal teaching and learning were suspended. This was not the case in spring 2020. Schools closed with little notice and with great uncertainty as to when children and teachers might return to their buildings. Formal schooling was not suspended. Teaching and learning were expected to continue. My study explored how one specific school continued teaching during this time and how it impacted students' social learning.

In the United States, schools in various parts of the country have, at times, been closed for different reasons. Natural disasters, such as hurricanes, floods, fires, and severe winter weather or extreme snowfall, have made school closures necessary, typically for only a short period of time, resulting in limited educational disruption for students. Teacher strikes, on the other hand, have caused longer educational disruptions. Teacher walkouts in Los Angeles; Chicago; Ravenna, Ohio; and Homer, Illinois halted formal teaching and learning for periods ranging from 11 days to 5 months (Reilly, 2019). Occasionally districts have been forced to temporarily dismiss classes due to violent acts. School shootings or threats of violence such as bomb threats have also periodically forced schools to close for short periods of time. Building construction has also disrupted the school calendar in various districts when specific school buildings were required to close for several days or weeks (Wong et al., 2014). Unlike some of the other unexpected closures, construction or school remodeling situations have been anticipated and planned for, with genuine attempts to minimally impact students' academic progress.

Health crises, including dramatic outbreaks of influenza, have resulted in closing educational facilities in the United States. According to CDC (2019), this country has experienced various strains of related viruses reaching pandemic proportions in 1918, 1957, 1968, and 2009. During the 1918 pandemic of H1N1, most U.S. schools were closed due both to efforts to curb the spread of the disease as well as a result of high rates of absenteeism. Three school districts, including two of the nation's largest, New York City and Chicago, remained open. School leaders in those communities during that very progressive period of the nation's history, believed that daily health inspections of children by medical professionals located within the school building were essential to catching symptoms early

and mitigating the spread (Stern et al., 2009, 2010). Little is reported as to the impact on education, students' learning, or the academic progress of students during this 1918 pandemic, also known as the Spanish Flu.

During spring and fall 2009, waves of influenza A (H1N1) prompted more than 3,000 schools in the United States to suspend classes for various amounts of time. Studies exist relating to the impact of closures in 2009 on the spread of infection (Davis et al., 2015; Lessler et al., 2009). These same epidemic initiated studies which estimate the economic impact of school closings (Brown et al., 2011; Lempel et al., 2009). Additional studies sought to explain the processes of various communities in their decisions to close educational facilities (Navarro et al., 2016). There is no evidence of attempts to continue schooling for students affected by these closures; hence, there is no literature addressing the experiences of students or teachers during these times of school closure. The nationwide school closures in 2020 were accompanied by attempts to continue educating the nation's students.

Closing schools for various reasons, in isolated sectors of the country for short periods of time, is rather routine. The 2020 COVID-19 pandemic, however, prompted the first nationwide closure of schools for three months or more and the full impact of this decision is yet to be fully realized. Although several studies exist that explore the result of school closures on the spread of infection during the 1918 and other pandemics (Cauchemez et al., 2009; Paterson et al., 2009; Stern et al., 2009; Viner et al., 2020), there is limited information available regarding the success of the attempts to continue educational experiences for students during these closures, specifically in regards to their social learning. This exposes a gap in the research and highlights the need for exploration of both teachers' and students'

experiences with distance learning and how social learning played a part during the COVID-19 pandemic.

COVID-19 Impact on K–12 Schools

On March 11, 2020, the WHO officially declared COVID- 19 a pandemic (World Health Organization, n.d.). This announcement prompted school closures around the globe. The United Nations Educational, Scientific and Cultural Organization (2020) estimated that by March 18, 2020, more than 100 countries had ordered institutions to discontinue in-person instruction due to the pandemic, resulting in nearly half of the world's total student population no longer attending classes in a building and seeing their teachers every day. Ultimately, at least 87% of students globally were affected by school closures (Education Week, 2020b). Although the United States federal government did not order nationwide closure, from February to May 2020, 48 states, four U.S. territories, the District of Columbia, and the Department of Defense Education Activity mandated or required the closure of school buildings for the remainder of the 2019–2020 academic school year (Education Week, 2020a).

On March 13, 2020, California Governor Newsom, in Executive Order N-26-20, authorized the continuation of state funding for school districts, county offices of education, or charter schools that closed schools to address COVID-19. As a follow up to the executive order, various agencies were charged with issuing guidance to address several topics. The California Department of Education and the Health and Human Services Agency shall develop and issue guidance by March 17, 2020, regarding: The implementation of distance learning strategies and equity and access considerations for Internet connectivity and technology; ensuring students with disabilities receive a free and appropriate public

education consistent with their individualized education program; and providing meals in a manner that protects the safety of students and staff.

The shift to distance learning in California began. Although the Governor's mandate did not set a timeline for how long schools would be closed, many students, staff, and parents initially believed it would be only for a few weeks. However, in a press conference on March 17, 2020, Governor Newsom told Californians, "Don't anticipate schools are going to open in a week. Please don't anticipate in a few weeks. I would plan and assume that it's unlikely that many of these schools- few, if any- will open before the summer break" (Hoven, 2020).

The California Department of Education and State Superintendent Tony Thurmond provided local education agencies (LEAs) with lengthy distance learning guidelines, such as (a) Distance Learning Considerations (California Department of Education, n.d.-b), (b) Lessons from the Field: Remote Learning Guidance (California Department of Education, n.d.-c), and (c) Designing a High-Quality Online Course (California Department of Education, n.d.-a). These required, "Students engaging in distance learning have access to appropriate educational materials and receive daily interaction with their licensed teacher(s)" and were "intended to support Minnesota school districts and charters in ensuring they have meaningful, relevant, and equitable learning plans in place to address the needs of all students" (Minnesota Department of Education, 2020, p. 3). Consisting of several questions and considerations for districts and school administrators to address in their scramble for a quality distance learning plan for students, the Minnesota Distance Learning Template addressed issues including access to educational materials, student mental health, communication with stakeholders, and meeting the needs of diverse and vulnerable students (Minnesota Department of Education, 2020).

While there was guidance from the California State Department of Education (California Department of Education, n.d.-d), it was vague and not very helpful to site administrators. Site administrators were left to scour independent sources for relevant materials or information for teachers as they needed to assist them in their task of distance teaching. The California State Department of Education tried to provide administrators, teachers, parents, and others with the tools to make distance learning successful. Between March 18, 2020, and July 2020, the state held over 20 webinars to support all stakeholders. These webinars ranged in themes including school closures, funding, supporting students, distance learning, and safely reopening. Although direction was provided from state and local officials, the direction was vague. This meant that individual LEAs were left to make decisions on their own, leading to limited direction for site administrators. This led to significant reliance on individual teachers and their adaptive expertise, creativity, and innovation to develop tactics for continuing to offer academic experiences and meet the needs of their students, specifically regarding social learning. This study explored this phenomenon to learn how teachers at a specific school site met the challenge of converting to online teaching and how it impacted the social learning of students.

Challenges to Education During COVID-19

The historic and unprecedented educational disruption due to the COVID-19 pandemic instigated numerous challenges for administrators, teachers, students, and families. All were challenges that individuals in these groups were not prepared for or properly trained to handle.

Administrators faced the difficulties in supporting teachers who experienced loss, anxiety, uncertainty, and frustration (Education Week, 2021). Chabbott and Sinclair (2020) explained how district leaders and school principals had little to no training in managing an

educational setting amidst a pandemic, so they turned to a focus on supporting teachers and allowing them flexibility in their approach.

Numerous articles recognized the concerns for students' well-being during prolonged school closure and stay-at-home orders (Dorn et al., 2020; Venet, 2020; Wang et al., 2020). These included decreased physical activity, significant increase in screen time, and in many cases diets that were less than healthy. Past research explored the additional psychological effects related to quarantine, including the stress invoked by the fear of infection, boredom, frustration, and lack of socialization with peers and teachers (Stern et al., 2009). Quarantined in their home environments, many students were met with other circumstances that possibly jeopardized their wellbeing. Lack of personal space and, for many, family financial loss, led to anxiety and depression (Wang et al., 2020). Considering the psychological impact of quarantine on individuals, Brooks et al. (2020) reported feelings of grief, confusion, anger, and insomnia as common during extended periods of time separated from others. Students and teachers alike were quarantined in spring 2020.

The pandemic also exacerbated issues of poverty and food insecurities for many families. van Lancker and Parolin (2020) and Walters (2020) cited schools as the primary source of healthy eating for many children. Additionally, they indicated that children from low-income households or students who were socioeconomically disadvantaged were at high risk of little to no support for their learning at home due to (a) lack of access to internet, (b) parents unable to help with students’ learning due to work, (c) uncertainties in how to help them, and (d) caring for other children at home, among other reasons. High school students who come from socioeconomically disadvantaged households are also much more likely to act as caregivers to younger siblings during times of need.

Dorn et al. (2020) estimated the impact of school closures on learning loss and reported that the quality of a student's distance learning experience depended on the quality of remote instruction, home support, and the amount of student engagement in learning. The study ultimately reported the likelihood of increasing an already-present achievement gap and the number of teens dropping out of high school as not being able to enter a building potentially cuts them off from the support offered by caring adults including counselors, social workers, and teachers. This study focused on the social learning of students and how technology helped facilitate the learning; communication was a key factor in the learning of students. Whether via email, video conferencing, phone calls, or simply the exchange of information, instructions, and assignments or projects as part of an academic course, teachers were influenced by the perceived experiences of their students. For all participants in this study, their communications and interactions went beyond the boundaries of academics as they did their level to support students.

Ultimately, the primary challenges to education during the pandemic crisis, according to the limited literature available, were the psychological impacts, social impacts, and the inequities that were exacerbated by the situation. Several articles addressed the inequities for students in accessing education electronically and receiving the necessary support to progress academically (Chabbott & Sinclair, 2020; Dorn et al., 2020; Walters, 2020).

The educational disruption caused by the COVID-19 pandemic posed several challenges to the systems of education that had been in place for many years. The effects of this extensive disorder are yet to be known, understood, or dealt with.

School Leaders' Responses

When the pandemic hit, leaders on every level in every industry suddenly found themselves coping personally and professionally with the profuse, boundless, and immediate changes and uncertainty. School leaders were no exception. As evidenced by Vu et al. (2020), the turmoil that arose as a result of the pandemic shifted long-established learning and teaching habits and methods and required school leaders to face critical unknown issues without time or tools to handle them.

Schools and school districts throughout the United States differed in their approaches on how to navigate the COVID-19 pandemic and how to move all education to distance learning. For example, daily curricular activities for elementary students in Arkansas included up to one and a half hours viewing educational programing on Public Broadcasting Service (Reich, 2020). In fact, some schools opted to tap into the collection of massive open online courses (MOOCs), which enabled structured coursework via the internet (Grammes, 2020).

As many educational companies recognized the crisis prompted by the onset of forced off-site learning, these companies started to extend their online offerings, and several removed the need for site or individual subscriptions to access their many educational materials for a short period of time (Maughan, 2020). Districts, schools, and teachers were able to utilize these "premade" lessons and activities that were already designed to be delivered and consumed completely online.

While many district and school administrators were not equipped with the expertise or resources to navigate the new, albeit temporary, era of distance learning, not all schools were left in that predicament. In the case of the school in this study the administration was well

versed on various technology tools and differing avenues to offer distance learning. Administrators not only had to consider the wellbeing of the students and their learning and provide teachers with whatever tools they could to help all be successful, there was also a focus on supporting teachers emotionally (Chabbott & Sinclair, 2020).

Other Reported Experiences

Some information regarding teachers' experiences during COVID-19 and distance learning began emerging as early as April 2020 with educators reporting lack of physical activity, exhaustion, panic, loss of students' cues that helped direct teaching decisions, and concern about students' wellbeing and the uncertainty that comes with not seeing them daily (Fagell, 2020; Gewertz, 2020). Additional personal effects involved stress surrounding health of self and family, living habits, and financial status (Vu et al., 2020). Teachers experienced personal loss, change, and stress during the pandemic.

In addition to managing the personal impact and unforeseen changes the situation demanded, such as having their own school-age children home, possible job loss by other family members, concerns about meeting personal and family needs in terms of food and safety, amongst others, teachers were confronted in their professional lives with the challenges of continuing educational activities for students who could no longer enter buildings and classrooms. Teachers could no longer rely to the same extent on their adaptive expertise, their collection of resources to practice in a manner with which they were familiar and to which they were accustomed. Instead, educators were bombarded simultaneously with changes, had to make many new decisions, and had to manage a unique situation. Even veteran teachers with many techniques and strategies in their "teacher toolboxes" were

discombobulated and disoriented in the new environment. All were confronted with a plethora of novel and complex challenges as they transitioned to distance learning.

Additional experiences shared by teachers in the literature included (a) the difficulty in the dissemination of educational materials, especially to those lacking internet access; (b) determining the content and pacing for continuing to educate students; (c) possible limited familiarity with technology and the tools necessary to guide virtual instruction; (d) assessing student progress and competency; and (e) assuring the support of students and their families (Daniel, 2020; Eachempati & Ramnarayan, 2020).

Educators' need to make substantial changes to curriculum content and delivery methods were also identified as challenges in transitioning to distance learning. Teachers reported the difficulty in condensing content to make it accessible to students without immediate and continual instructor support (Gewin, 2020). DeWitt (2020) shared that teachers' primary concerns revolved around an uncertainty in navigating the technology to be effective in the new educational territory and a concern over students' lack of engagement. Fagell (2020) acknowledged the uncertainty of educators in how best to support students both academically and emotionally from afar. This research attempted to learn the experiences of teachers in relation to some of these concerns.

Although technology posed an obstacle for many teachers, Lieberman (2020) recognized the potential benefits awarded by digital learning stating it allowed for more opportunities for independent self-directed learning. Lieberman also noted the emphasis during the pandemic on completion of coursework and projects rather than assessments demonstrating proficiency.

Empirical research of educators' experiences and perceptions is still emerging at the time of this study. Kaden (2020), in the case study of a lead teacher in a small K–12 school in rural Alaska, reported participants' experiences as increased workload, surprise at the complexity of online teaching, difficulty in selecting content to teach, and struggling to engage students and assess learning. One survey revealed that the majority of educators' workdays during distance learning involved responding to student and parent emails. The next largest amount of their time was spent creating materials for online learning. The same study reported concerns regarding a decline in the quality of student work as the period of distance learning progressed, as well as a notable gap in achievement and school engagement correlating to family income (Cullinane & Montacute, 2020).

At the time of this study, literature and research exploring teachers' experiences with distance teaching and learning models during the COVID-19 emergency situation are still emerging and limited. This made the need for delving into this phenomenon, speaking with educators who lived it, and sharing the findings indisputable. The purpose of this study was to do just that. The goal was to explore the experiences of teachers and students in making the transition to distance learning, particularly with regards to the social learning of students.

Theoretical Frameworks

The theoretical frameworks utilized in this study include SLT, SCT, and CHAT. The theories help contextualize the study and how the COVID-19 pandemic affected student social learning. The literature review summarizes the themes as they relate to student social learning amid a pandemic. SLT gives an overview of how learning is by nature a social occurrence, and in order for students to learn effectively they need social interaction. SCT provides context as to how students construct their own learning through their shared lived experiences.

The last portion of this section addresses CHAT, which helps to understand how students collaborate and work together, especially online.

Social Learning Theory

Social learning theorists hypothesize that social and personal development is in part due to the social contexts in which learning occurs. Theorists do not focus on internal thoughts or feelings of individuals or the external environment alone. Bandura (1977), the founder of SLT, hypothesized that human behavior is a "interrelated control system in which behavior is determined by external stimulus events, by internal processing systems and regulatory codes, and by reinforcing response-feedback system" (p. 19). Bandura (1969) proposed four principles or constructs that are used to explain SLT. These four principles are differential reinforcement, vicarious learning, cognitive processes, and reciprocal determinism.

- *Differential reinforcement* refers to the idea that consequences for behavior are dependent on stimulus conditions. This concept helps to explain the variability in a person's behavior in different settings. The environment responds with either positive or negative reinforcement, punishment, or withdrawal.
- *Vicarious learning*, or modeling, is the concept that humans may acquire new behaviors through observation of others. This can happen either by spoken or written communication. Reinforcement of these modeled behaviors can result in the increased likelihood of the behavior occurring again. A modeled behavior that results in punishment is likely to deter the behavior.
- *Cognitive processes* happen when encoding, organizing, and retrieving information cognitively regulates behavior. The environment provides a person with the possible consequences of exhibiting the behavior in that particular setting. Cognitive processes

and self-regulation help to inform a person's self-efficacy. Self-efficacy refers to one's belief that they can exhibit a particular behavior. Engaging in self-reflection allows for a person to monitor their own ideas and to accurately judge their self-efficacy.

- *Reciprocal determinism* (Bandura, 1977) introduces the idea that the person, the environment, and the behavior all influence each other. The influence that they have on each other is determined by the setting and the behavior being exhibited. The person is influenced by their cognitive processes.

SLT is an approach that assumes that human behavior is learned from the social environment. Cognitive processing allows for a person to imagine a behavior they want to exhibit in a particular environment. After a behavior is learned, it becomes a part of that person's repertoire and is subject to reproduction and self-reflection (Leonard & Blane, 1999).

Historical Perspective of the Social Constructivist Theory

Contemporary SCT has been principally based on the works of Vygotsky (1978, 1987a, 1997). Vygotsky's works have wielded persuasive inspiration on contemporary conceptions of social constructivism (Lantolf, 2000; Packer & Goicoechea, 2010; Smagorinsky, 1995), as Vygotsky's SCT embeds thought, cognition, and mental processes in social context, and thus has implications for teaching and learning. Vygotsky's theory has three essential components:

- The learner develops as changes in social context impact cognition—termed genetic or developmental method.
- Cognition is socially and culturally mediated; mental processes in the individual have their origin in social processes.

- Cognitive development is mediated by cultural tools and symbolic language systems (Smagorinsky, 1995; Wertsch, 1981).

Vygotsky (1987a) saw development and learning as social in origin and dependent upon signs and tools—specifically, thinking and speech, to mediate cognition and mental processes (Smagorinsky, 1995). Vygotsky determined that the cognitive development of the individual could be traced to social activity and cultural frames of reference and that this development was mediated through language as well as other psychological, symbolic, and technological tools. Vygotsky (1987b) stated, “The actual movement in the development of the child’s thinking occurs not from the individual to some state of socialization but from the social to the individual" (p. 76).

The Zone of Proximal Development

The primary principle to his genetic account of development, and one of the most widely known concepts that Vygotsky (1978) offered educators, is the theory of the zone of proximal development (ZPD). It is based specifically on the principles of genetic development—the intra- and inter-psychological levels of developmental learning and the role mediation plays in the process of internalization—the zone of proximal or “next,” development synthesizes Vygotsky’s theory of genetic development and places it in an educational setting.

Vygotsky (1987a) was concerned with the ways in which people develop concepts over time. For Vygotsky, word meaning was an appropriate unit of analysis for studying the development of consciousness, which Vygotsky equated with the development of concepts. Through the meanings that they attribute to words, people reveal the degrees of abstraction they have achieved in their thinking.

> If word meanings change in their inner nature, then the relation of thought to word also changes. To understand the dynamics of that relationship, we must supplement the genetic approach of our main study by functional analysis and examine the role of word meaning in the process of thought. (Vygotsky, 1987b, p. 217)

Vygotsky (1987a) categorized concepts into two groups: spontaneous concepts and scientific concepts. Spontaneous concepts arise from and are ingrained within the learner's immediate and daily experience and tend to be considered informal as they are surface level concepts. However, formal, logical, and abstract scientific or academic (Wertsch, 1981) concepts emerge from the activity of the classroom and "evolve under the conditions of systematic co-operation between the child and the teacher" (Vygotsky, 1978, p.148). Wertsch was in accord with this interpretation through the use of the term "academic." Through scaffolding the learner is helped to develop more complex cognitive understandings of both spontaneous and academic concepts. Fosnot and Perry (1996) offered their perspective of the zone of proximal development by explaining it as a place where a student's spontaneous concepts work their way up to meet an adult's (or near peer's) academic concepts working their way down within the ZPD.

Vygotsky (1978) suggested that theoretical concepts are the height of intellectual activity because formal, abstract knowledge of a concept enables one to reapply it to a new situation. Spontaneously developed concepts, in contrast, tend to be situated in the context in which they are learned and are thus less amenable to abstraction to new situations.

This analysis of the difference between spontaneous concepts, those functions developed naturally without guidance or help, and theoretical concepts developed within a collaborative and guided learning context is central to the concept of the ZPD. The ZPD addresses the differences between concepts in terms of social mediation. Intervention is present in the development of

theoretical concepts but not in spontaneous ones, and it is this gap that led Vygotsky (1987a) to propose the existence of an area or "zone" of potential development that could be achieved through social assistance and intervention. Intervention, therefore, is the underlying principle of the ZPD.

The zone of proximal development is typically defined as "the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers" (Vygotsky, 1978, p. 86). Vygotsky suggested before development comes learning and that an essential feature of learning is that it creates the zone of proximal development. In the zone of proximal development, learners experience discomfort between current abilities or interests and the complexity of the learning task. Within the zone of proximal development, learning awakens a variety of internal developmental processes that can operate only when learners are interacting with people in their environment and in cooperation with their peers. Vygotsky (1978) stated:

> Development based on collaboration and imitation is the source of all the specifically human characteristics of consciousness that develop in the child. Development based on instruction is a fundamental act. Therefore, a central feature for the psychological study of instruction is the analysis of the child's potential to raise himself to a higher intellectual level of development through collaboration, to move from what he had to what he does not have through imitation. It is also the content of the concept of the zone of proximal development. (p. 210)

Work within the zone of proximal development must simultaneously be appropriately challenging and appropriately supported by peers or adults. If a student works with learning

material that is too simple or too difficult, and/or the adult or peer does not support the learning activity adequately, then learning and development do not take place and frustration often occurs. This was a key factor for teachers to consider as they moved to distance learning—being able to challenge and support students in ways that would not lead to the inevitable frustration. As students increase their developmental levels, the creation of dialogue between a novice and an expert that occurs in the inter-psychological level then leads to appropriation of the concept at the intra-psychological level. Theoretical concepts appropriated into intra-psychological levels become the new plane upon which more sophisticated or advanced teaching in the inter-psychological levels can occur. Vygotsky (1987b) explained:

> What lies in the zone of proximal development at one stage is realized and moves to the level of actual development at a second. In other words, what the child is able to do in collaboration today he will be able to do independently tomorrow. Instruction and development seem to be related in the same way that the zone of proximal development and the level of actual development are related. The only instruction which is useful in childhood is that which moves ahead of development, that is which leads it. (p. 211)

The ZPD, therefore, describes a social system. It stresses the importance of facilitated activity and in particular the relationship between the learner and the teacher or more capable peer (Lee & Smagorinsky, 2000; Newman & Holzman, 1993).

Cultural Historical Activity Theory

CHAT also originated with Vygotsky (1978) in 1920s Russia. As defined, an activity system "analyzes human behavior and consciousness in terms of activity systems: goal-directed, historically situated, cooperative human interactions" (Russell, 1995, p. 53). In first-generation activity theory, Vygotsky (1978) replaced stimulus-response theory with the concept of mediated

activity. Vygotsky articulated his model with three elements: object, subject, and mediated artifact. In understanding the behavior of an individual, Vygotsky asserted that each element of the model acted on and affected the other. Including cultural artifacts in the activity of individuals was a revolutionary departure from the stimulus-response understanding of human behavior. Developed after Vygotsky's death, second-generation activity theory, established by Vygotsky's colleagues, Leont'ev (1978), expanded activity theory to include a collective action, which expanded the unit of analysis to include collective motivated activity (Engström, 1987; Wertsch, 1981; Yamagata-Lynch, 2010). In second-generation activity theory, the triangle was expanded to include rules, community, and division of labor elements that represent collective activity.

CHAT, as theorized by Engström (1999), is conceivably one of the best-known current uses of CHAT as a research methodology. Engström is primarily responsible for theorizing third-generation activity theory, formed from the work of Davydov (1982), Leont'ev (1978), and Vygotsky (1978) before them, along with an expansion of Vygotsky's mediational triangle. As such, many researchers use CHAT to examine large systems of activity, particularly within institutions such as workplace and educational settings.

Engström's (1999) use of CHAT is wide-reaching, including both educational and workplace systems of activity. Engström's research predominantly focuses on developmental work research and changing societal practices, especially through the Center for Research on Activity, Development and Learning (CRADLE), even though Engström's early research was grounded in the study of instruction, with the goal of affecting change in instruction in schools (Sannino et al., 2016). Engeström's (2001) research in health care includes, among several, a study of children's health care within the hospital and primary care systems in Helsinki related to

critical care and the families' experiences in helping to facilitate care with health providers within those systems. Engeström et al. (1999) examined the activity systems within two libraries in Helsinki whose goal was to create new kinds of partnerships between the library and research groups as they worked to provide up-to-date library services while extending their practices to include new technologies. As one of the most noted theorists of activity theory, Engström's work typically involves large-scale projects.

> Engström outlined five principles important to activity theory, and I include them here to provide an anchor for the explanations of the ways CHAT operates as a research method. The first principle is that a collective, artifact-mediated, and object-oriented activity system, seen in its network relations to other activity systems, is taken as the unit of analysis. Goal-directed individual and group actions, as well as automatic operations, are relatively independent but subordinate units of analysis, eventually understood only when interpreted against the background of entire activity systems. Activity systems realize and reproduce themselves by generating actions and operations. (Engeström, 2001, p. 136)

This first principle contains one of the most important concepts for understanding CHAT as a research methodology. The activity system is defined as the unit of analysis, rejecting the Cartesian split between mind and world, text, and context (Russell, 1995, 2009). Within this functional system, it is the subject(s), (i.e., individuals, pairs, and/or groups) moving toward an object-oriented outcome using mediating artifacts (tools) that comprise the analysis. Tools include actual material things like a pencil, but also speech, gestures, and writing, to name a few examples. For this study, technology (computers, apps, etc.) was the main tool. In each activity system, the object-oriented activity remains fixed while the mediating artifacts (also referred to as mediational means) vary (Russell, 2009). As such, the students' (subjects) learning in a social

way (object) using various technological means (tools) leads to an outcome. The technological means can vary with and for situations and students. Because students in classrooms operate within a network of activity systems, considering Engström's (1999) first principle has the potential to bring complexity to the ways researchers analyze all the elements operating within the activity system of the classroom. Keeping all the interrelated activities in mind can act as an anchor for analysis.

> The second principle is the multivoicedness of activity systems. An activity system is always a community of multiple points of view, traditions, and interests. The division of labor in an activity creates different positions for the participants, the participants carry their own diverse histories, and the activity system itself carries multiple layers and strands of history engraved in its artifacts, rules and conventions. (Engeström, 2001, p. 136)

Since activity systems consist of people (individuals, pairs, or groups) with their own viewpoints, constructed through interactions with other people and tools and through many activity systems, activity systems are social. While tools mediate changes in human behavior within activity systems as they occur over time, it is the interactions, the activities, and the doing that are key. It is important to acknowledge the complexity of human activities (Russell, 2009). One of the advantages of CHAT as a research methodology is the way it focuses attention on the complex activities of students as they collaborate and work independently. Even as students work alone, they are still working within systems of activity. The second principle of activity systems highlights this multivoicedness of activity even when it might appear otherwise.

The third principle of importance to an understanding of activity systems is historicity. Engeström (2001) explained:

> The third principle is historicity. Activity systems take shape and get transformed over lengthy periods of time. Their problems and potentials can only be understood against their own history. History itself needs to be studied as local history of the activity and objects, and as history of the theoretical ideas and tools that have shaped its activity. (pp. 136–137)

Like people, activity systems have histories, and these histories have tracks in the mediational means or tools, even as their use changes over time. Understanding these histories can be particularly useful as people approach new situations, prior histories can shape activity systems as well as the people operating within those systems. In working with students, examining the ways students' histories within the activity system of a specific classroom, as well as previous classes or other classes they encountered in specific schools, operate for students. For example, a student's understanding of how one learns at a specific school, whether students accept the idea of learning from other students (with the teacher as the facilitator or if the teacher is considered the sole authority), and students' perceived efficacy of those learning experiences represent only part of the complex histories' students brought to new situations of learning.

Examining histories, particularly students' own examination of their histories, within specific situations and their experiences with the mediational means has the potential to inform students' work. For example, asking students to examine their prior knowledge as well as their perceptions of this information may add productively to a student's understanding of the activity. Without examinations of prior knowledge, histories can be "black boxed" (Latour, 1987, p. 21) or opaque to outsiders, operating without the attention of the teacher or student. As such, this kind of analysis has the potential to turn students' attention to the role their histories play in their activity.

Engström's fourth principle of activity systems revolve around the importance of change. Engström (2001) stated: The fourth principle is the central role of contractions as a source of change and development. Contradictions are not the same as problems or conflicts. Contradictions are historically accumulating structural tensions within and between activity systems (Engström, 2001, p. 137).

Because activity systems are adaptable, the changes associated with them are multidirectional (Russell, 2009). They move and shift; at times they seem to falter. Tensions are encountered as people engage in activity across space and time and within and between activity systems (Prior & Shipka, 2002). The contradictions that arise result from participation in varied and various activity systems. This occurs as participants adopt and repurpose tools, objectives, and even points of view (Russell, 2009). It is through contradictions that Engeström (2001) conceptualized the term "expansive transformations;" Engeström fifth principle states,

> The fifth principle proclaims the possibility of expansive transformations in activity systems. Activity systems move through relatively long cycles of qualitative transformations. As the contradictions of an activity system are aggravated, some individual participants begin to question and deviate from its established norms. (Engeström, 2001, p. 137)

According to Engeström (2001), expansive transformation occurs as "the object and motive of the activity are reconceptualized to embrace a wide horizon of possibilities" (p. 137). Additionally, Engeström equated movement through the expansive transformation with passage through the zone of proximal development of the activity. It is interesting to note Engström retained Vygotsky's (1978) concept of zone of proximal development as relative to a cycle of

expansive transformations. It is important to note there is no expectation for transformation to flow from the teacher to the student.

As Engström (1987) theorized third-generation activity theory, Engström expanded the model to include multiple systems of activity in response to an understanding that systems interact and can share an object. First- and second-generation activity theorists worked extensively with students, particularly examining play; however, third-generation activity theorists are more likely to examine the activity of adults within systems. Researchers utilizing activity theory primarily situate their studies in college contexts (Russell, 1995; Wardle, 2007).

Technology in Education

The development and use of technology have been essential to the rise of human civilization. Technology can be thought of as tools, skills, or procedures that are necessary to use those tools and has been used to reshape one's environment and fulfill social needs (Mutekwe, 2012; Thohari et al., 2013). The importance of technology goes beyond the tool itself. Technology impacts society on every level. Technological developments have taken humankind from being hunter and gatherers to developing the automobile, to the minicomputers now called cell phones.

The U.S. technology policy's goals since its inception has focused on capability enhancing while increasing innovative capacity (Branscomb, 1992). The U.S. technology policy's strategy is to focus public attention on aggressive technical goals and implement seismic improvements in technology. Since 1983, the United States has recognized the importance of technology in the education sector with the publishing of the federal report *A Nation at Risk* (Culp et al., 2005). The U.S. educational technology policy is the National Education Technology Plan (NETP; U.S. Department of Education, 2017). It is aligned to the U.S.

technology policy as written in the Activities to Support the Effective Use of Technology (Title IV) Part A of the ESEA, as amended by ESSA (U.S. Department of Education, 2017). The first iteration of NETP began in 1996 and was titled *Getting America's Students Ready for the 21st Century: Meeting the Technology Literacy Challenge*. It has evolved into its present NETP form with a 2017 update. The NETP synthesized research and practice on effective technology leadership that identified focus areas of collaborative leadership, personalized student and professional learning, and robust infrastructure. The NETP is a response to the rise of technology in society, its impact on the education sector, and the need for leadership in fiscal responsibility and improving the learning environment.

Pre-Covid-19

Although technology is omnipresent today, its integration and adoption vary in the education sector. Technology integration is the process of using technology to support 21st century teaching and learning (Tondeur et al., 2017). A study from the National Center for Education Statistics (2020), which used a four-point scale ranging from *not at all* to *a major extent*, reported that 20% of teachers integrated technology into instruction to a major extent. Acknowledging a need to increase technology integration, the U.S. Department of Education (2017) mandated an increase in technology integration in the school system (Tondeur et al., 2017).

Technology integration does not equate to technology adoption. Technology adoption is sustainable technology integration in which technology use is embedded in culture (Copland, 2003). For technology adoption to occur, teachers must receive leadership support to increase their understanding that their pedagogical beliefs impact technology adoption, which, in turn, impact student achievement (An & Reigeluth, 2012; Glassett & Schrum, 2009; Kara & Cagiltay,

2017). Leadership support for teachers often takes the form of professional development. Professional development is useful in addressing changes in policy that result in initiatives upon which success is subject to factors that impact technology adoption (Darling- Hammond & Bransford, 2017; Hardy et al., 2010; Ming et al., 2010). Leadership has played a role in obtaining the promise of technology in the education sector by facilitating efforts to not only integrate technology into schools but to support its adoption into culture using professional development.

During Covid-19 School Closures/ Distance Learning

The COVID-19 pandemic increased the technological demands that teachers faced on a day-to-day basis. Teachers began teaching their students through a computer and had to adjust their lesson plans accordingly (Turner et al., 2020). They had to learn how to use new technological tools for themselves and their students. It was shown by Kan and Yel (2019) that the more a teacher is familiar with technology, the more positive their attitudes are for using it in instruction. Teacher candidates who owned their own computers, compared to those who didn't were found to have more positive attitudes towards using technology in instruction. In addition, candidates who were on a computer for longer periods of time during the day were found to report more positive feelings towards technology (Kan & Yel, 2019).

Special education teachers faced unique challenges with technology because some of their students with more significant needs cannot independently type or use a computer (Turner et al., 2020). It is estimated that 13% of public-school students receive special education services in the United States (NCES, 2020). All students receiving special education services had to have remote work modified for their individual needs and goals (Tremmel et al., 2020). Teachers provided individualized learning packets for their students based on their needs and goals and found ways to distribute them to students (Tremmel et al., 2020). Special education teachers

were still required to maintain students' individual education plans (IEPs) and monitor their students' progress and IEP goals virtually (Tremmel et al., 2020). Teachers completed progress monitoring with goal-specific packets sent home to students and with the help of the students' parents or caregivers (Tremmel et al., 2020). Meetings to discuss students' IEPs were held via Zoom or phone call for parents and other service providers and teachers (Tremmel et al., 2020; Turner et al., 2020).

Teacher self-efficacy was found to be affected by their views of technology (Kan & Yel, 2019). The ability to keep up with changing conditions was found to be the most held opinion among teachers as to what makes them adequate teachers. When teachers had negative feelings towards technology in the classroom, they had low self-esteem and low self-efficacy (Kan & Yel, 2019). With the increase in technological demands while teaching remotely during the pandemic, teachers are facing more threats to their self-efficacy beliefs.

Summary

In order to fully contextualize this study, this chapter provided background and context on the various components that played a part in this study; beginning with the governance of independent charter schools in California, continued by the history of school closures and reported attempts to continue the schooling of children during those closures. It then provided a review of how the COVID-19 pandemic affected the K–12 education system in the United States. This chapter examined SLT, SCT, and CHAT as frameworks for this study. Lastly, this chapter evaluated how technology has been used in K–12 classrooms prior to the COVID-19 pandemic and during the pandemic.

Chapter 3: Methods

This chapter discusses the methodology of the study. This study investigated how a public charter high school addressed social learning of its students amidst the COVID-19 pandemic. At the time, research on how the pandemic affected education was still emerging; however, little to no research focused on the learning of students with a social learning lens at the K–12 level. This chapter provides an overview of the research design, participants, data sources collection, data analysis plan, validity and reliability, ethical procedures, and plan to report findings.

Phenomenological Case Study

Multiple methodologies were considered. However, in order to examine the impacts of the COVID-19 on the learning of students as social experiences, a qualitative case study with a phenomenological approach was best because phenomenological approaches help one understand the meaning of people's lived experiences of a specific phenomenon—in this case, the meaning of the teachers' and students' lived experience during the COVID-19 pandemic. Case studies are a design of inquiry found in many fields, especially evaluation, in which the researcher establishes an in-depth analysis of a case, often a program, event, activity, process, or one or more individuals. Cases are bound by time and activity, and researchers collect detailed information using an assortment of data collection procedures over an uninterrupted period of time (Creswell & Creswell, 2018). According to Creswell and Poth (2018), there are five defining features of a case study:

> Case study research begins with the identification of a specific case that will be described and analyzed. The key to the case identification is that it is bounded, meaning that it can be defined or described within certain parameters. The intent of conducting the case study

> is also important to focus the procedures for the particular type. A hallmark of a good qualitative case study is that it presents an in-depth understanding of the case. In order to accomplish this, the researcher collects and integrates many forms of qualitative data, ranging from interviews, to observations, to documents, to audiovisual recordings. A key to generating the description of the case involved identifying case themes. (p. 12)

A single case study is an appropriate design approach under several conditions. Yin (2017) gave five rationales for using a single-case study.

> The first rationale is a critical case. This means that the case selected would be critical to your theory or theoretical propositions. The second rationale arises when the case represents an extreme case or an unusual case, deviating from theoretical norms or even everyday occurrences. Conversely, the third rationale is the common case. The objective of the common case is to capture the circumstances and conditions of an everyday situation- again because of the lessons it might provide about the social processes related to some theoretical interests. The fourth rationale is relevancy, this exists when a researcher has an opportunity to observe and analyze a phenomenon previously inaccessible to social science inquiry. And lastly, the longitudinal case: studying the same single case at two or more different points in time. (p. 49-51)

Stake (1995) defined an instrumental case study as a case study used to accomplish something other than understanding the specific case being studied. Stake (1995) also described the differences between qualitative case studies and quantitative case studies: “Qualitative research tries to establish an empathetic understanding for the reader through descriptions, sometimes thick description, conveying to the reader what the experience itself would convey”

(p. 39). This definition of a qualitative case study allows case studies to lend themselves to a phenomenological framework.

Creswell and Poth (2018) stated that a phenomenological study describes the common meaning for several individuals of their lived experiences of a concept or a phenomenon. In this case, the phenomenon experienced is teaching or being a student at a specific high school during the COVID-19 pandemic. Moustakas (1994) explained that in a phenomenological study, the researcher collects data from persons who have experienced the phenomenon and develops a composite description of the essence of the experience for all individuals. This description consists of *what* they experienced and *how* they experienced it.

A single-case study method with a phenomenological view was an appropriate choice as it studied a single phenomenon. This phenomenon was bounded by certain parameters (Creswell & Poth, 2018). Although at first glance the case comes across as an intrinsic case study, it in fact an instrumental case study as it helps understand the social learning of students during times of uncertainty, or school closures in the future and how to better navigate student social learning. Lastly, a phenomenological case study was appropriate because principal investigator was looking to gain understanding through the lived experiences of the teachers and students at the school during that time.

Role as Researcher

In qualitative research such as a phenomenological case study, the researcher's role is that of a key instrument (Creswell & Creswell, 2018), meaning that the researcher collects data through examining documents, observing behavior, or interviewing participants. Oftentimes, researchers do not rely on or use questionnaires or instruments developed by other researchers; they develop their own protocols (Creswell & Creswell, 2018). Yin (2017) stated that to be a

good case study researcher there are five desired skills and values: asking good questions, being a good listener, staying adaptive, having a firm grasp of the issues being studied, and conducting research ethically. The following subsection discloses my experience with the organization, assumptions about social learning and distance learning, and reflexive practices.

Experience with the Organization

I held a position as an administrator at the charter school being studied. I had been employed at that specific organization for three and a half years and served in three positions. I was responsible for being the school's face, leading the teachers and staff, setting goals, and ensuring students met learning objectives. principal investigator was also responsible for overseeing the school's day-to-day operations. In March of 2020, this included ensuring that all students and staff had access to school-provided devices and internet access, as well as meals if necessary. I also ensured that staff were trained on and had access to various internet-based tools to be able to implement daily lessons for students and to continue learning for all, including Zoom, Google Meets, Flip Grid, Google Classroom, Peardeck, EdPuzzle, Loom, Docusign, etc.

Assumptions

I had four main assumptions. The first assumption was that during teachers' credential program, they were taught various learning theories including Vygotsky's (1978) SCT, and had a basic understanding that to keep students engaged and learning there needed to be social interactions with students. The second assumption was that during synchronous, live Zoom sessions teachers and students had their cameras on (unless internet connectivity was an issue). The third assumption was that teachers were reaching out to students who were not actively engaged and participating in synchronous live Zoom sessions or requesting support from front office staff and administration. The last assumption was that students were not getting the full

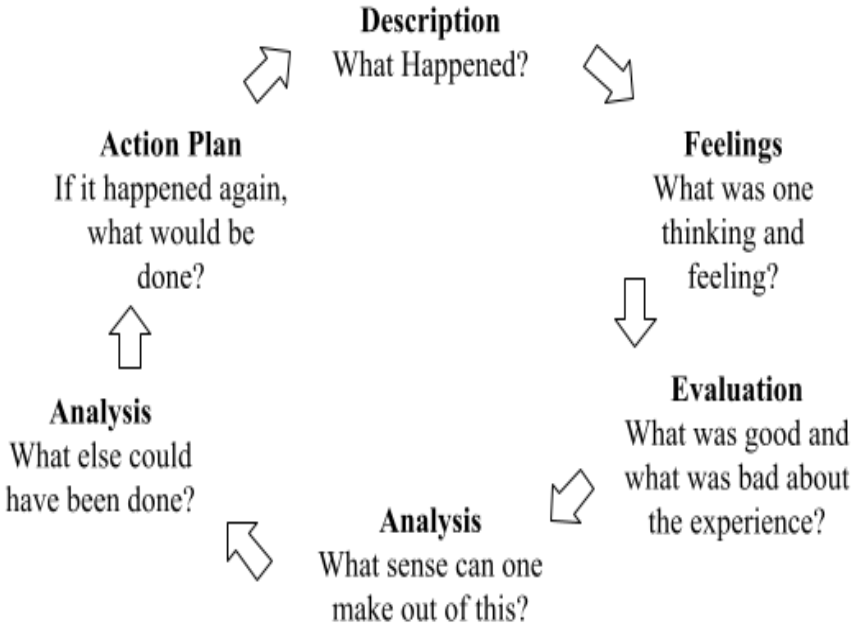
experience of school as they did when all students were on campus learning in a traditional classroom model prior to March 2020.

Reflexive Practices

Gibbs' (1988) reflective cycle was developed to give structure to learning from experiences. It offers a framework for examining experiences and given its cyclic nature it lends itself particularly well to repeated experiences, allowing one to learn and plan from things that either went well or did not go well. It covers six stages: (a) description of the experience; (b) feelings and thoughts about the experience; (c) evaluation of the experience, both good and bad; (d) analysis to make sense of the situation, (e) conclusion about what was learned and what could have been done differently, and (f) action plan for how one would deal with similar situations in the future, or general changes one might find appropriate (Gibbs, 1988).

Figure 2

Gibbs Reflective Cycle



Note. From *Learning by doing: A guide to teaching and learning methods*, by G. Gibbs, 1988, Oxford Polytechnic.

I used Gibbs' reflective cycle after each interview by journaling through the six stages to practice reflexivity. By using reflexive practices, I increased the validity and reliability of this case study and reduced the bias.

The Case

The purpose of this phenomenological case study was to investigate the student social learning of a public charter high school amidst the coronavirus pandemic. A qualitative design was chosen to bring to light the meaning of a phenomenon by understanding how the teachers and students at the school interpreted and attributed meaning to their experience of the event. The research method was selected to achieve the objective of the study, which is to investigate one core research question and three sub questions.

- RQ1: What was learned during the COVID-19 pandemic from the point of view of the teachers and students about the social and learning needs at the school?
- SQ1: How did teachers and the school modify instruction for distance learning?
- SQ2: How did teachers and the school meet the learning needs of the diverse students using technology during the pandemic?
- SQ3: How did teachers maintain a social connection with their students?

The Organization

In this phenomenological case study, the organization being evaluated is an independent charter high school in Orange County, California. During the 2019–2020 school year, the school had 103 students enrolled in grades 9 through 12. Forty percent of students identified as male, and 60% as female. The school had 62% of its students qualify for free or reduced lunches, 29% of students were students with disabilities, and 13% of students were identified as English language learners. The various ethnicities represented at the school in order from most

represented to least are: Hispanic or Latino, White, Asian, and African American. During spring 2020, 45% of students at the school were partaking in the school's dual-enrollment program in conjecture with the local community college. At that time, there were 15 staff members total, including two administrators, two front office staff, and one instructional aide.

During the 2020–2021 school year, the school saw a small decrease in enrollment, as many schools across the state did. There were 98 students enrolled. Forty-four percent of students identified as male and 56% as female. The percentage of students who qualified for free or reduced lunches increased slightly to 64%, 22% of students were students with disabilities, and 17% of students were identified as English language learners. The various ethnicities represented at the school did not change between the two years. During spring 2021, there was a significant drop in the number of students partaking in the school's dual-enrollment program in partnership with the local community college. This is assumed to be attributed to the COVID-19 pandemic and having all courses, including the community college courses, online. With lower enrollment during the 2020–2021 school year, the school also saw a change in staff from 15 to 13. This was in part due to the COVID-19 pandemic and its effects on the school's financial status. For the purpose of this case study, the key figures will be students who graduated in 2020 and 2021, as well as full-time teachers.

Boundaries of the Case

Case studies distinguish themselves from other qualitative designs because their unit of analysis is bounded within a system, such as a setting, specific context, or event (Creswell & Poth, 2018; Yin, 2017). Merriam (2009) argued that it is a bounded system, not the topic of the investigation, that is the unit of analysis for qualitative case studies. In this case study, the unit of analysis was the duration and impact of the coronavirus. More specifically, this case study

looked at the COVID's impact on student social learning when schools transferred to emergency distance learning and the majority of school staff were made to work remotely. The general timeline of the COVID's major impact on K–12 education was from March 2020 through spring 2021 when the majority of K–12, especially high schools shut their on-campus learning and services for digital platforms.

Sources of Data

It is important to note that the period of interest in this case study is during the COVID-19 pandemic. Although the national and state mandates have been lifted, due to the global pandemic and the safety of all parties involved (researcher and study participants), all data sources were constructed electronically or virtually. To evolve with time, this case study used online interviews via telecommunication platforms such as Zoom or Facetime, online documents, and data sources.

As a phenomenological case study, one must describe the lived experiences of individuals (Creswell & Creswell, 2018). To describe the experiences of individuals, the researcher must interview the participants. This study aimed to understand how students' social learning was impacted by the COVID-19 pandemic. This study also sought to analyze how teachers at a specific site addressed the need for social interactions during learning. It was imperative to this study to interview teachers at the school, as well as students from the 2019–2020 and 2020–2021 school years.

Selection of Participants

This case study used a convenience sampling method for its site selection and a purposeful sampling for its data source collection. Purposeful sampling is a nonprobability sample that selects participants based on characteristics of a study's population or objective

(Merriam & Tisdell, 2015). Merriam and Tisdall stated that purposeful sampling is based on the assumption that an investigator wants to learn about a specific problem, so the investigator selects a sample from which they can learn the most. Purposeful selection was used to select participants, with two target criteria. The first was being either a full-time teacher at the school during the 2019–2020 and 2020–2021 school years holding a valid California teaching credential, or in a teacher credential program serving as an intern during that period. The second was being a student at the school who graduated either in June 2020 or June 2021. All potential participants needed to be at least age 18 to be selected as a participant. Tables 1 outlines the inclusion criteria, while Table 2 outlines the exclusion criteria.

Table 1

Inclusion Criteria

Data Source	Criteria to Participate
Online Interview with Teacher	1. Over the age of 18 2. Employed at the independent charter school during the 2019–2020 and 2020–2021 school years as a teacher. 3. Holds a valid California teaching credential or was enrolled in a teaching credential program during that period and teaching under intern status.
Online Interview with Student	1. Over the age of 18 2. Graduated in either June 2020 or June 2021 from the independent charter school.

Table 2

Exclusion Criteria

Data Source	Disqualifying Criteria to Participate
Online Interview with Teacher	1. Not over the age of 18. 2. Not employed at the independent charter school during the 2019–2020 and 2020–2021 school years as a teacher. 3. Does not hold a valid California teaching credential OR was not enrolled in a teaching credential program during that period and teaching under intern status.
Online Interview with Student	1. Not over the age of 18. 2. Did not graduate in either June 2020 or June 2021 from the independent charter school. 3. Currently still a student at the independent charter school.

Interview Protocol

Creswell and Creswell (2018) asserted that researchers should plan to utilize an interview protocol when conducting qualitative interviews. For the interviews to be conducted efficiently there were six components of the interview protocol.

1. Basic information about the interview: name of the participant and researcher, date, time, and location of the interview.
2. Introduction: This section reiterates what is already listed in the informed consent form—purpose/intent of the study. This is also where the researcher explains the structure of the interview, reminds the participant of the allotted time, explains the basic definitions of terms, and asks the participant whether they have any questions before starting the actual interview.
3. Opening question: icebreaker questions where the participant is asked to speak about themselves, their current job, role, or a simple greeting and small talk.
4. Content questions: These are the actual questions from the study but worded using

colloquial terms.

5. Using probes: This is needed to access more information or an explanation of the original response to the interview question.
6. Closing instructions: This time is used to show gratitude towards the participant for taking the time to participate in the study, to inquire whether the participant has any other questions, to reassure the confidential nature of the study, and to inquire whether it is okay to reach out to the participant should more information be necessary (Creswell & Creswell, 2018).

Creswell and Creswell (2018) stated for the data collection process, an interview protocol provides guidance through the interview process. The protocol consisted of interview questions (IQ) that were asked to all participants. The interview questions were related to the research question and subquestions. This study consisted of nine semi structured interview questions to all participants, displayed in Table 3.

Table 3

Research Questions and Corresponding Interview Questions

Research Question	Corresponding Interview Question
RQ1: What was learned during the COVID-19 pandemic from the point of view of the teachers and students about the social and learning needs at the school?	IQ1: Based on your experiences during the spring of 2020 through fall 2021 semesters, how did the school handle the social and learning needs of students considering the circumstances? IQ2: If you could go back, what would you have suggested be done differently by administrators and teachers?
SQ1: How did teachers and the school modify instruction for distance learning?	IQ3: What specific actions taken by teachers to modify instruction for distance learning between spring 2020 and fall 2021? IQ4: Reflecting back on that time, do you find that the modifications made by teachers were effective during distance learning? If so, why? If not, why not?

Research Question	**Corresponding Interview Question**
SQ2: How did teachers and the school meet the learning needs of the diverse students using technology during the pandemic?	IQ5: What are some strategies used by teachers and the school to help meet the learning needs of students during the Spring 2020 and Fall 2021 semesters? IQ6: How was technology used specifically to meet the social learning needs of students during that time period? IQ7: Based on your experiences, do you believe that technology helped or hindered the learning experiences of students during spring 2020 through fall 2021.
SQ3: How did teachers maintain a social connection with their students?	IQ8: What steps were taken by teachers to maintain a social connection with students during that time period? IQ9: What recommendations would you offer to teachers who are aspiring to make and maintain social connections with students who chose to remain online?

To increase validity, the IQs were reviewed by another expert and suggestions were incorporated. Prior to the interviews, I provided a copy of the interview questions to the participants. A few minutes before the interview, I opened Zoom or FaceTime to ensure punctuality and respect for the participant's time. During the opening statement, I thanked participants for their time and urged them to be open and honest as this data have no repercussions for them personally or the organization. principal investigator also reminded participants that the interview was being recorded so that it could be transcribed promptly after the interview.

Human Subject Considerations

According to the requirements outlined by Pepperdine University's Institutional Review Board application process, I obtained a certificate of completion from the Collaborative Institutional Training Initiative course. Prior to any solicitation for research participants, approval was obtained from Pepperdine University's IRB (Appendix C). Submitted along with

the application was a copy of the Informed Consent for Participation in Research Studies (Appendix D), the recruitment script, as well as a copy of the Interview Protocol. Before conducting interviews, participants who agreed to participate in the study were required to sign and return the informed consent form electronically. A component of the informed consent form grants recording permission, and it confirms the participants' understanding that the captured content would be utilized in this case study.

Confidentiality was affirmed for all participants. They were assured that only generic names would be used and not proper names in the study. The participants were also assured that only I would be privy to their identity, so risks of exposure were minimal. The data are stored on a personal, password-protected computer wherein I am the only person who can access the data. The participants are referred to as numerical values.

The participants were provided a copy of the Interview Protocol, which confirmed their voluntary participation, provided permission to withdraw from the study at any time, and provided the list of interview questions. The semi structured interviews included open-ended questions for the teachers and students. The participants were informed that the findings from this case study will be used to develop best practices for teachers and schools to use in case of the need for all to go onto a distance learning model as was needed with the COVID-19 pandemic.

Tools/Instruments Used

There are three types of interview approaches that can be used in phenomenological qualitative research: structured, semi structured, and unstructured interviews (Creswell & Creswell, 2018). With a structured interview, the researcher asks the same questions in the same order, and the questions are often fixed or close-ended and answered within the same context,

which standardizes the interview process (Blackman & Funder, 2002). A semi structured interview is similar to structured in that the same questions are given in the same order except that semi structured interviews allow for a more open discussion as new ideas may be brought up throughout the interview (Edwards & Holland, 2013). Finally, unstructured interviews involve questions that are not predetermined though are in relation to the research questions that the researcher hopes to address (Chilisa, 2012). As mentioned previously, for this study, a semi structured interview method was chosen to allow for open-ended questions while maintaining structure throughout the interview process.

Reliability and Validity

Joppe (2000) defined reliability as:

> The extent to which results are consistent over time and an accurate representation of the total population under study is referred to as reliability and if the results of a study can be reproduced under a similar methodology, then the research instrument is considered to be reliable. (p. 1)

Reliability is the idea that a study can be repeated and replicated with the same or similar results. To increase the reliability of this study the principal investigator used a tool known as inter-rater reliability. Inter-rater reliability provides a way of quantifying the degree of agreement between two or more coders who make independent ratings in a study (Hallgren, 2012). In this study, the principal investigator called on experts in the education field to confirm the inter-rater reliability. The principal investigator used a multistep process to do so.

1. Individually coded two interviews.

2. Selected one co-rater, a peer who coded alongside the principal investigator, and then met to confirm the consensus. As adjustments were necessary, further discussion continued to agree upon the adjustments.
3. After conferring with the co-rater, the principal investigator proceeded to individually code the remaining interviews.

Joppe (2000) provided the following explanation of what validity is in quantitative research:

> Validity determines whether the research truly measures that which it was intended to measure or how truthful the research results are. In other words, does the research instrument allow you to hit "the bull's eye" of your research object? Researchers generally determine validity by asking a series of questions and will often look for the answers in the research of others. (p. 1)

As mentioned previously, to strengthen the validity of this study and the interview questions, principal investigator had the interview questions reviewed by a fellow expert in the field. The suggestions made by the expert were incorporated into the interview questions prior to beginning the research.

Data Analysis

Stake (1995) stated that the search for meaning often is a search for patterns and consistency. Stake stated that one can look for patterns immediately while reviewing documents or observations, or with interviews one can code the transcripts and find the patterns that way. Within the qualitative research approach, analyzing the data incorporates both the preparation and organization of the data for analysis, compressing the data into themes through the process of coding, and then summarizing the data into either figures, tables, or a discussion (Creswell & Creswell, 2018). Specially, regarding the coding process, coding is the process of denoting or

categorizing text from the interview process to help interpret the findings (Bailey, 2007; Gibbs, 2007). When researchers consider the questions, they are trying to have answered in relation to the topic of the study, preliminary coding schemes can be developed (Gibbs, 2007).

Regarding the phenomenological approach, Creswell and Creswell (2018) described specific analysis and representations of integrating the data. Through data management, principal investigator created and organized files or categories. Then, through reading and memoing, I studied and looked through the transcribed texts and notes to form initial codes. After this, I described personal experiences through epoché, as well as the nature of the experience or phenomenon (Creswell & Creswell, 2018). Next, significant, and similar statements were put into meaningful groupings for classification or themes. Through interpretation, I developed a textural (of what happened) and structural (how it was experienced) description of the phenomenon experienced, as well as the principles that were uncovered. Finally, principal investigator concluded these steps with the representation and visualization of the experience through summarizing the data in a clear narration and/or illustration.

Summary

Chapter 3 provided a comprehensive explanation of qualitative study characteristics and an examination of the research design and methodology used to conduct this qualitative phenomenological study. This chapter reiterated the research questions and rationalized why a phenomenological approach was best for this type of study. This chapter specified in detail the research design, and methods for collecting data, including conducting semi structured interviews, and utilizing interview protocols. This chapter also provided a description of the data analysis process. The details of the findings of the study are fully reported in Chapter 4.

Chapter 4: Findings

The purpose of this study was to capture the lived experiences of students and teachers who continued instruction through various forms of distance learning during a 12-month period of the COVID-19 pandemic between March 2020 and June 2021, focusing specifically on the spring 2020 semester and fall 2020 semester. Chapter 4 presents the findings from a group of students and teachers at one specific school site in Orange County, California, that lived through the remote learning period. In addition to providing details and data about how the experience shaped the social learning of students during that time frame, Chapter 4 provides data for recommendations for teachers and administrators on how to create and maintain social connections with students who choose to stay fully online.

The findings are detailed in this chapter. First, the process of participant selection is presented. Second, the procedures used for data collection are explained, including the interview questions, protocol, and scheduling. Next is the data analysis and coding procedures, with an explanation of how themes were decided upon and validated. Lastly, the research question, subquestions, and interview questions are displayed to present the overall data findings. Interview questions are separately represented with a chart or graph alongside a discussion of the themes represented in the chart or graph. The conclusion contains a summary of the findings.

To capture the lived experiences, this research study focused on answering the following research question and subquestions:

- RQ1: What was learned during the COVID-19 pandemic from the point of view of the teachers and students about the social and learning needs at the school?
- SQ1: How did teachers and the school modify instruction for distance learning?
- SQ2: How did teachers and the school meet the learning needs of the diverse students

using technology during the pandemic?

- SQ3: How did teachers maintain a social connection with their students?

To gain better understanding and insight to the research questions, I asked the following the participants nine semistructured interview questions, which are aligned with its corresponding research question (Table 4).

Table 4

Research Questions and Corresponding Interview Questions

Research Question	Corresponding Interview Question
RQ1: What was learned during the COVID-19 pandemic from the point of view of the teachers and students about the social and learning needs at the school?	IQ1: Based on your experiences during the spring of 2020 through fall 2021 semesters, how did the school handle the social and learning needs of students considering the circumstances? IQ2: If you could go back, what would you have suggested be done differently by administrators and teachers?
SQ2: How did teachers and the school modify instruction for distance learning?	IQ3: What specific actions taken by teachers to modify instruction for distance learning between spring 2020 and fall 2021? IQ4: Reflecting back on that time, do you find that the modifications made by teachers were effective during distance learning? If so, why? If not, why not?
SQ2: How did teachers and the school meet the learning needs of the diverse students through the use of technology during the pandemic?	IQ5: What are some strategies used by teachers and the school to help meet the learning needs of students during the spring 2020 and fall 2021 semesters? IQ6: How was technology used specifically to meet the social learning needs of students during that time period? IQ7: Based on your experiences, do you believe that technology helped or hindered the learning experiences of students during spring 2020 through fall 2021.
SQ3: How did teachers maintain a social connection with their students?	IQ8: What steps were taken by teachers to maintain a social connection with students during that time period? IQ9: What recommendations would you offer to

Research Question	Corresponding Interview Question
	teachers who are aspiring to make and maintain social connections with students who chose to remain online?

The data for this study came directly from the responses to the interview questions in Table 4. The data provide evidence for best practices to assist K–12 administrators, leaders, and teachers in the future in case of the need to go fully remote again.

Participants

I used a purposive convenience sampling method to identify possible participants. The target number of participants for the study was 10; however, principal investigator was able to get only nine participants. Each participant met the inclusion criteria, which included the following for teachers:

- over the age of 18,
- employed at independent charter school during the 2019–2020 and 2020–2021 school years as a teacher, and
- holds a valid CA teaching credential or was enrolled in a teaching credential program during that period and teaching under intern status.

The inclusion criteria for students included the following:

- over the age of 18, and
- graduated in either June 2020 or June 2021 from the independent charter school.

Additionally, participants agreed and made time to participate in the study via Zoom and to be recorded.

After the interviews were completed, I reviewed the recordings against the transcripts to confirm the accuracy of the transcripts and coded the first question from each transcript. principal investigator then went through the peer-review process to validate the data.

Data Collection

I began the recruiting process on January 15, 2023, after receiving approval from Pepperdine's IRB on Jan 6, 2023. Participants were contacted via e-mail or the social media platform Instagram. On January 15, 2023, principal investigator contacted 20 possible research participants utilizing the IRB-approved recruitment script (see Appendix A). Of the 20 possible participants, nine replied with interest to participate. I sent a follow-up message requesting availability for interviews and attached the IRB-approved Informed Consent, which entailed the scope of the study (see Appendix D). From January 15, 2023, through Jan 30, 2023, I scheduled interviews with the nine participants to be completed by February 3, 2023.

Once the interview date and time were confirmed, I sent a confirmation email, which included the Informed Consent form to be returned prior to beginning the interview, along with the Zoom link to participate in the interview. All nine interviews were conducted virtually via Zoom, in part due to the continuing COVID-19 pandemic, and in part due to the various locations of participants throughout California.

At the beginning of each interview, the participants were thanked for their time, reminded of the scope of the study as was stated in the Informed Consent, and asked whether they had any questions. If participants had any questions, those were answered prior to the beginning of the interview. The participants were assured that there would be no repercussions for participating in the interview as neither party was associated with the organization anymore, and that each participant's identity would remain confidential. The participants were also reminded that the interviews were being recorded but would be safely stored and properly disposed of upon full completion of the study.

The interview questions were semi structured with follow up questions if needed. The interview questions were designed so that participants could provide their lived experiences during the initial COVID-19 school shutdowns in spring 2020 and fall 2020 and could describe how distance learning was managed by a singular organization. Each interview was scheduled for 60 minutes but varied from 20 minutes to 60 minutes. The interviews were captured using Zoom's audio, video, and transcription recording.

Data Analysis

The majority of the data used for this study came directly from the responses of the nine research participants. Since the principal investigator had a personal connection to the organization being studied, as well as personal relationships with each of the participants, the principal investigator added the steps of Gibbs' (1988) reflexive cycle after each interview to minimize bias and judgment prior to analyzing the data. Gibbs' reflexive cycle was done by journaling through each step of the process after completing each interview. It was necessary to not taint the data analysis with my own personal bias. In addition to completing Gibbs's reflexive cycle, the principal investigator also utilized the words/phrases mentioned by research participants when creating the codes to analyze the data.

Upon completion of the interviews and the reflexive cycle, I coded and analyzing the data. I reviewed each of the nine recordings alongside the transcripts to accurately categorize the data and create common themes (codes). I then utilized a commonly used qualitative analysis tool called hyper-research to facilitate the analysis process. Using hyper-research, principal investigator was able to categorize the transcripts into various themes (codes), accumulate the frequency of the codes/themes, and then generate various charts and graphs. The transcripts were

broken down by questions along with a numeric representation of participants (P1–P9) in the order in which their interview took place.

Inter-Rater Review Process

Upon completion of the interviews and coding of the first question by all participants, I shared the results with a content expert, who has been in the education field for over a decade and had completed their doctorate in 2021 at Pepperdine University, to confirm that the coding was sufficient and accurate. After providing feedback and suggested revisions to the coding for the first interview question, a phone call was made to discuss the suggested revisions, which led to an agreement to modify the original wording in the coding for the interview question. As the sample size was small, there were no other suggested revisions to the coding (see Table 5).

Table 5

Inter-Rater Coding Edit Recommendations

Interview Question	Original Code	Inter-rater Recommendations	Modified Code Applied
1	The use of "EdTech/Applications"	Consider using "Technology Use" instead	Modified code with "rollout of technology use for online learning"
1	The use of "Social" and "Connections"	Combine the two themes/codes into "Social Connections"	Agreed to modify code with "maintaining social connections" as many of the direct quotes referenced both 'social' and 'connections' and were redundant.
1	The number of themes/codes	Instead of broad overarching codes, be more specific	Expanded number of codes for each interview question to 2–5, to result in more comprehensive data

Findings by Research Question

In alignment with the Informed Consent, the privacy and confidentiality of the participants remained anonymous, and they were referred to numerically as P1 for Participant 1 through P9 for Participant 9 The organization of the data was reflected by stating the research

question and then the corresponding interview questions that intended to answer the encircling research question. The charts and graphs associated with each interview question display the frequency in which each of the nine participants related to each of the themes that principal investigator determined. Each interview question resulted in a variety of themes but ranged from between two and five themes. According to Braun and Clarke (2012), there are no set rules for how many themes should be gathered from qualitative data; however, too many themes may distract the reader, and too few themes are not adequate. If there are any outliers from the common themes, they will be discussed in detail in the parallel paragraph. Direct quotes from the participants were utilized to support and emphasize the context of that code/theme.

Research Question 1: Student and Teacher Views of Social and Learning Needs

RQ1 asked, what was learned during the COVID-19 pandemic from the point of view of the teachers and students about the social and learning needs at the school? This research question sought to answer what the school took away from the COVID-19 pandemic school closures through the lens of teachers and students. Understanding the lived experiences of these teachers and students is important to understanding and preparing schoolteachers, administrators, and leaders for potential future school closures. IQs 1 and 2 were:

- Based on your experiences during spring 2020 through fall 2020 semesters, how did the school handle the social and learning needs of students considering the circumstances?
- If you could go back, what would you have suggested be done differently by administrators and teachers?

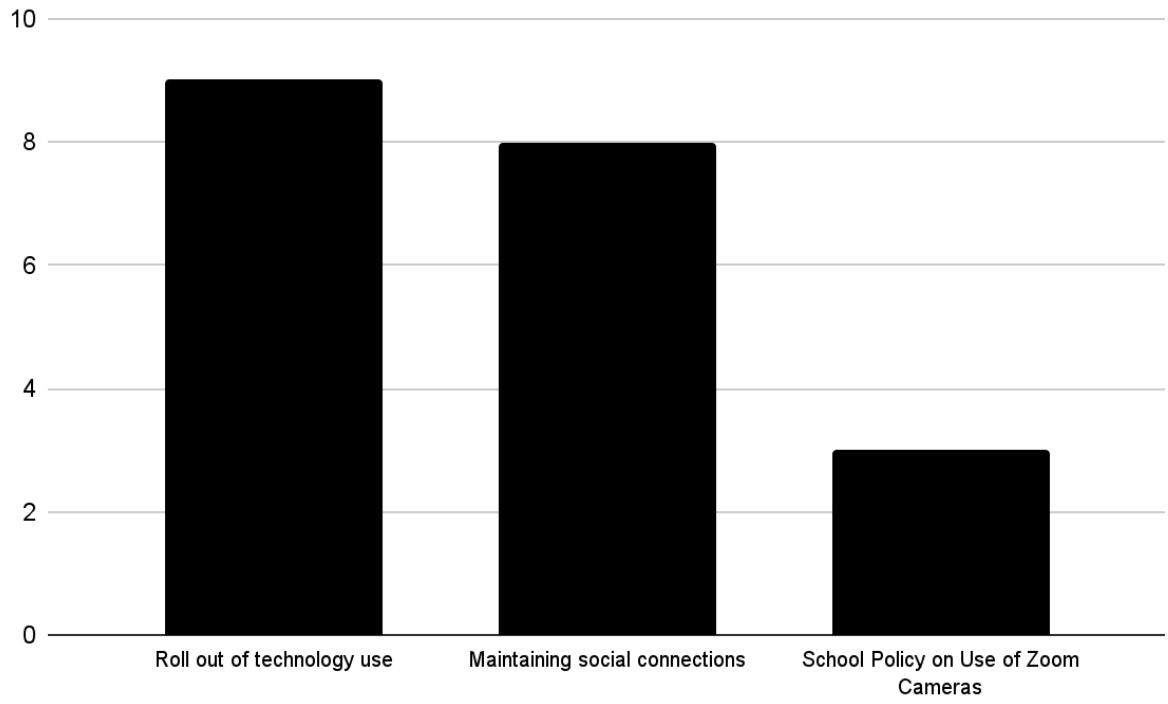
To understand the experiences of students and teachers during that period, I reviewed and analyzed the responses of the participants and coded them into themes.

Interview Question 1

IQ1 was, Based on your experiences during spring 2020 through fall 2020 semesters, how did the school handle the social and learning needs of students considering the circumstances? All the students and teachers who participated in the study stated, overall, the school handled things as best as it could in the beginning, but there was definite room for improvement. This question resulted in three themes that were present during that period: (a) rollout of technology for online learning was a challenge, (b) maintaining social connections with students was crucial, and (c) the school policy of not needing to use cameras on Zoom was not beneficial to learning and connection (see Figure 3).

Figure 3

How the School Managed the Social and Learning Needs of Students Initially



Rollout of Technology Use. As everyone in California was placed on a stay-at-home order by the governor (Exec. Order N-33-20, 2020), schools everywhere transitioned to an online

only learning environment. The number one feedback from students and teachers who participated in this study was that the technology use rollout could have been better. P1 stated, “I could have gotten a lot of help if there were lectures, but yeah asynchronously it was just difficult for me, as a procrastinator.” P4 mentioned that “no one was ready to kind of just switch to zoom. In terms of how it was being taught, and like how much we were learning- it just didn’t work yet.” P9 said, “I don’t think society and technology and our understanding of stuff has really caught up to really fulfill those needs.”

Maintaining Social Connections. One of the things that the school and teachers did well during this period was trying to maintain social connections with students. This was done in a variety of ways including emails, phone calls, Zoom meetings, etc. P5 said, “We did focus on a lot of like, kind of checking activities for students that were engaging in, like, how are you doing, like, what's going well, like trying to still maintain and build community, in a virtual scheme.” P4 remembered:

> And under the circumstances, we didn't let go of our assemblies. We were like, you know what, we're going to do it on Zoom. Um, and it was fun, kids had fun, they were laughing, we had fun. Like, as adults, like even being able to, like, check in after and be like, man, that was a great time. We didn't lose sight of our check ins, like we knew what students needed special attention, so we made sure that we were reaching out to them on the side, maybe they weren't showing their cameras on like, zoom or something, so we would try GoGuardian, or it was through like an email, or calling their parents and just like, hey, how are they doing and we continue to follow up.

School Policy on Use of Camera on Zoom. A few participants mentioned that connections and learning/teaching were more difficult due to a school policy of not requiring

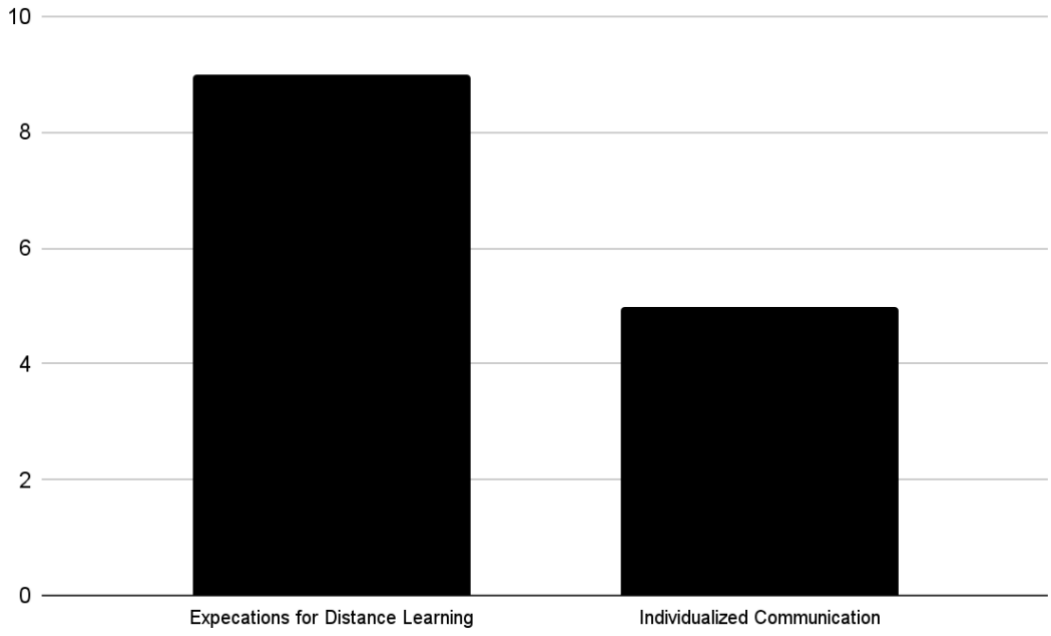
anyone to turn on their cameras during Zoom sessions. This policy was put in place to respect the privacy of students and with an understanding that not everyone had access to high-speed internet and the bandwidth that cameras required. P7 stated that “telling students they didn’t need to turn their cameras on was a mistake… that gave them an excuse to just turn on the Zoom session and walk away.” P2 said, “Even though some of us had our cameras on, it's still way different than being in person- socially it was a bit rough.”

Interview Question 2

IQ2 was, If you could go back, what would you have suggested being done differently by administrators and teachers? Teachers and students focused on different recommendations for this question, which resulted in two themes: (a) communication between students and teachers needed to be more individualized and (b) administration needed to set clear expectations for distance learning for students to follow as well as teachers (see Figure 4).

Figure 4

Suggestions for Teachers and Administration on Ways to Improve the Experience



Expectations for Distance Learning. When it came to the expectations for distance learning, this was the main focus of what should be done differently for those who were present at the school during that period. P5 stated:

> I think one thing I would do differently is make sure that as a school we had expectations for what distance learning was…like this is when we have cameras on, this is when you can have them off if you want.

P6 said:

> In retrospect, I wish we would have required students to have cameras on. I'm just hearing like, what other people did, and I think just seeing someone might have helped kind of foster a little bit more community. I think we also were very lenient with grading like I think we kind of swung the pendulum a little too far that students didn't care and for a lot of students having at least something to do or something they were held accountable for would have been helpful for them.

P8 said, "...expectations of what it's like to attend a Zoom lecture."

Communication. The data on communication were a bit mixed. Some participants believed the school and teachers did a good job of it, but some believed that this too was an area of growth for the school. P3 mentioned:

> I feel like teachers could have maybe checked in more with if we were understanding the material checked in with how we were doing mentally with the whole COVID thing, because I feel like they just kind of uploaded things to Google Classroom and didn't really ask us how we were doing.

P4 said:

> Maybe we could have had like a couple of zoom meetings, throughout the quarter. You

> know, with people who wanted to join, to talk about COVID and everything just because I feel like we kind of all stopped like there was no connection like social connection through it.

P1 even stated, “I guess teachers like reaching out to students or like, checking up on them. Might have made things better.” P5 agreed stating, “Oh maybe communication like… Yeah, like I feel like communication between the teachers and the students could have been better.”

Summary of RQ1

RQ1 sought to identify what the school took away from the COVID-19 pandemic school closures through the lens of teachers and students. Five themes were derived from the responses to IQs 1 and 2. The five themes were: (a) rollout of technology for online learning was a challenge, (b) maintaining social connections with students was crucial, (c) school policy of not needing to use cameras on Zoom was not beneficial, (d) communication between students and teachers needed to be more individualized, and (e) administration needed to set clear expectations for distance learning for students and teachers to follow.

Many of these outcome’s circle one central theme, good communication. The rollout of technology and online learning needed to be clearer for everyone; this could have been mitigated by having clear communication. The school did a good job of having social connections with students and maintaining them while not in person required good communication from both teachers and administrators. School policies and expectations could have been clearer if administration had been better at communicating. Overall, communication is the foundation upon which the above themes lie.

Subquestion 1: Instructional Modifications Made for Distance Learning

SQ1 was, how did teachers and the school modify instruction for distance learning? This sub question sought to answer what did the school take away from the COVID-19 pandemic school closures through the lens of teachers and students. Understanding the lived experiences of these teachers and students was important for preparing teachers, administrators, and leaders for potential future school closures. IQs 3 and 4 were:

- What specific actions were taken by teachers to modify instruction for distance learning between spring 2020 and fall 2020?
- Reflecting back on that time, do you find that the modifications made by teachers were effective during distance learning? If so, why? If not, why not?

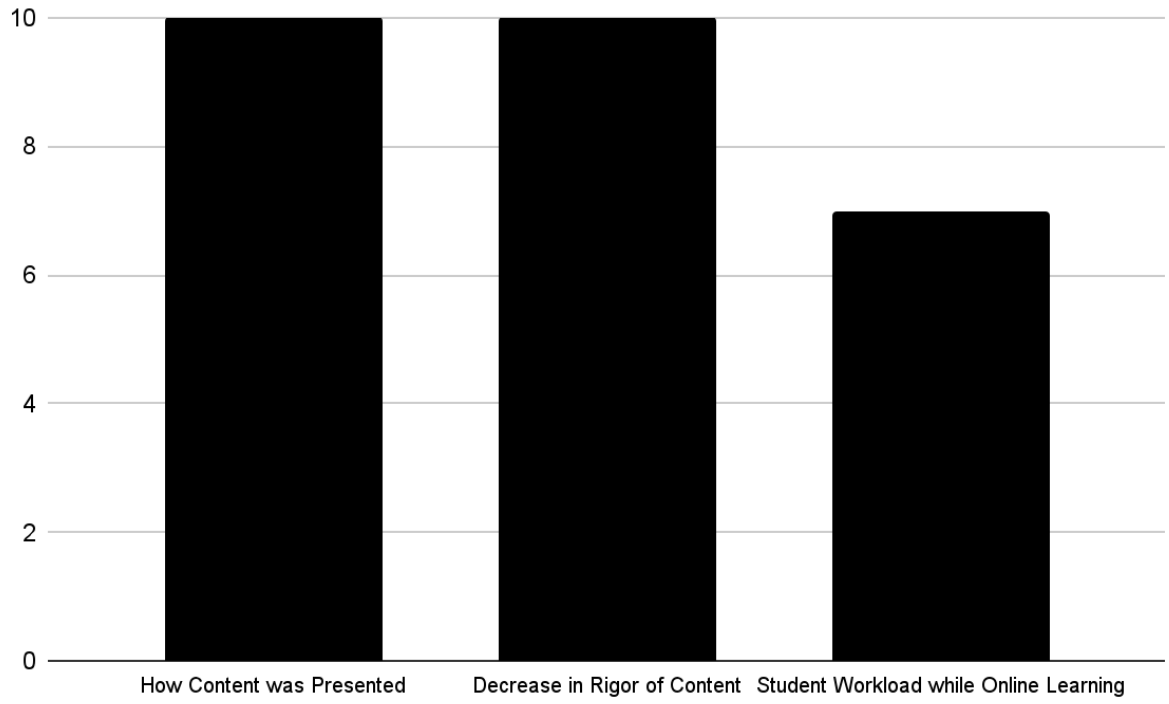
To understand the experiences of students and teachers during that period, I reviewed and analyzed the responses of the participants and coded them into themes.

Interview Question 3

IQ3 was, what specific actions were taken by teachers to modify instruction for distance learning between spring 2020 and fall 2020? This question resulted in three main themes: (a) there was a decrease in rigor of the content; (b) how content was presented was important to students, specifically when classes were asynchronous; and (c) there was a need for consideration of student workload, specifically for asynchronous classes (see Figure 5).

Figure 5

Modifications to Instruction Made by Teachers



How Content Was Presented to Students. Both students and teachers mentioned that the presentation of content was one of the major modifications made during the distance learning period. P1 said, “It was less visual and more like, ok, here’s the work, just answer the questions.” P2 described how the slideshows changed:

> They went from less visual, mainly to make it more clear for us. So not only we were hearing our teachers talk about what they were teaching us, but we were able to read it out as well and have everything laid out based on what we're doing for the day and the topics.

P4 described how lessons were set up for asynchronous learning: “Lessons were set up so that they were self-paced for all the students.” P7 recalled how instruction was modified in math classes: “Instruction became more traditional, let me teach you, let's try to solve some problems

and let's go over the answers." Overall, it can be said that instruction became less visual and more traditional, even though it was done 100% online and mostly asynchronously.

Decrease in Rigor of Content. The rigor of work was also adjusted during this period. Many found this period to be harder, although standards had been lowered and teachers were asking less of students. P4 stated:

> For high school students, I feel like that's a little bit more difficult because I feel like they needed like, some structure and like, doing it asynchronously, like created a lack of structure and I feel like that might not like set people have for failure, but it might have made things a little bit more difficult.

P5 explained how grading was modified for rigor, "Grading was different too, because it was like, how much of it is graded for like, content and how much my graded for like, effort and then checking in and then putting the pieces together." P6 reflected on adjusting standards and whether an adequate level of rigor was maintained: "Did we adjust them too low? Like could we have held students to some standard like, did we disadvantage them by not maintaining an adequate level of rigor?"

Student Workload During Online Learning. At the time, expecting students to complete the same workload virtually seemed unfair. Both teachers and students discussed how the workload shifted once the school moved to distance learning. P3 recalled:

> They were pretty fair. I feel like they did very well with keeping the workload not huge. Given the circumstances, they probably realized we couldn't mentally take on everything like a whole day's class load to do. Each of us had a lot of classes in a day or like in a week. So, they did very well with keeping it small, but making sure we still got to learn new things like progress.

P4 stated that “it was less…there were just less, less assignments.” P6 explained:

> Assignments were a lot shorter and a lot more to the point, which I think was good in general, a good reflection of my teaching practices, like, why was this assignment this long? Like, when it really didn't need to be like if we could just get at the heart of what we were trying to teach and assess students on that by making the assignment shorter.

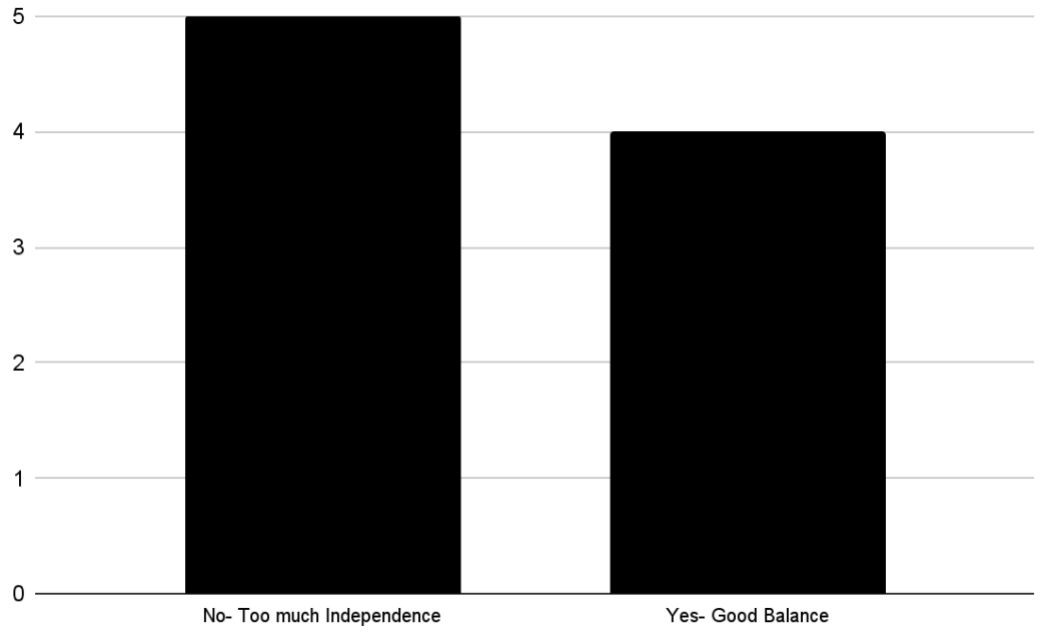
P8 recalled that their department decided to change the number of topics covered each week: “We also as a team, change it to one topic per week instead of 2 topics per week.”

Interview Question 4

IQ4 was, reflecting back on that time, do you find that the modifications made by teachers were effective during distance learning? If so, why? If not, why not? This question resulted in two main themes: (a) no, it was too much independence for students and (b) yes, there was a good balance for students (see Figure 6).

Figure 6

Were the Modifications Made by Teachers Effective?



No, Too Much Independence. It was a common theme that the modifications made by teachers did not translate well to student learning. It gave high school students too much independence over their learning and was not effective. P1 said, “Uhh, no. It just didn't work for me, too much on my own learning.” P4 said, “Effective in terms of teaching kids? Like, I don't think it was effective.” P8 said, “I think that the teacher's modifications could have potentially worked. I think it's still a no because the students weren't showing up. So, there's something off in the equation.” P9 said, “No, I don't think they were because 10% of the students thrived and 90% didn't do much.”

Yes, Good Balance. On the other hand, some believed that the modifications were effective and a good balance in the learning style. P2 mentioned:

> Yes, they're very effective. 100%. Yeah, it was. Yeah, we had the perfect mix of audio to visual learning, which, with the remote setting, you kind of need just to solidify information more and to avoid a lot of confusion.

P5 explained that not all strategies were effective even in person:

> Effective, I want to say yeah, because even though they didn't work for some, which happens in the classroom anyway. Which is why we need to continuously change things up. And if they weren't effective, I think it was also more obvious than I would have been in the classroom.

P8 also believed these modifications were effective stating, “Well, yes, because now that we decreased the rigor, they were able to do something like they, they weren’t frustrated, they were more willing to do the work.”

Summary of Subquestion 1

SQ1 sought to identify the modifications made by teachers and the school during the

COVID-19 pandemic school closures through the lens of teachers and students. Five themes were derived from the responses to IQs 3 and 4. The five themes were (a) there was a decrease in rigor of the content; (b) how content was presented was important to students, specifically when classes were asynchronous; (c) there was a need for consideration of student workload; (d) some students had too much independence and autonomy over their learning; and (e) for some students the autonomy and modifications were a good balance of learning and workload.

Pre-pandemic, many teachers had already switched to mainly technology-based instruction when in a classroom setting, so many believed that the transition to purely online would transfer well. However, this was not necessarily the case. Teachers had to modify the rigor and workload of the content as students did not have instant access to teachers for help and support the same way they did in a traditional classroom setting. Teachers also had to modify the way in which content was presented; many stated that it became less visual and more text based. For some students, the autonomy of being able to choose when they did their work was beneficial as they had other responsibilities at home, but for many it did not work. They craved and needed the schedule and stability that school provided.

Subquestion 2: How Technology Was Used to Meet Diverse Learning Needs

SQ2 was, how did teachers and the school meet the learning needs of the diverse students using technology during the pandemic? This sub question sought to answer what the school took away from the COVID-19 pandemic school closures through the lens of teachers and students. Understanding the lived experiences of these teachers and students is important in understanding and preparing teachers, administrators, and leaders for potential future school closures. IQs 5–7 were:

- What are some strategies used by teachers and the school to help meet the learning

needs of students during the spring 2020 and fall 2020 semesters?

- How was technology used specifically to meet the social learning needs of students during that time period?
- Based on your experiences, do you believe that technology helped or hindered the learning experiences of students during spring 2020 through fall 2020.

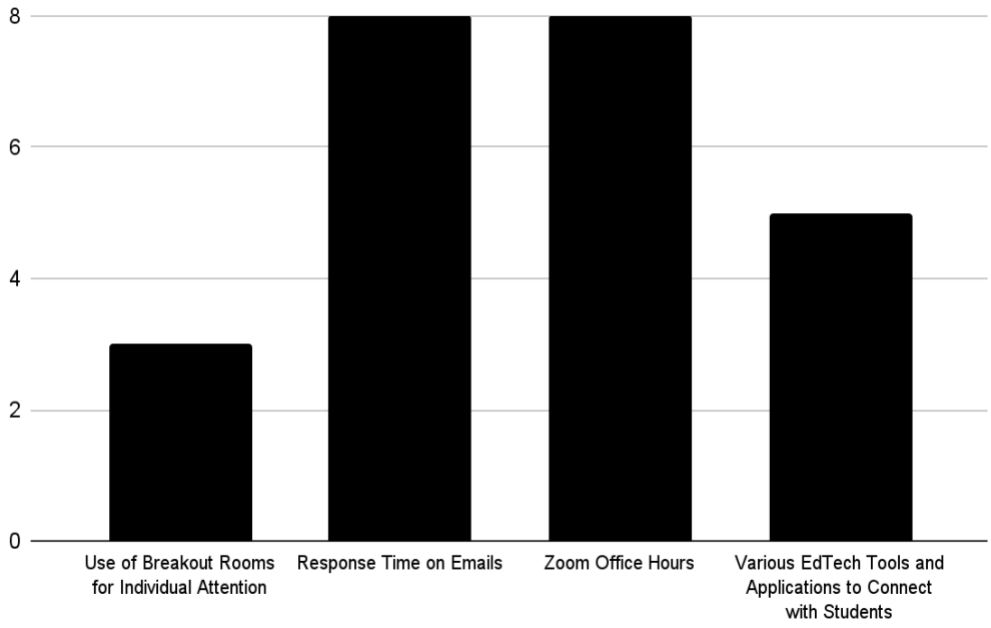
To understand the experiences of students and teachers during that period, I reviewed and analyzed the responses of the participants and coded them into themes.

Interview Question 5

IQ5 was, what are some strategies used by teachers and the school to help meet the learning needs of students during spring 2020 and fall 2020 semesters? This question resulted in four main themes: (a) response time of emails from students to teacher, (b) the use of Zoom office hours to address students' questions and concerns, (c) the use of breakout rooms for more individualized attention, and (d) the use of various technology tools and apps to keep connected to students (see Figure 7).

Figure 7

Strategies Used to Meet the Learning Needs of Students



Breakout Rooms Used for Individualized Attention. Breakout rooms became a strategy used by almost all teachers and even administrators during the distance learning period to better support students one-on-one. P5 described the use of breakout rooms in one class:

> We did use the breakout rooms a lot. Which was really fun because you could just choose a way to pop into. And it was, it was cool to see when they were like diving into their work, or even just chatting and catching up.

P9 had a different experience with breakout rooms explaining the need to model appropriate breakout room behavior:

> One of the nice things that Zoom had was breakout rooms, but it wasn't really effective. Because you would want to group them like you work on this let's Jigsaw this activity or whatever it was, and it ended up being like, yeah, no one talked in this breakout room. You're like, yeah, because we probably should have modeled it for you.

Use of Zoom Office Hours to Address Students' Questions and Concerns. One of the more used strategies was the virtual office hours held by all staff members. P2 recalled, "There were a lot of after school zoom sessions open for any help needed. They were just open links. You could join them, no matter what. You always get the help you need it." P3 mentioned that "there is normally one or two set zoom meetings open. If you needed extra help, as well. There was always extra help."

Response Time of Email Communication. During the distance learning period, students became more aware of their emails and how to navigate them to get the help they needed. P1 stated, "if I couldn't get to all the teachers in time for office hours, then I'd like email them." P2 mentioned the response time of teachers to emails: "The teachers were always open to emails and responding to them, and they were all responded to in a very timely manner." P3 added, "They answered questions via email, and they were very quick with it. Like they, they kind of knew that it was urgent to answer their emails."

The Use of Various EdTech Tools and Apps for Student Connection. The ways teachers and the school used technology during this time to meet all the various learning needs of the students were vast. Teachers used a variety of different edtech apps, which do not include the above-mentioned email and Zoom. P5 described the use of GoGuardian:

> We used GoGuardian, but for a lot of my class time, it was very known. I would tell them hey, I'm going to use GoGuardian, so I can see where you guys are going. It also allowed me to hop in and chat. That was so safe for a lot of kids, like a lot of them were, thankful, because they didn't feel like they were being cold called. Or, if I was going to cold call, I had a warm call also on GoGuardian first.

P6 explained how using document sharing via Google Suite enhanced learning opportunities for

students:

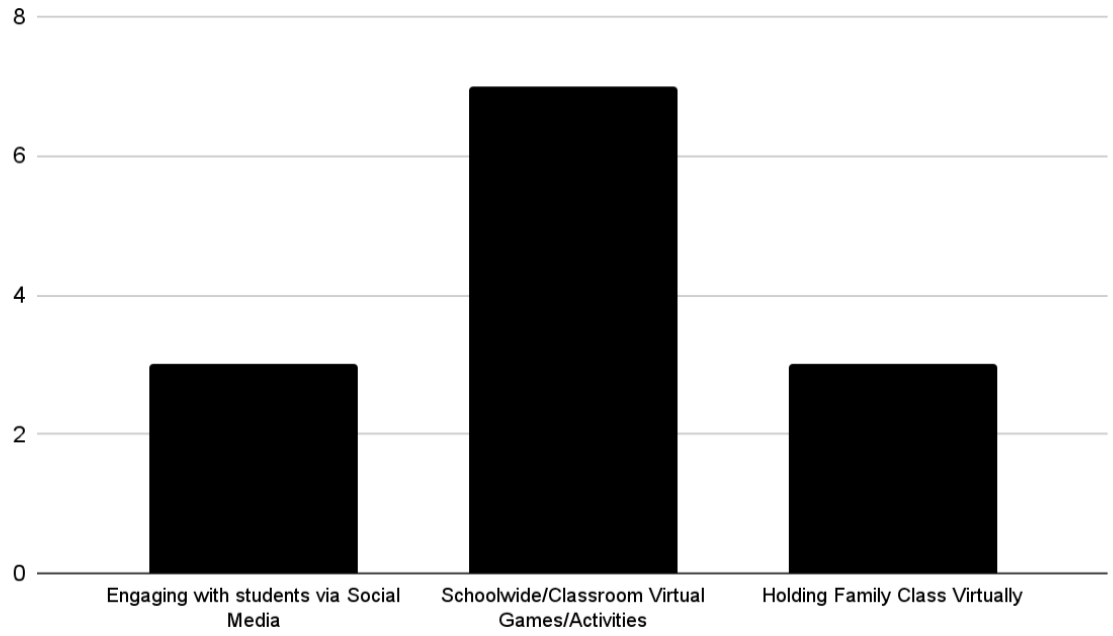
> So, I had a student who she really struggled. And so, she was there all the time [Zoom office hours], which was great. She would share her documents with me, and I would screen share the same document so when she was sharing with me, I would screen share that document we were both looking at so I could watch her do what she was doing and give her feedback as she was doing it.

Interview Question 6

IQ6 was, how was technology used specifically to meet the social learning needs of students during that period? This question resulted in three main themes: (a) engaging with students through social media, (b) schoolwide and class specific virtual games/activities to connect with students, and (c) having Family class virtually (see Figure 8).

Figure 8

Meeting Social Learning Needs of Students



Engaging With Students Via Social Media. Social media use in a school setting can be a bit risky if not monitored. The school attempted to use social media to engage with students during this time, especially at the beginning of the stay-at-home order. Students also used personal social media platforms to communicate with each other and stay in touch when they could not see each other in person. P1 recalled, "We'd text each other or DM [direct message] each other on Instagram…ohh ya and TikTok." Due to its popularity, the school created its own TikTok, which featured staff and students who wanted to be on it. This allowed for other students to passively engage with some of the things happening at school and in classes.

Schoolwide and Class-Specific Use of Virtual Games and Activities. This was the most highlighted experience by students and teachers for maintaining social learning and connection. From a whole school perspective, administrators and teachers continued to hold assemblies via Zoom, as well as holding a Zoom prom in 2020. P3 remembered the prom fondly: "Prom was over zoom… and that honestly, I think that was really clever because so many schools didn't even have a prom and we still had one." P6 described the virtual assemblies:

> I really liked the assemblies. We did like an awards assembly. I remember making my little slides for the awards assembly, which was really fun…And I think that I think my favorite part of that time was when we do the big assemblies on Fridays, and a lot of kids would log on we play like Kahoot so or different things and just fun ones to give them like some time together.

Virtual Family Class. Although Family class was a traditional set up for the school to meet the social learning needs of students, it still transferred to distance learning. During the distance learning period, Family teachers found interactive ways to continue to bond with students and foster their social learning needs. Though it often was not content specific, it

fostered community and social emotional wellbeing. P4 remembers:

> In like Family class, we would be like, alright, we're going to listen to these artists, we're going to sing some songs. And that was really fun because you could screen share, and everyone watched the same thing. Or like if we ever had a fun Friday, and we would say let's watch a movie together.

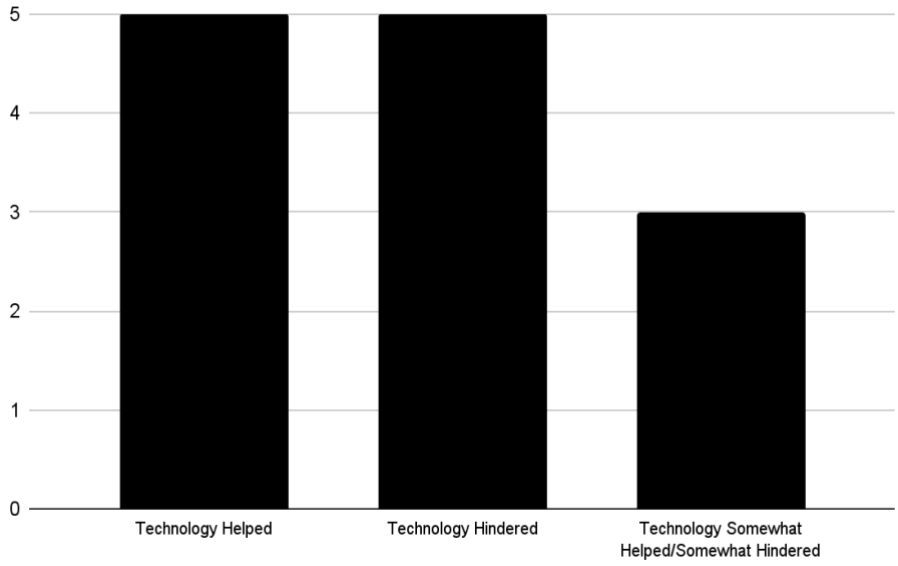
P8 stated that "during Family we'd have icebreakers, questions for them, getting to know each other as peers."

Interview Question 7

IQ7 was, based on your experiences, do you believe that technology helped or hindered the learning experiences of students during spring 2020 through fall 2021? This question resulted in three main themes: (a) technology helped the situation, (b) technology hindered the learning experiences, and (c) technology somewhat helped the experience and somewhat hindered it (see Figure 9).

Figure 9

Did Technology Help or Hinder Learning Experiences?



Technology Helped Learning Experiences. Many believed that without technology, learning would not have been able to continue. P3 said:

> I mean, if technology wasn't there, I wouldn't have been able to keep up with the work and actually graduate. So, I think technology helped in ways where I was able to keep updated with the work and finish the units in my academic classes.

P5, P6, P7, and P8, all mentioned the fact that without technology teachers and administrators would be tasked with sending home packets. “Literally, if we didn't have technology, it'd be delivering work to students' homes or having them come and pick it up. Which seems like just an impossibility like you wouldn't help” (P5). They believed that technology was “vital, there would be no access to curriculum” (P7).

Technology Hindered Learning Experiences. Interestingly, some believed that technology hindered the learning experience during. P2 explained that the learning environment was not conducive to learning:

> It's much easier to focus because you're already in a learning environment. You're not in your own space where you can have three extra screens open with YouTube and a game and other things distracting you. You don't have all the noise from your family or friends or whoever you're living with, as well. People aren't barging into your room constantly. It's just a better learning environment in person.

P4 believed that because everything was readily accessible, learning was not really occurring due to technology. They stated that it was “hindered because everything's on the internet. You know, it created this kind of leeway in terms of like, you don't have to depend on your brain anymore.”

Technology Somewhat Helped and Somewhat Hindered. As with everything, there were some who believed it did not hinder but it did not help the learning situation. P9 explained:

> Maybe students would have done the packets, but at the most, I don't think they would have. Yeah, so no, I don't think it hindered it- I just don't think we're there yet with the technology to meet the needs of our students.

P1 stated that although there were benefits, it did impact their learning:

> I feel kind of like 50/50 on it. I didn't have to wake up early and get to campus like every single day, so I got to sleep in… did really affect my learning experience just because the teachers weren't there personally so it was really different.

Summary of Subquestion 2

SQ2 sought to identify how the school and teachers met the diverse learning needs of students using technology. Ten themes were derived from the responses to IQs 5–7. The 10 themes were as follows: (a) response time of emails from students to teachers; (b) the use of Zoom office hours to facilitate questions and concerns of students; (c) the use breakout rooms for more individualized attention; (d) the use of various technology tools and apps to keep connected to students; (e) engaging with students through social media; (f) schoolwide and class specific virtual games/activities to connect with students; (g) having Family class virtually; (h) the fact that technology helped the learning experience; (i) for some, technology hindered the experience; and (j) technology somewhat helped/somewhat hindered the experiences.

Meeting the diverse learning needs of students is already a challenge in a traditional classroom setting. Doing so while completely online and asynchronous is even more of a challenge. Many of the themes discussed surround the ideas of communication and connection. Many students were pleasantly surprised and happy with the turnaround time on teacher emails in response to their questions. This made them feel less anxious and as if they were able to get the support they needed. The same came with the teachers using Zoom for office hours to help

small groups of students, or even the breakout room feature, which allowed teachers to help students individually and more privately. In order to keep students engaged, teachers attempted to use various applications and games to motivate them to do their work, as well as make it accessible to students with different learning styles and needs. Overall, for some, technology was the only way to continue the learning process, and for others it hindered their learning.

Subquestion 3: How Teachers Maintain Social Connections Online with Students

SQ3 was, how did teachers maintain a social connection with their students? This sub question sought to answer what the school took away from the COVID-19 pandemic school closures through the lens of teachers and students. Understanding the lived experiences of these teachers and students is important in understanding and preparing schoolteachers, administrators, and leaders for potential future school closures. IQs 8 and 9 were:

- What steps were taken by teachers to maintain a social connection with students during that time period?
- What recommendations would you offer to teachers who are aspiring to make and maintain social connections with students who chose to remain online?

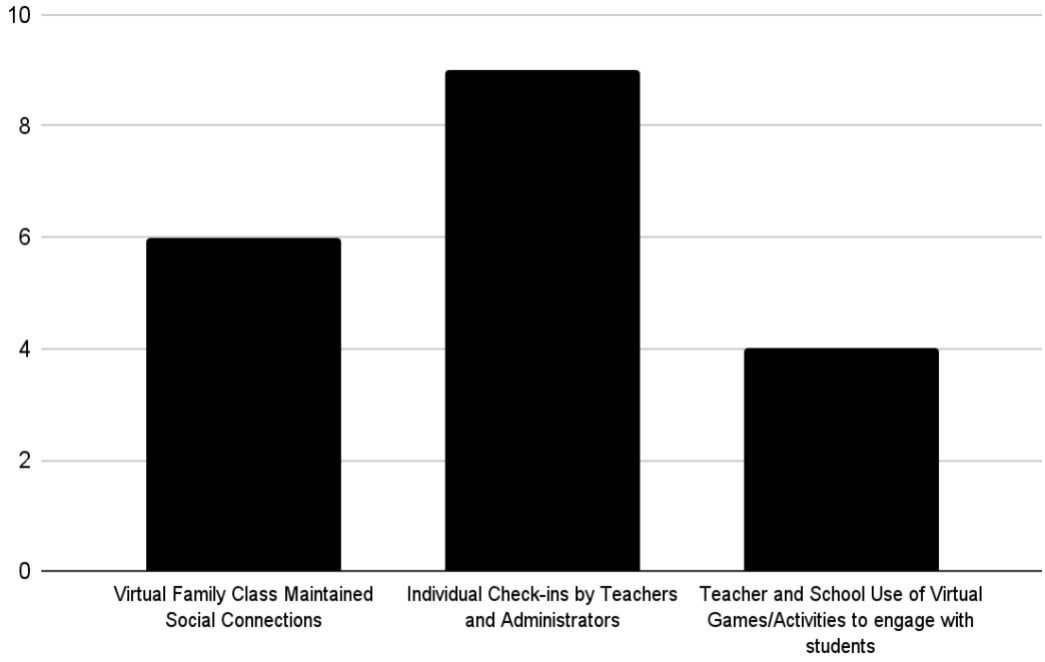
To understand the experiences of students and teachers during that period, I reviewed and analyzed the responses of the participants and coded them into themes.

Interview Question 8

IQ8 was, what steps were taken by teachers to maintain a social connection with students during that time period? This question resulted in three main themes: (a) social connections were maintained through Family class, (b) individual check-ins with students were conducted by teachers and administrators, and (c) teacher and school use of virtual games/activities to engage with students (see Figure 10).

Figure 10

Ways Social Connections Were Maintained



Individual Check-Ins by Teachers and Administrators. One of the ways social connections were maintained between students and staff were through individual and group check-ins. P2 described check-ins at the beginning of class time: “I think it was definitely the 10-minute talks at the start of class. They were just seeing how everybody was doing. It was more of just a casual interaction of hey, what did you guys do this weekend?” P5 described how check-ins sometimes were via online tools: “We definitely had one-on-one check ins. A lot of those did happen through GoGuardian as well. Like being like so how are you doing? And they'd pour their hearts out.” P6 recalled checking in via email or phone calls:

> We were emailing families, too, that weren't showing up. So, if students weren't showing up repeatedly, we would reach out to them by phone or email. For me, it was most of the email or Google voice messages I would send to families and just check in and see where they were, how they were.

Virtual Family Class Maintained Social Connections. As mentioned previously, Family class was set up by the school at its inception. However, it transferred well to distance learning. During this class, teachers had students as a cohort for four years at a time and got to make solid connections with students. P3 recalled an end-of-year Family class:

> At the end of the school year…we kind of just talked about our favorite things in the year and graduating and everything like that. So that was definitely the, probably one of the highlights about COVID was him planning that.

P9 described how sometimes conversations in Family class could go for long periods of time:

> There were those connections, and they knew that, hey, how are you doing over here? What's going on with your family? I already know some things about you. You know some things about me. And I would talk with them like sometimes for like an hour which is kind of surprising.

Teacher and School Use of Virtual Games/Activities to Engage with Students. As previously mentioned, virtual games and activities were often utilized by teachers to engage students. P9 stated:

> I tried to make it kind of like a game show. So, like come on down. Let's answer this question or whatever it might be. And so, you get some of that social connection. Like what's your favorite song? Do you want a walk-up song like batter's do for baseball? I'll play your song and give you a minute to get up here and you can take a crack at it.

P1 recalled their Family class teacher using various online games:

> [They] would find games that we can all connect to just like through Google Chrome. They would share their screen and we'd all connect. We would do Kahoot or, we play like Pictionary, things like that. Just to try and keep us connected more. So, we're having

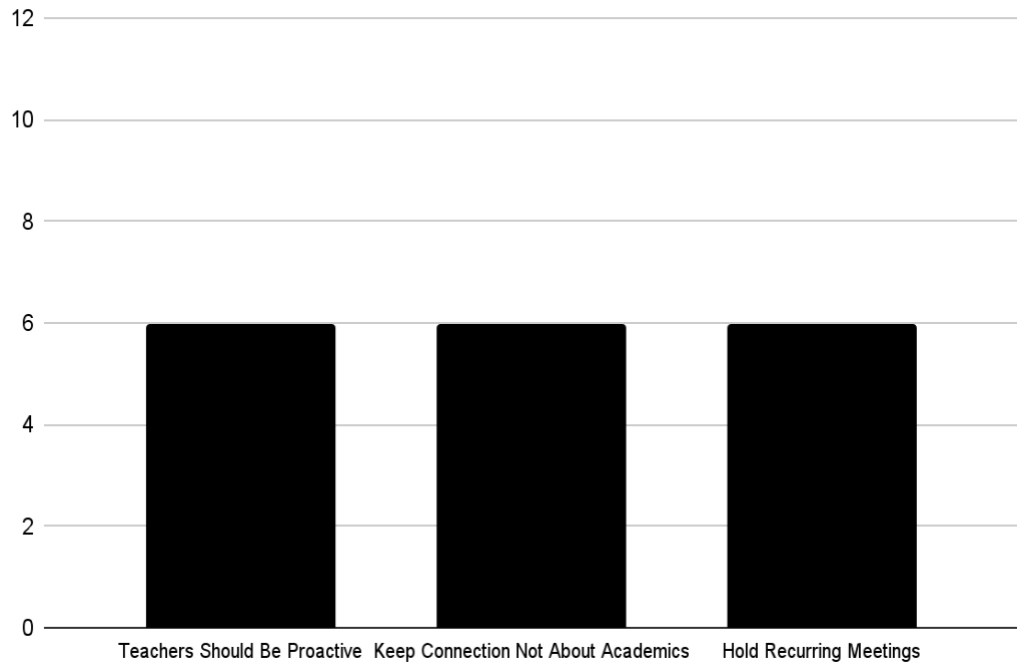
fun. We're laughing, we're goofing off.

Interview Question 9

IQ9 was, What recommendations would you offer to teachers who are aspiring to make and maintain social connections with students who chose to remain online? This question resulted in three main themes: (a) teachers should be proactive with reaching out to students who need more engagement; (b) when focusing on connections with students, teachers should keep conversations not about academics; and (c) teachers should be holding recurring meetings with students (see Figure 11).

Figure 11

Recommendations for Maintaining Social Connections with Students Online



Teachers Should Be Proactive. Having teachers and administrators be proactive to reach out to students was a common theme for maintaining social connections with students who chose to stay online. P4 said, “Personally reach out to every single student…ask them as a

teacher what you can do to help them." P5 suggested:

> Reach out to the students…admin will give you that time to like, connect or to like, do lesson plans or whatever. And I would make that like almost even more important than lesson planning. Because you'll get to know where the student is. But whether it's academic, or if it's emotional, you'll, you'll learn those things and make those connections, they're already behind the screen so much like they want that human interaction, or they don't know how to react to it.

Keep Connection Not About Academics. Another suggestion was to keep social connections not about academics when getting to know students, especially in an online environment. P9 stated it simply: "Don't make it about school." P2 described interactions with teachers and how students are often intimidated by adults:

> One of my teachers would just email me to have a normal conversation, I wasn't even in their class anymore…we were just emailing back and forth with them periodically seeing how they were doing, seeing how their classes were going and stuff like that. So, it's kind of just reach out. Because that goes a long way. Even if we don't respond immediately. We feel guilty after a couple of days and will end up responding. And then from that point, it's like, oh, teacher isn't so bad. I'm just going to start talking to him or her. So, it just makes it easier if you just reach out, because we're not going to reach out. We're initially scared of everybody.

P7 stated that "having designated time where it's like, just for the social aspect is to get to know each other again, just to have fun, with no academics involved. And it needs to be regular as well."

Hold Recurring Meetings. Keeping students engaged continuously seems like common

sense, but when everyone is online it is easy to assume all is well. P3 suggested, “Weekly check-ins via zoom or via email, both mentally and academically.” P8 said, “Make sure you have set meeting times and set deadlines so that the students don't feel like they're on their own.” P6 mentioned, “Setting up maybe three times a week meeting with them and saying. Okay, here's our 30 minutes. You're going to show up like it's I think it should be part of their attendance in some way.”

Summary of Subquestion 3

SQ3 sought to identify how teachers maintained social connections with students. Six themes were derived from the responses to IQs 8 and 9. The six themes were (a) social connections were maintained through Family class, (b) individual check-ins by teachers and administrators, (c) the use of virtual games/activities by the school to engage with students, (d) teachers being proactive with reaching out, (e) keeping conversations not about academics, and (f) holding recurring meetings with students.

As mentioned earlier, maintaining social connections with students was a very important component of the overall experience for students and staff. The way this was done often was to engage with students in nonacademic settings and ways. The school maintained social activities via Zoom, such as prom and assemblies. These allowed students to interact with each other as well as with teachers and administrators in a safe way. Teachers continued to check in on their students via Family class and other modalities. Although some students did fall through the cracks, many were engaged with the school and teachers throughout the distance learning period.

Summary

The purpose of this phenomenological study was to understand the lived experiences of students and teachers during the spring and fall semesters of the 2019–2021 school years as they

learned and taught through distance learning at a specific charter high school in Orange County, California. Nine participants made up of students who either graduated in 2020 or 2021 and teachers who were full time teachers during the 2019–2021 school years were interviewed via Zoom. The participants answered nine semistructured questions intended to inform the following research question and subquestions:

- RQ1: What was learned during the COVID-19 pandemic from the point of view of the teachers and students about the social and learning needs at the school?
- SQ1: How did teachers and the school modify instruction for distance learning?
- SQ2: How did teachers and the school meet the learning needs of the diverse students using technology during the pandemic?
- SQ3: How did teachers maintain a social connection with their students?

Data were obtained from the nine semi structured interviews. After coding data and validating the results with a peer inter-rater who graduated from Pepperdine University with their doctorate in 2021, I organized data and analyzed them using phenomenological qualitative techniques explained in Chapter 3. A total of 23 themes (codes) were cultivated from the analysis of the data. A summary of the themes for the research question and subquestions is displayed in Table 6. Chapter 5 gives a discussion of the research results, including a further discussion of the common themes found from the data and research, implications, and recommendations for future researcher.

Table 6

Summary of Themes for Research Questions

RQ1: What was learned during the COVID-19 pandemic from the point of view of the teachers and students about the social and learning needs at the school?	**SQ1: How did teachers and the school modify instruction for distance learning?**	**SQ2: How did teachers and the school meet the learning needs of the diverse students using technology during the pandemic?**	**SQ3: How did teachers maintain a social connection with their students?**
● Technology Use ● Social Connections ● Use of Camera on Zoom ● Communication ● Expectations for Distance Learning	● Rigor ● Presentation of Content ● Workload ● Too Much Independence ● Good Balance	● Emails ● Zoom Office Hours ● Breakout Rooms ● Technology Use ● Social Media ● Virtual Games/Activities ● Family Class ● Technology Helped ● Technology Hindered ● Technology somewhat helped and somewhat hindered	● Family Class ● Check-ins ● Virtual Games/Activities ● Recurring Meetings ● Teacher Proactivity ● Not about Academics

Chapter 5: Summary, Findings, Conclusions, and Recommendations

This chapter briefly reviews the problem, literature, and methodology and then discusses the key findings of the study as reported previously. Following the findings, this chapter discusses the conclusions, implications, and limitations. The chapter concludes with recommendations for future research as they relate to this study and my closing comments.

Background and Problem

During spring 2020, all schools in California were required to close doors to students and staff and transition to online learning modalities due to the COVID-19 pandemic (CDC, 2020b; Education Week, 2020b). Although students were learning from home, via various online platforms, tools, and apps (Education Week, 2020a) it was imperative that students continue to learn during this time. Technology was on the forefront of education; the future was now, but did it really shine? This case study looked at an independent public charter high school in Orange County, California, and the way it handled learning during the COVID-19 pandemic for spring 2020 and fall 2020 semesters while students were 100% distance learning.

The problem that came about due to the COVID-19 pandemic and needing to migrate all learning to some form of distance learning is that there was a disconnect of social learning for students as they were not used to using technology a majority of the time for their own learning. Learning at its core is a social phenomenon.

Theoretical Framework

Humans learn from each other, even when it is not intentional (Vygotsky, 1978). How were students able to learn properly if they were not having social interactions with their peers or their teachers? Although there was emerging research about how technology was used in classrooms prior to and during the COVID-19 pandemic when this research was being

conducted, there was no research on how technology was used to aid the social learning of students during that period specifically.

This dissertation used main learning theories to help understand K–12 student social learning during the COVID 19 pandemic. The three theories discussed were: SLT (Bandura, 1977), SCT (Vygotsky, 1978), and CHAT (Vygotsky, 1978).

Purpose of the Study

The purpose of this case study was to understand the experiences of a group of high school teachers and students who continued instruction and learning through various forms of remote instruction (or distance learning) during a 12-month period of the COVID-19 pandemic between the 2019–2021 school years. Teachers pivoted from on-site classroom instruction to various forms of distance learning with little warning, minimal preparation, and quick turnaround times (Kaden, 2020). This type of educational shutdown in the United States was unprecedented, and thus, little was known about how teachers would pursue and engage in instruction with their students during a global crisis. The one thing that was known at this local school was that kindness and grace would be what would guide instruction. Students who are met with kindness and respect, especially when facing uncertainty and emotional upheaval, will be engaged with learning and perform better than peers who are not met with the same kindness (Binfet, 2015).

Research Question and Subquestions

This case study was based on one overarching research question and three subquestions. The questions were utilized to explore how technology facilitated learning during the COVID-19 global pandemic in an independent public charter school from the point of view of students and teachers. The questions were also used to identify barriers to learning throughout the pandemic.

- RQ1: What was learned during the COVID-19 pandemic from the point of view of the teachers and students about the social learning needs at the school?
- SQ1: How did teachers and the school modify instruction for distance learning?
- SQ2: How did teachers and the school meet the learning needs of the diverse students using technology during the pandemic?
- SQ3: How did teachers maintain a social connection with their students?

Methods

This study used a phenomenological case study because the focus was on one case, and the aim of the research was to understand the different relationships concerning a certain phenomenon, as well as the context and the variables within a particular bounded system (Yamagata-Lynch, 2010).

Data were gathered from semistructured interviews with stakeholders at the school and were used to describe the lived experience of these individuals during the COVID-19 pandemic school closures. A purposeful selection method was chosen for selecting participants from the study site. The interviews were video and audio recorded using Zoom. I transcribed each interview and reviewed the transcripts against the audio/video recordings. The data were then analyzed and coded into themes. To confirm the validity and reliability of the themes, I utilized an inter-rater review process, which consisted of a content expert analyzing and confirming the coding and themes. I completed the coding and themes and presented the findings in Chapter 4.

Summary of Key Findings

The following section provides a summary of the themes derived from the nine interview questions that were designed to answer the research questions.

RQ1 sought to identify what the school took away from the COVID-19 pandemic school closures through the lens of teachers and students. This research question had two interview questions, which resulted in five themes. The five themes were:

- Rollout of technology for online learning was a challenge.
- Maintaining social connections with students was crucial.
- School policy of not needing to use cameras on Zoom was not beneficial.
- Communication between students and teachers needed to be more individualized.
- Administration needed to set clear expectations for distance learning for students to follow.

Overall, the general finding of RQ1 is all aligned to better communication. Better communication from administrators to students and families about the school's expectations during this period, better communication on how technology would be used to facilitate learning, better communication between teachers and students, and more personal communication between teachers and students.

SQ1 sought to identify the modifications made by teachers and the school during the COVID-19 pandemic school closures through the lens of teachers and students. This research question also had two interview questions, which resulted in five themes. The five themes were:

- There was a decrease in rigor of the content.
- How content was presented was important to students, especially when classes were asynchronous and less visual.
- There was a need for consideration of student workload, especially for asynchronous classes.
- Some students had too much independence and autonomy over their learning.

- For some students, the autonomy and modifications were a good balance of learning that worked.

Due to courses being 100% asynchronous at the beginning of the school closures, teachers had to decrease the rigor so students could facilitate learning on their own, as well as consider the amount of workload and time they would be spending in front of a computer screen. For many students, 100% asynchronous learning was not efficient; students still needed and wanted the stability of a class schedule and to see teachers.

SQ2 sought to identify how the school and teachers met the diverse learning needs of students using technology. Through three interview questions, 10 themes were derived from the responses including:

- response time of emails from students to teachers
- the use of Zoom office hours to facilitate questions and concerns of students
- the use breakout rooms for more individualized attention
- the use of various technology tools and apps to keep connected to students
- engaging with students through social media
- schoolwide and class specific virtual games/activities to connect with students
- having Family class virtually
- the fact that technology helped the learning experience
- for some, technology hindered the experience
- technology somewhat helped/somewhat hindered the experiences

SQ2 focused heavily on technology use by teachers and administrators—specifically, how technology was used to meet learning needs, social learning needs, and whether it was effective. Overall, technology was effective in facilitating social connections and interactions

between students and teachers. This was seen through the various tools teachers used, such as Zoom office hours, Zoom breakout rooms, GoGaurdian, other virtual games, and edtech applications used.

SQ3 sought to identify how teachers maintained social connections with students. The last research question had two interview questions, which resulted in six themes. The six themes were:

- social connections were maintained through Family class
- individual check-ins with students should be conducted by teachers and administrators
- teacher and school use of virtual games/activities to engage with students
- teachers be proactive with reaching out to students who needed more engagement
- keep conversations not about academics
- teachers hold recurring meetings with students

The data from SQ3 identified a common overarching theme of the importance of social connections with students, which aligns with the question that was asked. Students wanted teachers to check in on them individually and not just about academics.

Study Conclusions

The purpose of this study was to understand the lived experiences of a group of students and teachers who experienced distance learning at a specific school and what was learned during the COVID-19 pandemic school closures about the social and learning needs of the students. The findings above were reviewed against what was discovered in the literature review as it pertains to the experiences of students and teachers during the distance learning period of the COVID-19 pandemic, with specific considerations on social learning and how technology played a role in

facilitating the learning experiences. Even though the findings have been reviewed alongside existing literature, there is a gap in the literature, which is why this study is important to help fill that gap. After analysis, four conclusions were made from the qualitative data obtained from the study.

Conclusion 1

Based on the data collected and analyzed from RQ1, which sought to answer, What did the school learn about the students' social and learning needs during the COVID-19 pandemic based on the experiences of students and teachers? There is one major conclusion: effective communication, setting expectations, and social connections are the driving forces in addressing the learning and social needs of students when engaged in completely online instruction. The three things learned all focus on a foundation of having strong communication skills. This need for communication was, of course, from teacher to student, or administrator to students, but also from students to teachers.

In a traditional classroom setting, communication is much more than what is said. There is nonverbal communication that the teacher and students take into consideration. When doing work 100% online, and mostly asynchronously, teachers and students lose out on the nonverbal communication component. Betts (2009) explained that when there is a lack of nonverbal cues it can create misinterpretation between the two parties. Many participants of this study stated that response time to emails was critical in having good online communication. This is consistent with the findings of Kebritchi et al. (2017), who found that when there is a lack of timely feedback from teachers, student anxiety levels and engagement levels are affected and hinder student learning. This further supports the conclusion that teachers who are effective in communicating with their students will heighten the experience of distance learning for students.

Conclusion 2

SQ1 sought to understand how teachers modified instruction for students during that specific period. After analyzing the data the conclusion is that in order to modify instruction from 100% in person to 100% online (and mostly asynchronous) the rigor and workload of the content must be adjusted, how content is presented to students must be taken into account, and how much autonomy is given to students in K–12 is critical.

In a K–12 setting, even at the high school level, students need support in time management, and they struggle being completely independent with their learning. This is supported by Broadbent and Poon (2015), who stated that "online learning can be exceptionally challenging for students who struggle with self-management and time management" (p.2). In addition to the time management component, research shows that students feel as if they learn less when their class times are shorter and the workload is reduced (Reardon et al., 2008).

Conclusion 3

SQ2 focused on how teachers were able to focus on the diverse learning needs of all their students, especially using technology. Educators across the board can agree that meeting the learning needs of diverse learners is a challenge both in person and online. What the data and research show is that to do so somewhat adequately, teachers need to have an arsenal in their toolbox of various applications and approaches from which to choose. Pace et al. (2020) outlined a comprehensive toolbox for teachers to use when creating and engaging students in purposeful learning activities. Many of these tools are similar to the tools used by teachers at this school site when they attempted to meet the needs of students virtually during COVID-19, such as Zoom for breakout rooms and office hours, virtual games such as Kahoot! and Quizlet, activities such as Scribly-Oh!, and recording applications, such as Screencastify and Loom. Pace et al. explained

that “adding an audiovisual component to your online class can promote purposeful learning”. Which simply explains and further shows that a variety of modalities and tools are needed when trying to meet the needs of diverse learners.

Conclusion 4

The final conclusion that came about from the study is based on the findings from SQ3: How did teachers maintain a social connection with their students during the COVID-19 pandemic? Social connections are critical when teaching students. If there is no social connection between students and teachers, there is likely no learning happening. In a typical classroom setting, teachers are able to make those connections with students even with a simple greeting at the door. When everything moved online, this became a much more intentional practice for teachers. Ratliff (2018) stated that “when teachers and students have a strong rapport, it is shown to have positive effects on persistence and learning outcomes in the context of distance learning” (p. 35). To maintain social connections with students via online platforms, teachers need to provide a space for students to check in with the teachers on a regular basis. These check-ins should not necessarily be about academics or the course content but simply to form bonds. The bonds that are formed will then allow students to be more receptive to academic content and conversations.

Implications of the Study

The aim of this study was to learn about the lived experiences of a group of teachers and students during the COVID-19 pandemic and how technology mediated student social learning. In addition, it was to identify the best practices of distance learning and how to continue to foster student social learning during times of online learning. The data support the idea that when used

properly, technology can indeed facilitate social connections and social learning for students. These are the practical implications for teachers, administrators, policymakers, and students.

Implications for Teachers

Teachers teaching courses 100% online have a responsibility to students to be overly extroverted and be the one who initiates connections with the students. This is especially true for students in K–12 and even more so for younger students. The data showed that no matter whether students are very young or teenagers, they are usually intimidated by teachers (P2), and thus, it is important for teachers to be the ones that reach out and make those connections. Teachers should make time to connect with each student and foster those relationships.

The data also show that although students and teachers should focus on academics due to the learning environment, to make those social connections with students, academics should be left out of the conversation initially. This way, teachers and students can find bond and form trust. Although recurring check-ins with students is time consuming, in addition to all the other work teachers already have to do, the data show that when the connection is genuine and occurs more than once a month, semester, etc., students will perform better. To facilitate recurring check-ins, teachers should put them on their calendars and schedule meetings regularly with students and families.

Implications for Administrators

As more teachers and educators leave the field of education, administrators have a very important role in fostering an environment where staff feel valued. One of the biggest takeaways from this study and implications for site level and district level administrators is to acknowledge teacher and staff concerns, collaborate with them for solutions, and support them in ways they need to be supported. This will look different for each staff member, but it is vital at this point in

the education world. If administrators do not set clear expectations of students and staff, it will create imbalance. Ultimately, some teachers will do more than others and then become resentful. Administrators should have an open-door policy for their staff to discuss issues with them as they arise, as well as to provide support to teachers as they require it. It is the responsibility of administrators to support teachers and sometimes push back to higher ups so that teachers can do what they need to best support students.

Policies need to be in place for when students and staff need to have their cameras on for synchronous learning sessions. This can be a tricky situation as not everyone has the home environment that affords them the ability to do so, but the study showed that it was imperative for student learning. In addition, while allowing teachers autonomy to set the rigor of their classes is important, having site-wide, or district-wide policies on grading, completion of work, etc. is beneficial to all parties for 100% distance learning.

Another implication is that site-level administrators especially need to be more involved in student connections. As teachers are doing their jobs by making individualized connections with each student, administrators need to put in that same effort. The study showed that students who had more personal connections to the administrators on-site were more likely to be successful, even during 100% distance learning. Administrators should be roaming hallways before, during, and after school checking in with students and fostering those connections, and not solely behind their desk in front of a computer.

Administrators need to provide teachers with incentives to make those connections; it is not the teachers' responsibility to do so on their own time. This can look different for various situations: providing extra prep-periods and lightening teaching loads, extra pay for after school hours, and time during professional development are a few options.

Implications for Policy Makers

If there was one thing that COVID-19 taught the education system during the time of school closures, it was that the infrastructure is not there. Policymakers need to address a couple of main issues: accessibility to high-speed internet for every student and teacher pay. The responsibility of providing students with technology and high-speed internet should not be the burden of the schools and the school districts. Schools and school districts should be the ones to help facilitate getting students these tools but not the ones paying for it.

Additionally, teacher and staff salaries need to increase. Teachers are severely undervalued in the United States, and unless this country wants to continue to see the mass exodus of teachers and educators from the education field, something has to change on a higher level, including pay. There is a trickle-down effect on expectations of educators; policymakers expect too much of administrators, and administrators expect too much of teachers. This study shows that the "above and beyond" work teachers do is what kept students engaged and learning, so this should be rewarded appropriately.

Implications for Students/Families

As this study focused on K–12 students, there are some implications for the students and their families as well. Although the case was specific to high school students when they were in grades 11 and 12, the data show that 100% asynchronous work was not an effective way to learn, in part because of their learning environment and lack of structure at home. It is important for parents and guardians to provide students (when possible) a learning space at home that is conducive to online learning. This is not always possible as families have various living situations, but the data show that students who had private space to do their work were able to do it more efficiently and still make social connections. Teachers and students explained that

schoolwork and social connections were easier in person because students were not worried about who would hear them at home, or who would pop-in the background on video. Oftentimes, this is unavoidable as home spaces had previously not been designed to be conducive learning environments. However, if families can provide students with that space, it could allow them to be more successful at online learning.

Limitations of the Study

Although this research has contributed to the body of knowledge regarding the experiences of K–12 students who experienced online learning during the COVID-19 pandemic, it did not go unhindered by some limitations such as sample size and method of data collection. As such, findings cannot be generalized to the overall population of all K–12 students in the United States.

As mentioned in previous chapters, I sought to interview at least 10 participants for the research study. The school itself is a very small school, and it was known that the sample size would be small. However, when reaching out to potential participants, only nine participants responded and were willing to participate.

A single case study provides researchers with specifics and details about just that, a single case. This limits the generalizability of the study as one cannot extrapolate the data to represent a very large population. As this study focused on one public charter high school, it would be difficult to generalize the findings for all comprehensive public schools. The findings of this study were to provide a stepping stone for larger research to be conducted.

Recommendations for Future Research

The purpose of this study was to understand how technology facilitated social learning of students during the COVID-19 pandemic. The study further aimed to understand the lived

experiences of a group of students and teachers to be able to provide administrators, teachers, policymakers, and other stakeholders guidance on what distance learning could and should look like in the future. This study led me to consider further topics that could be explored for future research. They are as follows:

- An opportunity exists for a multicase study on how technology facilitated social learning during the COVID-19 pandemic for grades K–12. Although this study examined social learning and how technology mediated learning, it was focused on one specific site and on students who were in grades 11 and 12 at the time of the pandemic. It would be interesting to research how technology impacted students at various grade levels.
- Further research could be done on how the use of technology during the COVID-19 pandemic impacted students postgraduation. The study focused on students completing their high school careers. More data could be collected from students once they had entered postsecondary education and how the use of technology impacted their paths.
- A research study that centered on student academics pre-COVID, during COVID, and directly post-COVID school closure, with either a mixed methods approach or a qualitative approach on the academic performance. This study focused on student and teacher experiences, and although there is emerging research on how the COVID-19 pandemic impacted student learning loss, it would be interesting to see how technology impacted the learning in a more quantitative way.
- One of the main outcomes of this study was that student-teacher social connections were vital to student learning during COVID-19 and distance learning. A research

study showing how these connections impact student learning on a quantitative level would be fascinating.

Closing Comments and Chapter Summary

This study was conducted to investigate the lived experiences of a group of students and teachers who went through school closures and distance learning as a result of the COVID-19 pandemic. This study was important and personal to me because I was a site K–12 administrator during this time, and the findings of this study could provide best practices should schools ever need to transition to distance learning again due to any unforeseen circumstances. My hope is to be able to use the findings of this research as a future administrator and possible policymaker. It would be helpful for incoming teachers in their teaching credential program to be able to learn from the results of this study and make the individualized social connections with their students in order to foster better learning in their classrooms at all levels.

When the COVID-19 pandemic hit the world, educators everywhere scrambled to meet the learning needs of their students. In one specific instance, at a public charter high school in Orange County, California, the learning and social needs of students were an undertaking to be met using technology. To contextualize the study, I provided background information on school closures, a description of how the COVID-19 pandemic affected the K–12 system in the United States, a discussion on SLT, SCT, and CHAT, as well as information about how technology had been used in classrooms prior to the COVID-19 pandemic. This research was conducted as a phenomenological case study to provide the lived experience of the students and teacher. The major findings of this phenomenological case study are (a) clear, open communication is vital to online learning; (b) online learning is challenging for K–12 students, even when modifications are made by teachers; (c) in order to meet the diverse learning needs of students teachers must

have an extensive toolbox from which to pull; and (d) when teachers form connections with students, they are more receptive to learning. The limitation of this case study is the sample size of the study as the small sample size hinders its ability to be generalizable for the overall K–12 population in the United States. The limitation of this study allows for more extensive research to be conducted on the use of technology in fostering social learning for K–12 students.

This chapter concluded my research study. It provided a summary of the study as a whole, including the purpose of this study, the underlying conceptual framework used, and the methodology used to gather the data. It then provided a summary of the key findings from the analyzed data, as well as the conclusions that were drawn from the data and current research. I then provided the implications for practice that arose from the data, as well as recommendations for teachers, administrators, policymakers, and students. Finally, I discussed recommendations for future research that would further benefit the field of education.

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APPENDIX A

Recruitment Script

Dear [Name],

My name is Rashi Seth-Parmar, and I am a doctoral student in the Graduate School of Education and Psychology at Pepperdine University. I am conducting a research study in hopes of understanding the experiences of the teachers and students at Unity Middle College High School who participated in distance learning during the 2019-2020 and 2020-2021 school years, and you are invited to participate in the study. If you agree, you are invited to participate in the interview process. The interview is anticipated to take no more than one hour and will be conducted via Zoom (password protected) which will be recorded.

Participation in this study is voluntary. Your identity as a participant will remain confidential during and after the study. Confidentiality will be maintained using a password protected laptop to store all data collected including informed consent, the recorded interview, and the transcribed data.. If you have questions or would like to participate, please contact me at rashi.seth@pepperdine.edu or (***) ***-****.

Thank you for your participation,

Rashi Seth-Parmar, Doctoral Candidate

Pepperdine University, Graduate School of Education and Psychology

APPENDIX B

Collaborative Institutional Training Initiative Certification

CITI PROGRAM

Completion Date 27-Jul-2022
Expiration Date 26-Jul-2025
Record ID 50363010

This is to certify that:

Rashi Seth

Not valid for renewal of certification through CME.

Has completed the following CITI Program course:

Graduate & Professional Schools HSR
(Curriculum Group)
Graduate & Professional Schools - Psychology Division Human Subjects Training
(Course Learner Group)
1 - Basic Course
(Stage)

Under requirements set by:

Pepperdine University

CITI
Collaborative Institutional Training Initiative
101 NE 3rd Avenue, Suite 320
Fort Lauderdale, FL 33301 US
www.citiprogram.org

Verify at www.citiprogram.org/verify/?w23ec0b32-b0ed-4151-8432-edb445cd91b1-50363010

APPENDIX C

Pepperdine University IRB Approval

Pepperdine University
24255 Pacific Coast Highway
Malibu, CA 90263
TEL: 310-506-4000

NOTICE OF APPROVAL FOR HUMAN RESEARCH

Date: January 06, 2023

Protocol Investigator Name: Rashi Seth

Protocol #: 22-09-1928

Project Title: How Technology Mediated Social Learning During the COVID-19 Pandemic: A Phenomenological Case Study

School: Graduate School of Education and Psychology

Dear Rashi Seth:

Thank you for submitting your application for exempt review to Pepperdine University's Institutional Review Board (IRB). We appreciate the work you have done on your proposal. The IRB has reviewed your submitted IRB application and all ancillary materials. Upon review, the IRB has determined that the above entitled project meets the requirements for exemption under the federal regulations 45 CFR 46.101 that govern the protections of human subjects.

Your research must be conducted according to the proposal that was submitted to the IRB. If changes to the approved protocol occur, a revised protocol must be reviewed and approved by the IRB before implementation. For any proposed changes in your research protocol, please submit an amendment to the IRB. Since your study falls under exemption, there is no requirement for continuing IRB review of your project. Please be aware that changes to your protocol may prevent the research from qualifying for exemption from 45 CFR 46.101 and require submission of a new IRB application or other materials to the IRB.

A goal of the IRB is to prevent negative occurrences during any research study. However, despite the best intent, unforeseen circumstances or events may arise during the research. If an unexpected situation or adverse event happens during your investigation, please notify the IRB as soon as possible. We will ask for a complete written explanation of the event and your written response. Other actions also may be required depending on the nature of the event. Details regarding the timeframe in which adverse events must be reported to the IRB and documenting the adverse event can be found in the *Pepperdine University Protection of Human Participants in Research: Policies and Procedures Manual* at community.pepperdine.edu/irb.

Please refer to the protocol number denoted above in all communication or correspondence related to your application and this approval. Should you have additional questions or require clarification of the contents of this letter, please contact the IRB Office. On behalf of the IRB, I wish you success in this scholarly pursuit.

Sincerely,

Judy Ho, Ph.D., IRB Chair

cc: Mrs. Katy Carr, Assistant Provost for Research

APPENDIX D

Informed Consent for Participation in Research Studies

PEPPERDINE UNIVERSITY

Graduate School of Education and Psychology

INFORMED CONSENT FOR PARTICIPATION IN RESEARCH ACTIVITIES

IRB #: 22-09-1928

Formal Study Title:
How Technology Mediated Social Learning During the COVID-19 Pandemic: A Phenomenological Case Study

Authorized Study Personnel

Principal Investigator: Rashi Seth-Parmar, MA (949) 344-6945

Key Information:

- If you agree to participate in this study, the project will involve:
- Both **Males/Females** between the ages of **18-50**.
- Procedures will include being interviewed by the Principal Investigator from Pepperdine University. The interview will last approximately 60 minutes. Notes will be written during the interview. An audio/video recording of the interview and subsequent dialogue will be made. The PI will also transcribe the data after the interview has been completed in order to further analyze the data.
- **(1)** number of visits(via online ZOOM interview) are required
- These visits will take a **1.5** hours total
- There **are no** risks associated with this study
- You will be provided a copy of this consent form

Invitation

You are invited to take part in this research study. The information in this form is meant to help you decide whether or not to participate. If you have any questions, please ask.

Why are you being asked to be in this research study?

You are being asked to take part in this study because you either were a teacher at Unity Middle College High School during the 2019-2020/ 2020-2021 school year, or you graduated from Unity Middle College High School in June 2020 or June 2021. You must be 18 years or older to participate in this study.

What is the reason for doing this research study?

The purpose of this phenomenological case study is to understand the experiences of a group of high school teachers and students who continued instruction and learning through various forms of remote instruction during a twelve month period of the COVID-19 pandemic between the 2019-2021 school years. This type of educational shut-down in the United States was unprecedented, and thus little was known about how teachers would pursue and engage in instruction with their students during a global pandemic.

What will be done during this research study?

You will be interviewed by the Principal Investigator (Rashi Seth-Parmar) via Zoom for approximately 1 hour. During this interview, you will be asked approximately 10 questions about your experience at Unity MCHS during the Spring of 2020 through the 2020-2021 school year.

What are the possible risks of being in this research study?

There are minimal risks to participating in this study. The research presents a risk of loss of confidentiality.

What are the possible benefits to you?

You are not expected to get any benefit from being in this study.

What are the possible benefits to other people?

Future benefits are to provide information and guidance for future teacher-training opportunities, professional development, and teacher-preparation programs with specific regard to student social learning needs and the use of technology.

What will being in this research study cost you?

There is no cost to you for being a participant in this research study.

Will you be compensated for being in this research study?

There is no compensation for participating in this study.

What should you do if you have a problem during this research study?

Your welfare is the major concern of every member of the research team. If you have a problem as a direct result of being in this study, you should immediately contact one of the people listed at the beginning of this consent form.

How will information about you be protected?

Reasonable steps will be taken to protect your privacy and the confidentiality of your study data.

The data will be stored electronically through a secure server and will only be seen by the research team during the study and for 5 years after the study is complete.

The only persons who will have access to your research records are the study personnel, the Institutional Review Board (IRB) of Pepperdine University, and any other person, agency, or sponsor as required by law. The information from this study may be published in scientific journals or presented at scientific meetings but the data will be reported as group or summarized data and your identity will be kept strictly confidential.

What are your rights as a research subject?

You may ask any questions concerning this research and have those questions answered before agreeing to participate in or during the study.

For study related questions, please contact the investigator(s) listed at the beginning of this form.

For questions concerning your rights or complaints about the research contact the Institutional Review Board (IRB):

Phone: 1(310)568-2305

Email: gpsirb@pepperdine.edu

What will happen if you decide not to be in this research study or decide to stop participating once you start?

You can decide not to be in this research study, or you can stop being in this research study ("withdraw') at any time before, during, or after the research begins for any reason. Deciding not to be in this research study or deciding to withdraw will not affect your relationship with the investigator or with Pepperdine University.

You will not lose any benefits to which you are entitled.

Documentation of informed consent

You are voluntarily making a decision whether or not to be in this research study. Signing this form means that

(1) you have read and understood this consent form
(2) you have had the consent form explained to you
(3) you have had your questions answered and
(4) you have decided to be in the research study.

You will be given a copy of this consent form to keep.

Participant Name:

_____

Name of Participant: Please Print

Participant Signature:

Signature of Research Participant Date

APPENDIX E

Final Interview Questions

1. Based on your experiences during the Spring of 2020 through Fall 2021 semesters, how did the school handle the social and learning needs of students considering the circumstances?

2. If you could go back, what would you have suggested be done differently by administrators and teachers?

3. What specific actions were taken by teachers to modify instruction for distance learning between Spring 2020 and Fall 2021?

4. Reflecting back on that time, do you find that the modifications made by teachers were effective during distance learning? If so, why? If not, why not?

5. What are some strategies used by teachers and the school to help meet the learning needs of students during the Spring 2020 and Fall 2021 semesters?

6. How was technology used specifically to meet the social learning needs of students during that time period?

7. Based on your experiences, do you believe that technology helped or hindered the learning experiences of students during Spring 2020 through Fall 2021.

8. What steps were taken by teachers to maintain a social connection with students during that time period?

9. What recommendations would you offer to teachers who are aspiring to make and maintain social connections with students who chose to remain online?