ELEMENTARY TEACHERS' EXPERIENCES OF STUDENT ENGAGEMENT DURING FORCED VIRTUAL LEARNING: A PHENOMENOLOGICAL APPROACH

by

Heather Nicole Campbell

Liberty University

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

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ABSTRACT

The purpose of this transcendental phenomenological study was to understand and describe Virginia's Shenandoah Valley Elementary School teachers' experiences of student engagement during forced virtual learning. Teachers' experiences were defined by their positive or negative perceptions of virtual learning experiences. Bandura's social learning theory guided this study on the importance of student engagement in the classroom. This qualitative, transcendental phenomenological study included 12 elementary school teachers from the Madre school division. Data were collected through interviews, letter writing, and focus groups. The precoding and coding processes were used for data analysis to identify three final themes. The themes were online classroom management, digital tools for engagement, and collaboration. Each theme supported this study's central and sub-research questions to gain insight into elementary school teachers' experiences of student engagement during forced virtual learning.

Keywords: virtual, student engagement, elementary school teachers, experiences

Copyright Page

Dedication

I dedicate this dissertation to the memory of my mother, Lisa, who taught me how to be a spiritual woman who embodies a life of strength and perseverance in all that I do.

I dedicate this dissertation to my father, Raymond, and stepmother, Glenna, for supporting me by understanding and respecting the time and financial commitment necessary to conduct my research.

I dedicate this dissertation to my niece, Haylea; I hope you continue to love learning and gain knowledge throughout your life.

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I want to acknowledge my methodologist, Dr. Sarah Pannone, and committee member, Dr. Laura Jones, for constantly pushing me forward and maintaining high expectations.

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List of Abbreviations

Coronavirus (COVID19)

Severe acute respiratory syndrome (SARS)

Professional Learning Community (PLC)

English Language Learner (ELL)

CHAPTER ONE: INTRODUCTION

Overview

The purpose of this transcendental phenomenological study was to understand and describe Virginia's Shenandoah Valley Elementary School teachers' experiences of student engagement during forced virtual learning. This study gathered teachers' experiences and understandings of student engagement by determining the students' behaviors indicating engagement and the strategies teachers perceived were the most effective in keeping students engaged in their forced virtual learning environments. The following chapter explains the background of online learning, including the historical, theoretical, and social contexts. This chapter also included the researcher's assumptions and paradigm. Lastly, it consisted of the problem statement, purpose statement, and research questions.

Background

The coronavirus (COVID-19) pandemic offered educators worldwide an opportunity to teach virtually; this was the first experience for many with virtual education in their teaching careers (Fauzi et al., 2020). Due to the pandemic, education changed forever (Fauzi et al., 2020). Research suggested that online classrooms primarily take place at the middle school, high school, and college classroom levels; therefore, during the COVID-19 pandemic, many teachers at the elementary school level found themselves teaching virtually for the first time in their teaching careers (Davies et al., 2021; Fauzi et al., 2020; Kumar, 2018; Luo et al., 2017; Taylor & McNair, 2018; Whalley & Barbour, 2019). Davies et al. (2021) wrote that access to elementary education during the COVID-19 pandemic was significantly disrupted. During the COVID-19 pandemic, student learning was affected academically, behaviorally, and cognitively (Davies et al., 2021; Fauzi et al., 2020).

Many schools completely shut down worldwide and quickly moved to online instruction (Davies et al., 2021; Fauzi et al., 2020; Kumar, 2018; Luo et al., 2017; Taylor & McNair, 2018; Whalley & Barbour, 2019). According to the National Center for Education Statistics (2022), approximately 3 million teachers taught virtually in 2020. Online instruction can be defined as students who do not learn in a physical space but rather through computer-based internet technology (Fauzi et al., 2020; Singh & Thurman, 2019; Spector, 2018; Taylor & McNair, 2018). According to the U.S. Census Bureau, in 2018, approximately 85% of American households had access to the Internet, with 92% of Americans owning at least one type of technology capable of using the Internet (Martin, 2021). Research suggested that if the current online learning trends continue to rise, the number of students learning virtually could surpass the number of students learning in the traditional in-person classroom (Diaz et al., 2021; Palvia et al., 2018; Toppin & Toppin, 2016).

Although virtual learning research is abundant for middle school, high school, and college classrooms, there is limited research exploring student engagement in the online elementary school classroom (Kumar, 2018; Luo et al., 2017; Taylor & McNair, 2018; Whalley & Barbour, 2019). Online learning has existed since the early 1980s (Harasim, 2000; Picciano, 2017). Current trends show an increase in online learning attendance, online learning class choice, and grade levels of online schooling (Harasim, 2000; Picciano, 2017). Although online learning research continues to increase, scant research focuses on the broad idea of teachers being forced into virtual learning classrooms, like during the COVID-19 pandemic (Deflem, 2021; Fauzi et al., 2020; Martin, 2021). Few studies exist on elementary school teachers teaching during the forced school closures due to the pandemic (Deflem, 2021; Fauzi et al., 2020; Martin, 2021). This study focused on the experiences of elementary school teachers during this forced

school closure. This study was unique because it focused on student engagement in these forced online elementary classrooms (Fauzi et al., 2020).

Historical, social, and theoretical contexts of elementary school and online learning provided a detailed background for gathering teachers' perspectives on student engagement in the forced virtual learning elementary classroom. This section elaborated on the history of online instruction, including when online learning began. The social context section included the social interaction with online instruction and learning. Finally, the theoretical context describes the pertinent educational philosophers, including Friedrich Froebel and Horace Mann, both major influencers on elementary education. Horace Mann advocated for the impact social learning in the classroom has on education, later including online education.

Historical Context

While online learning can be traced back to as early as the 1970s, the world wide web's creation greatly influenced online learning trends (Harasim, 2000; Picciano, 2017). With the invention of email and online conferencing beginning in 1971, the idea of working from the computer began (Harasim, 2000; Larreamendy-Joerns & Leinhardt, 2006; Picciano, 2017). Computer conferencing can be noted as one of the first collaborative ideas of online education (Harasim, 2000; Picciano, 2017; Preece et al., 2003). In the mid-1970s, email communication complemented university courses (Harasim, 2000; Picciano, 2017). Harasim (2000) noted that the first adult online course was in 1981. Beginning in the early 1980s, public k-12 schools began adopting online instruction ideas (Harasim, 2000; Picciano, 2017). Education was forever changed when the world wide web began in 1992 (Harasim, 2000; Picciano, 2017). Harasim wrote that the 21st century began with a mindset shift related to online education.

For many years, student engagement has been used to predict students' academic success and educational motivation (Dincer et al., 2019; Sabol et al., 2018). Student engagement has been defined as students' involvement during instruction (Balwant, 2018; Dincer et al., 2019; Moosa & Shareefa, 2019; Zao & Li, 2021). This definition of student engagement includes behavioral, emotional, and physical involvement during classroom instruction. Student engagement has been broken down into behavioral, emotional, and cognitive components (Dincer et al., 2019). Research suggests that underprivileged students, students with learning disabilities, or those speaking another language are often disadvantaged in achieving student engagement in the classroom (Dincer et al., 2019; Sabol et al., 2018).

Social Context

Social interaction in the online education world has been a topic of discussion in research for many years (Mehall, 2020; Pendry & Salvatore, 2015). Mehall (2020) wrote that researchers often need to be convinced if this social interaction in an online classroom is as beneficial as in-person interaction within the physical classroom. The idea of the web being used as a means of social communication began with the creation of email in 1971 (Harasim, 2000). Pendry and Salvatore (2015) denoted that online education provides all students with social interaction experiences in the online format. Students and educators' social interaction needs can be met in the online learning environment through various interactions: student-to-learning, student-to-student, and student-to-educator (Mehall, 2020).

Research suggests that the social context of online education is as significant as the social aspects of the physical classroom (Mehall, 2020; Pendry & Salvatore, 2015). Additionally, online classrooms provide a variety of methods to encourage social interaction. Pendry and Salvatore (2015) found that online classrooms include live facial interaction, discussion boards,

video streaming, chat features, audio streaming, and group collaboration. This social interaction thus prepares all students for the social world (Pendry & Salvatore, 2015).

Theoretical Context

Before education began moving towards online learning, theorists like Friedrich Froebel and Horace Mann spent considerable time researching and understanding the world's youngest learners (McNair & Powell, 2020; Mudge, 1937). Knowledge about the theoretical context of education helps educators understand current engagement trends in the classroom, which supports the overall instruction and learning occurring in schools (Szulevicz & Tanggaard, 2017). Along with earlier educational research supported by theoretical frameworks, such as social learning, Froebel and Mann both believed that students learn from their peers, especially in the primary grades (McNair & Powell, 2020; Mudge, 1937; Szulevica & Tanggard, 2017).

The earliest grade, kindergarten, was initially created by Froebel, who believed that children learn best through play's social interaction (McNair & Powell, 2020). His ideas on primary education have led to educational innovations. Froebel's ideas of what early education should look like came from his own experiences as a child, with his mother dying at an early age. This impacted his life and resulted in his loneliness at a young age. McNair and Powell (2020) denoted that education was standardized in the early 1800s, and Froebel worked to progress education into a more democratic, liberating experience for children. The progressive education period included elementary classrooms that began with a religious focus and later transformed into classrooms focused on morals, civic duty, and nationality (Graves, 1913). Froebel's creation of kindergarten, a garden for children, allowed children to become creative and social beings within the civic and national-focused classrooms (Graves, 1913; McNair & Powell, 2020). Froebel believed that in the primary grades, beginning with his kindergarten, children could

express their talents, academics, and social interactions necessary for a successful educational career (McNair & Powell, 2020).

Friedrich Froebel's and Horace Mann's theoretical beliefs forever changed elementary education for the world's youngest learners (McNair & Powell, 2020; Mudge, 1937). Following Froebel's path, Mann believed that the elementary level of learning was a strong foundation for the remaining years of a child's education (Mudge, 1937). Mudge (1937) noted that in 1837, when Mann became secretary of education in Massachusetts, Mann knew that he would need to take his own theoretical beliefs to transform education in his state of Massachusetts and across the country. In addition to Froebel's work, Mann promoted the idea of elementary education being a time of social and human learning and values. Mann knew that schools needed to be places of choice through social learning, and he was often credited for the modern elementary school version.

After establishing Froebel's elementary school and Mann's advocacy for the importance of social and human learning within the elementary school, many researchers began to rely on these frameworks to guide their research (McNair & Powell, 2020; Mudge, 1937; Szulevica & Tanggard, 2017). Approximately 100 years after Mann's focus on social learning in the elementary classroom, Albert Bandura began building on Mann's social learning framework (Bandura, 1977a; Eun, 2019; Sitzmann & Yeo, 2013). Bandura (1977b) conducted his well-known Bobo doll experiment in 1961, suggesting that social learning is learned from others. Bandura's social learning theory guided the theoretical framework of this study. This study proposed that even in an online learning environment, elementary school students can achieve social learning, such as classroom engagement, from others, like their teachers and peers (Bandura, 1977a, 1977b; Eun, 2019; Sitzmann & Yeo, 2013).

Problem Statement

The problem is that student engagement at the elementary level is more challenging to accomplish in the forced virtual learning environment than in the traditional in-person classroom (Bedoya-Perez et al., 2021; Beilsetin et al., 2021; Parker et al., 2021; Sonnenschein et al., 2022; Sweetman, 2021; Yong et al., 2021). Research suggests that student engagement is a critical component of successful growth and achievement in various classroom settings, including virtual classroom settings (Cui et al., 2021; Gourlay, 2017; Taylor & McNair, 2018; Toppin & Toppin, 2016). Historically, virtual learning was primarily offered in middle school, high school, and college-level classrooms (Fauzi et al., 2020; Taylor & McNair, 2018; Toppin & Toppin, 2016). In 2019, during the COVID-19 pandemic, many elementary school teachers were forced to teach virtually because in-person schools shut down (Beilstein et al., 2021; Cui et al., 2021; Deflem, 2021; Hariharan & Merkel, 2021; McLaughlin & Ricevuto, 2021; Sonnenschein et al., 2022). This study looked at the experiences of elementary school teachers during the COVID-19 forced school closures. Still, this study is novel because it focused on student engagement in these forced online elementary classrooms. Prior to this study, elementary school teachers indicated they did not feel prepared to teach virtually when schools shut down during the pandemic (Cui et al., 2021; Fauzi et al., 2020; Gillis & Krull, 2020; Ming-Cheng & Jiu, 2020; Sonnenschein et al., 2022). Educators also indicated that they struggled to keep elementary learners engaged (Beilstein et al., 2021; Cui et al., 2021; Diaz et al., 2021; Fauzi et al., 2020; Gillis & Krull, 2020; Goh & Yang, 2021; Ming-Cheng & Jiu, 2020; Sonnenschein et al., 2022). This research was critical in determining elementary teachers' perceptions and experiences of student engagement.

Purpose Statement

The purpose of this transcendental phenomenological study was to understand and describe elementary teachers' experiences of student engagement during forced virtual learning in the Shenandoah Valley of Virginia. The theory guiding this study was Bandura's (1977a) social learning theory related to the implementation and success of student engagement in the classroom. Teacher experiences were defined as how teachers positively and negatively perceived virtual learning experiences (Schunk, 2020).

Significance of the Study

This study has empirical, practical, and theoretical significance for a large audience, including central office employees, superintendents, administrators, classroom teachers, parents, and students. Notably, teachers forced into virtual learning may find significance in this study, specifically with the participants' experiences applying to their online classroom practices. Teachers may also find significance in this study by using it to support student engagement in their online classrooms. A forced transition to the online learning environment during the COVID-19 pandemic has necessitated new resources to teach the youngest learners, elementary school students (Deflem, 2021; Wagner, 2021). During this forced virtual learning, educators realized that online learning could be successful, even for the world's youngest learners at the primary levels (Alves & Romig, 2021; Cui et al., 2021). This implementation of online learning for elementary school students has forever changed education because virtual learning options have become more readily available (Fauzi et al., 2020; Taylor & McNair, 2018; Toppin & Toppin, 2016).

Empirical Significance

The empirical significance of this study demonstrated how elementary teachers view student engagement in the forced virtual classroom and its ability to increase growth and achievement in the classroom (Dincer et al., 2019; Sabol et al., 2018; Upadyay & Salmela-Aro, 2013). While elementary students may be more enthusiastic about online learning, many students in the forced virtual classroom during the COVID-19 pandemic struggled to perform on grade level (Cui et al., 2021; Wagner, 2021). Should elementary teachers be forced to teach in the virtual setting again, this study can assist them with being better prepared to support student engagement in their classroom by understanding specific behaviors and strategies (Wagner, 2021). This study provided an understanding of the perceptions of other educators allowing elementary teachers who teach virtually the opportunity to become aware of the perceived and experienced behaviors and strategies related to student engagement in the virtual classroom.

Practical Significance

The practical significance of this study may impact student engagement in any online classroom, especially forced virtual classrooms. While the COVID-19 pandemic made online school mandatory for many students and educators, other possible world events could prompt a forced transition to online schooling. Examples of world events that could prompt a forced school closure include natural disasters, infrastructure issues, war, or school shootings. This study can practically influence future research, hiring, and professional development decisions surrounding student engagement in the forced online classroom (Beilstein et al., 2021; Shin & Bolkan, 2021). As research, like this study, continues to narrow the gap in understanding educators' perceptions of forced virtual learning, it can influence strategies and behavior

expectations in forced virtual learning classrooms (Beilstein et al., 2021; Mazer, 2013; Shin & Bolkan, 2021).

This study also provided practical significance for teachers to support successful student engagement in the forced virtual classroom, especially at the elementary school level (Beilstein et al., 2021; Shin & Bolkan, 2021). Central office employees and administrators may use this research to create practical professional development for their employees (Beilstein et al., 2021). This research could also be used in yearly training for teachers in the online classroom setting. Lastly, as trends of online learning increase, this research could be added to college textbooks or professional texts to support new teachers in the education field (Beilstein et al., 2021; Martin, 2021; Toppin & Toppin, 2016).

Theoretical Significance

This study has theoretical significance for researchers and educators whose educational frameworks and theories surround Bandura's (1977a) theory of social learning. Researchers and elementary educators can better understand how social learning is connected to student engagement, even in the online classroom. Along with many other theorists, such as Horace Mann, this research supports the ideas surrounding the importance of elementary schooling, even in the online learning format (McNair & Powell, 2020; Mudge, 1937).

As forced virtual learning arose during the COVID-19 pandemic, new educational theories and frameworks will continue to arise (Toppin & Toppin, 2016). This research reflected on innovative ideas, philosophies, and theories surrounding student engagement in forced virtual learning classrooms. Should teachers be forced into virtual learning classrooms again in the future, the theoretical contexts of this research can support a higher level of successful student engagement in these online classrooms (Mehall, 2020; Pendry & Salvatore, 2015). A better

understanding of how social learning is critical to student engagement can influence overall growth and achievement in the online classroom.

Research Questions

This research study explored student engagement through the experiences of elementary teachers forced to teach virtually during the COVID-19 pandemic in the United States. This study used a phenomenological research method as I have lived experiences with student engagement in a forced virtual learning classroom. A transcendental phenomenological design was used so that I could gather deep insight without using my own experiences of forced virtual learning. Data was collected in various ways to secure the triangulation of the research. Interviews, letter writing, and focus groups were conducted for elementary educators who were forced to teach virtually during the COVID-19 pandemic.

Central Research Question

How do elementary educators describe student engagement experiences in the forced virtual classroom setting?

Sub-Question One

What behaviors did teachers recognize in a student being engaged in online classrooms?

Sub-Question Two

What experiences do elementary teachers have with student engagement strategies in online classrooms?

Definitions

1. *COVID-19* - A highly contagious respiratory disease caused by the severe acute respiratory syndrome virus (Munoz Martinez, 2020; National Cancer Institute, 2021; Tanno et al., 2020).

2. *Forced Learning* - Students and teachers without choice over the environment they teach and learn within (Gournaris, 2020; Parker et al., 2021).
3. *Online/Virtual Learning* - Learning where students are not within a physical space but rather through the use of computer-based internet technology (Fauzi et al., 2020; Taylor & McNair, 2018).
4. *Student Engagement* - A student's interest, energy, and effort put forth within the learning setting (Bond, 2020; Yong & Lim, 2012).

Summary

Chapter One included a succinct overview of the research background, the problem, the study's significance, the research questions, and the terms that drove this research study. The historical, social, and theoretical context of student engagement in the forced online classroom all suggested the importance of student engagement to the overall success of students, even in the forced virtual learning setting (Bond, 2020; Cetin, 2018; Nagro et al., 2019). Online learning has only recently become an area of study, but the social interactions and theories surrounding online learning supplement the effectiveness of online learning on students' success (Bond, 2020; Cetin, 2018; Nagro et al., 2019).

The problem surrounding this research suggested that forced virtual learning teachers struggle to keep students engaged in the online elementary school classroom setting. There is little research and evidence to support how elementary teachers perceive student engagement in forced online learning classrooms, even though there is tremendous empirical, practical, and theoretical significance to a study such as this. This research study is significant to administrators, educators, students, and families because it provides a deeper understanding of student engagement in the online environment. Initially, it was unclear what specific behaviors

and strategies teachers perceive as beneficial in the online learning environment, resulting in the research questions for this study.

The purpose of this transcendental phenomenological study was to understand and describe elementary school teachers' experiences of student engagement during forced virtual learning due to the COVID-19 pandemic in the Shenandoah Valley of Virginia. Through interviews, journal writing, and focus groups, educators were asked to share their experiences surrounding the identified behaviors and strategies observed and implemented in their forced virtual learning environments. This study narrowed the gap in the literature because it focused on student engagement in the forced online elementary school classroom, a novel idea to research. Educators should continue to make positive strides toward successful forced virtual learning classrooms.

CHAPTER TWO: LITERATURE REVIEW

Overview

This chapter reviewed the current literature related to the topic of study. A systematic review of the literature was conducted to explore elementary school teachers' experiences of student engagement during forced virtual learning. The first section discussed the theoretical framework of student engagement and virtual learning relevant to social learning. The following sections also included a synthesis of recent literature regarding online instruction and student engagement. A gap in the literature was identified, presenting a need for the current study.

Theoretical Framework

The purpose of this study was to examine teachers' experiences of student engagement during forced virtual learning. The theoretical construct used in this study related to student engagement in the virtual classroom was social learning theory (Bandura, 1962, 1971a, 1971b, 1977a, 1977b). The social learning theory approach proposes that humans learn through various social constructs, such as observation, modeling, and self-efficacy (Bandura, 1971a, 1971b, 1977a, 1977b; Holzman, 2016). Students who can observe positive student engagement behaviors and strategies are more likely to be engaged themselves (Bandura, 1971a, 1971b, 1977a). This theoretical construct indicates how social experiences impact high levels of student engagement within the virtual learning setting (Astakhova, 2020; Barlow & Brown, 2020; Eun, 2019).

Albert Bandura's theory of social learning is a foundational context for student engagement in the classroom (Bandura, 1971a, 1971b, 1977a, 1977b; Eun, 2019; Sitzmann & Yeo, 2013). Based on the early work in behaviorism done by Skinner, Bandura's theory of social learning relates to the social experiences of a person (Bandura, 1971a, 1971b, 1977; Eun, 2019).

Bandura uses his Bobo doll experiment as a beginning reinforcement for the idea that when children are engaged with a task, they will complete it successfully (Bandura, 1962, 1977a). The Bobo doll experiment also suggests that children often learn through modeling, observing, and imitating (Bandura, 1962, 1977a). The social learning theory and the research questions of this study are connected in the relationship that students must be engaged in their learning, even in the online classroom (Bandura, 1971a, 1971b, 1977a; Taylor & McNair, 2018; Toppin & Toppin, 2016). The social learning theory and the research questions for this study suggested that teachers and students can learn successful student engagement strategies and behaviors that can be modeled, observed, or imitated (Bandura, 1962, 1971a, 1971b, 1977a).

One crucial component of Bandura's social learning theory is the idea of self-efficacy (Bandura, 1977a, 1977b). Self-efficacy involves an individual's belief in themselves and their capabilities (Bandura, 1977a, 1977b; Eun, 2019; Sitzman & Yeo, 2013). Social learning theory, more precisely the self-efficacy construct, suggests that teachers and students will be more engaged when they believe they can learn (Bandura, 1977a, 1977b; Eun, 2019; Sitzman & Yeo, 2013). This idea suggests that students become more engaged when they model their engaged peers (Bandura, 1977a, 1977b; Deaton, 2015). By understanding teachers' perspectives of engagement, future teachers can properly support student engagement through modeling, observing, and imitating appropriate student engagement behaviors and strategies (Bandura, 1971a, 1971b, 1977a; Taylor & McNair, 2018; Toppin & Toppin, 2016). If a student sees their peer or teacher actively participating in classroom discussion by raising their hand to answer questions, they are more likely to raise their hand and participate in the discussion (Bandura, 1962, 1977a, 1977b; Deaton, 2015).

Classrooms worldwide continue to use the social learning theory as a foundational context for learning (Barlow & Brown, 2020; Eun, 2019; Holzman, 2016; James & Sheffield, 2019; Wang & Wang, 2021). However, as classroom environments have changed over the years, educators face the problem of keeping students engaged during these challenging changes (Barlow & Brown, 2020; Deaton, 2015; James & Sheffield, 2019). By connecting the historical theory of social learning with student engagement in the virtual classroom, researchers can explore how best to increase student engagement behaviors and strategies in various classroom settings, including virtually.

Related Literature

The COVID-19 pandemic offered elementary educators worldwide an opportunity to teach virtually; this was the first time for many educators (Fauzi et al., 2020; Kearney & Maakrum, 2020; Potts, 2019; Raes et al., 2020). When schools shut down in the United States because of the 2019 COVID19 pandemic, educators, such as those in Virginia, were forced to teach in the virtual setting, as this was the only option for schools (Klippel et al., 2020; Petersen et al., 2020; Salman et al., 2021). Elementary school teachers' experiences of student engagement during forced virtual learning was explored by reviewing the literature on online instruction and student engagement. The broad literature topics of online instruction and student engagement intersect more narrowly concerning virtual learning; therefore, literature related to online instruction and student engagement will be reviewed in this section.

Online Instruction

As technology continues to change and influence education, educators must be ready to adapt to these technological changes (Fauzi et al., 2020; Kearney & Maakrum, 2020; Ming-Cheng & Jiu, 2020; Toppin & Toppin, 2016). In addition to changing educational technology,

student expectations of learning online have also changed (Raes et al., 2020; Toppin & Toppin, 2016). Many students today receive primarily online instruction than traditional in-person instruction (Fauzi et al., 2020; Kearney & Maakrum, 2020; Ming-Cheng & Jiu, 2020; Toppin & Toppin, 2016). Online instruction can be defined as students not learning in a physical space but rather through computer-based internet technology (Fauzi et al., 2020; Taylor & McNair, 2018).

According to the U.S. Census Bureau, in 2018, approximately 85% of American households had access to the internet, with 92% of Americans owning at least one type of technology capable of using the internet (Martin, 2021). Herold (2016) wrote that in 1991 only one computer was available to 20 students. Today, there is enough technology for approximately one computer for every two students (Barbour et al., 2017; Fauzi et al., 2020; Herold, 2016; Klippel et al., 2020; Martin, 2021). The U.S Census Bureau suggested that because 85% of Americans have access to the internet, online learning is readily available to families. As a result of families having access to the internet, education has seen a rise in online instruction (Beach, 2017; Fauzi et al., 2020; Taylor & McNair, 2018; Toppin & Toppin, 2016). Research suggests that if the current online learning trends continue to rise, the number of students learning virtually could surpass the number of students learning in the traditional in-person classroom (Barbour et al., 2017; Fauzi et al., 2020; Herold, 2016; Klippel et al., 2020; Martin, 2021; Sonnenschein et al., 2022; Toppin & Toppin, 2016).

Online instruction has become popular for many reasons, including technology enhancement, convenience, and flexibility (Barbour et al., 2017; Fauzi et al., 2020; Klippel et al., 2020; Petersen et al., 2020; Raes et al., 2020; Toppin & Toppin, 2016). Research suggests that online instruction provides students with various opportunities to become familiar with many different forms of technology (Fauzi et al., 2020; Taylor & McNair, 2018; Toppin & Toppin,

2016). Fauzi et al. (2020), Sonnenschein et al. (2022), and Toppin and Toppin (2016) wrote that this technical knowledge is critical for success in the career world. The convenience of online instruction appeals to mobile families or those who live in an area with limited access to school facilities (Fauzi et al., 2020; Toppin & Toppin, 2016). Research suggests that online learning makes learning accessible to a much larger population nationally and internationally (Barbour et al., 2017; Fauzi et al., 2020; Raes et al., 2020). Potts (2019) and Toppin and Toppin (2016) noted the positive, significant effect virtual learning has on gifted international students concerning accessibility and flexibility. The flexibility of online instruction also allows students to manage their academic schedules and extracurricular activities. Another component of online learning flexibility is that online instruction can be flexible to fit the needs of a variety of learners (Beach, 2017; Potts, 2019; Rivera, 2017; Toppin & Toppin, 2016).

The research focused on online instruction has been conducted worldwide and suggests that it can be effective for learning (Beach, 2017; Fauzi et al., 2020; Ming-Cheng & Jiu, 2020; Rivera, 2017; Toppin & Toppin, 2016). Data suggests a significant, positive difference between educators who integrate technology into their classrooms and those who use limited resources (Beach, 2017; Herold, 2016; Potts, 2019; Virginia Department of Education [VDOE], 2020). Rivera (2017) wrote that online instruction is especially beneficial to students with disabilities because they can receive individualized work, work at their own pace, and show individuality in work without peer pressure. Research in online learning has also produced results that show growth and achievement in reading comprehension, writing, communication, assessment, and attendance (Beach, 2017; Potts, 2019; Rivera, 2017).

Technology Standards in Education

Technology in its most recent form has been used to supplement instruction and learning (Aslam et al., 2021; Reamer, 2019; Reich et al., 2020; Relkin et al., 2021). Research suggests that technology standards integration in schools prepares students for the career world, leadership, citizenship, and collaboration (Aslam et al., 2021; Fauzi et al., 2020; Reamer, 2019; Reich et al., 2020). Technology standards also support students by implementing critical thinking, communication, collaboration, and creativity skills into the curriculum (Aslam et al., 2021; Reamer, 2019). With the effective implementation of technology standards within all classroom content areas, educators can enhance their instruction and students' learning (Aslam et al., 2021; Cox et al., 2020; Reamer, 2019; Relkin et al., 2021). In addition, technology standards set clear expectations for educators on how instruction may be taught, and assessments may guide learning (Aslam et al., 2021; Reamer, 2019; VDOE, 2020).

In 1998, the International Society for Technology in Education (ISTE) created standards for students, teachers, educational leaders, coaches, and technology leaders to use regarding technology use in the classroom (Aslam et al., 2021; Goldberg & Effinger, 2021; ISTE, 2022; Reamer, 2019; Skoretz & Cottle, 2011). Later, in 2008, these standards were updated to include the National Educational Technology Standards for educators, which specifically directed teachers to ensure learning met national technology standards (ISTE, 2022; Skoretz & Cottle, 2011). One specific standard of the ISTE states that using technology in classrooms allows students to collaborate locally and globally, a skill critical to the career world (Fauzi et al., 2020; Goldberg & Effinger, 2021; ISTE, 2022; Reamer, 2019).

While considerable research supports the use of technology standards in education, many educators advocate that technology standards do not meet their technological knowledge and needs, nor do the international or state standards align with their instruction or state technology

standards (Baek & Sung, 2020; Goldberg & Effinger, 2021; Rahiem, 2021). School boards also struggle to meet the demands for funding modern technology and technological applications to assess the standards (Bass, 2021; Rahiem, 2021). Bushweller (2017) and Bass (2021) noted that school divisions spent well over $4.7 billion on innovative technology, technology standard professional development, and staffing to teach technology standards in 2017. Another concern among researchers is that students spend most of their time meeting standards' expectations online rather than stepping into a physical classroom, thus hindering their physical and social skills (Bass, 2021; Rahiem, 2021; Reamer, 2019). Research suggests that technology standards should be updated approximately every five years to meet the demands of increasing technology trends (Bass, 2021; Bushweller, 2017; Reamer, 2019; VDOE, 2020).

In 1999, the VDOE (2020) created the Virginia Standards of Learning, which covers all content areas, including technology. These standards were set so that teachers understood what they were expected to teach and that students knew what they must learn. Initial technology standards focused on using various platforms and applications (Reich et al., 2020; Relkin et al., 2021; VDOE, 2020). The VDOE (2020) later revised these standards in 2000, 2005, 2012, and 2020 to ensure that standards met society's demands (ISTE, 2022; Reich et al., 2020; Relkin et al., 2021). Throughout the years, standards were also updated to prepare students for the career world (ISTE, 2022; Reich et al., 2020; Relkin et al., 2021). In 2020, the VDOE revised its technology standards precisely to align with the standards of the ISTE. By the end of 2020, the VDOE adopted the technology standards presented by the ISTE (2022) to supplement their standards to be used by all faculty, staff, and students in Virginia education (Reich et al., 2020). The 2022 standards are expected to be present in every Virginia classroom, regardless of the environment (VDOE, 2020).

Synchronous, Asynchronous, and Hybrid Classrooms

The beginning of the COVID-19 pandemic resulted in most American schools functioning through some version of online learning, regardless of students' grade level or age (Rehman & Syeda, 2021; Sonnenschein et al., 2022; Sweetman, 2021). Virtual learning can be completed in different formats: synchronously, asynchronously, or a hybrid method (Rehman & Syeda, 2021; Sweetman, 2021). Synchronous virtual learning consists of face-to-face instruction using an online platform, such as Zoom. Asynchronous learning occurs when students work independently through instruction, such as prerecorded lessons, videos, and assignments. Hybrid learning uses synchronous and asynchronous components to provide instruction and learning. School divisions have the freedom to choose which online learning method works best for their students; however, research suggests that synchronous online learning classrooms provide more opportunities for peer collaboration, student engagement, and critical thinking (Fauzi et al., 2020; Sonnenschein et al., 2022; Sweetman, 2021; Wang & Wang, 2020). Synchronous virtual learning environments also allow social interaction critical to cognitive and social development (Bandura, 1977a; Vygotsky, 1978; Wang & Wang, 2020).

Many school divisions and colleges began forcing virtual learning with the synchronous method, teaching face-face over a virtual platform (Gillis & Krull, 2020; Taylor & McNair, 2018; Toppin & Toppin, 2016). Research suggests that this virtual learning platform is the most similar to the traditional face-to-face classroom in terms of teaching strategies, assignments, and learning outcomes (Gillis & Krull, 2020; Guo, 2020; Rehman & Syeda, 2021; Sweetman, 2021). One significant change to learning in the synchronous virtual environment is how assessments are managed (Gillis & Krull, 2020; Sweetman, 2021). Many teachers often change the assessment format to provide accurate, honest scores and avoid cheating or plagiarism (Gillis &

Krull, 2020; Sharadgah & Sadi, 2020; Sweetman, 2021). While many students learned via the synchronous approach during the 2019 COVID-19 pandemic, others were forced to learn in an asynchronous online classroom (Gillis & Krull, 2020; Sharadgah & Sadi, 2020).

Research suggests that asynchronous learning environments can enhance interactive yet self-directed learning (Gillis & Krul, 2020; Guo, 2020; Tuma & Alijazeeri, 2021). Asynchronous virtual environments allow students to work from home on their own time and schedule in a self-paced structure. During asynchronous learning, students work independently on their own time and schedule. Rather than live face-face instruction, students gain instruction through prerecorded lessons, videos, and assignments. One positive aspect of asynchronous learning is students' ability to access their learning anywhere and at any time (Guo, 2020; Tuma & Alijazeeri, 2021). Asynchronous learning platforms also allow social learning through class discussion boards, video uploads, and talking points (Tuma & Alijazeeri, 2021; Zhang et al., 2022).

Hybrid classrooms are where students learn partially in a face-face classroom or by using synchronous learning methods and other learning taking place on an online platform (Raes et al., 2020; Smith, 2020). The idea of hybrid learning models is new; thus, there is limited research on these types of classrooms (Olitsky & Cosgrove, 2016; Raes et al., 2020; Smith, 2020). Hybrid learning can also be present in online-only classrooms; for example, the school shut down for the COVID-19 pandemic (Raes et al., 2020; Sonnenschein et al., 2022; Smith, 2020). This online environment provides students with learning through a platform, such as Zoom, while other learning is done independently on an online platform. This type of online classroom provides students with both synchronous and asynchronous learning components. Research suggests that hybrid classrooms are attractive to teachers because they provide students with learning and

physical space availability (Raes et al., 2020; Smith, 2020). Classroom resources can also be accessed efficiently and effectively in hybrid classrooms (Raes et al., 2020). Research also noted that hybrid classrooms might reduce learning distractions in synchronous virtual classrooms or traditional in-person classrooms (Olitsky & Cosgrove, 2016; Raes et al., 2020; Smith, 2020).

In addition to transforming to virtual classrooms during the 2019 school year, many schools also offered some form of virtual learning during the summer (Corson et al., 2021; Fauzi et al., 2020; Ming-Cheng & Jiu, 2020). Researchers also denoted that many schools began to interpret virtual classroom data and modify the curriculum to support students virtually in the summer of 2019. Summer courses also supported many students' understanding of how online college courses may look and feel (Corson et al., 2021; Yap et al., 2021). After completing summer online programs for students, educators advocated that additional courses over the summer positively impacted students' understanding and learning (Corson et al., 2021; Ming-Cheng & Jiu, 2020). Students also indicated they increased their technology skills in small, virtual summer classrooms (Corson et al., 2021; Hew et al., 2020; Yap et al., 2021).

Online Learning in Elementary Classrooms

Research suggests that online instruction has primarily been implemented at the middle school, high school, and collegiate levels because students have the necessary technical knowledge to complete online instruction (Fauzi et al., 2020; Hew et al., 2020; Taylor & McNair, 2018; Toppin & Toppin, 2016). Research even goes as far as to say that colleges are implementing more online instruction to increase student enrollment (Toppin & Toppin, 2016). Do elementary school educators continue to rely on research to answer questions, such as what needs to be done to add elementary schools to this collection of research on online instruction (Beach, 2017)? Should elementary schools continue to provide students with online learning

options, and how do teachers make online learning the most successful? While online learning research is primarily focused on higher grades, Beach (2017), Luo et al. (2017), and Whalley and Barbour (2019) all provide excellent insight into the elementary online classroom.

Research suggests that elementary teachers like online instruction due to the flexibility for student practice, resources, access, convenience, collaboration, and new ideas (Beach, 2017; Whalley & Barbour, 2019). Elementary teachers using online instruction report that in addition to verbal instruction through platforms like Zoom, they also use online video resources, web portals, websites, digital books, and a variety of content-sharing platforms (Barbour et al., 2017; Beach, 2017; Raes et al., 2020). Another benefit of teaching online in the elementary setting includes teachers having greater access to curriculum, experts, and collaborative projects (Beach, 2018; Whalley & Barbour, 2019). Whalley and Barbour (2019) found that online collaboration at the elementary level is critical and can also exist in the primary grades. This collaboration exists between students, student-teacher, and school-school. Online instruction teachers can collaborate and receive support quickly and more effectively (Beach, 2017; Whalley & Barbour, 2019).

Elementary school teachers also voice opinions that their professional learning communities (PLC) can also be successful online (Durr et al., 2020; Whalley & Barbour, 2019). Teachers note that their online PLCs also enhance and improve strong relationships, connections, and a sense of shared purpose among educational teams, just as they see in their online elementary meetings (Beach, 2017; Durr et al., 2020; Whalley & Barbour, 2019). When teachers meet online, academic and professional learning resources can be shared much more quickly and efficiently than in person (Durr et al., 2020; Whalley & Barbour, 2019). Online PLC meetings have also yielded higher educators' attendance due to the location's flexibility.

One major concern for elementary teachers during the 2019 school closure and their transition to online learning was the lack of training for online elementary teachers (Fang et al., 2021; Gomez-Garcia et al., 2021; Rice et al., 2020). Fang et al. (2021) and Rice et al. (2020) wrote that this deficiency in training was caused by such an abrupt transition to online learning. Teachers indicated they understood which standards needed to be taught virtually; however, they felt they were unprepared to understand how to successfully teach them in the virtual format (Fang et al., 2021; Gomez-Garcia et al., 2021; Rice et al., 2020). Many elementary teachers advocated that they did not receive adequate training before being forced to teach online. Gomez-Garcia et al. (2021) and Rice et al. (2020) wrote that this absence of training affected elementary teachers' ability to use digital teaching platforms correctly, keep their students engaged, and assist students in learning. Elementary teachers also felt incompetent when supporting their students' technological concerns.

Research noted that virtual elementary teachers learned more from their teaching colleagues than through school-level professional development or training for online instruction (Fang et al., 2021; Gomez-Garcia et al., 2021; Rice et al., 2020). Teachers stated that they would first ask another classroom teacher for support. If their peer could not assist, elementary teachers communicated with the administration. Unfortunately, there were times when classroom teachers and administration could not help, leaving the virtual elementary teacher with cases of trial and error to learn. With successful peer coaching, elementary teachers could learn from their colleagues' online instruction recordings, observations, peer modeling, and online meetings (Gomez-Garcia et al., 2021; Rice et al., 2020). Elementary teachers also noted that they tried to search for strategies and support but were unsuccessful due to the lack of available research (Gomez-Garcia et al., 2021; Rice et al., 2020).

Online Learning in Middle School, High School, and College Classrooms

It is evident through research that online instruction has primarily been implemented at the middle school, high school, and collegiate levels (Fauzi et al., 2020; Hew et al., 2020; Taylor & McNair, 2018; Toppin & Toppin, 2016). Hew et al. (2020) found that the COVID-19 pandemic forced teachers at the middle school, high school, and collegiate levels to immediately switch to an online learning format (Corson et al., 2021; Fauzi et al., 2020). Data suggests that the COVID-19 pandemic affected 91% of the world's student population (Fauzi et al., 2020; Hew et al., 2020). Similar to the perspectives expressed by elementary school teachers, educators at the middle school, high school, and collegiate levels also advocated that such an abrupt transition to virtual instruction was stressful for both themselves and their students (Corson et al., 2021; Hew et al., 2020; Kapici et al., 2019; Somera dos Santos et al., 2021; Yap et al., 2021).

Unlike most elementary school educators, teachers from middle school, high school, and college classrooms were able to quickly upload PowerPoints, lesson plans, reading, research, and even science labs onto online platforms for students to read on their own (Hew et al., 2020; Kapici et al., 2019; Somera dos Santos et al., 2021; Yap et al., 2021). However, research suggested that while these instruction delivery methods were successful for older students, some students struggled with interest and overall active learning when placed in a virtual course in such an abrupt manner.. Virtual elementary teachers could not transition to online learning platforms as fast as middle school, high school, and college-level teachers (Corson et al., 2021; Hew et al., 2020; Kapici et al., 2019).

With a push toward using virtual classrooms during the COVID-19 pandemic, many middle school, high school, and college-level courses even began or increased their offerings for virtual science labs (Corson et al., 2021; Kapici et al., 2019; Somera de Santos et al., 2021: Yap

et al., 2021). Studies have shown that virtual science labs promote inquiry-based learning, are cost-efficient, and allow students the flexibility of time to complete the lab (Kapici et al., 2019; Yap et al., 2021). Research also indicates that students are successful when labs are presented with virtual and traditional in-person components, thus using a hybrid method for learning. Research suggests that students spend similar amounts of time working on their lab virtually as they do when completing the lab in person, approximately 120 minutes (Kapici et al., 2019; Somera de Santos et al., 2021). Other studies suggest that virtual labs can take away from the hands-on experiences of in-person science labs (Kapici et al., 2019; Yap et al., 2021).

Researchers suggest that students must have some form of hands-on, practical experience with labs, but they can also benefit from virtual learning components, such as reading, discussion boards, assessments, and inquiry-based understanding (Asamoah, 2019; Kapici et al., 2019; Somera de Santos et al., 2021; Wang & Tseng, 2018). Research suggests that high school and collegiate science labs can succeed with traditional in-person and virtual components, using a hybrid method for instruction and learning (Asamoah, 2019; Kapici et al., 2019; Somera de Santos et al., 2021). In-person science labs allow students to touch and add sensory input (Kapici et al., 2019; Somera de Santos et al., 2021). Virtual lab experiences can also offer students labs that often could not be done in person due to chemicals and price (Asamoah, 2019; Kapici et al., 2019).

As students mature, they better understand and control their learning through school (Asamoah, 2019; Goh & Yang, 2021). Asamoah (2019) and Goh and Yang (2021) wrote that it is important to understand students' perceptions of their virtual learning experiences, particularly at the high school and collegiate levels. Students voiced that they found virtual learning, including science labs, accessible and relevant to their learning (Asamoah, 2019; Somera de

Santos et al., 2021). Middle school, high school, and college-level students also stated they liked how they could return to virtual presentations and lesson plans as many times as they needed to understand the content (Yap et al., 2021). Research also notes that students indicated they would suggest virtual learning labs compared to in-person labs to their peers (Asamoah, 2019; Goh & Yang, 2021; Somera de Santos et al., 2021; Yap et al., 2021).

Online Learning and Special Education

Special education is defined as "instruction that is designed specifically to respond to the learning needs of an individual with disabilities, regardless of the environment" (Francisco et al., 2020, p. 1). The Individuals with Disability Education Act (IDEA) is the educational legislation that mandates that special education students receive instruction in the least restrictive environment with their classmates (Sonnenschein et al., 2022; Wilson et al., 2019). A least restrictive environment ensures all students receive equitable learning opportunities and services in the general education classroom as much as possible. During the COVID-19 pandemic, the least restrictive environment for special education students became the virtual classroom (Beck, 2019; Ihyembe et al., 2021; Sonnenschein et al., 2022). The federal mandates of educational legislation required teachers to continue to serve special education students with their peers in the online environment (Beck, 2019; Francisco et al., 2020; Ihyembe et al., 2021; Sonnenschein et al., 2022; Wilson et al., 2019).

Research suggests that special education students are more likely to be challenged and struggle to keep up with the day's demands in the virtual classroom (Francisco et al., 2020; Ihyembe et al., 2021; Sonnenschein et al., 2022; Wilson et al., 2019). Additionally, researchers noted a trend in data that showed a decrease in the number of hours spent testing students for special education services and the number of hours special education students received services

(Erguvan, 2021; Meccawy et al., 2021). Other research points out a significant decline in special education students' scores and classroom participation while being expected to learn in virtual classrooms (Francisco et al., 2020; Ihyembe et al., 2021; Sonnenschein et al., 2022; Wilson et al., 2019).

Teachers advocate that special education diagnostic assessments and accommodations are not always accessible online (Barnett & Jung, 2021; Erguvan, 2021; Meccawy et al., 2021). Many of the tasks required for evaluating a student initially for special education services have not been previously adapted to be completed in an online setting (Erguvan, 2021; Meccawy et al., 2021). Educators agreed that completing special education diagnostic assessments' components was challenging, such as those that test for cognitive ability, behavior, and speech. In addition to not being initially able to test potential special education students while learning online, educators also struggled to meet the demands of current special education students' individualized education plan accommodations (Erguvan, 2021; Meccawy et al., 2021; Murphy et al., 2021; Sonnenschein et al., 2022). The inability to access and implement special education accommodations in the online setting resulted in students receiving fewer special education services as required by their learning plans.

Researchers note that a decrease in learning for special education children could result from decreased services provided to these students (Sonnenschein et al., 2022; Wilson et al., 2019). Studies also suggest that special education students scored less on virtual assignments and assessments when compared to previous years' scores in the physical classroom. Moreover, in addition to not receiving accommodations virtually, many special education students could not concentrate on virtual instruction, often needing adult support to understand an instruction or complete classwork. Parents agreed with educators that many times special education services

and specific accommodations could not be performed through a virtual platform like Zoom, which results in students missing out on crucial instruction (Erguvan, 2021; Meccawy et al., 2021; Sonnenschein et al., 2022; Wilson et al., 2019). Sonnenschein et al. (2022) indicated that this instructional support typically would be given in the physical classroom by the classroom or special education teacher. During virtual learning, this individualized teacher support was often unavailable (Wilson et al., 2019). Many parents could not provide the support their special education child needed during virtual learning due to their jobs working from home or caring for other children in the household (Sonnenschein et al., 2022; Wilson et al., 2019). Without special education support from classroom teachers, special education teachers, and parents, grades were affected detrimentally for special education students.

Special education teachers can support their students with attentiveness in traditional classrooms (Francisco et al., 2020; Sonnenschein et al., 2022; Wilson et al., 2019). This support typically comes from the special education teacher working alongside the student. Unfortunately, this physical closeness during instruction cannot happen in virtual classrooms. As stated earlier, parents are occupied with their virtual jobs or other children in the household, making them unavailable to support their children with special education needs. Virtual educators and parents of special education students also noticed a decline in their child's classroom participation. Special education teachers note that their support for student focus provides students with a learning break, such as walking around the classroom when they are having difficulty (Francisco et al., 2020; Wilson et al., 2019). While virtual, special education teachers struggled to see when their students needed one of these physical breaks.

Building Online Classroom Community

Classroom management is a vital factor in student achievement in the online classroom community (Hattie & Anderson, 2013; Kavrayici, 2021; Lomicka, 2020). Once school districts choose the type of virtual classroom, educators must subsequently work to build positive classroom communities, even in the virtual setting (Hattie & Anderson, 2013; Kavrayici, 2021; Lomicka, 2020; Wang & Wang, 2020). Regardless of the setting, the classroom community must be built to create a learning environment of trust, goal setting, and engagement. Once virtual teachers begin to host classrooms with a strong community, educators are expected to positively affect virtual student engagement (Kavrayici, 2021; Ligon, 2021; Lomicka, 2020). In virtual and physical classrooms, learning communities should be created and maintained from the start of the school year. When schools began to close abruptly in March 2019, teachers struggled to reflect on classroom management in the virtual classroom (Kavrayici, 2021; Lomicka, 2020). Studies suggest that high levels of student engagement occur in classrooms with high levels of classroom management (Hattie & Anderson, 2013; Kavrayici, 2021; Lomicka, 2020). While separation from the traditional classroom occurs during virtual learning, creating an online community during virtual learning can promote a sense of connection, resulting in increased student engagement (Christopolous et al., 2018; Clark et al., 2016; Ligon, 2021; Lomicka, 2020; Taylor & McNair).

The research proposed that students who feel isolated in virtual learning classrooms are less likely to be engaged (Ligon, 2021; Lomicka, 2020). Students who feel isolated in their virtual learning are less likely to be engaged in their learning (Hattie & Anderson, 2013; Kavrayici, 2021; Lomicka, 2020; Potts, 2019). Synchronous virtual learning classrooms or a combination of synchronous and asynchronous, called hybrid, are more likely to yield higher student engagement due to a stronger relationship between students and teachers (Kavrayici,

2021; Potts, 2019; Wang & Wang, 2020). This data suggests that virtual classrooms with visual team components make students feel more connected to their teachers, peers, and learning (Ligon, 2021; Wang & Wang, 2020).

Virtual classroom management strategies should imitate the strategies used in traditional in-person classrooms (Hariharan & Merkel, 2021; Hattie & Anderson, 2013; Kavrayici, 2021; Lomicka, 2020). Classroom management should include organized routines and procedures, clear plans for instruction and assessment, and the organization of classroom materials and stations (Kavrayici, 2021; Slater & Main, 2020). Specific strategies include working with students in small groups, advocating for students to keep their cameras on while online, transforming engaging in-person lessons for an online class, and recording lessons so that students may view or reread the transcripts as needed (Hariharan & Merkel, 2021; Kavrayici, 2021; Slater & Main, 2020).

Digital Equity

Educators fight to determine "not only what will be learned but who will learn" (Pittman et al., 2021, p. 71). There were considerable technology equity gaps after the forced school closures due to the COVID19 pandemic in 2019 (Lieberman, 2020; Mann, 2019; Pittman et al., 2021). One of the most significant equity gaps faced by school divisions during the pandemic was providing all students with a laptop to access their learning (Lieberman, 2020; Mann, 2019; Pittman et al., 2021). Pittman et al. (2021) noted that students were equipped with cell phones with internet capabilities but could not access learning on their mobile devices as they could on school computers (Lieberman, 2020; Mann, 2019). Students with computers in their homes often struggled to find high-speed internet access at home, causing another barrier school divisions had to overcome to provide students with public internet or internet hotspots. In addition to closing

schools, many parents were forced to work from home alongside their children (Halberg et al., 2021; Lieberman, 2020; Saccone, 2021). Lieberman (2020) noted that students indicated it was much harder to focus when parents were also working from home (Halberg et al., 2021; Saccone, 2021). Contrary, other students were left at home alone to manage online school, siblings, and necessities, such as eating, while their parents went to work.

After receiving laptops and internet access, educators assumed many problems related to the COVID-19 school closure would be resolved (Lieberman, 2020; Mann, 2019; Pittman et al., 2021; Saccone, 2021), but they were wrong. While teachers tend to be prepared to meet the expectations of digital equity in the traditional in-person classroom, researchers questioned whether teachers could meet the demands in an online environment to ensure students are treated equitably (Lieberman, 2020; Pittman et al., 2021). Many students were physically prepared but were not cognitively capable of accessing learning through the online format. Many teachers reverted to a flipped classroom where students complete reading and assignments independently and then gather with their teacher and peers to discuss and review (Lieberman, 2020; Saccone, 2021). This format of instruction and learning is not ideal for all students, especially those who may be struggling readers, cannot focus or manage time and assignments independently, or are non-English speakers (Lieberman, 2020; Pittman et al., 2021). Inclusive education offers instruction and learning in a format that is equitable to all students, regardless of cultural, historical, or social factors. However, in many ways, online classrooms have become less inclusive than traditional in-person classes (Francisco et al., 2020; Ihyembe et al., 2021; Pittman et al., 2021; Sonnenschein et al., 2022; Wilson et al., 2019).

While there is a gap in the equity of digital materials and access to learning online, research also presents a gap in the equity of social skills attained and accessed through online

classrooms (Blau et al., 2020; Gonzalez-Betancor et al., 2021; Lieberman, 2020; Mann, 2019; Pittman et al., 2021; Saccone, 2021; Vonkova et al., 2021). There is a correlation between low achievement scores and low digital communication skills (Blau et al., 2020; Vonkova et al., 2021). While some students prosper in online social tasks, such as verbal discussions, discussion boards, break-out rooms, and online engagement among peers, others do not.

Student Engagement

Student engagement can be defined as a student's interest, energy, and effort in the learning setting (Bond, 2020). The research proposes that student engagement is a critical component of students' overall education success (Bond, 2020; Cetin, 2018; Kearney & Maakrum, 2020; Nagro et al., 2019). Considerable research has been conducted using cognitive, affective, and behavioral indicators of student engagement (Bond, 2020; Cetin, 2018; Havik & Westergard, 2020; Nagro et al., 2019). Cognitive, affective, and behavioral indicators of student engagement suggest that students become engaged through their thinking, responses, and actions (Bond, 2020; Havik & Westergard, 2020). While some research breaks down student engagement into constructs like cognitive, affective, and behavioral (Bond, 2020; Cetin, 2018; Havik & Westergard, 2020; Nagro et al., 2019), others divide student engagement even further into constructs such as authentic, ritual, compliance, withdrawal, and rebellion (Cetin, 2018; Schlechty, 2002).

Cetin (2018) and Schlechty (2002) proposed that student engagement involves positive mental and behavioral actions and negatives. Regardless of the many constructs or ways engagement can be broken down, this research found that student engagement is a lead indicator of student achievement (Bond, 2020; Cetin, 2018; Schlechty, 2002). The research found that when students become disengaged, they are more likely to withdraw from the learning process

and even rebel. Educators must be prepared to embed student engagement strategies within instruction and curriculum to see these successful academic outcomes (Bond, 2020).

Teachers indicated that students who were not engaged in the virtual classroom setting would become involved in the off-task play, fall asleep, mute their volume, turn their cameras off or even log out of the virtual platform entirely (Bond, 2020; Ligon, 2021). Home disruptions also affected student engagement in the virtual setting (Bond, 2020; Ligon, 2021; Schlechty, 2002). In the 2020 forced school shutdown and subsequent virtual learning environment, families were often inconsiderate of virtual learning by speaking or making noise loudly in the background, interrupting the instruction for technology support, and allowing students to engage in other activities during learning.

Teachers' Perspectives

Gathering similarities and differences among teachers' perspectives is essential for understanding teachers' identities (Warren, 2017). Research suggests that teachers' experiences and perspectives often go unnoticed (Bahng & Lee, 2017; Warren, 2017). Gaining teachers' perspectives allows various ideologies, beliefs, and cultures to be shared through various methods (Warren, 2017). Teachers' perspectives are critical to education (Bahng & Lee, 2017; Warren, 2017). The COVID-19 pandemic offered elementary school educators worldwide an opportunity to teach virtually for the first time in their careers. Gathering teachers' perspectives on students' engagement in their virtual classrooms was significant for gleaning pertinent information about virtual teaching moving forward (Fauzi et al., 2020; Kearney & Maakrum, 2020; Potts, 2019; Raes et al., 2020; Wang & Wang, 2020).

Teachers' perspectives are also critical for training new teachers in education (Luo et al., 2017; Warren, 2017). During the COVID19 pandemic, as elementary school teachers taught

virtually, many educators did not have the skills necessary to succeed in the online classroom (Fauzi et al., 2020; Ming-Cheng & Jiu, 2020). Gathering teachers' perspectives is vital for understanding teachers' strengths and weaknesses related to being forced to teach virtually (Bahng & Lee, 2017; Luo et al., 2017). Research suggests that after gathering teachers' perspectives, changes have already been made to education. As educators move forward with traditional and online instruction, gathering teachers' perspectives is critical to making positive and necessary changes (Luo et al., 2017).

It is also essential to understand students' perspectives in teacher education programs, called student teachers (Cooper, 2019; Hoppey, 2021; Putra et al., 2020). During the COVID-19 pandemic, colleges resorted to online instruction and learning platforms. Rather than in-person student teaching placements, these future educators were placed in online classrooms. Student teachers tend to perceive online learning as less effective than traditional in-person classrooms. Studies suggest that student teachers struggle to understand technology pertinent to teaching online classes and creating engaging lessons in an online format. Like elementary, middle, and high school students, teachers also stress having adequate internet access and speed to teach online classes. Student teachers also note that learning traditional classroom management strategies is challenging while doing their placement hours in an online classroom. In the online teaching format, student teachers advocate that they cannot apply all the practical in-person teaching practices they have learned in their online classrooms. Student teachers also indicate they find it difficult to support students emotionally through online learning. With COVID-19 school closures in 2019, student support in the online environment decreased(Hoppey, 2021; Putra et al., 2020).

Students' Perspectives

Understanding students' perceptions can be a leading component in recognizing student success (Cetin, 2018; Havik & Westergard, 2020). Students' perceptions of their learning are formed based on the beliefs of their engagement within the learning setting. When educators understand their students' perceptions of their engagement, informative classroom decisions can be made (Cetin, 2018). For example, suppose a student indicates that they are not interested in completing a particular assignment on a self-report. In that case, educators can make the assignment more appealing and engaging (Bond, 2020).

Within the research, students' perceptions of engagement were defined as enthusiasm, desire to attend school, completing homework and assignments, following classroom instructions, and classroom participation (Cetin, 2018; Havik & Westergard, 2020). Based on these constructs, research has found that when students feel supported in the classroom by their teacher, they are more likely to complete homework and assignments. Research also suggests that students understand that they are likely to receive better grades when they participate more in class (Conner & Pope, 2013; Havik & Westergard, 2020). Students' perceptions of their engagement in the classroom demonstrate that when they are engaged with their learning, they are enthusiastic and have a high desire to attend school. As a result of this heightened enthusiasm and desire, attendance is better for engaged students.

Even the world's youngest learners at the elementary school level are open to sharing their perceptions of online learning. Elementary school students found the online day to feel much longer than a typical in-person school day (Cetin, 2018; Havik & Westergard, 2020; Ligon, 2021). Even with brain breaks, an extended lunch break, and asynchronous learning assignments, elementary school students indicated they felt the most tired in the afternoon (Cetin, 2018; Ligon, 2021). Research demonstrates that students enjoy synchronous and

asynchronous online learning because they can participate in social interaction with classmates and work on asynchronous assignments at their own pace and time (Kavrayici, 2021; Wang & Wang, 2020). Students also like going back and viewing materials, videos, and assignments in the asynchronous virtual learning environment.

In addition to their perceptions of engagement during online learning, elementary students also noted their perceptions regarding their technology (Fang et al., 2021; Gomez-Garcia et al., 2021; Rice et al., 2020). Some elementary-aged students who were forced into virtual learning had never even used a laptop before. Like their teachers, elementary students received little to no training related to learning online. This lack of training left elementary students to learn from their teachers, classroom peers, and parents or guardians.

Elementary students specified they did not understand how to correctly use their online learning platforms (Fang et al., 2021; Gomez-Garcia et al., 2021; Rice et al., 2020). For students who needed to complete work asynchronously, navigating the technology to complete independent work was difficult. Students as young as four years old responded that they struggled with specific tasks such as logging into their laptops and signing onto their learning platforms like Zoom (Gomez-Garcia et al., 2021; Rice et al., 2020). Without their teacher's physical support, many students stated they were frustrated and upset before their learning day even began.

Virtual Classroom Student Engagement

As online learning trends continue to increase, it is critical to ensure students are also engaged in the virtual classroom (Christopolous et al., 2018; Clark et al., 2016; Fauzi et al., 2020; Ming-Cheng & Jiu, 2020). Like the traditional in-person classroom, virtual classrooms must also be planned, managed, and led with elevated levels of student engagement

(Christopolous et al., 2018; Clark et al., 2016; Taylor & McNair, 2018). Student engagement in the virtual classroom setting focuses on online interactions (Christopolous et al., 2018; Clark et al., 2016). These interactions typically occur between teacher-to-students or student-to-students.

Before the pandemic and forced virtual learning, Christopolous et al. (2018) noted that students indicated on a self-report that they believed online learning was more attractive. This attractiveness can be defined as an interest in the lesson. In contrast, teachers indicated that the younger the student, the harder it is to keep the student engaged in the virtual classroom (Christopolous, 2018; Ligon, 2021). Research suggests that children ages 8–18 should have no more than two hours of screen time each day (Barnett et al., 2018; Ligon, 2021). While students may have indicated they were more attracted to online learning, educators question whether these students were engaged (Christopolous et al., 2018; Ligon, 2020). Research suggests that the attractiveness of virtual learning often increases the engagement of students in their learning (Christopolous et al., 2018; Clark et al., 2016). Specifically, the attractiveness of virtual learning environments influenced students to participate more actively in virtual lessons and discussions.

Virtual Field Trip Student Engagement

Virtual field trips use technology to present students with the experiences of a specific environment and learning (Cheng, 2021; Cheng & Tsai, 2019; Han, 2020). Virtual field trips are accessed through various technological platforms and equipment, such as video conferencing or virtual reality headsets (Cheng & Tsai, 2019). Virtual field trips allow students to attend field trips that may be too far away to travel or cost-prohibitive or learning has become virtual, for example, such as during the COVID-19 pandemic (Cheng, 2021; Han, 2020; Klippel et al., 2020; Petersen et al., 2020). Research notes that due to resources and outside factors, only a small number of physical field trips are taken during the school year (Klippel et al., 2020; Petersen et

al., 2020). Educators agree that if resources and other components were not an issue, students would take many more physical field trips (Cheng & Tsai, 2019; Klippel et al., 2020; Petersen et al., 2020).

Virtual field trips appeal to educators because all students can access the field trip, regardless of location and physical ability (Cheng, 2021; Cheng & Tsai, 2019; Han, 2020; Klippel et al., 2020; Petersen et al., 2020). Research suggests that some of the most appealing aspects of virtual field trips are the authenticity and mimicry of physical field trips and their ability to intrinsically motivate students (Cheng & Tsai, 2019; Klippel et al., 2020). Han (2020) wrote that students who suffer from motion sickness, movement restriction disorders, and behavior problems could miss out on physical field trips. Like physical field trips, virtual field trips offer students a realistic and immersive approach to learning (Cheng & Tsai, 2019; Han, 2020; Klippel et al., 2020). Educators note the negative factors they encountered with virtual field trips included internet instability or lack thereof, little or no support from administrators and other teachers, or the inability to manage students on the same technology platform (Cheng & Tsai, 2020; Klippel et al., 2020).

Cheng and Tsai (2020) identified being present as a "state of consciousness…sense of being there" (p. 2). Research also suggested that students' presence abilities are increased through virtual field trips (Cheng, 2021; Cheng & Tsai, 2019; Petersen et al., 2020). Some research proposed that this intense presence with virtual field trips can cause students to struggle behaviorally to contain their excitement to make meaningful connections to continue learning (Klippel et al., 2020; Petersen et al., 2020). These authors explained that while students may have a high level of presence on the virtual field trip, cognitive load appears to be higher during virtual field trips, hindering learning.

Virtual Gaming and Engagement

Research suggests that students are provided with opportunities to become technologically engaged in their learning by using games, applications, and interactive websites daily, which results in higher academic achievement (Clark et al., 2016; Reisoglu et al., 2017). Online gaming has proven to be one successful method of increasing student engagement in the virtual classroom. Online gaming during online instruction is one factor that makes this form of instruction appealing to students (Christopolous et al., 2018; Clark et al., 2016). Students voiced that they love when their teacher involves games like Pictionary in their learning (Clark et al., 2016; Frost, 2021; Reisoglu et al., 2017). Educators advocate that trivia, Pictionary, game shows, and scavenger-like hunts are all learning games that can be easily adapted to an online classroom (Clark et al., 2016; Frost, 2021; Goode, 2020; Reisoglu et al., 2017).

One form of educational gaming is the idea of three-dimensional classroom settings. The idea of three-dimensional classrooms and activities is new to the educational world (Christopolous et al., 2018; Clark et al., 2016; Reisoglu et al., 2017). Three-dimensional virtual classrooms include using avatars to represent students and audio-based tools to communicate rather than a student's voice (Reisoglu et al., 2017). Due to their ability to combine physical and virtual worlds, three-dimensional classrooms can supplement the attractiveness of virtual learning environments (Christopolous et al., 2018; Clark et al., 2016; Reisoglu et al., 2017). Students become engaged in three-dimensional classrooms when they choose how they want to view the content (Reisoglu et al., 2017).

Studies also suggest that online learning games that include physical activity help students stay engaged in their learning (Frost, 2021; Goode, 2020). Teachers who have students complete physical activity games, such as jumping and stretching, enhance learning by keeping

students engaged. Online games where teachers involve physical activity increase student participation, reflecting the knowledge students gain. Students advocate that they like learning games in an online classroom and making learning fun.

The research proposes that online learning games can be more engaging when compared to viewing online videos (Goode, 2020; Gordillo et al., 2022; Ventura et al., 2021). Gordillo et al. (2022) noted that games are often more collaborative than watching videos. Videos in online classrooms that are paused and discussed with students promote classroom engagement, but stand-alone videos create little engagement (Goode, 2020; Ventura et al., 2021). Educators can even use competition to promote classroom engagement (Frost, 2021; Goode, 2020; Ventura et al., 2021). Research also suggests that if students work in teams, teams losing the game will be more likely to be engaged to avoid losing (Goode, 2020; Ventura et al., 2021).

Summary

Research suggests that virtual learning has been available to students worldwide for many years (Fauzi et al., 2020; Ming-Cheng & Jiu, 2020; Toppin & Toppin, 2016). Online instruction has been a successful learning platform for students for many years (Barbour et al., 2017; Toppin & Toppin, 2016; Wang & Wang, 2020). Historically, many theoretical constructs support engagement in the virtual classroom, including the educational theories of social learning (Bandura, 1977a). Research suggests that online instruction and classrooms meet the needs of many diverse types of students and teachers (Beach, 2017; Christopolous et al., 2018; Clark et al., 2016; Fauzi et al., 2020; Havik & Westergard, 2020; Ligon, 2021; Ming-Cheng & Jiu, 2020; Raes et al., 2020; Rivera, 2017). Student engagement is one of the highest indicators of educational growth and achievement in the classroom (Cetin, 2018; Nagro et al., 2019). Student

engagement can include various components, such as different positive classroom environments. Online instruction and student engagement are critical to the accomplishment of education.

The COVID-19 pandemic has provided many opportunities to narrow research gaps, such as elementary school teachers' perspectives of student engagement during forced virtual teaching. While virtual learning research is abundant for high school and middle school classrooms, there needs to be more research exploring student engagement in the online elementary school classroom (Luo et al., 2017; Taylor & McNair, 2018; Whalley & Barbour, 2019). This study was necessary to narrow the gap between elementary teachers' perspectives while in the forced virtual classroom to positively impact future online learning in the elementary classroom setting. Gathering teachers' perspectives during this study was critical to making informative future modifications to education based on virtual learning experiences through the lens of elementary teachers (Bahng & Lee, 2017; Luo et al., 2017; Taylor & McNair, 2018; Whalley & Barbour, 2019).

CHAPTER THREE: METHODS

Overview

This chapter described the qualitative research design for the current phenomenological study to understand and elaborate on elementary school teachers' experiences of student engagement during forced virtual instruction. Also included in this chapter are the research questions and descriptions of the setting and participants. The procedures were explained so that another researcher may replicate this study. The role of the researcher section included the biases, assumptions, and paradigms that guided this study. This chapter also contained details on the data collection and analysis. Chapter Three concluded with the methods used to ensure this study's research trustworthiness and ethical considerations.

Research Design

I chose a qualitative method for this study because I wanted to examine student engagement experiences in virtual elementary school classrooms where instruction was forced virtually to understand and describe these experiences (Creswell & Poth, 2018; Moustakas, 1994). Qualitative research focuses on finding meaning or attributing meaning to social and human problems in a natural setting (Creswell & Poth, 2018). Qualitative research also relies on participants' experiences, perspectives, and meanings. A qualitative design was appropriate for this study because participants shared their firsthand experiences with student engagement during forced virtual learning, and I analyzed the data to find meaning.

Phenomenological research is based on the early works of Edmund Husserl, who defined phenomenology as studying to understand the appearance of things (Moustakas, 1994). Husserl wrote that phenomenological work is best suited for education, social and health science, and sociology (Creswell & Poth, 2018; Moustakas, 1994). The phenomenological design provides

complex insight from individual experiences (Moustakas, 1994). In phenomenological studies, data is often collected through interviews, observations, and focus groups (Creswell & Poth, 2018; Moustakas, 1994). In phenomenological research, questioning is used to gain meaning and determine themes. There is an increased interest in the experience found through these meanings and themes (Moustakas, 1994). At the end of phenomenological work, an integrated form of the experience is determined, with the experience explained in detail with meaning (Creswell & Poth, 2018; Moustakas, 1994).

A phenomenological approach was appropriate for this study because I aimed to gather the meaning of elementary school teachers' experiences with student engagement in forced virtual classrooms. Phenomenological work surrounds the idea of a shared phenomenon (Creswell & Poth, 2018; Moustakas, 1994). All participants experienced the same phenomenon, forced virtual classrooms, and shared their experiences through interviews, journal writing, and focus groups. These data collection strategies are often used in phenomenological work. Using these phenomenological data collection methods, I gathered a detailed picture of student engagement experiences in forced virtual classrooms. The phenomenological approach allowed me to understand elementary school teachers' experiences from various perspectives and angles. This qualitative study used a transcendental phenomenological approach. Husserl defined transcendental phenomenology in his early work as the researcher transcending from the phenomenon (Moustakas, 1994). The phenomenon is studied through the transcendental approach by bracketing experiences and collecting data from participants who have experienced the phenomenon (Creswell & Poth, 2018). I viewed the phenomenon from a new lens (Moustakas, 1994). Moustakas (1994) noted that transcendental phenomenology requires an epoché where the researcher sets aside their biases and preconceived notions. Due to the

researcher having experienced the phenomenon, epoché is vital because the phenomenon must be approached alone, without outside influence (Moustakas, 1994).

A transcendental phenomenological approach was appropriate for this study because I have lived through student engagement experiences in my own forced virtual classroom. It was vital that I bracketed my thoughts, feelings, and emotions toward student engagement in forced virtual classrooms. Any positive or negative experiences I have had with student engagement in forced classrooms needed to be set aside. Epoché in the study ensured that I viewed the participants' experiences from a fresh perspective (Moustakas, 1994).

Research Questions

Central Research Question

How do elementary educators describe student engagement experiences in the forced virtual classroom setting?

Sub-Question One

What behaviors did teachers recognize in a student being engaged in online classrooms?

Sub-Question Two

What experiences do elementary teachers have with student engagement strategies in online classrooms?

Setting and Participants

The setting and participants of this study explain where the study was conducted and who the participants were. Permission for both the setting and participants was received. This study was conducted in Virginia in the Madre school division using elementary school teachers who were forced into virtual learning.

Setting

This research study was conducted in the Madre County public school division; this is a pseudonym for the division's protection. Madre County public schools is a school division hosting approximately 14,000 students and 1,342 educators spanning over 726 square miles (Haas, 2020). The division offers 15 elementary schools, 5 middle schools, and 3 high schools. From these schools, 31.7% of the students are economically disadvantaged, 10.1% are English learners, and 12.4% are students with disabilities. Madre County public schools blend rural, suburban, and urban settings.

This school division was chosen due to its size and convenience to myself. I currently work for this division, making it easier to locate participants and conduct the research. The size of the school division also affected my decision to complete my research in the division. Madre County public schools offer 15 elementary schools with approximately 450 students and a principal and assistant principal at each (Haas, 2020). With 15 elementary schools and approximately 30 elementary school teachers at each school, this school division has a diverse population of teachers.

Participants

This study used 12 participants from various elementary schools in the division. Each of the participants agreed through informed consent to contribute to an interview, letter writing, and focus group. This selection process ensured that research participation represents the Madre school division's elementary schools.

Participants in this study were elementary school classroom teachers from the Madre school division who were forced to teach virtually in 2019 during the COVID-19 pandemic. The researcher had no position of authority over the participants. All participants must have taught in the virtual classroom setting during the forced school closure of the COVID-19 pandemic in

2019. The elementary school teachers who participated in this study ranged from 3-33 years of teaching experience in the elementary school classroom. The participants ranged from 21 to 65 years of age and included both genders. The participants came from diverse backgrounds.

Researcher Positionality

In this section, the researcher's positionality will be explained. The researcher's positionality allows me to articulate my motivation for conducting this study. Based on my positionality, this section includes the interpretive frameworks and three philosophical assumptions guiding this work.

Interpretive Framework

I chose a social constructivist approach for this study (Bandura, 1977a). The constructivist paradigm suggests that people's experiences shape their beliefs (Boddy, 2019; Boddy & Jankowicz, 2020; Creswell & Poth, 2018; Lerman, 1996). The social piece of constructivism notes that humans learn from social interaction (Bandura, 1977a, 1977b; Vygotsky, 1978). I am a student and educator, so I understand the importance of student engagement in educational success. I have been teaching for 10 years at the elementary school level in various settings. While the settings and demographics may change, student engagement's critical role in my classroom did not change.

This research was conducted using a constructivist paradigm to understand better the forced virtual classroom setting in which elementary school teachers work (Creswell & Poth, 2018). The constructivist paradigm influences my own knowledge of how elementary school teachers perceive students' engagement in the virtual classroom. Through this constructivist framework, I understand how teachers' beliefs and values are formed based on their lived experiences in the forced virtual classroom. Because there is a gap in the research understanding

elementary teachers' perceptions of student engagement in a forced virtual classroom, this research provided insight into how teachers perceived student engagement, including the behaviors and strategies.

Philosophical Assumptions

Philosophical assumptions are the beliefs surrounding the researcher (Creswell & Poth, 2018; Cuthbertson & Blair, 2020; Knapp et al., 2019). In this section, I explain my own ontological, epistemological, and axiological assumptions. These assumptions allow the reader to understand my beliefs and motivations(Cuthbertson & Blair, 2020). Ontological, epistemological, and philosophical assumptions all drive the research.

Ontological Assumption

Ontological assumptions in this research study refer to the implicit and unproven assumptions of the participants, elementary teachers (Hoijer, 2008). During this research, my ontological assumptions were based on teachers' perceptions of student engagement in their forced virtual classrooms. The research sample included a variety of elementary classroom educators, allowing me to witness the perspectives that arose. As ontological assumptions suggest, the idea of student engagement was seen through various views (Creswell & Poth, 2018). Ontological assumptions are based on the nature of reality (Hoijer, 2008). I believe there is one reality based on God's truth (*English Standard Version*, 2001, John 3:17; Feser, 2014). In this reality, student engagement in the classroom truly exists (Billingsley et al., 2018).

Epistemological Assumption

Epistemological assumptions refer to tacit knowledge (Scott & Usher, 1996). My epistemological assumption during this study was that elementary school educators would have varying perspectives on student engagement in their online classrooms. While the research

questions aimed to gather teachers' experiences on social behaviors and strategies within their forced virtual classrooms, the specific behaviors and strategies differed among the participants. The knowledge gained from this study is based on the participants' experiences. While one teacher may view one behavior as engagement, another teacher may not. Along with the epistemological assumptions, I must remember that not every educator views student engagement as a critical component to successful growth and achievement. I later report these differences and similarities in themes throughout the research during the analysis process (Moustakas, 1994).

Axiological Assumption

Axiological assumptions involve values in the real world (Park, 2020). Using the fact that I am an elementary teacher, my axiological assumptions greatly influenced the knowledge that was gathered from the participants. My own personal experiences of being forced into virtual teaching brought my educational values to light during this research. I believe that student engagement is the most critical factor in academic success. I also believe virtual learning can be just as successful as in-person learning if high levels of student engagement are present. These beliefs were bracketed to best gain the truth of the participants. These axiological assumptions ensured that the data coming from the participants was valuable to the research study. As a classroom teacher, one must understand one's interpretations of the participants' perspectives (Creswell & Poth, 2018).

Researcher's Role

In 2019, the COVID-19 pandemic forced elementary school teachers to teach in a virtual setting. I felt unprepared to teach virtually, especially concerning student engagement. I often questioned whether my students were engaged and formed personal strategies to keep them

engaged virtually. Through the virtual teaching experience, I realized that there were not enough resources to support educators with student engagement in a virtual setting. As an educator, I have always enjoyed supporting colleagues in my classrooms. After my experiences with virtual teaching combined with listening to peers, I wanted to fully understand the perceptions surrounding student engagement in the elementary school virtual classroom.

As the researcher, I was the human instrument in this study, analyzing multiple methods of data collected on student engagement experiences in the virtual elementary school classroom (Becker, 2019; Lincoln & Guba, 1985). As the human instrument in this research, I was the one to give meaning and understanding during the research analysis (Lincoln & Guba, 1985; Peredaryenko & Krauss, 2013). I have a professional connection with all elementary educators participating in the research study. This relationship with the participants is vital because I teach in Madre County public schools, a pseudonym for the study's location. I do not hold any authority or power over the participants in this study.

Procedures

This section presented the steps used to conduct this study so that it can be replicated. This section included necessary site permissions, information about securing Institutional Review Board (IRB) approval, soliciting participants, the data collection and analysis plans by data source. It concluded with an explanation of how the study achieves triangulation.

Permissions

Before data collection began, I applied for site approval through the school division, which involved discussion through email with the superintendent of the Madre County school division and appropriate leaders from the central office (see Appendix A). Once the IRB granted permission (see Appendix B), I sent out recruitment letters, including a link to the consent form

to all interested participants.

Interested participants selected for this study were emailed another informed consent form (see Appendix C). The informed consent form included the participants' rights, protection, and assent to participate in the study. Once informed consent was gathered from the interested participants, I saved the files on my computer with lock and password protection. I emphasized the protection and confidentiality of the study. Creswell and Poth (2018) shared that participant protection must be considered before, during, and after the study is completed.

Recruitment Plan

This study used purposeful sampling to locate elementary school educators forced to teach virtually due to the COVID-19 pandemic. The researcher used purposeful sampling to locate cases with the most pertinent information (Campbell et al., 2020; Creswell & Poth, 2018; Denieffe, 2020). Creswell and Poth (2018) wrote that purposeful sampling allows the researcher to intentionally choose participants who fit the criteria for the study and have experienced the phenomenon. The phenomenon of focus for this study was student engagement in the forced virtual learning classroom. When a participant agreed to participate in the study, snowball sampling was used. Snowball sampling allowed the participants to recommend other candidates for the research study (Creswell & Poth, 2018; Lowe & Crouse, 2018). Snowball sampling supported the sample by expanding it from the initial purposeful sampling.

An email was initially used to solicit elementary school teachers interested in participating in the study. Participants were carefully selected from each of the 15 elementary schools to ensure various grade levels, teaching experiences, and specialties were included until thematic saturation was met (Patton, 2015). Educators were chosen from different schools and grades to ensure that various genders and races were included in the study. The sample size

included a group of 12 classroom teachers; these individuals were all interviewed, submitted writing submissions, and participated in focus groups. Fusch and Ness (2015) found that a small sample size can significantly affect the quality and validity of the research (Boddy, 2016; Dickson-Swift et al., 2007). Research suggests that with approximately 12 participants, researchers can notice few changes being made in the gathered information and themes. Therefore, a minimum of 12 participants were used to ensure data saturation was met (Fusch & Neff, 2015; Hennink et al., 2017; Saunders et al., 2017). Pseudonyms were provided for all participants to protect identities and confidentiality throughout the research process (Patten, 2015). Permission and consent were gained from all participants before interviews, focus groups, and written submissions.

The participants for this study were chosen from the Madre County public school division. The target population for this study contained 457 elementary school teachers who were forced into virtual learning. The population included elementary teachers who were forced to teach from 15 different schools in this division virtually. The sample size of participants was 12 elementary teachers who represented 15 different elementary schools.

Data Collection Plan

The following section includes the data collection methods used in this phenomenological study. Data saturation was met when no new information was presented, and thematic saturation was reached when no new themes emerged (Hennink et al., 2017; Saunders et al., 2017). The following data collection methods were used: interviews, document analysis, and focus groups. All data tools determined elementary school teachers' perspectives of student engagement in the virtual classroom setting.

Interviews

Interviews were used to obtain in-depth insight into forced virtual elementary teachers' perspectives (Moustakas, 1994). Interviews are considered the primary type of phenomenological data collection (Englander, 2012; Moustakas, 1994). Phenomenological interviews are an informal process where I asked participants open-ended questions that I had prepared (Moustakas, 1994). Englander (2012) found that interviews provide researchers with meaning to the phenomenon through the participants' lived experiences. Interviews allowed me to collect descriptions based on these lived experiences.

Interviews were conducted online or in person based on the participant's comfort. If the participant preferred a virtual interview, Microsoft Teams was used. Each participant was asked to join the interview in a location they felt was confidential. Interviews were open-ended with 15 pre-determined interview prompts (see Appendix D) so that participants could freely share their opinions (Yin, 2018). Interviews were considered short because they lasted approximately one hour with strict wording for the participants to express their perceptions of student engagement in virtual settings. I asked the participants questions throughout the interview process and used probes to ensure detail and insight. The goal of the interviews was not only to determine perspectives of student engagement in the elementary school virtual classroom but also to determine specific strategies and behaviors that elementary school educators felt influenced student engagement.

Individual Interview Prompts

1. Please tell me about yourself as an educator.
2. Please tell me how long you have had experience in a forced virtual elementary setting and your online teaching location during this experience (i.e., school building, home, coffee shop).

3. In your own words, define student engagement in the classroom. (CQ1)
4. Please give me your first thoughts and opinions when thinking about student engagement while teaching in a forced virtual setting at the elementary school level. (CQ1)
5. What were the positive points related to student engagement in the forced virtual classroom? (CQ1)
6. What was the most challenging part of student engagement in the forced virtual classroom? Why was this the most challenging part? (CQ1)
7. In your opinion, what behaviors would you consider representative of a student fully engaged in the forced virtual classroom? (SQ1)
8. What subjects did you find these behaviors occurred the most often. (SQ1)
9. Describe the times during your online schedule where fully engaged behaviors occurred. (SQ1)
10. What kind of strategies did you use to promote student engagement? (SQ2)
11. Describe the subjects or content areas where you found yourself using these strategies the most. (SQ2)
12. How did you learn about student engagement strategies you used in your forced virtual classroom? (SQ2)
13. What will you do differently to positively influence student engagement the next time you are forced to teach virtually? (CQ, SQ1, SQ2)
14. What can your division, school, administration, and student's families do to support student engagement in a forced virtual classroom? (CQ1)
15. We have covered much ground in our conversation, and I appreciate the time you have given to this. I have one final question. What else do you think would be essential for me

to know about student engagement in the forced virtual elementary classroom? (CQ1, SQ1, SQ2)

Statements one and two provided information about the participant's educational experience, particularly in the forced virtual setting. These straightforward statements allowed the researcher to connect and build a trusting relationship with the participant.

Questions three and four allowed the participant to offer broad insight into how they define student engagement in the virtual setting. It is essential to understand how one defines something can affect how one perceives it (Deslauriers, 2017).

Questions five and six encouraged the participant to think about their definition of student engagement and apply it to the virtual situation. Like questions three and four, these questions allowed the participant to provide a final opportunity to offer broad perceptions.

Questions seven, eight, and nine allowed the participant to describe what, when, and where specific student engagement behaviors occurred in the virtual classroom setting. Research suggests that behaviors in the classroom always happen for a reason, whether positive or negative (Lavan, 2017). Research suggests that behaviors are a reaction to one's fight or flight system to confront life situations. In understanding students' classroom engagement, it is crucial to understand which behaviors are perceived as portraying a student being engaged.

Questions 10, 11, and 12 asked the participant to share perceptions about the strategies learned and used to promote student engagement in the virtual classroom. Strategies are an integral part of the classroom (Manalo, 2019). When educators put strategy at the forefront of classrooms, students can be a part of deeper learning that promotes critical thinking. Strategic classrooms also benefit the management of behaviors (Lavan, 2017; Manalo, 2019).

Question 13 had the participant perceive and analyze their definition of student engagement by applying their learned knowledge to a future teaching scenario in the virtual classroom. Hedman et al. (2012) wrote that broad perspectives are critical when narrowing down thoughts and feelings. Once perceptions can be defined, humans can determine broad perspectives based on their thoughts and beliefs.

Question 14 required the participant to consider student engagement in the virtual setting at a broad school-division level approach. Teachers may be uncomfortable sharing concerns about their divisions, administrators, or colleagues. This question allowed the interviewee to be honest about what changes need to be made regarding student engagement in the virtual classroom while maintaining confidentiality.

Question 15 allowed the participant to share anything else they would like the researcher to know about student engagement in forced virtual classrooms that they did not previously share.

Individual Interview Data Analysis Plan

The data analysis methods for the interviews followed Moustakas's (1994) process of utilizing epoché, phenomenological reduction, imaginative variation, and textural and structural descriptions. Epoché allowed me to see my participants' interviews with a clear perspective to analyze the interviews as they appeared. I began the analysis of the interviews by sustaining the epoché to ensure that my personal biases did not affect the data analysis (Bednall, 2006; Moustakas, 1994). Through epoché, I put aside my own experiences, judgments, and questions related to student engagement during forced virtual learning in the elementary grades. To assist with this, I kept a journal to take field notes based on my reactions, emotions, behaviors, and events.

After attempting to achieve the epoché, the next step in data analysis was a phenomenological reduction (Moustakas, 1994). The phenomenological reduction required me to look over the interviews as they were and make descriptions based on the texts. Moustakas (1994) wrote that phenomenological reduction lets the reader view the data with an intentional conscious to discover the phenomena with a fresh approach. By using phenomenological reduction, I could reflect on each participant's experiences. .

The phenomenological reduction then leads to textural descriptions (Moustakas, 1994). Textural descriptions allowed the participants to describe their experiences relating to the phenomenon. Moustakas (1994) found that every phrase is given equal attention with textural descriptions. Using textural descriptions, I created descriptions of the participants' experiences using constitutes and themes. Each participant’s comments, answers, and descriptions were equally valued and analyzed

After creating textural structures, I used imaginative variation to form structural descriptions (Moustakas, 1994). This process allowed me to describe the essential structures of the phenomenon. Structural descriptions involve conscious thinking, recollecting, imagining, and judging. Participants’ structural descriptions of the experience were based on their textural descriptions and imagination variation (Creswell & Poth, 2018; Moustakas, 1994). Finally, using the textural and structural descriptions, I constructed individual composite textural-structural descriptions of the meaning and the essence of the experiences related to student engagement in the forced virtual classroom (Creswell & Poth, 2018). I wrote paragraphs about what the participants experienced regarding the phenomenon and how they experienced it.

Document Analysis

Corbin and Strauss (2008) denoted that document analysis allows researchers to understand and develop knowledge based on artifacts. The document analysis in this research was personal artifacts. Personal artifacts allowed me to gather the information that would not be obtained in the interviews and focus groups (Patton, 2015). The personal artifacts were in the form of letters. I asked the participants to write a hypothetical letter to a first-year teacher who may be suddenly forced to teach in an online environment. The participants were prompted to write a letter to share their experiences with student engagement and share student engagement strategies that worked for them or other teachers they knew during forced virtual learning. Teachers were asked to write a minimum of two paragraphs. The participants' letters provided relevant information related to the research question and supported data triangulation (Hosseini et al., 2021).

Document Analysis Data Analysis Plan

Data analysis of documents began with written letters from each participant by sustaining the epoché to ensure that my own personal biases did not affect the data analysis (Bednall, 2006; Moustakas, 1994). I wrote a letter based on the same prompt to document my reactions, emotions, behaviors, and events to assist with this. The phenomenological reduction was next completed to allow me to look at each letter as it is written and make descriptions based on the written letters (Moustakas, 1994). Memoing was used to document shared ideas and phrases throughout phenomenological reduction (Creswell & Poth, 2018). Moustakas (1994) denoted that textural descriptions give every phrase equal attention. Textural descriptions within the letters allowed the participants to describe their experiences relating to the phenomenon via textural vocabularies, such as angry or calm and large or small. Using textural descriptions, I created descriptions of the participants' experiences using constitutes and themes from their

letters. Once textural structures had been created, I used imaginative variation to form structural descriptions within the letters, allowing the description of the essential structures of the phenomenon. Finally, using the textural and structural descriptions from the letters, I constructed individual composite textural-structural descriptions for each letter so that I could put the information into codes (Creswell & Poth, 2018). Saldana (2009) noted the researcher would then be able to develop a shared experience after creating codes.

Focus Groups

Three focus groups, with four to six participants in each, were utilized to gain teachers' perspectives on student engagement in the forced elementary virtual classroom. Like interviews, focus groups collect rich data through open-ended prompts (see Appendix E); however, focus groups gather a group of participants for questioning rather than interviewing each participant separately (Carey & Asbury, 2012). The focus groups met on three dates, allowing teachers to choose the most convenient time for their schedule. In order to minimize conflict of interest, disruptions, or bias, the focus groups met online using a digital platform for approximately one hour. Participants were encouraged to find a private location to participate online. The conversation was audio recorded to be transcribed, analyzed, and synthesized for themes.

Focus Group Prompts

1. Explain your role with student engagement in the forced virtual classroom. (CQ)
2. Describe the supports you received with student engagement in your forced virtual classrooms. (CQ)
3. Describe how technology affected student engagement behaviors that occurred in your virtual classrooms. (SQ1)

4. Describe how technology was involved in the strategies you used to help increase student engagement in the virtual classroom. (SQ2)
5. This study builds on a social learning framework. Describe how student engagement in your online classrooms may have affected students' social learning. (CQ)
6. We all teach in the same division. As a group, what recommendations do you have for the central office staff to support elementary school teachers with student engagement after being forced to teach virtually? (CQ)

Question one gathered background information about the elementary teachers' role in student engagement in the forced virtual classroom. This question required the participants to think about their definition of student engagement. Question two required the group to share their support experiences with student engagement in their virtual classrooms. Questions three and four asked the group to share the technology used to support student engagement strategies. Question five related to the central question, precisely the theoretical aspect, to determine how the group felt about the influence of student engagement on their students' social learning. Finally, question six had the group reflect on the division-level needs related to student engagement in the forced virtual learning classroom.

Focus Group Data Analysis Plan

As with the interviews and letters, I began the analysis of the focus groups' transcripts by sustaining the epoché to ensure that my personal biases did not affect the analysis of the focus groups' data (Bednall, 2006; Moustakas, 1994). The epoché was critical to the research as it allowed me to read the focus groups' transcripts without adding personal experiences, judgments, and questions related to student engagement during forced virtual learning in the elementary grades. To assist with epoché, I journaled my own thoughts and reactions based on

the focus group. Next, I continued to follow the data analysis process noted by Moustakas (1994). I examined the focus groups' transcripts looking for significant ideas, statements, and codes. I also determined themes and their significance, explained the themes' structure, and finally determined a shared description of the experiences with student engagement in forced virtual classrooms.

Data Synthesis

Once all pieces of the data were thoroughly analyzed, the next step in the research process was to synthesize all the data into one piece of evidence that identified the overall themes that emerged concerning the research questions (Moustakas, 1994). The data was coded into minor, broad themes (Saldana, 2009). I was then able to identify reoccurring themes throughout the data. Moustakas (1994) labeled this idea of identifying reoccurring themes as horizontalizing. To begin synthesis, I took the textural and structural descriptions to create a "unified essence" (Moustakas, 1994, p. 100). In the end, the meaning was given to the phenomenon labeled student engagement in forced virtual classrooms. Lastly, I synthesized the data by relating the evidence to the research questions.

Trustworthiness

The research was validated using trustworthiness techniques. Creswell (2013) found that researchers must have confidence in the outcome of their research. This section describes the methods used to ensure trustworthiness in this research study. This section addressed credibility, dependability, confirmability, and transferability, all characteristics of trustworthiness in qualitative research (Lincoln & Guba, 1985). The trustworthiness components ensured the research study's validation (Creswell & Poth, 2018).

Credibility

The research's credibility ensured the study's accuracy and accountability (Liao & Hitchcock, 2018). Similar to the internal validity of quantitative research, credibility focuses on the validity of the research (Korstjens & Moser, 2017). One way to ensure the credibility of this study was through member checks which allowed me to ask participants to review the accuracy of the research (Decino & Waalkes, 2019; Motulsky, 2021). Participants were asked to check the accuracy of the research, determine whether themes were relevant, and identify if the interpretations throughout the research were fair and representative (Creswell & Guetterman, 2019; Motulsky, 2021). I also used triangulation, which used various methods of data collection and different participants, to ensure validation (Creswell & Guetterman, 2019; Denieffe, 2020). Each piece of evidence from the research was carefully examined to create themes throughout the research.

Member Checking

Rossman and Rallis (2016) found that an insider's perspective is essential and can benefit the research. This insider's perspective allowed me to think about my own experiences with forced virtual learning and gave meaning to the participants' responses. Since I was also forced into virtual teaching, this gave me a connection to the participants' experiences. As the researcher, I used experiences to prompt participants to ensure I captured the needed experiences. After the transcriptions, I verified the accuracy by providing all participants with the transcripts. I also clarified specific pieces to accurately reflect the participants' perspectives (Decino & Waalkes, 2019; Lincoln & Guba, 1985; Motulsky, 2021). Finally, I provided the participants with what they believed to be the key points made in their interviews, letter submissions, and focus groups.

Triangulation

Triangulation required me to use multiple data collection points (Creswell & Poth, 2018; Denieffe, 2020). Triangulation was secured in this study by using interviews, letter writing, and focus groups. Source triangulation was achieved through various elementary school classroom teachers forced to teach in the virtual setting. Theory triangulation was achieved using Bandura's social learning theory as it related to student engagement in the classroom, which worked as the theoretical framework for this study.

Peer Debriefing

Throughout this research, I used peer debriefing by discussing with fellow educators and colleagues to ensure the analysis was related to the presented data (Spall, 1998). I debriefed with peers in the school, and debriefing helped me gather other perspectives that may be critical to the research. Through the discussion with colleagues, I corroborated data findings with the literature.

Transferability

Transferability suggests that the reader of a study can apply the findings to their setting (Korstjens & Moser, 2017; Maxwell, 2021). I considered and made known any prior biases or possibility of bias. To achieve transferability, I considered how these biases might affect the perceptions of the research study and the research process and made sure to give thick, rich descriptions (Yin, 2018). Last, I considered how the understanding of the study could be transferred to similar educational settings (Korstjens & Moser, 2017). Transferability was considered when using data triangulation (Lemon & Hayes, 2020; Yin, 2018).

Dependability

Dependability ensured consistency and minimized my personal bias throughout the research in order for the study to be replicable (Patton, 2015). This research study was organized throughout all parts of the research process, and specific descriptions of procedures were

provided. The specific methods of this study were literal and supported by the literature so that any population could replicate this study. My research committee thoroughly reviewed these procedures and methods to ensure they were sufficient to demonstrate the mastery of the research as designed.

Confirmability

Confirmability refers to how the researcher's findings match the participants' shared information. Three methods of confirmability were used: reflexivity, audit trail, and triangulation. According to Korstjens and Moser (2017), reflexivity is critical for ensuring research is transparent and of good quality. Reflexivity denotes the idea that I disclosed participants' knowledge and experiences in relation to the research study (Creswell & Poth, 2018; Dodgson, 2019). From the start of the research, I clarified that I was also a forced virtual elementary teacher who struggled with student engagement in the forced virtual classroom. Memoing was used to ensure bracketing, which excluded personal bias (Creswell & Poth, 2018). Secondly, an audit trail was created throughout the various stages of the research so that the procedures, gathered data, analyzed data, and findings could be quickly located if needed. Finally, triangulation was achieved using interviews, document letter writing, and focus groups, as stated above.

Ethical Considerations

The Belmont Report's principles guided this study's ethical considerations (Office for Human Protections, 2021). IRB approval and informed consent were obtained for all participants, and all forms were organized and stored in a secure location. IRB approval ensured that this research study was completed with minimal risks. All participants were asked to sign the consent form, which notes that participants could leave the study. As mentioned in the consent

form, this study was completed by maximizing the participants' benefits and minimizing the risks of harm. All participants, sites, and materials were protected through pseudonyms and confidentiality. Research materials were locked digitally using password protection, and any physical materials were stored using a lock and key. Data will be saved for three years after the study and then destroyed.

Summary

This chapter provides a detailed overview of the methodology, data collection, and design used in this qualitative phenomenological study on elementary school educators' perspectives of student engagement in the forced virtual classroom setting. This phenomenological study used interviews, document analysis, and focus groups as collection methods. I served various roles, including following the interviews, document analysis, and focus group standards. I also maintained trustworthiness through member checks, peer debriefing, audit checks, triangulation, and reflexivity to ensure credibility, dependability, confirmability, and transferability. Ethical considerations were aligned with The Belmont Report to minimize all participants' risks. The participants, 12 elementary teachers, were included in the research study, with all names and information protected through confidentiality.

CHAPTER FOUR: FINDINGS

Overview

The purpose of this transcendental phenomenological study was to understand and describe elementary teachers' experiences of student engagement during forced virtual learning in the Shenandoah Valley of Virginia. This approach allowed me to understand the phenomenon (virtual student engagement) and how it influenced elementary teachers' experiences of student engagement during virtual instruction. This chapter will detail the participant descriptions, results of the data analysis, and responses to the research questions. Chapter Four concludes with a summary of my findings.

Participants

There were 12 elementary school teachers from various elementary schools in the Madre school division who participated in this study. Each participant was forced to teach virtually during the COVID-19 pandemic. The participants' teaching experience ranged from 3–33 years, included both genders, and ranged in age from 24 to 61. All 12 participants completed individual interviews, submitted written letters, and participated in a focus group. All quotes from participants were consistent with their responses. Pseudonyms were assigned in a realistic and culturally relevant manner to protect participants' confidentiality. The demographics of each participant are displayed in Table 1.

Table 1

Teacher Participants

Teacher Participant	Gender	Years Taught	Virtual Grade
Andrea	F	25	3rd
Dan	M	9	4th
Maverick	M	3	4th
Janice	F	8	3rd
Kathy	F	14	K
Johnathan	M	6	1st
Sandra	F	3	3rd
Holly	F	4	2nd
Kelly	F	33	2nd
Anna	F	6	5th
Debbie	F	11	3rd
Casey	F	4	2nd

Andrea

Andrea is a White female who has taught for 25 years. Before coming to the Madre school division, Andrea spent her first 10 of years teaching in a more urban school division in the state's northern region. The last 15 years of her teaching have been in the Madre school division. Andrea has spent her entire teaching career at the elementary level, only teaching second and third grades. Andrea states that "education has drastically changed." She could see herself eventually becoming an elementary school administrator before she retires.

Dan

Dan is a White male who has taught for nine years. Dan retired after 40 years as a newspaper and radio reporter and then decided to study education. He has taught second grade for five years and has spent the last four years in fourth grade. All nine years of Dan's teaching career have been at the same elementary school in the Madre school division. The school Dan teaches at is considered "the wealthiest of the 15 elementary schools in the division." Dan aspires to be an administrator and, in the last year, "got [his] masters in educational leadership from James Madison University."

Maverick

Maverick is Black male who is a newer teacher in the district. He only taught for three years while the schools were closed for the pandemic. He has taught fourth grade and prefers the upper elementary grades. Maverick teaches at “one of six Title 1 schools in the division,” meaning that the school is considered low-income based on socio-economic factors. Prior to becoming a teacher, he was a bus driver for the Madre school division. His passion for kids’ learning drove him to become a classroom teacher. Maverick enjoys the bus and classroom connections he has made with students. He would love to continue his learning and one day become an administrator.

Janice

Janice is a Hispanic female. She has taught for eight years, four of those years in the Madre school division. Her first four years were in the northern, urban region of the state. After the decline of her mother’s health, Janice moved to the Madre school division and has enjoyed the more rural areas and counties of the state. Janice has taught second and third grades. While she loves being a classroom teacher, her true passion is for technology in the classroom. She is

working towards becoming a learning technology integrator (LTI) for the division, where she would support teaching teachers how to integrate technology into their instruction and assessments.

Kathy

Kathy is a White female who has taught for 14 years. Her first two years of teaching were near the state capitol and the remaining 11 years have been in the Madre school division. She has primarily taught first grade; however, she has spent the last three years in kindergarten. Kathy prefers the younger grades “even in a virtual world.”

Johnathan

Johnathan is a White male who has been teaching for six years. Like other participants, Johnathan moved to the Madre school division from the northern, urban area of the state. He taught fourth grade for the first five years of his teaching career. During the virtual year, Johnathan was placed in a first-grade classroom and admits, “it was a very tough year being in a new grade and virtual all at the same time.” Johnathan recently completed his master's in library science and accepted a job as the school librarian for the next school year.

Sandra

Sandra is an Asian female who has only been teaching for three years and is "the youngest teacher at [her] school." All three years of her teaching experience have been in the Madre school division in the third grade. Sandra also attended the Madre school division as a student, motivating her to be a teacher in the district herself. She then went to college and did her student teaching at the same school where she now teaches.

Holly

Holly is a White female who has been teaching for four years. She has spent all four of her years teaching third grade at her current elementary school. The school she teaches at has the highest elementary school population in the division, with “almost 700 students, Pre-K–5th.” With only four years of experience, Holly is the team leader for her third-grade team. She also hosts a book study each year on culturally responsive teaching in which teachers can be certified after successful completion.

Kelly

Kelly has been teaching for 33 years in the Madre school division at the same elementary school for all 33 years. She has taught both second and third grades but taught second grade during the virtual learning period. Kelly says that her strength as an educator is working with students with behavior challenges and her weakness is technology. When asked what she would do differently if schools were forced to go virtual again, Kelly made it very clear that she would retire before being put in that situation again.

Anna

Anna has taught second, third, and fifth grade and taught fifth grade virtually during the school closure. Anna is a painter in her free time and incorporates art into her classroom as much as possible. She believes "art keeps elementary students engaged in their learning."

Debbie

Debbie is a White female who has been teaching for 11 years. She has taught both third and fourth grade; however, she taught third grade during the virtual school shutdown. In addition to an elementary teaching license, she has endorsements in literacy and English language learners (ELL). Debbie admits that due to her specialties in literacy, she finds herself and

students "mostly engaged during the reading block." In the future, Debbie hopes to be an ELL teacher.

Casey

Casey is a White female who has been teaching for four years. She attended the college in the same city as the Madre school division. Casey also accepted a job at the same school she did student teaching. All of her teaching experience has been at the school thus far. She taught for two years in second grade and the other two in third grade. During the forced school closure, Casey taught third grade.

Results

The results of this study were found through the data analysis process, which relied on the overall process of preparing the data, reducing the data, imaginative variation, and exploring participants' essences of elementary education teachers' lived experiences of student engagement in the forced virtual classroom. The data was collected through interviews, document analysis, and focus groups using a digital platform. Analyzation of the data followed the steps of Moustakas (2015). The data analysis revealed three emerging themes and five subthemes from the research, which provided suggestions for future research on student engagement in forced virtual classrooms. The themes and subthemes are displayed below.

Table 2

Main Themes and Sub-Themes of Forced Virtual Student Engagement

Theme	Sub-Theme
Online Classroom Management	• Expectations, Routines and Procedures • Teacher-Student Relationships • Teacher-Family Relationships
Digital Tools for Engagement	
Collaboration	• Professional Learning Communities • Research

Online Classroom Management

The primary emerging theme was the need for strong classroom management to gather, maintain, and gauge student engagement in the forced virtual classroom. All of the participants noted just like traditional classrooms, classroom management is the key factor for student engagement. As a result, it must also be of high priority in virtual classrooms. Kelly stated, "I've been teaching for a long time and I can tell you that if the class is nothing but chaos, there is no way that the students are engaged." Dan also spoke about the importance of classroom management by referencing his experiences:

> You have to positively manage your classroom. I've been on the hiring committee for many years and one of the top factors we look for in interviews are candidates who understand the importance of classroom management. When the division does classroom observations, a big portion of that is classroom management. So we know it is no secret that classroom management fosters engagement. What teachers didn't know how to do was positively manage virtual classrooms. And unfortunately, there was no support from the division on that.

The participants' responses expressed the concern that while online classroom management was highly prioritized to ensure student engagement, no professional development was offered to staff in the Madre school division for virtual teaching and learning. Casey stated, "My first month of virtual teaching was a mess. I had no idea how to manage a virtual classroom." Holly and Sandra agreed with Casey in their focus group. Holly spoke to the idea that she "[spent] 30 minutes helping a student open a new tab and in that 30 minutes lost the engagement of the remainder of the class." It was evident through the data analysis that the participants knew the importance of classroom management, making it of high importance in their traditional classrooms. However, they often struggled with initiating and maintaining virtual classroom management strategies.

Teachers clearly explained that for forced virtual classrooms to be successful, each virtual classroom must have set expectations, routines, and procedures. Janice expressed, "Classroom management is all about your routines and procedures. Even in the virtual world, teachers have to have those routines and procedures." Maverick declared:

> It took a lot of extra planning time on my end to figure out the routines and procedures for a virtual classroom. You have to really think about how the flow of the day is going to be, and as we learned, that flow was different virtually. Teachers had to also think about what tools they were using virtually. Elementary students have to not only be taught the specific routines and procedures, but also how to successfully complete that routine. We can't expect our little kiddos to know how to annotate on a computer screen.

Kathy spent considerable time talking about the importance of routines and procedures for the youngest learners in kindergarten. She stated, "These kids are still practically babies. We're normally teaching them how to walk in a straight line and now virtually we're teaching them how

raise a virtual hand." While many of the routines and procedures looked different virtually, their importance could not be ignored.

Forced virtual teachers must also have strong relationships with their students and families. Kelly expressed, "As new teachers, we're often scared to communicate with our students and families, but it is so important to students' learning." Four participants mentioned the idea that making those initial relationships was harder virtually. Debbie spoke to this in her interview, "Our students rely on that personal closeness that we get in our classrooms. That was hard when our kids were stuck behind screens." The participants attributed their experiences with online classroom management to online student engagement. The theme of online classroom management is explicitly discussed below through the sub-themes of expectations, routines, procedures, and teacher relationships.

Expectations, Routines, and Procedures

All participants indicated that forced virtual classrooms should be set with virtual expectations, routines, and procedures to ensure students are consistently offered organized classrooms that promote student engagement. Debbie noted in her interview that teachers must set the expectation from day one that "students are to be held accountable for listening and accountable talk." While the school set expectations for components such as attendance during virtual learning, the participants articulated that when it came to virtual teaching, they were left on their own to set "firm, but high, and reachable" expectations for a virtual learning environment they were not familiar. Kelly stated in her interview:

> Our students have to know what we want them to do and how we want them to do it...When we set our expectations from the beginning of the year, they know what we expect and what is not okay. This is true for our virtual classrooms too. Without

> classroom management, classrooms are chaotic, and students can't possibly be engaged in chaos.

The participants also noted that students' families must also be aware of the expectations of their child and their expectations as the parent. Dan is an example of a participant who spoke to parental expectations in his interview. He stated, "Online class starts at 7:40, then parents need to have their child dressed, fed, logged in, and on the Zoom at 7:40. Our students can't be engaged in learning, regardless of setting, if they're not at school." In their focus group, Holly and Sandra spent considerable time agreeing that setting routines for the morning was tough, as many kids "just jumped on their computer in their pajamas and here we are expecting them to start math 20 minutes later," mentioned Sandra. Holly added to the conversation by saying, "It was honestly annoying at times. I'd be expecting students to get ready for breakout rooms and they hadn't even had time to cut their camera on and get their tabs set up."

In addition to setting clear expectations, the participants all mentioned the importance of routines and procedures within the forced virtual classroom. Kathy, a virtual kindergarten teacher, spoke to the importance of routines and procedures. She noted:

> Before school even begins, teachers need to know what routines and procedures they will have in place. This is true for virtual teaching too, it just looked different. In my real classroom, I'd set a routine for sharpening pencils. Virtually, this looked different because kids weren't getting up to sharpen in the classroom. But there was a routine for when and how pencils should be sharpened at home. Without this simple routine, students couldn't be engaged in written tasks, even while working from home.

Many virtual tools imitated the traditional, in-person classroom expectations, routines, and procedures. Janice, the participant who noted that she eventually wants a career in technology,

highly advocated for the teaching and use of virtual tools with her students. For example, virtual teachers needed to teach their students how to use the virtual hand raise tool, just as teachers taught students to raise their hand in class. Janice said in a focus group, "Students can't just be shouting out or it interrupts the engagement of the entire class." In addition to the hand raise tool, Maverick discussed in his interview the importance of using the mute button in forced virtual classrooms. He stated, "Students know from day one that they must be quiet unless it is their turn to talk. I taught my kids they needed to stay muted until it was their turn to talk." Like Janice, Maverick continued to talk about the importance of tools like the mute button to ensure student engagement.

Other routines, such as when to use the reaction buttons, the chat feature, and breakout rooms were also mentioned throughout interviews. As 10 participants noted, these "routines and procedures" needed to be taught at the beginning of the virtual school year. Casey mentioned that she used the reaction buttons for engagement to gauge students' focus and understanding of informal feedback. Casey stated:

> I would randomly say, "Give me the heart reaction if you're listening carefully to the story." If students didn't send the heart, I'd personally check in to make sure they were there and engaged. Another example, after I taught the lesson on adding fractions, I asked students to pick a reaction button to show how they are feeling about the lesson and their understanding. Some picked the tired face. Some picked the happy face. I remember even one kid picked the mad face. It was an informal way to check in on their engagement. Again, if there was not response, it was a good indicator that either students had checked out or didn't know how to use the button.

Teachers had to teach students the routines and procedures for using the digital tools, when it was appropriate, and why they were using virtual tools like the chat and breakout rooms. Kelly also stated that it was important to set expectations for following the routine and procedures. Kelly supported her statement by saying, "If I don't guide them in using the digital tools, they would never be engaged because they would be playing with the digital tools all class." Casey concluded her interview by saying, "Whatever I do in my [in-person] classroom to keep students engaged, I adapted that to my virtual classroom."

Teacher-Student Relationships

Ten participants mentioned the importance of forming strong teacher-student relationships, even in the forced virtual classroom to support student engagement. Andrea spoke about the importance of building teacher-student relationships when she stated:

> Building strong relationships with my students is the best way to keep them engaged. When they know I respect and trust them, they will give me that same trust and respect in return, which allows them to engage in what I am teaching. This was true for my virtual classroom too.

Building teacher-student relationships virtually was similar to how the participants built relationships with their students in their in-person classrooms. The participants mentioned student-teacher relationships strategies such as having students complete interest surveys, talking with students one on one to connect, using morning meetings for students to share, playing games with students during lunch or free time, participating in student-led conferences, and using closing circles to determine what students liked or disliked about the day. Holly noted that "creating strong relationships with [her] students is a part of her classroom management in order

to get [her] students to buy in to what [she] is teaching. Ultimately, it pays off because they're better engaged."

Teacher-Family Relationships

In addition to building relationships with students during the forced school closure that resulted in virtual classrooms, eight teachers felt family relationships supported engagement in their virtual classrooms. Many participants, like Kelly, found it easier to connect with families during virtual learning than when compared to their in-person classroom. Kelly stated:

> During virtual learning, the kids had to be at home with someone. Like they couldn't just stay home by themselves, so I would ask them to have their parent pop on the Zoom. When I'm in the classroom, I have to call or text families and often don't get a response…it was easy to say, "Hey Mr. Garcia. Your son Johnny had his camera off all day so I was concerned he wasn't paying attention," and Johnny would be back on task the next day.

In addition to Kelly, six participants spoke about the ease of speaking with families immediately to support their child, especially with engagement. Having connections with families virtually ensured that students were engaged by keeping their cameras on, participating in classroom discussions and lessons, and ensuring active listening. "When students didn't seem to be engaged, I would stop class and ask a parent to pop on. My students learned that it was easy to call their parent over, so one redirection and they were back engaged," says Johnathan. Three participants even noticed that students' parents would sit directly next to their child or work somewhere close to them. Anna said:

> With their parents sitting right next to them, they knew they couldn't be goofing off and this was a huge help with keeping students engaged. Students who might normally have a

> hard time staying focused, now had a parent near them constantly watching to make sure they were on track.

Anna and Johnathan both agreed that having parents physically near decreased possible behavior issues and increased engagement. Johnathan mentioned in his focus group, "wouldn't it be nice to have that luxury of quick parent communication in our real classrooms." Casey added:

> If a student was having technology issues, well really any issue, I was able to use that relationship with the family to resolve it pretty quickly. Especially for our younger students who hadn't even used computers before, that parent help was so important. I had a student who didn't even know his alphabet so when I asked him to do anything, for example, click on the chat button, he had no idea, because he couldn't read. Without his mom working next to him, I would have failed miserably to keep him engaged.

Anna and Casey wrote about the importance of family relationships. Casey noted, "You want them on your side right from the start." One way family engagement was beneficial was with the use of digital tools.

Digital Tools for Engagement

Teachers also indicated a clear need to use digital classroom tools in their forced virtual classrooms to implement, support, and gauge student engagement. When asked what strategies they used to keep students engaged, every participant mentioned some form of a digital tool. The participants felt that using digital tools made students excited about virtual learning. Many of the digital tools teachers used to keep students engaged virtually were the same or similar to tools the teachers would use in their traditional classroom. The common digital tools discussed included camera use, screen share for instruction, the chat feature for student questions,

responses, and assessment, breakout rooms for small groups, and the annotation feature for student interaction.

Every participant mentioned the use of the virtual camera tool. While all participants discussed using the camera tool in some way, some participants made it mandatory for their students to keep their cameras on, while other participants did not. Multiple participants commented that students do not have the choice to hide their faces in an in-person classroom, so cutting the camera off was not an option in their virtual classroom. Dan said, "When I could see my students on the computer, I knew they were engaged." On the other hand, Anna mentioned, "I didn't require my students to keep their cameras on. Having their camera on was personal. They didn't want [teachers] to see their homes. However, I counted on these students to respond through unmuting or the chat box." Those participants who did require their students' cameras to be on found that this was a critical behavior that indicated that their students were engaged. Many teachers used the screen share feature for sharing instructional slides, watching videos, and sharing student work. Ten out of 12 participants noted some form of screen sharing with their virtual class. Sandra speaks to the screen share tool when she stated:

> It was easy to keep students engaged when I shared engaging and interactive slideshows with my class. They also loved listening to learning songs and playing games. I also shared lots of read-alouds from online. I think my class was most engaged when I shared things through my screen.

Five participants noted the importance of creating slideshow lesson plans they could share with students using the screen share option. When asked what strategies she used for student engagement, Debbie said her students loved "watching fun learning videos like those from Flocabulary" and she felt "they were totally engaged with every single video I shared."

Lastly, four participants noted the importance of sharing student work through the screen share tool. Maverick stated, "I needed to keep them engaged while they were with me and also when they worked independent virtually, so I would share examples of submitted student work to motivate students to do their best when working independently."

Seven of the participants mentioned the use of the chat feature virtually to keep students engaged. Anna highlighted the chat feature:

> It was my most used virtual tool. If I felt a student wasn't engaged, I would chat message to them first to make sure they were still there. If they responded, I knew they were there. I also used the chat feature to have my students respond to questions. It was a great informal assessment tool to see which students got it and which students did not…and of course students were able to ask me questions without interrupting the class.

Participants agreed that when students were using the chat feature, they were actively engaged in virtual learning. When students were not responding using the chat as asked, it was evident that students were not engaged. Dan added, "The chat was like the camera button. If they weren't using it, they weren't engaged."

Participants also mentioned using breakout rooms when meeting with small groups of students. Multiple participants found that using breakout rooms was similar to hosting small differentiated groups in their in-person classrooms. Kelly noted, "I used breakout rooms to keep my students engaged for reading and math small groups." She also emphasized that "many students are engaged better in small groups." Like Kelly, participants found that using breakout rooms for differentiated groups kept students on their instructional level rather than frustrated during whole group lessons.

Lastly, participants kept students engaged using the annotation tool. The annotation tool allowed teachers to give students access to write on the shared screen so that everyone in the virtual classroom could see their annotation. Johnathan noted in his interview:

> I had my students share their ideas and work using the annotation tool…I used it primarily in math. Students could write on the screen just like they would on the dry erase board in class. And they honestly thought writing on the screen was the coolest thing ever.

Many participants similarly stated that they used the annotation tool for students to share their work with math problems. Holly noted, “It was easier to have students walk us through their math thinking using the annotation tool than it was for them to hold up their math work to the camera.” While the common response was to use the annotation tool during math, Kathy, who taught kindergarten virtually, was able to use the annotation tool during literacy “to highlight letters or words during stories that we were working on.”

Collaboration

Data analysis also confirmed that every participant felt the need for collaboration among educators and colleagues was important in keeping their classes engaged. Every participant mentioned they felt unprepared to teach virtually at the elementary level, making collaboration with their colleagues critical. Debbie explained, "We certainly need collaboration for our in-person classrooms, so we definitely need it for virtual…a situation that was new to a lot of folks." Kelly spoke about the need for collaboration:

> I've been teaching for a long time and during this time, technology has changed a lot. And I'm gonna be honest with you, I had no idea how to even download [the online platform] Zoom. I thought to myself, "now how am I going to teach these kids on a

> computer if I don't even know how to work one?"…And my teammates were probably annoyed with me because I was constantly asking them for technology support. Without them sharing how to do things, I wouldn't have lasted.

In their letter submissions to hypothetical first-year teachers teaching virtually, every participant wrote about using their team and coworkers for support and advice. Holly wrote, "It's okay to be completely confused. Find someone you trust and can confide in, and lean on their support." Holly and Sandra spent some college courses together and spoke about their collaboration as newer teachers. In their focus group, Sandra said:

> I immediately called Holly as soon as we got the official word of going virtual, and she didn't even have to say hello because she knew what I was going to say. And even though she was at a different school in the division, we were able to bounce off of each other and really connect over the fact that not only were we new to teaching virtually, but we were new to teaching entirely.

Johnathan, who was also in the focus group with Holly and Sandra, wished he had this connection during virtual learning. While each school was doing certain components differently, it was evident that the participants could have used more collaboration among other schools. Johnathan expressed, "It would have made sense for the division to have grade-level teachers collaborate throughout the division. Since we were virtual, it would have been easy to get all the teachers from a grade together virtually." Sandra summed up the need for educator collaboration when she stated, "without my coworkers, I would have failed miserably to teach my class virtually." Participants could collaborate through professional learning communities (PLC) and share research with their colleagues.

Professional Learning Community

To collaborate on ideas for virtual student engagement, every participant mentioned the significance of their PLC. When asked what a PLC is, Johnathan replied, "it's where you meet with your team to share ideas, look at data, and create assessments." Seven participants noted to rely on their teammates in their letter submissions to hypothetical first-year teachers. Sandra spoke to this in her letter:

> My coworkers and I came together as a team to brainstorm on how to navigate [student engagement] through the screen…[New virtual teachers] are not alone and to ask for help from your team, especially teachers who have been doing this for awhile.

PLC was also a common talking point in the focus groups. The conversation on PLCs went from person to person in the focus group. Holly mentioned:

> As a newer teacher, my PLC was the only way to learn what was working and not working in other virtual classrooms. And most of those [engagement strategies] that were working for other teachers, I used in my own virtual classroom and found them to be very helpful with keeping my class engaged.

Two participants also noted how they were able to share their virtual student engagement strategies at a larger PLC with a mixture of faculty from differing grade levels and even schools. Both veteran educators (Kelly and Andrea) used their education experiences to support and lead their virtual team with student engagement. In addition to sharing strategies with faculty PLCs, participants were also able to learn from their colleagues. Johnathan said in his focus group, "I was able to learn so much at our full staff PLCs [within his school] to take back to my own virtual classroom, especially from the kindergarten and second-grade teachers."

Research

When it came to learning strategies and identifying virtual student engagement behaviors, all 12 participants mentioned the need to collaborate. Casey mentioned the need to "search on [their] own to figure out what other teachers were doing in their virtual classrooms around the country." With a lack of virtual student engagement professional development available to teachers in the Madre school division, teachers felt they had nowhere else to turn but to their PLC and independent research. Kelly noted, "Many of us had no idea what we were doing. My instinct was to jump on YouTube and watch videos of other teachers." Janice summed up this essence of the participants when she said:

> We panicked when they told us schools were shutting down and we would be required to teach virtually. I think we all questioned ourselves and thought, "How are we going to keep these kids learning and engaged on a computer?" I remember immediately going home and instantly going to google and searching how to keep elementary students engaged in a virtual classroom. I had a first year teacher on my team and she still had access to her college's library. She was looking for empirical research while the rest of the team was relying on Google to send us some good stuff. Not a single teacher in my school had taught virtually at the elementary level, so we relied on the research. We didn't have a choice.

During her focus group, Debbie stated, "[Teachers had to] find a way to become friends with the internet to keep [their] class engaged. Other than your PLC, the internet was your work bestie." Five participants specifically mentioned the internet as a source for researching student engagement components. Maverick noted, "We live in such a technological world that I think it's safe to say that most elementary teachers went straight to the internet for support."

In addition to virtual research, two participants mentioned using books to research student engagement. Anna noted, "When schools first shut down in March, we hadn't had spring break yet. So, when spring break rolled around, I ordered as many books as I could to help with virtual teaching and read them over break." Sandra agreed that she was able to use books to gain student engagement information. She expressed:

> Besides my awesome team and Google, I relied on a couple books. Since I was a newer teacher, I still had a bunch of my textbooks, and one of them was actually all about virtual teaching. I actually read the textbook…and found some good things in it that related to my own virtual classroom.

Outlier Data and Findings

This section discussed the unexpected findings of this study on forced virtual student engagement. The majority of data collected through interviews, document analysis, and focus groups fell within one of the three themes or five subthemes. Two outlier findings emerged from the data through art and home visits when exploring forced virtual student engagement. The findings are presented below.

Outlier Finding #1

Anna, frequently spoke of her use of art to keep students engaged. Art can be beneficial when keeping students engaged because many students are unaware of the connection between art, learning, and the real world. Anna stated, "I used art in every single lesson. Because of my use of art with students, I think my students were engaged in everything we did." In her letter submission, Anna focused on the use of art rather than mentioning online classroom management, digital tools, and collaboration like the other participants. No other participants' strategy for engagement focused around art. Anna was the only participant who mentioned

"specials classes like art, music, gym, and library" to support virtual student engagement in their classes.

Outlier Finding #2

One participant mentioned she broke the division's rule regarding keeping her students engaged in the forced virtual classroom. While teachers were asked not to visit students in person, this participant made it clear that personal home visits kept her students engaged in her forced virtual classroom. She spoke to this during her interview:

> When schools shut down, and we were expected to teach our class virtually, I knew I would have to find a way to get to them. I was used to teaching face-to-face, and without this interaction, I felt my students would not succeed. So I scheduled at-home visits where I would mask up [to prevent COVID exposure or transmission], do one-on-one lessons with students, and build strong relationships in person…There were only a handful that their parents chose to not allow me in person, and I completely understood. But at the end of the day, it was the students whose houses I went to that I felt were the most engaged. When we did meet virtually, it was those home visit students who kept their cameras on during class, unmuted to participate in our virtual discussion, and did their independent work with effort. This told me that these students were the most engaged.

While participants were told to teach virtually, this participant taught virtually but also went to students' homes, thus increasing her virtual engagement. When asked if she could have been fired, she responded, "if [school personnel] want to fire me for doing what's best for students, so be it."

Research Question Responses

This study investigated elementary teachers' perspectives of forced virtual student engagement in the Madre school division in Virginia. The researcher collected data through interviews, document analysis, and focus groups to answer the central research question, sub-question one, and sub-question two. The three themes and their supporting sub-themes supported the research's central research question and sub-questions.

Central Research Question

How do elementary educators describe student engagement experiences in the forced virtual classroom setting? The participants were elementary educators who described their student engagement experiences during a forced virtual classroom. Eleven out of 12 participants perceived their experience negatively. Many stated in their interview or focus group that they do not believe educators would do this again should we experience another shutdown. It was particularly challenging due to the fact that none of the participants had taught elementary school virtually before. In addition to not teaching virtually in the elementary setting, the teachers were not prepared. Kelly said, "We were sent home [the day schools shut down] with our computers, curriculum, and Zoom with no idea the challenge we were getting ready to face." While all the participants tried to use their typical in-person classroom student engagement techniques, they were forced to determine new ways to enforce, maintain, and gauge student engagement in the virtual setting. Johnathan said, "We had to use what we've known as educators to make [virtual classrooms] work and add in some new virtual [classroom management, virtual tools, and collaboration]." Teachers relied on their classroom management, digital tools, and collaboration to keep their students engaged virtually. However, Maverick noted that it was "one of the hardest things [educators] have ever been put in the position to do."

Sub-Question One

What behaviors did teachers recognize in a student being engaged in online classrooms? The participants were able to answer sub-question one based on the following three themes: classroom management, digital tools, and collaboration. The participants agreed that through online classroom management, digital tools, and collaboration, they could determine which student behaviors indicated students being engaged in the forced virtual classroom. Overall, virtual students were engaged when following the expectations, routines, and procedures, using their digital tools at appropriate times. It was evident that the behaviors that virtual elementary educators recognized as student engagement in their forced virtual classrooms differed from those of traditional in-person classrooms.

All participants agreed that virtually engaged students actively listened and participated in virtual classroom discussions and assignments by answering and asking questions in some digital format. Andrea said that virtually engaged students "were following classroom expectations by being ready to be involved in what [the virtual class] was working on." Debbie noted that expectation behaviors were clear indicators that students were engaged in the classroom flow. She spoke to the idea that when it was time for her small group reading instruction, students were waiting for the breakout rooms to open. Casey added:

> Staying in [their virtual] seat was also a huge expectation behavior that let me know if students were engaged. If not, they were away from their computer, using the bathroom multiple times, doing things like up petting the cat. Really anything they could do to be away from their computer.

All of the participants also mentioned some form of a digital tool that students used to represent behaviors of positive student engagement. Sandra noted, "[Students] had their cameras

on and were ready to unmute and share." Participants agreed that students who had their cameras on were usually engaged. With cameras on, virtual elementary teachers could see which students were physically watching the virtual lesson. Virtually engaged students were raising their virtual hand, or even their physical hand in the camera view, to show they wanted to participate in class. Casey mentioned in her interview that she knew students were engaged when they were submitting their virtual work to her.

Sub-Question Two

What experiences do elementary teachers have with student engagement strategies in online classrooms? The overall consensus for participants was to use the strategy teachers would use in the traditional classroom but alter them to work in the virtual classroom. Maverick wrote in his letter submission:

> First, you need to determine what your online classroom management will look and sound like. Talk with your PLC and see what their plan is. If your class is managed, you're going to see less behavior issues and more student engagement. Then dig even deeper to set consistent routines and procedures. Once you do this, you'll see everything fall into place.

Online classroom management ruled the conversation during one focus group. Johnathan expressed, "You wouldn't run your in-person classroom without expectations, so you certainly wouldn't try it virtually." Kelly said, "Many of our students come from unstructured home lives and rely on us to provide consistent stability in the classroom. When they feel safe and stable in the classroom, then they're ready to learn, meaning they're engaged."

Virtual learning was new for educators and students. Every participant mentioned using digital tools as a behavior indicator and strategy for student engagement. In her letter, Debbie

summed up the participants' responses when she stated, "Learn about the virtual tools available and use them. The kids will love them and be so engaged that they will be asking for more virtual tricks and tools." Virtual tools were a strategy for engagement during all parts of the virtual learning day.

Holly and Sandra stated in their letters to rely on their PLC for strategies. Holly wrote:

> Be ready to lean on your team leader to support the strategies you put in place in your classroom and to teach you new ones. Your PLC will also expect you to share your own strategies. Dig into some good books and other classrooms on the internet to help you in your own classroom. If you're school allows, go observe other teachers to learn the strategies they have in place.

Sandra noted many times throughout her interview, letter submission, and focus group the importance of PLCs when it came to virtual student engagement. Sandra's final reminder in her letter was powerful, "remember, you are never alone as an educator."

Summary

Elementary educators who were forced to teach virtually described their experiences of forced virtual student engagement. This transcendental phenomenological study consisted of 12 participants who taught virtually in the Madre school division in Virginia. Data was collected through interviews, letter submissions, and focus groups to triangulate the data. Data was collected on elementary teachers' lived experiences with forced virtual student engagement by bracketing the data into themes. The three themes that emerged from the data were online classroom management, digital tools for engagement, and collaboration. The themes of online classroom management and collaboration produced five sub-themes. From the theme of online classroom management emerged the sub-themes of expectations, routines and procedures,

teacher-student relationships, and teacher-family relationships. Collaboration produced the sub-themes of PLC and research. The themes and sub-themes were supported with rich descriptions from participants' interviews, letter submissions, and focus groups. The prominent finding of this study was that while forced virtual student engagement was challenging for elementary educators, there are many strategies and behaviors to influence, monitor, and retain student engagement in the forced virtual classroom.

CHAPTER FIVE: CONCLUSION

Overview

The purpose of this transcendental phenomenological study was to understand and describe elementary teachers' experiences of student engagement during forced virtual learning. Chapter Five summarizes the study's findings with detailed interpretations. This chapter also provides policy, practice, theoretical, and empirical implications. Lastly, this chapter discusses the limitations and delimitations and concludes with recommendations for future research.

Discussion

The following section discusses the findings of the study based on the themes and sub-themes that emerged through the data analysis. The findings will be supported by both theoretical and empirical evidence. This section is composed of interpretations of the findings as well as implications for policy, practical, theoretical, and empirical.

Interpretation of Findings

The data analysis revealed three themes and five sub-themes through the experiences of elementary teachers who were forced to teach virtually due to the COVID-19 pandemic. The emerging themes were online classroom management, digital tools, and collaboration. These three themes were supported and expanded by five sub-themes. The sub-themes were online expectations, routines, procedures, PLCs, and research. Each theme and sub-theme was connected during the analysis phase to support my interpretations of the thematic findings.

Summary of Thematic Findings

The study's thematic findings were developed from the central research question and two sub-questions. The central research question was how elementary educators describe student engagement experiences in the forced virtual classroom setting. Sub-question one asked what

behaviors do teachers recognize when a student is engaged in online classrooms. Lastly, sub-question two asked what experiences do elementary teachers have with student engagement strategies in the online classroom. My interpretation of the findings is discussed below.

Forced Virtual Learning Caused Anxiety. Based on the data analysis, it was clear that all of the participants had many different experiences with student engagement in their forced virtual classrooms. While the participants shared positive and negative experiences they encountered while being forced to teach their elementary class online, they all shared the anxiety that came with being forced to teach virtually at the elementary level.

Previous online learning literature notes that online classrooms provide students with valuable technical knowledge for the real world (Fauzi et al., 2020; Sonnenschein et al., 2022; Taylor & McNair, 2018; Toppin & Toppin, 2016). However, the participants of this study expressed anxiety related to technical knowledge that they knew they needed to teach virtually because many felt they had no technical knowledge. Literature suggests the novelty of teaching elementary school virtually has been new for many educators worldwide (Fauzi et al., 2020; Hew et al., 2020; Taylor & McNair, 2018; Toppin & Toppin, 2016). Elementary teachers in the Madre school division had never taught virtually before, and every participant expressed the anxiety that came with the news of becoming a virtual teacher. The participants also quickly realized that none of the elementary students had ever experienced virtual learning. Forced virtual elementary teachers and students were able to make their first connection on being new to virtual learning at the elementary level.

In addition to the worry of not knowing how to use the technology they were expected to use, the participants were also faced with anxiety that came with little knowledge. The theoretical framework that guided this study, Bandura's social learning theory, supports the idea

that humans learn from others (Bandura, 1971a, 1971b, 1977a, 1977b). However, my participants were not able to initially use this theory themselves because the novelty of teaching virtually at the elementary level was new for their entire grade level team. Typically, teachers use their PLC to gather full support for concerns within their classroom (Durr et al., 2020; Whalley & Barbour, 2019). The participants in this study could not fully rely on their PLC at the start of forced virtual learning because their PLC was also new to forced virtual learning, creating more anxiety for the participants.

Participants like Kelly clarified that she could not handle the anxiety of teaching virtually at the elementary level. As a veteran teacher, Kelly expressed in her interview that she was so stressed out with forced virtual teaching that she would retire early to avoid being in the same situation. Other participants, like Maverick and Casey, expressed feeling physically sick from the anxiety surrounding their virtual learning experiences. Beach (2017), Rivera (2017), and Toppin and Toppin (2016) note in their research that online learning has been successful for many educators around the world; however, it is clear that the anxiety brought by forced virtual learning outweighed some of their successes in their forced virtual classrooms.

It was evident that while their online teaching experiences were new, every participant persevered and was successful in some way with their forced virtual student engagement. Challenges certainly arose that made some of their forced virtual classroom experiences with student engagement negative; however, all 12 participants approached their interview, letter submission, and focus group with a positive mindset, often using positive language and memories to describe their experiences. Participants explained their negative experiences, including their anxiety, as challenges. While the participants expressed their negative

experiences through their anxiety, I interpreted that every participant overcame their challenges as much as possible.

Utilizing Life Saving Technology. Technology played a huge role in student engagement in forced virtual classrooms. Not only was technology critical for the participants as they navigated forced virtual learning, but also for other educators who have had to teach online at the elementary level (Aslam et al., 2021; Reamer, 2019; Reich et al., 2020; Relkin et al., 2020). The Madre school division supplied every elementary student, grades PreK-5, with laptops and internet hotspots and required all teachers to use the Zoom platform. While teachers were left on their own to learn how to navigate the Zoom platform that they used for instruction, the participants clearly expressed that without using Zoom, they felt virtual instruction would have been impossible. As Bandura's learning theory suggests, humans learn from each other (Bandura, 1971a, 1971b, 1977a, 1977b). This means the participants' students had to learn how to use their laptops and Zoom features from their teacher. The participants expressed that their students would not have been as successful without understanding the technological pieces involved with forced virtual learning.

As Holly said, "Technology saved my life when we were forced to teach online." Literature suggests that online schools historically have provided students with laptops and internet access (Lieberman, 2020; Mann, 2019; Pittman et al., 2021; Saccone, 2021). This was also true for the staff and students of the Madre school division (Haas, 2020). Using their provided laptops, the participants could teach their students the necessary digital tools that supported student engagement in the virtual classrooms. Without realizing it, the participants and their students often implemented social learning theory by learning from each other (Bandura, 1971a, 1971b, 1977a, 1977b).

We Are in This Together. Existing literature supports the significance of collaboration during online learning experiences (Beach, 2017; Durr et al., 2019; Whalley & Barbour, 2019). During this study, it was apparent the importance participants placed on collaboration during their experiences with student engagement in their forced virtual classrooms. Every participant expressed their initial anxiety surrounding being forced to teach virtually and was relieved when they remembered they had a whole team, school, and school division in the same scenario. In his letter submission to a hypothetical first-year teacher, Maverick wrote, "No matter what, remember that we are in this together."

Durr et al. (2020) and Whalley and Barbour (2019) noted in their research that by meeting online, teachers are able to share academic and professional learning resources much more quickly and efficiently. While the participants were initially unable to share or learn virtual elementary school experiences in their PLCs, this changed as they implemented forced virtual classrooms. Every participant mentioned using their online PLC for support and guidance in their letter submissions. Participants revealed that they had to implement strong PLCs because elementary online classrooms were a new situation for them. Prior literature highlights that virtual elementary teachers learned more from their teaching colleagues than through school-level professional development or training for online instruction (Fang et al., 2021; Gomez-Garcia et al., 2021; Rice et al., 2020).

The participants' online PLCs exemplify Bandura's social learning theory (Bandura, 1971a, 1971b, 1977a, 1977b). During their online PLCs, the participants could reflect on components that were working and not working in their forced virtual classrooms. These reflections were the main way the participants could learn about new student engagement strategies that they could take back to their own forced virtual classrooms. The participants also

used their PLCs to discuss specific virtual student engagement behaviors they saw in their virtual classrooms. As the social learning theory suggests, the participants were able to learn from each other.

Implications for Policy and Practice

The findings of this study signified the importance of student engagement in forced virtual elementary classrooms. Implications for policy suggest specific policy modifications and recommendations for the Madre school division. Practical implications are recommendations that can be implemented and can assist other virtual elementary classrooms. The findings revealed significant implications for policy and practice.

Implications for Policy

The three themes and five subthemes that emerged in this research inform policies for forced virtual elementary classrooms and provide a foundation for future research. The findings of this study provide elementary school policymakers, teachers, students, and families a better understanding of forced virtual elementary teachers' experiences with student engagement in their online classrooms. Current online elementary classroom policies should be evaluated and updated to be easily accessed and implemented while addressing student engagement within these virtual classrooms.

The current policy for elementary online learning for the Madre school division was difficult to find on the division website. Putting division policies on the main website will ensure staff, families, and the community can locate them with ease, especially in the case of a quick school closure such as the COVID-19 pandemic. The policy currently notes that all students at the elementary level will be provided with high-quality instruction through provided laptops and hotspots (Haas, 2020). Based on the findings of this study, high-quality instruction should be

explicitly defined in the Madre school division's policy. Based on the themes of this study, high-quality instruction at the virtual elementary level includes online classroom management, digital tools, and collaboration. Each theme of this study should be clearly stated with examples from experienced teachers, such as those in this study. For example, the use of digital tools section should include detailed tools and directions for how the tools should be used. The policy could include specific examples from teachers, such as Casey's interview: "I used the chat feature for students to answer questions so informally assessing them."

Global COVID-19 school closures was a first in education history (Fauzi et al., 2020; Kearney & Maakrum, 2020; Potts, 2019; Raes et al., 2019). This international closing of schools sparked a need for technological support for educators worldwide. The findings of this study suggest that school administration and central office employees should also create policies for teachers, students, and families when they need technological support. The participants clearly stated that they had two choices for support, their PLC or self-research. Teachers, students, and families need to know where to go for support. This type of policy should include specific directions for common technological issues, such as being unable to log in. This policy should also include a phone number for the technology department of the school division so that teachers, students, and families can immediately reach out for support.

Lastly, a policy should require professional training on virtual learning for all Madre school division employees. The Madre school division has mandatory training for abuse and harassment, disabilities, responsive classrooms, student restraint, and payroll (Haas, 2020). These mandatory trainings should include training on teaching in the online classroom. The training would include how to use high-quality instruction in the online environment, supporting

student engagement virtually, supporting students and their families as they work from home, and what to do should educators need more support.

Implications for Practice

This study was completed in the Madre school division. Participants expressed that they did not receive any formal training on teaching virtually at the elementary level as well as how to implement, maintain, and gauge student engagement at the virtual elementary level. Practical implications resulting from the collected data include recommendations that teachers and other key educational stakeholders, like classroom interventionists, are provided with resources. These resources can range from professional development on student engagement in virtual classrooms, curriculum meant for the virtual elementary classroom, current books and research practices for implementing online elementary classrooms during forced school closures, and access to mental health resources for educators. Another practical implication includes the recommendation for more opportunities for virtual classroom teachers to connect with other teachers throughout the division. Johnathan expressed, "It's important that we're able to work with teachers in the same grade from different schools. We learn that way." As all participants mentioned using some type of digital engagement tool can assist students with learning how to appropriately use online learning features such as digital tools like the chat button. Furthermore, teachers and students should be provided with resources and training. For practical purposes, teachers could share this research with their students as evidence that digital tools support student engagement.

The final practical implication is that parents and guardians of virtual students should review their expectations as students work from home online. Participants mentioned that parental support in the home of forced virtual students often supported student engagement in their virtual classrooms. As with educator and student resources and training, families of forced

virtual students should be given opportunities to learn about online learning etiquette, technology problem-solving, and overall ways to support online learning at home. Both school stakeholders and students should be involved in this parental training.

Theoretical and Empirical Implications

The theoretical construct used in this study that related to student engagement in the virtual classroom was social learning theory (Bandura, 1962, 1971a, 1971b, 1977a, 1977b). The theoretical construct indicates how social experiences impact high levels of student engagement within the virtual learning setting (Astakhova, 2020; Barlow & Brown, 2020; Eun, 2019). This study confirmed that the social learning theory was an appropriate theoretical framework for this study. The findings of this study highlight the importance of social factors in relation to student engagement in forced virtual classrooms.

A majority of the student engagement strategies and behaviors expressed by the participants indicate students need to be socially cognizant during their learning, even in the forced virtual classroom environment. For example, every participant mentioned using the chat feature as a strategy for student engagement. Casey stated, "[The kids] had to be focused and connected to our discussions to know when I was asking them to use the chat," suggesting that being social during students' learning supported student engagement. Participant responses also suggested that when students were engaged using digital tools, other students who were unengaged were able to be influenced by their peers' behaviors and were influenced to use digital tools to become engaged. These examples support the social learning theory as a theoretical framework for this study and future research.

In addition to supporting the social learning theory, the findings of this study demonstrate that Bandura's social learning theory is applicable even in a virtual setting. In 1977, Bandura may

have never considered the impact social learning theory could have on virtual classrooms of the future. Social interactions are key even for the current generation, educational trends, and challenges. In addition to theoretical implications, this study also has empirical implications.

Empirically, this study helps to narrow the research gaps among elementary school teachers' perspectives of student engagement during forced virtual teaching. This study corroborated with previous research that stated online instruction provides students with various opportunities to become familiar with many different forms of technology (Fauzi et al., 2020; Taylor & McNair, 2018; Toppin & Toppin, 2016). One of the major themes of this study (online digital tools) supports the findings of previous research. Students in forced virtual elementary classrooms were able to engage with different technology tools, such as breakout rooms and the chat feature, which also supported student engagement in these forced virtual classrooms. Since these forced virtual elementary students learned new technology and computer science standards in their forced virtual classroom, this new technological knowledge supports research that claims technology prepares students for the career world (Fauzi et al., 2020; ISTE, 2022; Reich et al., 2020; Relkin et al., 2021; Sonnenschein et al., 2022; Toppin & Toppin, 2018).

Research suggests that synchronous online learning, where students all learn through online face-to-face instruction on an online platform, is the online teaching method that is the most similar to traditional in-person classrooms (Gillis & Krull, 2020; Guo, 2020; Rehman & Syeda, 2021; Sweetman, 2021). This supports the participants' expressions that they felt they were able to support student engagement in their online classrooms with strategies they would have used in their traditional classrooms. Eventually, these expressions formed another emerging theme in this study, online classroom management. While the participants certainly had to form strategies that were only usable in the online classroom, they could set many expectations,

routines, and procedures similar to or the same as their in-person classrooms.

Research notes that online learning has predominantly been offered at the middle school, high school, and collegiate levels (Fauzi et al., 2020; Hew et al., 2020; Taylor & McNair, 2018; Toppin & Toppin, 2016). While research is limited at the elementary level, the empirical literature exposes that online elementary teachers found PLCs effective. One negative experience the participants of this study expressed was the limited use of PLCs across the school division. The participants made it clear that their team PLC of their school was one of the few places they could go for support and guidance. However, because forced virtual learning at the elementary level was new for every participant, the participants mentioned that they needed to be able to meet with other teams and schools in the division to share experiences, strategies, and overall mutual support. Previous research suggests that online PLCs can enhance strong educator relationships, connections, and shared purpose for all involved, qualities that could positively influence the study participants (Beach, 2017; Durr et al., 2020; Whalley & Barbour, 2019).

Lastly, it is important to note the digital equity of forced virtual elementary classrooms. Preceding research explained that although students may be supplied with laptops and internet access, many students are still unable to access learning (Lieberman, 2020; Pittman et al., 2021). The responses of the participants in this study corroborated this research finding. The participants of this study noted that while students had the materials they needed, many could not log in to their laptops. In addition to logging in, many students were unable to use the virtual tools that forced virtual elementary teachers were requiring to be used for student engagement. This study again supports previous research.

Limitations and Delimitations

Limitations can be described as weaknesses in the study that cannot be controlled. This study was racially and gender limited. Only one participant was Black, two participants were Asian, and the remaining participants were Caucasian. In addition to race, only three of the participants identified as male. Another limitation of this study was finding participants in a timely manner. I recruited participants by email during the summer months when most teachers do not work. Since many teachers did not check their work emails over the summer, finding participants took much longer than expected. When schools began in August, I had only recruited 8 participants. After resending the recruitment email once teachers were officially back in school, I gathered the remaining participants.

Delimitations in research are purposeful boundaries set by the researcher. The sample pool for this study was limited to virtual classroom teachers in one school division in Virginia. The Madre school division is considered one of the largest school divisions in Virginia (Haas, 2020). Completing this study in a smaller school division or even a much larger division could result in different findings. Another delimitation is that the sample pool was classroom teachers who taught during the forced school closing. While this study only looked at classroom teachers, it is possible that other educators like gym teachers, classroom interventionists, and teaching assistants who were forced to teach virtually could offer pertinent data for this study. Another delimitation in this study is that I chose to do a transcendental phenomenological study instead of a hermeneutic phenomenological study. By using the transcendental phenomenological approach, I was able to bracket my own lived experiences with student engagement in forced virtual learning. This required me to set my own experiences and biases aside to get a true meaning of the phenomenon of student engagement in forced virtual classrooms.

Recommendations for Future Research

While this study only looked at 12 participants at the elementary level, the National Center for Education Statistics (2022) notes that there were approximately 3 million teachers who taught virtually in 2020. One recommendation for future research is to include a larger number of participants from a broader selection of school divisions with differing sizes and different grades. This could include looking at school divisions in states other than Virginia, middle and high school teachers, and divisions of varying student population numbers. Future research should also include other educators who taught in forced virtual classrooms but were not the primary classroom teacher. This sample could include art teachers, ELL teachers, special education teachers, and guidance counselors. Including these changes would support the generalization of the study. Future research could also look at the experiences of administrators who made classroom observations or were involved with student engagement in virtual classrooms.

After the pandemic in 2019, trends show an increase in virtual elementary schools (Deflem, 2021; Fauzi et al., 2020; Martin, 2021). Deflem (2021) noted that after school programs resumed in person, many elementary schools continued a virtual elementary school option for students. Another recommendation for future research would be to study student engagement with virtual elementary teachers who have chosen to teach virtually rather than be forced into it. In order to gain the full experience of student engagement in virtual classrooms, it would be important to gather the opinions of teachers who want to teach in the virtual setting. While this research was qualitative, future research could use the quantitative research method using Bandura's social learning theory (Bandura, 1962, 1971a, 1971b, 1977a, 1977b) as a theoretical framework. A quantitative, correlational design would be appropriate to determine if there is a

significant relationship between social learning and student engagement in forced virtual classrooms.

Conclusion

This qualitative, transcendental phenomenological study aimed to understand and describe Virginia's Shenandoah Valley Elementary School teachers' experiences of student engagement during forced virtual learning. The novelty of teaching elementary school virtually due to a forced school closure set a firm background for this study. Bandura's theory of social learning framed this study, and existing literature was discussed to support the novelty of this study. The participants included 12 diverse elementary teachers being forced to teach virtually, and the data was collected through interviews, letter submissions, and focus groups. After the analysis of the data, three themes and five subthemes emerged. I concluded this study with interpretations of the study's findings, implications, limitations and delimitations, and recommendations for future research.

This study's findings led me to conclude that while student engagement in forced virtual classrooms can be new and challenging, student engagement can be achieved in forced virtual classrooms using precise online classroom management, digital tools, and collaboration. Educational stakeholders must be prepared should teachers be put in the same situation. It is expected that educational stakeholders will support elementary teachers with high-quality teachers, resources, professional development, and clear policies. While this research aimed to narrow the gap in student engagement in forced virtual classrooms, much work still needs to be done.

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APPENDIX A

Site Approval

May 4, 2022

Liberty University IRB:

This is a letter of support for Heather Campbell. The Research Review Committee of (removed for protection)has approved her request to conduct research in our schools. Her research study titled: "Elementary teachers' experiences of student engagement during forced virtual learning: A phenomenological approach" is very intriguing.

We understand that her research only involves adults and that she will gather informed consent prior to beginning her work. We look forward to hearing the results of her qualitative study on teachers' experiences during virtual learning.

Sincerely,

Removed for protection

APPENDIX B

IRB Approval

June 20, 2022

Heather Campbell
Sarah Pannone

Re: IRB Exemption - IRB-FY21-22-1047 Elementary teachers' experiences of student engagement during forced virtual learning: A phenomenological approach

Dear Heather Campbell, Sarah Pannone,

The Liberty University Institutional Review Board (IRB) has reviewed your application in accordance with the Office for Human Research Protections (OHRP) and Food and Drug Administration (FDA) regulations and finds your study to be exempt from further IRB review. This means you may begin your research with the data safeguarding methods mentioned in your approved application, and no further IRB oversight is required.

Your study falls under the following exemption category, which identifies specific situations in which human participants research is exempt from the policy set forth in 45 CFR 46:104(d):

Category 2.(iii). Research that only includes interactions involving educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior (including visual or auditory recording) if at least one of the following criteria is met:
The information obtained is recorded by the investigator in such a manner that the identity of the human subjects can readily be ascertained, directly or through identifiers linked to the subjects, and an IRB conducts a limited IRB review to make the determination required by §46.111(a)(7).

Your stamped consent form(s) and final versions of your study documents can be found under the Attachments tab within the Submission Details section of your study on Cayuse IRB. Your stamped consent form(s) should be copied and used to gain the consent of your research participants. If you plan to provide your consent information electronically, the contents of the attached consent document(s) should be made available without alteration.

Please note that this exemption only applies to your current research application, and any

modifications to your protocol must be reported to the Liberty University IRB for verification of continued exemption status. You may report these changes by completing a modification submission through your Cayuse IRB account.

If you have any questions about this exemption or need assistance in determining whether possible modifications to your protocol would change your exemption status, please email us at irb@liberty.edu.

Sincerely,
G. Michele Baker, MA, CIP
Administrative Chair of Institutional Research
Research Ethics Office

APPENDIX C

Informed Consent Form

Title of the Project: Elementary Teachers' Experiences of Student Engagement during Forced Virtual Learning: A Phenomenological Approach

Principal Investigator: Sarah Pannone, Ed.D., Liberty University
Co-investigator(s): Laura Jones, Ed.D., Liberty University

Invitation to be Part of a Research Study

You are invited to participate in a research study. To participate, you must be 18 years of age and an elementary classroom teacher for Albemarle County Schools who was forced to teach virtually during the 2019 COVID19 pandemic. Taking part in this research project is voluntary.

Please take time to read this entire form and ask questions before deciding whether to take part in this research.

What is the study about and why is it being done?

The purpose of the study is to gather elementary teachers' experiences on student engagement in forced virtual learning classrooms.

What will happen if you take part in this study?

If you agree to be in this study, I will ask you to do the following things:

1. Participate in an interview. This interview will be video and audio recorded for transcription. The interview can be in person or virtual. This will take approximately 1 hour.
2. Participate in submitting a letter written by you to a hypothetical first year teacher being forced to teach virtually. This will take approximately 20 minutes.
3. Participate in a focus group with 3-5 other elementary teachers in either the library of Woodbrook Elementary School or virtually through Microsoft Team. This will take approximately 1 hour.

How could you or others benefit from this study?

The direct benefits participants should expect to receive from taking part in this study are understanding others' perspectives of student engagement in the forced virtual learning setting.

Benefits to society include narrowing the gap in literature on elementary online classrooms.

What risks might you experience from being in this study?

The risks involved in this study are minimal, which means they are equal to the risks you would encounter in everyday life.

How will personal information be protected?

The records of this study will be kept private. Published reports will not include any information that will make it possible to identify a subject. Research records will be stored securely, and only the researchers will have access to the records. Participant responses will be confidential and kept confidential through the use of pseudonyms. Interviews will be conducted in a location where others will not easily overhear the conversation and video recordings will only be accessible to you and the researcher. Data will be stored on a password-locked computer and may be used in future presentations. After three years, all electronic records will be deleted. Interviews/focus groups will be recorded and transcribed. Recordings and written letters will be stored on a password locked computer for three years and then erased. Only the researcher will have access to these recordings. Confidentiality cannot be guaranteed in focus group settings. While discouraged, other members of the focus group may share what was discussed with persons outside of the group.

How will you be compensated for being part of the study?

Participants will not be compensated for participating in this study.

Does the researcher have any conflicts of interest?

The researcher serves as a classroom teacher at Woodbrook Elementary School. Participants' names, including the division's name, will be replaced with pseudonyms to ensure confidentiality. This disclosure is made so that you can decide if this relationship will affect your willingness to participate in this study. No action will be taken against an individual based on his or her decision to participate or not participate in this study.

Is study participation voluntary?

Participation in this study is voluntary. Your decision whether or not to participate will not affect your current or future relations with Liberty University. If you decide to participate, you are free to not answer any question or withdraw at any time without affecting those relationships.

What should you do if you decide to withdraw from the study?

If you choose to withdraw from the study, please contact the researcher at the email address/phone number included in the next paragraph. Should you choose to withdraw, data collected from you, apart from focus group data, will be destroyed immediately and will not be included in this study. Focus group data will not be destroyed, but your contributions to the focus group will not be included in the study if you choose to withdraw.

Whom do you contact if you have questions or concerns about the study?

The researcher conducting this study is Heather Campbell. You may ask any questions you have now. If you have questions later, **you are encouraged** to contact them at [redacted]. You may also contact the researcher's faculty sponsor, Sarah Pannone at [redacted]

Whom do you contact if you have questions about your rights as a research participant?

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher[s], **you are encouraged** to contact the Institutional Review Board, 1971 University Blvd., Green Hall Ste. 2845, Lynchburg, VA 24515 or email at irb@liberty.edu.

Disclaimer: The Institutional Review Board (IRB) is tasked with ensuring that human subjects research will be conducted in an ethical manner as defined and required by federal regulations. The topics covered and viewpoints expressed or alluded to by student and faculty researchers are those of the researchers and do not necessarily reflect the official policies or positions of Liberty University.

Your Consent

Before agreeing to be part of the research, please be sure that you understand what the study is about. You will be given a copy of this document for your records. If you have any questions about the study later, you can contact Heather Campbell using the information provided above.

I have read and understood the above information. I have asked questions and have received answers. I consent to participate in the study.

☐ The researcher has my permission to audio-record/video-record me as part of my participation in this study.

_____

Printed Subject Name

_____

Signature & Date

APPENDIX D

Interview Prompts

1. Please tell me about yourself as an educator.
2. Please tell me how long you have had experience in a forced virtual elementary setting and your online teaching location during this experience (i.e., school building, home, coffee shop).
3. In your own words, define student engagement in the classroom. (CQ1)
4. Please give me your first thoughts and opinions when thinking about student engagement while teaching in a forced virtual setting at the elementary school level. (CQ1)
5. What were the positive points related to student engagement in the forced virtual classroom? (CQ1)
6. What was the most challenging part of student engagement in the forced virtual classroom? Why was this the most challenging part? (CQ1)
7. In your opinion, what behaviors would you consider representative of a student fully engaged in the forced virtual classroom? (SQ1)
8. What subjects did you find these behaviors occurred the most often? (SQ1)
9. Describe the times during your online schedule where fully engaged behaviors occurred? (SQ1)
10. What kind of strategies did you use to promote student engagement? (SQ2)
11. Describe the subjects or content areas where you found yourself using these strategies the most? (SQ2)
12. How did you learn about student engagement strategies you used in your forced virtual classroom? (SQ2)

13. What will you do differently to positively influence student engagement the next time you are forced to teach virtually? (CQ, SQ1, SQ2)
14. What can your division, school, administration, and students' families do to support student engagement in a forced virtual classroom? (CQ1)
15. We have covered much ground in our conversation, and I appreciate the time you have given to this. I have one final question. What else do you think would be essential for me to know about student engagement in the forced virtual elementary classroom? (CQ1, SQ1, SQ2)

APPENDIX E

Focus Group Prompts

1. Explain your role with student engagement in the forced virtual classroom? (CQ)
2. Describe the supports you received with student engagement in your forced virtual classrooms? (CQ)
3. Describe how technology affected student engagement behaviors that occurred in your virtual classrooms? (SQ1)
4. Describe how technology was involved in the strategies you used to help increase student engagement in the virtual classroom? (SQ2)
5. This study builds on a social learning framework. Describe how student engagement in your online classrooms may have affected students' social learning? (CQ)
6. We all teach in the same division. As a group, what recommendations do you have for the central office staff to support elementary school teachers with student engagement after being forced to teach virtually? (CQ)

APPENDIX F

Letter Writing

In a minimum of 2 paragraphs, write a hypothetical letter to a first-year teacher who may be suddenly forced to teach in an online environment. In the letter, share your experiences with student engagement behaviors and student engagement strategies that worked for you or other teachers you knew during forced virtual learning. You are encouraged to include any relevant information surrounding your knowledge of student engagement in forced virtual classrooms in this letter.