

EXPERIENCES OF TEACHERS WHO HAVE TAUGHT PHYSICAL EDUCATION
REMOTELY: A QUALITATIVE STUDY

by

Danielle Causer Brabston

Liberty University

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

Doctor of Philosophy

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APPROVED BY:

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Abstract

The purpose of this qualitative phenomenological study was to understand and describe the essence of the experiences of teachers who have taught physical education remotely. The problem is physical education is a core curriculum subject that is designed for in-person instruction and is not easily adaptable to an online setting. The central research question that this study sought to address was what are the experiences of K-12 physical education teachers who taught P.E. remotely? The theory guiding of this study is Dabrowski's theory of positive disintegration as it details how people can adapt and adjust in response to stressful situations and adverse events. I chose a phenomenological research method with an exploratory focus. This study was vital to understanding the experiences of teachers who taught physical education in a remote setting. This type of design was most appropriate for this study because understanding the perspectives of the participants was important to be able to identify the unique challenges of the group being studied. The sample size was 10 participants from schools across the United States who have taught physical education remotely for at least one year in a traditional K-12 school. The data collection included answers from the individual interview questions, and information gathered from the focus groups and questionnaires. To analyze the data, I used a form of manual coding. I looked for themes and patterns and significant statements. I then created a list of non-overlapping statements about how the interviewee experienced the phenomenon being studied. This information was used to draft answers to the research questions. The findings indicated that although teaching physical education remotely is challenging, teachers can adapt and find creative ways to address these challenges in order to provide the best possible educational experience for the student, even when teaching physical education remotely.

Keywords: remote teaching, physical education, positive disintegration, online learning

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Dedication

I dedicate this dissertation to God, my creator, who put the desire in my heart to train the next generation of teachers.

To my Dad, who showed me what it looks like to start at the bottom and with hard work and dedication, become the very top. If it wasn't for your example, I would not be here.

To my Mom, who showed me what it looks like to cultivate the most beautiful relationship with God, become a warrior for Him, and pursue everything He has for me.

To my Aunt Kathie, who inspired me to pursue the highest level of teaching and to change the future of education.

To Kathy Patterson, my first teaching mentor, and the most incredible teacher I have ever had the honor of working with. Thank you for being who you are, and for showing me how to do this job with excellence in every way.

To my children, Liam, Sam, Ellie, and Charlotte, may you never stop learning and pursuing knowledge. Reach for everything God has for you.

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CHAPTER ONE: INTRODUCTION

Overview

Physical education is a core curriculum subject that is most effectively taught in person. It is an important part of the education of children, but unfortunately, it is difficult to teach it remotely (Bonfield et al., 2020). Many teachers found this out the hard way when education transitioned to a remote environment during the recent COVID-19 pandemic in 2020. The global COVID-19 pandemic changed teaching and education forever. Teachers were suddenly required to teach remotely, and this proved to be incredibly challenging for teachers of physical education (Bonfield et al., 2020). Physical education teachers struggled to continue teaching and had to learn new ways to engage their students effectively and efficiently (Dill et al., 2020). Almost overnight, teachers switched from teaching in-person to teaching remotely and using software that they didn't understand. This abrupt change proved to be difficult for both students and teachers, and some subjects were more easily adaptable to remote teaching than others. Physical education was one subject that was very difficult to teach in a remote way (Bonfield et al., 2020).

Chapter one will discuss the background of teaching physical education remotely. The historical and social context of this study will then be explained, as well as a thorough discussion of the theoretical context for this study. Clark Moustakas (1994) work will provide a theoretical context for this study. The problem statement and purpose statement will be discussed, as well as the significance of this study. Lastly, research questions and definitions will be listed in order to provide a thorough groundwork for this study.

Background

During the global COVID-19 pandemic, teachers were required to teach remotely. This was a challenge for both students and teachers, and some subjects were more adaptable to an online method of delivery than others (Bonfield et al, 2020). Physical education was one subject that was very difficult to teach in a remote way so many school systems stopped teaching it altogether. However, the benefits of physical education for the health and well-being of students have long been known (Quennerstedt, 2018; Youdell & Armstrong, 2011), so the answer does not lie in the removal of physical education but in determining the best practices for teaching P.E. in a remote setting.

Historical Context

Physical education, like most subjects taught in schools, has evolved since its inception. Historically, the class was segregated by genders until the last third of the twentieth century (Verbrugge, 2014). Physical education for men and boys developed from competitive athletics and physical education for women and girls largely focused on gymnastics and recreational sports (Verbrugge, 2014). The teaching of physical education and what was deemed appropriate continued to adapt and change as women were allowed to participate more.

Some of the first rules created for physical education were specifically for women and were based on theories that stated that P.E. was too strenuous for women. For example, women were allowed to sprint up and down a field, but in basketball, they weren't allowed to use the entire court until the latter half of the 20th century (Verbrugge, 2014). Gradually those rules and theories began to change as people realized that women could be involved in physical education and activity in the same way as men and that segregation needed to change (Verbrugge, 2014). The doors to physical education for women began to open and are still becoming more open for females even today.

Until the global pandemic, physical education was taught in-person in schools (Bonfield et al., 2020). The idea of teaching physical education remotely is a relatively new concept, and that is why so many teachers have struggled to teach it in this way. Historically, it has been a subject that was taught in person in a gymnasium or field at a physical school.

Social Context

The social context of physical education is complex. There are many documented benefits of teaching physical education in elementary school (Quennerstedt, 2018; Youdell & Armstrong, 2011). Some of the benefits state that P.E. lessens the chance of obesity, allows children to have a break from sitting in a desk all day, helps them to learn a new sport, gives them new knowledge about their body and helps with learning cooperation and teamwork with their peers (Quennerstedt, 2018; Youdell & Armstrong, 2011). Even with all of these well-known benefits of physical education, many schools chose not to continue to teach P.E. during the COVID-19 pandemic because of the difficulty of teaching in remotely.

Teaching physical education remotely has many social implications. First, when teachers are asked to teach a subject remotely, they lose the in-person aspect of teaching (Bernard et al., 2014). Among other things, they lose peer support, the interaction that comes from in-person learning, and the social constructs of in-person learning. For students, the social implications of remote learning are huge (Elmer, Mephram, & Stadtfeld, 2020; Ladyshewsky, 2004). Learning at home from a screen is very different from learning in an in-person classroom at school (Zhao et al., 2005). Students do not have the benefit of social interactions that come with being in a classroom with other peers. They do not have the benefit of a teacher or teachers in the room who are paying attention to things that cannot be noticed over a screen. There are many social benefits that are lost when students are learning remotely.

Theoretical Context

The guiding theory of this research is positive disintegration (Dabrowski, 1964). This is a theory established by Dabrowski in 1964, which details how people can adapt and adjust in response to stressful situations and adverse events. It also speaks about the growth of individuals through trial and error (Dabrowski, 1964). In other words, people look at what works and what does not work and grow, and change based off of that knowledge. This is the guiding theory of this research because during the COVID-19 pandemic, teachers were faced with an adverse situation in that almost overnight, they were required to teach remotely. The amount of stress and anxiety that was felt during this time was immense and teachers either chose to give up teaching physical education altogether or they grew through the trial and learned how to teach it remotely (Chaka, 2020).

Other theories that relate to this study would be Astin's (1999) theory of student involvement and Deci and Ryan's self-determination theory (1980). Astin hypothesized that the more time a student spent invested in something, the more successful that student would be (1999). This theory relates to this study because students may spend less time on remote classes than they do in a traditional classroom. The less time spent being involved in the classroom may translate to the student not being as successful in that area. Deci and Ryan's self-determination theory (1980) also relates to this study. In self-determination theory, individuals see themselves as a large factor in their own success or failures. When individuals are given more ownership over their own educational experiences, they feel responsible for their success and then use that as a motivation to achieve. In the case of remote learning, individuals are given a lot of responsibility for their own learning, and this in turn could translate to a more successful outcome because of their ownership of their academic success (Deci & Ryan, 1980).

Problem Statement

The problem is physical education is a core curriculum subject that is designed for in-person instruction and is not easily adaptable to an online setting (Gibbons et al., 2020). This is a problem because in education today, there are times and situations which require teachers to teach remotely. For example, during the Covid-19 pandemic, teachers were required to attempt to teach physical education remotely. This proved to be a very difficult time for many teachers because they felt ill-equipped and unqualified to do this.

For physical education teachers, teaching remotely was especially challenging (Dill et al., 2020). These teachers faced a particularly difficult challenge because they had to teach students how to move their bodies and how to learn motor skills which is very difficult through a remote means (Bonfield et al., 2020). Teachers had to create new content that would work in a remote setting. They had to find new ways to engage their students. They had to tackle the challenge of assessment in a remote way. It was challenging to keep students motivated and active when all of their classes were on a computer screen (Gibbons et al., 2020).

Physical education teachers may be interested in the findings of this type of study for many reasons. Teachers may gain valuable insight into what works well for remote teaching of physical education and what strategies do not work well for this type of education.

Purpose Statement

The purpose of this phenomenological study was to explore the experiences of teachers who have taught physical education remotely in the United States. At this stage in the research, remote teaching will generally be defined as teaching through an online platform such as Googlemeet or Zoom in which the students and teachers are not together in a physical location. The theory quidding this study is Dabrowski's theory of positive disintegration (1964), which

details how people can adapt and adjust in response to stressful situations and adverse events. Teaching remotely is already challenging for teachers. However, teaching a student how to move their body in certain ways and master the coordination, balance, and focus that it takes to learn skills in physical education is a unique challenge for teachers who attempted to continue to teach through remote means such as Zoom or Google Classroom (Backman & Barker, 2020). This study sought to understand the experiences of these teachers.

The purpose of this research study was to understand the experiences of physical education teachers who all experienced teaching remotely during the global pandemic. In this type of study, qualitative researchers first must identify a phenomenon and then collect data from people who have experienced it (van Manen, 1990). The study concluded with the researcher providing an accurate description of what the individuals experienced as well as how they experienced the phenomenon (Moustakas, 1994).

Significance of the Study

This study is significant for many reasons. The following paragraphs will discuss the theoretical, empirical, and practical significance of this study. Remote teaching of physical education is something that needs to be understood and studied so that teachers can learn from the experiences of their peers and teach physical education in the best possible way.

Theoretical Significance

This research is significant because remote teaching is not something that is going away. The global COVID-19 pandemic required abrupt change, but with these changes, educators learned from their experiences and learned from one another. Whether the disruption to in-person instruction is another virus, severe weather, or another reason that teachers and students are taken out of the classroom, one can be assured that it will happen again, and teachers need to be

prepared (Backman & Barker, 2020). This research will seek to shine a light on what worked and what didn't in terms of teaching physical education remotely so that next time, educators can be better prepared.

This study is significant because there is not a lot of research relating to teaching physical education remotely. New ideas and methods need to be developed and enhanced by using the experiences of teachers that taught remotely during the global pandemic. Many teaching methods do not have anything to say about teaching remotely or teaching physical education remotely (Gallardo-Echenique, 2015). More research is needed in this area, and this study will contribute to the research gap in this area.

This study was based upon Dabrowski's (1964) theory of positive integration. Dabrowski believed that as people were faced with stressful situations or challenges, that is where growth and change happened (Dabrowski, 1964). People tend to look at what worked and what did not work and then adjust their lives based on those conclusions. In this case, interviewing and studying the experiences of teachers who taught physical education remotely during the COVID-19 pandemic shed light on what works well for situations like this in the future. Remote education will happen again, and by studying what worked well and what did not work during this time, teachers can be better prepared for the next time that education must be taught in a remote way. This study contributed to this theory by shedding light on what growth and change was achieved during the challenging times of remote teaching. The study sought to understand the experiences of teachers who taught physical education remotely in order to determine if growth or change happened. It sought to either approve or disprove of Dabrowski's theory of positive disintegration as the experiences of teachers are analyzed for growth and change.

Empirical Significance

The theory that guided this study is Dabrowski's theory of positive disintegration. This theory hypothesizes that people will grow and change based off of life situations that are stressful or adverse (Dabrowski, 1964). This is the guiding theory for this research because teachers are faced with a challenging situation when trying to teach physical education remotely. Physical education is not a subject that is easily taught remotely, and it is much better suited for in-person learning. The way in which physical education is taught is changing, and this began with the global pandemic in 2020 (Godoi, Kawashima, Gomes, 2020; Varea; Gonzalez-Calvo, 2020; Vilchez et al., 2021). Physical education used to be a subject that was taught in-person only. Now, because of different factors and situations, there are times when physical education needs to be taught remotely (Gonzalez-Calvo, 2020). It is with this concept in mind that that research was conducted.

The empirical significance of this study is that although some research has been done on teaching remotely, there is not much research on teaching physical education remotely (Carter, 2020). There is a gap in the literature. More research is needed in this area, and this research study looked at the experiences of teachers attempting to teach physical education remotely during the global pandemic. Their experiences are unique and different from regular education teachers (Vilchez et al., 2021), and much can be learned about teaching physical education remotely by looking at the experiences of these teachers.

Practical Significance

A research study that examines teachers' experiences during the pandemic, and specifically experiences teaching remotely, would have several practical applications. Teachers, school districts, school administrators and even students would benefit from learning about the experiences of teachers during this time because they can determine what worked well and what

teaching practices were successful. If researchers can look at the specific experiences of these teachers who taught remotely during the pandemic, perhaps teachers can be better prepared for the next time they are required to teach remotely. A lot can be learned from studying the experiences of others, and much work needs to be done in this area of teaching remotely. Most educators would agree that the global pandemic changed education forever, and everyone needs to be better prepared for the next time that they are required to teach remotely. It is with these goals in mind that the significance of this study is established.

Research Questions

There are several research questions that this study sought to address. The central research question and the sub-questions are listed below.

Central Research Question

What are the experiences of K-12 physical education teachers who taught P.E. remotely?

Sub-Question One

What are the most challenging aspects of teaching physical education remotely?

Sub-Question Two

What methods proved most beneficial when teaching physical education remotely?

Definitions

Terms that are pertinent to this research study are defined below.

1. *Essence*- grasping the very nature of something (van Manen, 1990)
2. *Pandemic*-a disease that is prevalent throughout an entire country, region, or the entire world (dictionary.com, 2022)

3. *Remote teaching*-teaching that is conducted through online means or through video rather than face to face, involves a distance between the teacher and the students (Shim & Lee, 2020; Vo, 2017)

Summary

In summary, this research study was a qualitative phenomenological study which sought to bring understanding and clarity regarding the experiences of physical education teachers who taught remotely during the global pandemic (Carter, 2020). Information was gathered from these teachers about what challenges they faced. This study also brought to light the instructional methods that worked best for remote teaching of physical education. The experiences of these teachers were investigated through interviews, journal prompts, and focus groups. Once the data collection was completed, the researcher described the essence of the phenomenon in order to capture the true experiences of these teachers according to their perspectives.

CHAPTER TWO: LITERATURE REVIEW

Overview

Elementary physical education is an important aspect of the formal education of children. In the past, the importance of physical education was debated, but in the last half of the twentieth century, it became a core curriculum subject with well documented benefits for the students (Donnelly, J. et al., 2016). It is a core curriculum subject that is integral to the social, emotional, and physical development of children (Cruickshack, 2021). Its importance cannot be argued. In general, physical education is a core subject that is well suited for in-person learning, therefore, when teachers are faced with the challenge of teaching remotely, physical education is not a subject that easily translated to online learning.

The global COVID-19 pandemic presented specific challenges for education, but it was especially challenging for teachers who were attempting to teach physical education. For many schools, physical education did not occur during the pandemic or it was reduced to something as simple as movement between classes (Cruickshank, 2021). The way in which physical education was taught underwent an abrupt transformation from being in-person to remote platforms almost overnight (Godoi, Kawashima, Gomes, 2020; Varea; Gonzalez-Calvo, 2020; Vilchez et al., 2021). Attempting to teach children how to move their bodies safely and effectively through remote instruction proved to be challenging for teachers and students (Carter, 2020). Teachers transitioned from interacting with students in gyms and on fields, to communicating from their private homes via the internet (Gibbons et al., 2020). This proved challenging for most teachers, and some teachers gave up on teaching physical education altogether to focus on subjects that more easily translated to an online learning platform (Carter, 2020).

Although there is a large amount of research on remote teaching, there is a gap in the educational literature surrounding teaching physical education through remote platforms. Currently, there are few research studies on the best practices for delivering physical education remotely. Chapter two will review the history of physical education in schools, the benefits of physical education, the challenges of teaching physical education remotely, and the positive outcomes of teaching physical education remotely. A theoretical framework that will guide the study will be introduced. The origins, modern interpretation, and current research related to the theory will also be discussed. A thorough discussion of related literature surrounding the topic of remote teaching and physical education will be addressed. Chapter two will conclude with a summary of the current research as well as a discussion of successful teaching practices for teachers who are teaching physical education remotely.

Theoretical Framework

Dabrowski's (1964) positive disintegration theory guided this study. Dabrowski suggested that the way that people grow is through trial and error. When people are pressured or feel anxious, they must choose how to respond. Human beings determine how to best adapt and change based off what worked or what did not work well in the past (Dabrowski, 1964). When faced with the global pandemic and remote teaching, teachers and students had to adapt and change in many ways. Though this was a difficult experience, teachers can look back to determine the best practices for teaching remotely. With this information, teachers can better prepare for the next situation in which they will be required to teach their subjects remotely.

Origins of Positive Disintegration Theory

The theory of positive disintegration was developed in 1964 by Kazimierz Dabrowski (Ackerman, 2017). Dabrowski grew up being profoundly influenced by the tragic events of

World War I, and it was during this time that he observed that some individuals were able to experience a meaningful transformation or personal growth in response to trauma, while some individuals fell apart (Ackerman, 2017). He began to question what the difference was between these two groups of people. In determining the differences, he began to put together the beginnings of his theory of positive integration, which would also become the foundation for the modern theories of post-traumatic growth (Ackerman, 2017).

There are many different theories on personality development, but Dabrowski's theory is different than most because of the emphasis that he placed on the influence of psychological discomfort in the development of the individual (Mika, 2005). Many theories of personality development propose smooth transitions between one stage of development to the next, but Dabrowski's theory is driven by inner conflicts and trauma (Mika, 2005).

After World War I, Dabrowski began to notice that the people who harnessed the potential of a crisis had a psychological extra-sensitivity. This led them to go through the crisis or trauma in a "stronger, deeper, and more personal manner" (Tiller, n.d., p. 1). The people that possessed this extra-sensitivity were the ones that were more likely to respond to traumatic events by self-reflection, and this was the very thing that Dabrowski found could propel them through the five levels of development that Dabrowski discovered (Ackerman, 2017).

Modern Interpretations of Positive Disintegration Theory

In previous research surrounding the theory of positive disintegration, many researchers suggest that Dabrowski's theory is a useful way to look at personality development (Ackerman, 2017; Mika, 2005). One part of Dabrowski's theory is that of overexcitability being a factor in successful individuals (Silverman & Ellsworth, 1981). When individuals possess this overexcitability as a personality trait, they tend to be self-motivated, driven individuals who

become highly successful (Silverman & Ellsworth, 1981). Several other recent studies have also contributed to the theory, agreeing that overexcitability is a characteristic that drives behavior and career choices (Chang & Kuo, 2013; Lysy & Piechowski, 1983; Piechowski & Cunningham, 1985). Miller, Silverman, and Faulk (1994) showed that when overexcitability is used as a measure of development potential, it is strongly associated with level of development.

Individuals that possess this trait tend to become successful and are more driven possibly allowing them to also move through seasons of difficulty easier than others (Miller, Silverman, and Faulk, 1994). Researchers Mofield and Peters (2015) confirmed a positive relationship between overexcitabilities and perfectionism. These studies all suggest that Dabrowski's theory of positive disintegration offers a useful perspective on the development of personality (Ackerman, 2017).

Positive Disintegration Theory and Current Research

Individuals interact with their environments in different ways (Tiller, n.d.). Genetic individuality steers the individual through environmental experiences which leads to a “nature via nurture” position (Bouchard et al., 1990). Dabrowski's theory of positive disintegration suggests that an individual's interactions with trauma determine how successful they will be.

Sternberg & Lubart, (1995) suggest that as a person's development proceeds, the environment will affect the person less. As an individual grows and develops, the environment will shape the person less and less and the person will begin to shape the environment more. As they grow and develop, people will always be faced with different challenges. It is how the person responds to these challenges and obstacles that shapes their development. If a person is successful at managing these challenges, then their character and abilities will become stronger (Sternberg & Lubart, 1995). This research supports Dabrowski's theories of positive

disintegration in that as a person responds to trauma and stressors, he or she will grow and adapt in a positive way (Dabrowski, 1978).

Dabrowski's (1964) positive disintegration theory guided this study. Dabrowski suggests that the way that people grow is through trial and error. When people are pressured or feel anxious, they must choose how to respond. Human beings determine how to best adapt, and change based off what worked or what did not work well in the past (Dabrowski, 1964). When faced with the global pandemic and remote teaching, teachers and students had to adapt and change in many ways. Though this was a difficult experience for everyone involved, teachers can and should look back to determine what worked. With this information, teachers can be better prepared for the next situation in which they will be required to teach their subjects remotely.

Related Literature

The research on remote teaching and distance education, as well as effective ways to engage the online learner is plentiful. Research has shown that some subjects, such as math or literature, are easily adaptable to remote teaching (Gibbons et al., 2020). Physical education is a core curriculum subject that is not well suited for online learning (Gibbons et al., 2020). However, despite the vast amount of research on remote teaching, specific approaches that serve as the most useful for teaching physical education in a remote way have not been thoroughly researched.

The Importance of Physical Education

When teaching physical education to children, it is important to begin by understanding the purpose of physical education (Beghetto & Kauffman, 2014, Quennerstedt, 2018). Educators and course developers can begin by reflecting on the importance of physical education. There are various answers to this question depending on who is asked, but some of the main reasons for

including physical education in school curriculums are: preventing obesity, providing a break from sitting and focusing in a desk, learning a sport, learning about the benefits of physical education, knowledge of the body, and experiencing cooperation and teamwork with peers (Quennerstedt, 2018; Youdell & Armstrong, 2011).

Physical activity supports children in many ways. Research has proven time and again that physical activity supports the health of children physically, mentally, academically, and socially (Donnelly, J. et al., 2016). Daily physical activity is positively associated with better body composition, skeletal health, improved sleep, and improved cognitive functioning (Hills, A., Dengel, D., & Lubans, D., 2015). Again, researchers believe that helping children to develop healthy habits like daily exercise can lead to long term habits as adults (Hills, A., Dengel, D., & Lubans, D., 2015).

Physical activity has also been shown to be connected to areas in the brain that support higher cognitive functioning and higher academic performance (Paez-Maldonado, J. et al., 2020). Additionally, studies have shown that children can develop a positive self-image, a desire to become more active, and confidence as they master the motor skills that are required in physical education (Dyson, 2014). Educators and school administrators need to recognize the positive benefits of physical education and take the steps necessary to train their teachers so that adequate physical education courses can be provided. Physical education is incredibly important for children and adults and should not be excluded.

Teaching physical education encompasses a lot than more than just physical activity (Dyson, 2014). Educators and researchers are just now beginning to scratch the surface of the things that they have neglected to teach students such as healthy eating habits, healthy active lifestyles, the importance of physical activity, and balance in life (Dylan, 2014). There is much

more work to be done to get to the place where teachers are teaching what needs to be taught in the realm of physical education as well as measuring it appropriately. As a nation, much progress is needed in these areas or we risk failing a generation of students in one of the life skills that could benefit them the most. More research is needed to address the best ways to do this both in the classroom and through remote means as the world transitions more and more into an online learning environment. Researchers need to spend the time in the classroom with the teachers and students to really understand the issues facing them today. Grant and Giddings (2002) suggest that researchers need to explore different methodologies and theories to adequately assess the current needs and issues that teachers face around physical education.

Challenges of Teaching Physical Education Remotely

During the global pandemic, teachers were suddenly asked to teach remotely utilizing online distance education platforms (Konukman et al., 2022). During this time, physical education teachers quickly realized the difficulties surrounding teaching physical education remotely (Godoi, Kawashima, Gomes, 2020; Machado et al., 2020). Recent studies show that teachers struggled in many ways and felt unprepared, had feelings of anxiety or depression surrounding teaching physical education remotely, and had trouble utilizing the technology that was required to teach in an online platform (Godoi, Kawashima, Gomes, 2020; Machado et al., 2020). As the world was switching to online learning, and teachers were left to figure out how to best teach, engage, and motivate their students through this new method of teaching (Konukman et al., 2022).

The state of California waved the entire physical education requirement so that schools could stop teaching P.E. altogether (Vilchez, J. et al., 2021). Due to the severity of the situation, many school districts followed this model and physical education became either non-existent or

completely remodeled to fit into an online learning platform (Vilchez, J. et al., 2021). Because of the importance of continuing physical education for children during times when they are not able to meet in person, it is crucial to understand the best ways to deliver physical education to children in a remote way (Vilchez, J. et al., 2021).

Another challenge to teaching physical education utilizing the online learning platform is the increased workload for teachers. First, many teachers were not adequately trained in remote teaching, which caused them to have to learn how to use different online platforms and teach through them. Many teachers reported that their only way that they could assess the student's progress was through videos. This proved to be a lot of work for the teachers as they were assessing so much video content and it proved to be very time consuming (Cruickshank, 2021). Teachers were not used to assessment in this way, and it was much more difficult than in-person assessment (Cruickshank, 2021).

Currently, the challenges of teaching online physical education are more numerous than the advantages. This may be because of the nature of physical education and some subjects are just better suited to being taught in-person. Implementation of the curriculum was the first disadvantage that was noted for online physical education teachers (Konukman et al., 2022). Limited contact with students was another disadvantage that was reported. Teachers did not have the access to students that they had in-person, and this is considered a disadvantage in online teaching of physical education (Konukman et al., 2022).

Lower Levels of Physical Activity

Research has shown that there is a decline in physical activity as children grow (Silverman, 2011). The higher the grade-level, the less interest there is in physical activity (Silverman, 2011). Children seem to develop negative attitudes about physical education as they

get older. Attitudes are largely shaped by experiences in physical education, therefore teachers need to encourage children to develop more positive attitudes about physical education as they get into the higher grade levels (Silverman, 2011).

Early reports of the implications of the COVID-19 suggest that students have lower levels of physical activity compared to before the pandemic (Vilchez, J., et al., 2021). This was simultaneous with students feeling incredible amounts of stress because of the pandemic (Vilchez, J. et al., 2021). These effects are greater in lower income communities where children do not have access to fitness facilities or technology outside of schools (Donnelly, J. et al., 2016).

Loss of Connection

Unfortunately, one of the downsides of remote teaching is the loss of connection to others (Shen et al., 2012). Feeling connected to others and a sense of relating to others is something that is not as easily accomplished in an online class as it is in an in-person class (Shen et al., 2012). When an individual feels a connection to others, this is described as relatedness (Deci & Ryan, 2000). Relatedness comes from the self-determination theory (Deci & Ryan, 1985). It is one aspect of motivation, and is defined as the feeling of connectedness with other individuals (Deci & Ryan, 2000). When an individual feels a connection with other people, they are more likely to stay involved with that activity. When individuals can connect with others and develop positive relationships, they are more motivated to stay in the activity that brings them together (Cox et al., 2012).

In one social experiment during the Covid-19 pandemic, several physical education teachers came together to come up with ideas on how they could keep their students engaged in online physical education classes and maintain a sense of belonging and relatedness to their

classmates even when they weren't meeting in-person. With the sudden changes in how physical education was presented to students during the pandemic, these teachers rose to the challenge and created new ways to keep their students engaged based off the theories of relatedness (Gibbons et al., 2020). They found that when they were creative in engaging their students and found ways to foster community even during times of remote teaching, they were able to achieve higher levels of class engagement among their students verses the engagement levels that they were seeing at the beginning of remote teaching (Gibbons et al., 2020). With the addition of group exercises, community building exercises that could be completed online, and group chats, they were able to maintain engagement and community even during a period of remote teaching (Gibbons et al., 2020).

Studies have shown that feeling socially connected is a strong predictor of self-motivation (Cox & Williams, 2008). If teachers want students to develop self-motivation for their lives, they need to ensure that they provide opportunities for social connection, which in turn can lead to a healthy lifestyle both physically and socially. This concept of relatedness was especially important for girls as studies suggest that girls who had a strong sense of relatedness showed both more enthusiasm and effort in their physical education classes (Shen et al., 2012).

During periods of remote teaching of physical education, teachers reported feeling a loss of connection to their students. Teachers also reported feeling that the best part of their jobs was gone, and that was the face to face aspect of teaching in a classroom (Cruickshank, 2021). This is definitely a challenge for teaching any subject remotely, but especially for physical education. Children also miss out on the important lessons that they learn when working with other students such as teamwork and how to get along with different personalities when they are not in the classroom (Cruickshank, 2021). Children are not learning valuable social skills when they are

sitting in front of a computer instead of interacting with their peers in a classroom (Cruishank, 2021). Unfortunately, these examples are just some of the many things that are lost when education is not taking place face to face.

One study chronicled how two teachers approached teaching physical education and loss of connection to others during the pandemic. (Gibbons, et al., 2020). They made it a priority to make sure students had ways to stay connected to others. First, students were encouraged to remain active outside because they could be with their peers in this way. This was encouraged at the beginning of the pandemic in order to help students to maintain an active lifestyle in a safe way (Gibbons, et al., 2020; Lesser & Nienhuis, 2020). Students were asked to document their progress as this was a way that students could have something other than the pandemic to discuss with the teacher. This in particular was a relatedness strategy because it connected students to their own results as well as with the teacher who could evaluate how they were doing and progress that was made (Gibbons, 2020).

Another way that teachers encouraged students to remain active yet connect to their community during the pandemic was to create a bingo game where students were encouraged to explore new outdoor venues that they had not been to yet (Gibbons, 2020). Many students were frequenting pools and gyms before the pandemic, but once all of those were closed, they had nowhere to go. These teachers took advantage of this and created a bingo game for students, which challenged them to visit all of the outdoor venues around their communities in a recreational way. Things like hike the red trail and railroad park, run the steps at the Cadboro Beach, or ride a bike to Terry Fox Memorial were included in the game (Gibbons, 2020). This proved to be an excellent way to get students outside, challenge them to remain active in safe

ways, and get them connected to their communities more through exploring new venues, emphasizing the relatedness strategy of physical education.

One research study found that teachers were able to help students to foster a community by developing a remote cross-country team (Cruickshank, 2021). The teachers had a 95% participation rate for this team, and even students as young as kindergarten were participating in the remote cross-country team (Cruickshank, 2021). This points to the fact that community can be developed in times of remote teaching when teachers get creative and provide ways for students to be actively engaged in meaningful activities.

Other ways that teachers tried to establish this idea of relatedness with students were to get them involved in outdoor community events such as park clean-up days, volunteering, and participating in community-wide events (Gibbons, 2014). These are all ways that encourage community among students and with their environments, and again, the research suggests that once a student feels a connection to a certain activity or community, the student is more likely to stay engaged in that community.

Once students began to come back together in the classrooms, some school districts gave guidelines for maintaining physical education in ways that were still maintaining social distance. Activities like exploring local parks, outdoor scavenger hunts, hiking, and survival skills were all part of the initiative to get students engaged in activities but still maintain distance (Gruno & Gibbons, 2020). When students are taking part in an active lifestyle outdoors, they are experiencing a connectedness to nature, and research has shown that these students will become more environmentally responsible as adults because of the respect for nature that they have developed as adolescents (Nisbet et al., 2009). Another study showed that when teachers used nature-based physical education, student acceptance of each other was greater and they also saw

an increase in cooperation and positive interactions within peer groups (McNamee & Timken, 2017).

The return to normal in physical education is slowly occurring, but the creative ideas of these teachers to engage their students in physical activities while maintain social distance but also helping them to connect with others, their communities, and their teachers were successful in maintain social connection and engagement in remote learning (Gibbons, 2014). More research is needed on how to keep students engaged in physical education during remote learning times. Additional research is also needed in how to maintain social relationships and connection during times of remote teaching or social distancing.

Keeping Students Engaged

When utilizing online platforms, teachers found that it was difficult to keep students engaged. Research about the success of physical education classes at the beginning of the pandemic show that there was a decline in education in the subject of physical education specifically (Cruickshank, 2021). Schools had to offer incentives in order to keep students engaged and logging in to the course. Students quickly lost interest and had to be motivated in order to engage with the courses because they were remote (Pereira, 2022). Teachers and administrators needed to be creative in order to get students to interact in the course and stay engaged. They wanted students to move and they wanted to convey the importance of movement and staying active especially during this stressful time (Vilchez, 2021). Teachers wanted to convey to students and parents that the more active the students can be, the more this will translate to better learning as well (Vilchez, 2021).

Additional research showed that a key in keeping students engaged in online learning was the teacher's ability to facilitate learning as well as their ability to keep the students focused on

their long-term goals (Gamage et al., 2021). Mentors can and should be utilized as a means to keep students engaged in online learning. The study showed that students preferred to have a mentor that was available to them to help them stay focused on their goals (Gamage et al., 2021). This is something that schools could consider as a way to encourage students to stay engaged with online learning. In the case of physical education, students could be paired with a mentor that could act as contact that students could check in with if they had questions and could also serve as a motivator to help them stay focused on their goals.

One research study found that teachers were able to help students to foster a community feel as they organized and developed a remote cross country team. The teachers had a 95% participation rate for this team, and had students as young as kindergarten participating in the remote cross country team (Cruickshank, 2021). This points to the fact that community can be developed in times of remote teaching when teachers get creative and provide ways for students to be actively engaged in meaningful activities.

Training Teachers in Online Delivery of Instruction

One of the biggest concerns with online teaching of physical education is the training of teachers in how to best utilize online platforms and deliver online instruction. Not only are teachers trying to keep students engaged in the courses, but administrators are trying to train teachers in how to use the new online programs such as Google Meet, Canvas, Teams and more when remote teaching is required (Pereira, 2022). Virtual training was offered for teachers to better prepare them and assist them in teaching remotely (Pereira, 2022), but many teachers still reported that more training was needed (Vilchez, 2021). They didn't have the training or knowledge to facilitate an online class, which required skills such as sharing their screen with students or recording a video and sharing it with the class. Teachers were learning as they

transitioned to online teaching, and it was frustrating and challenging for many of them (Vilchez, 2021). Teachers reported that they needed more assistance from the administration in terms of training for this type of remote or online teaching. They needed the administration to support them by training them quickly so that they could be effective educators in a new way (Vilchez, 2021).

Many teachers reported feelings of anguish and inability when they were required to begin teaching online (Pereira, 2022). Teachers were all of a sudden required to teach in a way that they were not trained for and not used to, and many either quit or felt that they were not adequately prepared for the challenges that they were presented with. Researchers reported that teachers had some background knowledge of computers so that helped with the transition, but many teachers did not have this background, so teaching online proved to be difficult (Pereira, 2022).

Difficulties with Online Platforms During Remote Learning

Due to the quick shutdown of schools, most teachers did not have time to plan for what was coming, which was an extended period of online teaching (Pereira, 2022). Teachers were quickly rushed to an online platform to teach, and most of them did not even have the training, which created a lot of anxiety and feelings of inability because they were not adequately prepared for this type of teaching. Of course, teachers who were more familiar with a computer or online teaching methods generally did better than teachers who did not have this kind of experience, but overall, this experience was stressful for the teachers (Pereira, 2022). It was found in one survey, that 80% of public schools resorted to online platforms for learning even though the public had a very low rate of usage of these online platforms (Pereira, 2022). Schools were providing a resource, but for a variety of reasons, the public was not using the resources

offered. Neither the public, nor the teachers had adequate knowledge on how to utilize the online platforms that were being offered.

One drawback to the use of online platforms or apps for remote teaching of physical education is that teachers have brought up the concern that they are trying to get students off devices and help them to go outside and become active. This is difficult to do if the class content is being presented through a device (Cruickshank, 2021). For example, many teachers that taught physical education during the pandemic brought up the concern that students were not physically active because they were having to sit in front of a computer all day for school. These teachers did not want to ask the students to be in front of a screen for more time to take a physical education course. So the challenge was two-fold. Teachers wanted students to become more physically active and they also had to present the content through a device (Cruickshank, 2021).

Another drawback to using online platforms for physical education is the variety and amount of online platforms that are available (Pereira, 2022). Teachers can quickly become overwhelmed at the amount of options and unsure of which online platform would best fit their needs (Cruickshank, 2021). One physical education teacher could have to log in to several different online platforms just to access the different classes that they are required to teach. For example, one teacher could be using Microsoft Teams while another teacher is using Google Classroom while still another teacher could be using Canvas. This makes it very difficult for physical education teachers to come alongside regular education teachers and enter their platforms to teach a physical education class (Cruickshank, 2021). The best course of action in this scenario is for physical education teachers to streamline their content and use one online platform so that students can access content in the most effective way (Pereira, 2022).

One of the most widely used apps for remote teaching is the WhatsApp messaging application (Pereira, 2022). Physical education teachers tried to use this app as a means of developing communication and community among students during times of remote learning (Pereira, 2022). However, this app proved to be difficult for teachers to monitor because they had to keep monitoring the interactions between students. Students tended to use the app as a social networking tool instead of its intended purpose which was class assignments (Pereira, 2022).

These types of findings suggest that although online educational platforms do exist, schools need to do more to train and prepare teachers for teaching in a digital method (Vilchez, 2021). There is an entire technological way of communicating that teachers need to be prepared and trained for clearly, teachers were not prepared for in the beginning of the pandemic (Cruickshank, 2021). The Covid-19 pandemic was a catalyst for this realization that teachers were not adequately prepared to teach remotely, and much more needs to be done to assist teachers so that they are trained adequately to be able to teach in a remote way (Pereira, 2022).

Lack of Curriculum Written for Online Delivery

One of the largest challenges for online physical education teachers is the lack of curriculum written specifically for online delivery (Konukman et al., 2022). There are plenty of curriculums written for face-to-face instruction, but as far as online learning, there are not a lot of curriculum options. Teaching physical education in a remote way is relatively new and the curriculums written for online delivery are still being developed. While one way to explain a new concept or movement might work face to face, the same method of teaching the movement could be completely lost in the online mode of delivery. There is a need for new resources and curriculum to be written and created specifically for this new method of teaching physical education.

Again, because teaching physical education through an online method is so new, there are a limited amount of studies concerning this topic (Konukman et al., 2022). Educators and researchers alike are unsure of how the lesson plans will translate when taught through an online method, how they will keep their students motivated, and how they will even assess their students in this way. More research is needed in all of these areas. In teaching physical education online, teachers are faced with the challenge of translating a movement through an online medium that sometimes comes across as unclear and vague (Rink, 2014).

After the pandemic, some teachers reported that they did not realize the amount of work that went in to creating an online class (Jarive-Eggart, 2023). Teachers reported some hesitation about teaching online again because of the time and effort that is required in creating and maintain an online course. Teachers had to spend significant amounts of time creating and editing instructional videos, maintaining an online presence, and creating assignments that would work in an online classroom setting. They essentially had to create their courses and their curriculum from scratch and this consumed a lot of time and energy which led to them reporting hesitation about continuing to teach in this way once they were able to return to the classroom in-person (Jarivs-Eggart, 2023).

Adjusting Content Decisions

Pre-pandemic, the decisions regarding what to teach were guided by the curriculum. During the pandemic, schools were required to make decisions about what to teach, with an emphasis on what was possible while utilizing an online platform. For example, pre-pandemic, the teacher might have been ready to teach a gymnastics unit. However, during the pandemic, this was impossible, and teachers were required to make quick judgement calls about what to include in their new online format based off of what was possible (Hui, 2020). All of a sudden,

the focus shifted from learning, to how to learn in a world that went to online platforms for education almost immediately (Saviani, 2011). This is a particular challenge when teachers are attempting to teach physical education remotely. The lesson plan that might have worked for students in person, may be completely wrong for a remote teaching situation. For example, if the students were working on learning how to dribble a basketball and passing, this lesson would be difficult if not impossible to teach remotely. Physical education is a core curriculum subject where there are times that curriculum decisions will have to be made and plans will need to be adjusted in order for the learning concepts to be successfully taught remotely (Hui, 2020).

Difficulty of Assessment

When a teacher is attempting to teach physical education online, a major problem is the inability to adequately assess the progress of students (Konukman et al., 2022). For example, a teacher will have difficulty verifying that the physical movements are done correctly (Konukman et al., 2022). When a teacher is teaching in-person, he or she can quickly and easily check for correct movements and correct form. However, when the online medium is introduced, there is no way for a teacher to tell or test if the movements are being executed correctly. This is another disadvantage to teaching physical education in an online format.

Because of the difficulty of assessment in online learning, teachers must come up with accurate and efficient ways to assess their students. Collaborative online learning aided in self-assessment and reflection (Altinay, 2016). One study found that the more that students were engaged in peer learning, collaboration, and peer evaluation, the more satisfaction they got from their courses. Self-assessment and peer evaluation are two ways for assessment to take place in the online learning environment (Altinay, 2016).

Another study found that in online courses, the students did not use self-assessment tools very well or effectively (Kerton and Cervato, 2014). The researchers proposed that more research is needed in order to create a course in an online environment that could encourage good and effective test taking strategies (Kerton and Cervato, 2014). Self-assessment is a large part of many online learning environments so it is essential for students to be able to utilize this tool effectively in order to assess learning.

Physical education teachers must constantly be assessing the student's learning and mastery of content (Hall, Hicklin, & French, 2017; Chen & Ennis, 2012). This constant assessment needs to take place so that the teacher can be evaluating the student, adjusting lesson plans, focusing on things that need refinement or more instruction, and correcting poor performance. This again is very difficult to do over Zoom or through remote learning. The teacher is much more well-equipped to assess and correct when the student is in-person in front of them. Over Zoom, the teacher cannot adequately assess how the student is moving, and it is much more difficult to correct wrong body positions than it would be if the student were in person.

Teachers who taught physical education remotely also reported adjusting the way in which they assessed their students during times of remote teaching (Jarvis-Eggart, 2023). They found that the ways that they had been assessing their students in-person did not work as well when they were teaching remotely. Teachers reported that they had to change the way they assessed their students during times of remote learning, and had to save a lot of the ways they had previously assessed their students for when they returned to the classroom (Jarvis-Eggart, 2023). This was a difficult task, but some teachers were able to use this challenge as a way to connect with their students. One teacher noted that she attempted to use assessment during times

of remote teaching as a way to connect with her students. She would use face time or a Zoom session as a way to connect with her students face to face and establish a rapport with them (Jarvis-Eggart, 2023). Although assessment needed to change in order to be more effective during this time, teachers were able to get creative and use assessment as a way to further connect with their students as well as assess their progress during remote learning (Jarvis-Eggart, 2023).

Access to Appropriate Equipment

Access to appropriate equipment for physical education in a remote learning setting was a challenge. Many times, students reported that they did not have the proper equipment at home to continue their training. This was a disadvantage to online teaching of physical education (Konukman et al., 2022). For example, to continue training in ballet, students need an appropriate place to practice. If they don't have the space at home, it can make continuing their training very difficult. If a student is seriously studying gymnastics, he or she cannot continue their training without the gymnastics equipment. The student really has to have the access to a gym in order to be successful and continue this type of training. Things like having a yard to kick a soccer ball around in, or having access to a jump rope all of a sudden became necessities and if students did not have them at home, then they could not do the lesson (Vilchez, 2021).

Teachers had to become flexible and learn how to teach concepts to students who didn't have the needed equipment or space. Part of continuing to teach physical education during this time was helping the students who didn't have access to an appropriate place to practice or the needed equipment. Teachers had to become creative and think of ways that these students could still participate and still be active even without the needed equipment (Vilchez, 2021). This is a particular challenge for teaching physical education in a remote way. It was a learning process

for everyone, and this period demanded more from teachers than possibly any other time in the history of education.

Successful Teaching Practices for Teaching Physical Education Remotely

Researchers have taken a long hard look at teaching practices and have developed some guidelines specifically for teachers of physical education classes. These core practices are items that have been tested in the classroom and have been viewed as essential to creating a positive and successful learning environment. Establishing a rapport with students, developing an understanding of what students are experiencing when they interact in an online learning environment, and understanding online platforms are all helpful for teachers attempting to teach remotely.

Establishing Rapport

One of the most important core practices for teachers who teach physical education is establishing and maintaining a rapport with students (Pianta, 2016). Teachers need to learn as much as they can about their students so that they can understand them, connect with them, and develop a rapport with them. This rapport then translates to a positive student-teacher relationship so that the student will trust them and be open to their feedback, instruction, and support.

In one study, professors found that their empathy for students was increased after being students in an online course (Jarvie-Eggart, 2023). Professors reported that they had an increased understanding of the thoughts and feelings of their students after they themselves participated in an online course. This helped them to establish a better rapport and connection with their students because they were better able to understand how their students were feeling about assignments and participation in an online course (Jarvie-Eggart, 2023). Research shows that the

better that the connection is between the teacher and the student, the more engaged the student will be in the class (Cruickshank, 2021). Rapport is important to maintain, especially for online courses (Pianta, 2016). One teacher who participated in this study stated that after he watched a 50-minute video lecture, he realized that watching the lecture online was an entirely different experience from hearing the lecture in-person. As a result, he modified some of the ways he was facilitating his online course so that video lectures were only 5-10 minutes in length and a lot more of the material was presented in written format (Jarvie-Eggart, 2023). When teachers put themselves in the position of a student, they are better able to understand the thoughts and feeling of the student and then can establish a better rapport with the student as a result (Jarvie-Eggart, 2023).

When physical education is done in-person, this is something that can be easily established with a few key interactions and purposeful conversations. However, when instruction takes place through Zoom or another remote means, this is difficult to establish (Pianta, 2016). This is a concern for physical education teachers who are attempting to teach remotely because it is hard to develop a rapport with a student over a screen. This is much more easily accomplished in-person.

Teachers found that during the pandemic, when teaching physical education was either let go completely or reduced to just breaks between classes, the better the connection between the students and the teachers was, the more engaged the students were to their physical education classes (Cruickshank, 2021). For students and teachers to be successful at any online or remotely taught course, they need to work at fostering connection, and this is especially important in physical education. Students in Sonoma County were required to complete a minimum of twenty minutes a day of physical activity and this could be whatever they wanted it to be from taking a

walk with their mom to playing a physical activity video game, and then teachers just had to trust that what the student turned in was true. The goal was just to try to encourage them to continue to be active during this time, maintain connection to others, and to develop life-long habits of an active lifestyle (Carter, 2020).

Another core practice for physical education teachers is to adequately present students with developmentally appropriate content (Rink, 2001). Teachers must be able to demonstrate the content in a way that is understood by their students. This sometimes involves physically touching the student in order to correct a movement or change a position. This is not an option in remote instruction as the teacher cannot reposition a student over Zoom. For teachers of physical education, this is a unique challenge in remote learning.

Use of Online Platforms for Teaching Physical Education

The use and in-depth understanding of educational communication platforms such as Teams, Blackboard, Canvas, or Google Classroom is essential for a successful remote physical education class (Estrada-Oliver & Mercado-Gual, 2022). These online platforms were ideal because they were able to be accessed at any time and could be used by students who wanted more instruction and ideas for physical education. However, teachers must be educated in how to use them to upload content and students need to be educated to successfully use them. The biggest challenge is that there is a gap between the knowledge of the teachers teaching and the knowledge of the students using the app (Estrada-Oliver & Mercado-Gual, 2022). Most teachers have to learn how to use these online platforms. However, because of the advancement of smartphones and the accessibility of the internet, many students are very familiar with how to use apps and computers. So, the challenge exists in the difference of the knowledge base between these two groups of people. In addition to that challenge, teaching remotely from an

online platform requires the teacher to have additional knowledge than that of a regular classroom teacher (Estrada-Oliver & Mercado-Gual, 2022). Teachers have to have both the technological knowledge to manage an online platform appropriately as well as additional pedagogical knowledge in terms of the teaching styles that would be most appropriate for use on an app (Estrada-Oliver & Mercado-Gual, 2022).

One new idea that was introduced during the pandemic was the use of a student-centered app for physical education. Some schools actually developed an app to be used by students for physical education during times of remote learning (Gobbi et al., 2020). Apps had the advantage of being able to be accessed at any time and could be used by students who wanted more instruction and ideas about physical education. Student-centered teaching styles are most appropriate to use with apps because students may have the ability to record themselves and feedback can then be provided. Generally avoiding the traditional teaching style of when a teacher teaches and students listen is recommended with the use of apps. The more student involvement that can be incorporated in the app, the better the experience of remote teaching will be (Estrada-Oliver & Mercado-Gual, 2022). When students can record themselves, provide peer feedback, or make recommendations this generally results in a more enjoyable class (Estrada-Oliver & Mercado-Gual, 2022).

Success with Online Platforms During Remote Teaching

Some schools got creative with online instruction in physical education by introducing concepts such as fitness challenges or asking for students to check in remotely (Carter, 2020) while other schools just gave up altogether on physical education. Other creative ideas were having students watch videos of different exercises and then challenging them to video themselves completing the exercise or asking them to discuss issues relating to physical

education and the global pandemic such as the financial implications for sports. Some teachers tried to host a Zoom class once a week with their students where they would then assign a daily activity log for students to fill out (Carter, 2020). However, getting students to actually fill it out and be active at home proved to be a lot harder than running a physical education class in person at school.

Other teachers took more of an active role in helping students to stay active by posting workouts for them to follow and then requiring them to answer questions about the workouts such as what muscle groups they used or what they liked most about the workout. For example, some teachers required students to just complete a minimum amount of time of physical activity each day. The teachers provided ideas for the students on how this could best be completed such as going for a walk with their families or playing a video game that involved physical activity. The goal was to encourage physical activity and to remain active during a part of each day, as well as develop life-long healthy habits (Carter, 2020). This required students to actually do the workouts in order to be able to give a response. These teachers wanted the students to use sports as an outlet for the stress of the pandemic (Carter, 2020). They wanted them to be able to go for a walk or a run or play a sport when they felt stressed about completing an assignment or the toll of the pandemic.

After the pandemic, interviews have been conducted on teachers who did teach physical education remotely. Some participants felt that high quality physical education teaching via remote learning was possible (Vilchez et al., 2021). Others reported that teaching physical education remotely will never be ideal (Carter, 2020), so the reviews and feedback are mixed. Teachers also reported that to create a distance learning environment that was successful three key aspects needed to be included which were personalization, creativity, and inclusiveness

(Vilchez et al., 2021). When these aspects were included in the online learning platform, students tended to be more engaged and the online environment was more successful. Teachers also reported that several resources were needed in order for success in online teaching and those were professional development, administrative support, and needed equipment (Vilchez et al., 2021). Obviously, teachers needed training in how to run an online classroom and they needed the necessary tools with which to implement it such as internet access and computers.

As more information comes to light about the experiences of teachers during the pandemic, the issues surrounding this time period will become clearer. One helpful strategy during this challenging time was for teachers to really listen to their students' voice concerns and questions because this type of teaching in physical education really hadn't been done before. When teachers took the time to really listen to the concerns and issues that students had with the new remote learning, they found that they could address these concerns and make appropriate changes in order to tackle these issues (Ferreira et al., 2021). This paved the way for a successful remote learning experience. Communication was key during periods of remote learning, and this is something that needs to be implemented in every online learning class (Ferreira et al., 2021).

Advantages of Online Physical Education and Implications for Teaching Today

In the small amount of research that does exist for physical education teachers that are attempting to teach any type of physical education through a remote method, there are some positive correlations associated with this type of teaching delivery method (Konukman et al., 2022). Currently around 40% of colleges have launched some type of remote teaching initiative (Tang, 2005). The challenge is that most of those do not teach physical education in a remote way. Since so few schools have taught physical education remotely, it is difficult to see the advantages. However, one advantage of online physical education is a more individual approach

to teaching (Konukman et al., 2022). This is obvious because the student is usually in his or her home or office and is receiving instruction directly. There are not classroom distractions in terms of other students and the teacher is focused on the individual student rather than the class as a whole. The second advantage that has been associated with online delivery of physical education classes is greater student independence (Konukman et al., 2022). Again, this is an obvious factor, and one that could be considered in both a positive and a negative light. The student is alone and receiving instruction so naturally, the student will have to be more independent because there is not a classroom full of peers right there in person.

Remote teaching of physical education also offers the opportunity for teachers to share their lessons and reduces the workload of teachers as they network with each other in order to gain more ideas (Ried, 2004). This type of access and sharing of lessons and plans is an incredible resource for teachers attempting to teach in a remote way. This type of teaching has revolutionized the area of physical education and required more online platforms to support this specific type of education (Learn, 2009). Lastly, another advantage that was discussed for online delivery of instruction was the ongoing monitoring of students' results. With an online delivery method and an online method of submitting assignments, students and teachers are instantly given access to reporting systems and student results so that these files are readily available (Konukman et al., 2022). Teachers may then see these results and adjust their content or teaching decisions accordingly.

Some teachers reported being relieved at the switch to an online platform such as Google classroom or Canvas. Teachers had been wanting a way for students to catch up when they had a legitimate absence, and an online classroom paved the way for this to happen. The switch to online classes also cuts down on waste and supplies and saves time and money (Carter, 2020).

Another interesting positive outcome of going remote during the pandemic for some teachers was the ability to easily translate lessons into different languages. Teachers who had students from multiple ethnicities and who spoke a different language other than English as their first language were able to quickly translate their lessons into any language now that the lesson was online (Carter, 2020). These teachers admit that for physical education, distance learning will never be ideal, but when the next crisis comes, teachers will be much better prepared now that there is a plan in place for distance learning and the teaching of physical education (Carter, 2020).

In a recent study that looked at teachers who had attempted to teach physical education during the pandemic, one of the recommendations for teachers was to hold a weekly Zoom meeting when teachers could make sure that students were performing the exercises requested and the teachers could also check for correct form in the movements (Cruickshank, 2021). Although a weekly Zoom meeting might be difficult for every student to attend, it would at least be useful for the ones that were able to attend and it would also be helpful for the teacher in terms of assessment. During this Zoom meeting, teachers could also lead discussions about health and wellness and have the students engage in conversation with each other about these topics (Cruickshank, 2021). Each of these activities would add engagement and meaning to the physical education course.

Lastly, teachers who taught remotely found that if they were intentional about developing community within their online classroom, they were able to foster an environment that was beneficial to students in building relationships and growing in their learning (Jarvie-Eggart, 2023). Building positive teacher and student relationships helps to facilitate learning in remote teaching situations (Jarvie-Eggart, 2023). Teachers found that when they included activities

within their online classrooms such as group projects, peer-review assignments, and discussion boards, they were able to foster growth and relationships amongst their students (Jarvie-Eggart, 2023). This study also found that even when teachers and students returned back to the in-person classroom, they continued to use successful online communication tools in order to maintain relationships within the class. In other words, it was found that online communication tools were a successful way to maintain contact and relationships in both online learning and in the in-person classroom (Jarvie-Eggart, 2023).

Summary

In conclusion, the global COVID-19 pandemic created room for new and necessary research in the area of physical education. Teachers were all of a sudden required to teach physical education in a remote way which presented a lot of challenges that were not an issue when teaching physical education in-person. From using online platforms to monitoring student performance to adjusting lesson plans to fit an online classroom, teachers and students struggled with the reality of this new normal. It is unfortunate that many teachers felt unprepared and unqualified to do teach physical education remotely. So many teachers either gave up or refused to even attempt to teach physical education in a remote way. Educators agree that physical education is very important when educating the whole child. It should not be left out of the education of a child, even if it must be taught in a remote way. Because of the recent need for teachers to be able to effectively teach remotely, additional research is needed in order to teach physical education in the most effective way possible, even if it must be done in an online platform. The remote teaching of physical education is not ideal, but it is sometimes necessary, and it is in those times when educators need to be equipped with the best possible means to teach their subject remotely.

The goal of teaching shifted during the global pandemic from teaching the required curriculum to teaching what works in an online format. Unfortunately, a lot of physical education was lost during this time because of the difficult nature of teaching this subject in an online format. Physical education switched from education and learning to just physical activity with teachers just encouraging students to get up and move their bodies and expend some energy (Cruickshank, 2021). The education aspect was lost and teachers encouraged students to get outside and engage in physical activity with their families. Teachers were not prepared and no one knew how to teach physical education in a remote way. The reflections of teachers who taught physical education during the pandemic will be very valuable in determining best practices for the future. These teachers are the only ones who have the knowledge of what worked and what didn't work well during the pandemic. Teachers who taught physical education in a remote way have a unique vantage point on teaching remotely and their experiences should be shared and examined in order for education to move forward and become better tomorrow. There will be times when remote teaching will be needed again, and the wisdom and insight that these teachers possess should be studied in order to develop the best teaching practices moving forward.

This research study sought to shed more light on this difficult subject and with further knowledge about how to most effectively teach physical education remotely, teachers would be better equipped to address this challenge. As more research comes out about the challenges that teachers faced trying to teach physical education remotely during the pandemic, educators will be able to take that information and move forward in positive ways. Teachers will be able to look at what worked well and what did not work well in terms of teaching physical education remotely and adjust their plans so that the next time physical education needs to be taught

remotely, they will be better prepared. Future research in this area could focus on both the design and implementation of physical education as it is taught remotely (Cruickshank, 2021). More research is needed in the area of teaching physical education in a remote way, and that was the goal of this research proposal.

CHAPTER THREE: METHODS

Overview

The purpose of this qualitative phenomenological study was to explore the experiences of teachers who have taught physical education remotely in the United States. I chose a phenomenological research method that had an exploratory focus. Teaching remotely is incredibly challenging for any teacher but teaching a student how to move their body in certain ways and master the coordination, balance, and focus that it takes to develop these skills in physical education is a unique challenge for teachers who attempted to teach through remote means such as Zoom or Google classroom. This study was vital to understanding the experiences of these teachers. Chapter three of this research proposal includes the research design and research questions, the setting and participants, researcher positionality, procedures, data collection plan, trustworthiness, and a summary section. This knowledge will assist schools and educators in creating a better pathway to teaching physical education remotely.

Design

This study used a qualitative design. This type of design was most appropriate for this study because understanding the perspectives of the participants was important to be able to identify the unique challenges of the group being studied. An in-depth understanding of the situation was desired so that I could accurately identify what teaching strategies and methods worked well for remote teaching of physical education. The qualitative design highlighted the perspectives of the participants so that themes and patterns could be identified from their words and experiences. This is a quality that is specific to qualitative research (Creswell & Poth, 2019).

The type of research that was used in this study is phenomenological. The reason that this type of research was chosen for this study is that a phenomenological study is most appropriate

for describing the common meaning for many individuals of the experiences that they had during a phenomenon (Creswell & Poth, 2019). This research study was looking at the experiences of several physical education teachers who all experienced or participated in teaching physical education remotely. In this type of study, qualitative researchers first must identify a phenomenon and then collect data from people who have experienced it (van Manen, 1990). The study should be concluded by the researcher coming to an accurate description of what the individuals experienced as well as how they experienced the phenomenon (Moustakas, 1994).

This was a transcendental phenomenological study in which I was primarily focused on the experiences of the participants within the phenomenon (Moustakas, 1994). Transcendental phenomenology is based on the way that Van Kaam (1966) and Colaizzi (1978) analyzed the data. The data is analyzed by reducing it to quotes or themes which then leads the researcher to be able to develop a textural description of the phenomenon as well as a structural description of the lived phenomenon. I chose transcendental for this study because it is the best way to thoroughly understand and describe the phenomenon which is being studied.

Research Questions

Central Research Question

What are the experiences of K-12 physical education teachers who taught remotely?

Sub-Question One

What are the most challenging aspects of teaching physical education remotely?

Sub-Question Two

What methods proved most beneficial when teaching physical education remotely?

Setting

The site or setting for this research study was schools across the United States that have teachers who have taught physical education remotely. The schools were a mixture of both public and private schools, and they were accredited. The schools were a combination of elementary, middle, and high schools, and they offered physical education as a remotely taught course. The leadership structure of the public schools were school boards, and the private schools were under the leadership of principals and vice principals.

Participants

In this qualitative study, the selection of the participants was through criterion-based sampling and through purposeful sampling. Criterion-based sampling is when a sample meets a certain criteria and purposeful sampling is when the selection is based upon the purpose of the inquiry. Participants in this study were physical education teachers who had taught physical education through a remote means. There were a total of 10 participants that were interviewed for this study. The teachers ranged in age from 22-65 and both male and female participants were interviewed. The teachers selected had taught physical education for at least 3 months in an elementary, middle, or high school and have had a total of no less than ten students in their class.

Researcher Positionality

My motivation for conducting this study was to contribute to the field of education with a new understanding of the experiences of teachers who taught physical education remotely. Teaching any subject remotely is challenging, but with the global pandemic, teachers were required to teach physical education in a remote way, and this was something that they were not adequately prepared for. If we as educators seek to understand what worked well and what teaching practices are best suited for this type of situation, these strategies can be applied in

teaching situations like this in the future. It is my goal that this research would contribute to the field of education by providing a better understanding of the best teaching strategies and methods for teaching physical education remotely.

Interpretive Framework

The interpretive framework for this study that I identified with is social constructivism. Social constructivism is when the researcher is seeking a better understanding of the world (Creswell & Poth, 2019). I looked at understanding the experiences of teachers that were attempting to teach physical education remotely. The goal of my research for this study was to rely heavily on the participant's views of teaching remotely. The questions that I used to interview my participants were both broad and general so that the participants could articulate the meaning and their experiences with the phenomenon. Qualitative research is often referred to as interpretive research because the researcher is attempting to interpret or make sense of the experiences of the participants (Creswell & Poth, 2019).

Philosophical Assumptions

The philosophical assumptions that I hold are discussed below. These center on values and belief systems within the individual. These are discussed in order to aid the reader in better understanding how I view the world and how I would approach this research. There are three philosophical assumptions that need to be addressed and they are ontological, epistemological, and axiological. These three assumptions are each explained below.

Ontological Assumption

The ontological assumption that I believe is that God's truth is the truth and that there is a singular reality. However, as human beings, we are imperfect and therefore can sometimes have an imperfect understanding of God's truth. Although many people believe in multiple realities or

multiple truths, my stance on this is that God's truth is the truth and there is one reality which is determined by his truth revealed to us primarily in his word and by his Holy Spirit.

Epistemological Assumption

The epistemological assumption looks at what is knowledge and how that knowledge is justified. It also looks at the relationship between the researcher and what is being studied (Creswell & Poth, 2019). In this qualitative research study, knowledge was derived from the participants as they share their experiences. For a good qualitative study, the researcher tries to get as close as possible to the participants to really minimize the distance between herself and the participants (Guba & Lincoln, 1988).

Axiological Assumption

The purpose of the axiological assumption is to describe the values of the researcher and how they are brought into the study. For this study, I included the fact that I am a parent of four children and that my children did take classes that were offered through Zoom during the pandemic. My children participated in ballet and taekwondo classes that were taught remotely. I saw first-hand how difficult that was both from the point of view of the student and from my own point of view as a parent. From those experiences, I was able to conclude that this is an area of research that needed to be looked into further, and that it would be interesting to try to find out what worked well and what did not work well when teachers were teaching physical education through a remote means.

Researcher's Role

My relationship with the participants in this study was that of a researcher. My purpose as a researcher was to interpret the information that was provided for me by the participants in this study. I took a constructivist approach because I knew that the results might not be generalized

because each person that is a participant in this study is an individual and therefore has a different experience teaching remotely so therefore there is not a single reality.

Part of being a researcher is to be aware of biases. I entered this study with the opinion that teaching online physical education would probably not be ideal because of what I had witnessed with my own daughter attempting to take ballet during the pandemic through Zoom. Yin (2018) suggests that researchers need to check for biases by trying to determine if they are open to accepting viewpoints that are different from their current viewpoint. I checked to make sure that I was open to different viewpoints so that I could make sure that I interpreted all my data with an open mind. The use of audit trails was also a way that I made sure to focus on the participants viewpoints and interpret them in an accurate way.

Procedures

The first step necessary to conduct this study was to gain approval for this study from the Institutional Review Board (IRB) (Appendix A). Following approval from the IRB, a letter (Appendix B) was distributed that is a description of the criteria for the participants. The letter included my contact information so that teachers could contact me if they fit the criteria and wished to participate in the study.

Once I was contacted by the willing participants, I gained a sample size of 10 teachers and I ensured that they all did in fact meet all of the requirements. I then distributed consent forms (Appendix F) to all of the participants. After consent was received, I distributed the first form of data collection which was the questionnaire. The participants completed the questionnaire and then returned them to me. After I received the questionnaire, I began conducting the interviews and the focus groups. The interviews were conducted through Zoom,

so I was able to record them. I also recorded the focus group meetings so that I could transcribe the data and then begin the data analysis.

The data analysis was the last step in the procedures. I used manual coding and analysis to create themes, statements, generalizations, and conclusions. I began to draft a written account that best explained and summarized the experiences of the teachers that taught physical education remotely.

Recruitment Plan

The sample pool for this study was the total number of teachers that have taught physical education in a remote way and that were willing to participate in the study. The sample size is the actual number of participants in the study, which was 10 participants. The sample type for this study was purposeful sampling with the researcher identifying the teachers that have experienced the phenomenon that is being researched, that being teachers who taught physical education remotely. It is important for this type of study that every participant has experienced the phenomenon being studied. The participants were recruited by creating a flyer that detailed the study and posting it on platforms such as Facebook and other social networks.

Data Collection

In order to achieve triangulation, there were three forms of data collection that were used in this study. Triangulation is achieved when a variety of forms of data are collected and analyzed to verify the results of the study (Patton, 1999). The first form of data collection that was used in this study was a questionnaire. A questionnaire was used first because it allowed me to be able to begin to gain an understanding of the experiences and thoughts of the participants before I interviewed them. Next, I used individual interviews as a form of data collection. Focus groups were used as the final form of data collection. The individual interview is the most

common method of collecting data for qualitative research (Creswell & Poth, 2019). For the interviews that I conducted, I tried to make sure that the balance of the interview was the participant stating his or her views on the phenomenon instead of the interviewer controlling the discussion. The interviewee and the interviewer should look at the interview as a partnership as each person contributes to the conversation (Brinkmann & Kyale, 2015). The individual interviews for this study were conducted both through email and through zoom. The participants are teachers, so I gave them the option as to whether they would rather do the interview through zoom or through email.

Questionnaire

The first form of data collection that I distributed was the questionnaire (Appendix B). The questionnaire was distributed through email using Google Docs and contained the following questions:

1. How did you feel when you first found out that you would be required to teach physical education remotely?
2. What were the most significant factors that contributed to the success of teaching physical education remotely?
3. What were the biggest challenges to teaching physical education in a remote way?
4. Describe how your teaching strategies and methods changed as a result of teaching physical education remotely.
5. Describe the ways that you sought to maintain relationships among your students while teaching physical education remotely.
6. What remote teaching platforms (Google Classroom, Teams, Blackboard) were most successful for teaching physical education remotely?

7. Describe teaching practice or assignments that you found that worked well for teaching physical education in a remote way.

The purpose of the questionnaire was to begin to understand the experiences and thoughts of the participants before I conducted the interviews. The questionnaire was phrased so that the questions were open-ended allowing the participants to share as much or as little information as they desired. The questionnaire allowed me to begin to get to know about the participant's experiences before the interview was conducted.

Interviews

The interviews were an important part of this study. The interviews were structured like conversations and helped me to understand the perspectives of the participants. The following 15 predetermined questions were asked during the interviews. The one-on-one interviews took place over Zoom or Facetime and lasted no more than one hour each. The following questions were used in the interviews:

Individual Interview Questions

1. Please introduce yourself to me and include any information that you think is essential to this study as well as your educational background. CRQ
2. Please describe your teaching experience through your current position. CRQ
3. How long have you been teaching physical education? CRQ
4. Describe the ages and demographics of the students that you teach. CRQ
5. Describe any challenges that you encountered while teaching physical education remotely. SQ1
6. Describe successful practices that you found to use while teaching remotely. SQ2

7. Is there anything else you would like to add to our discussion about teaching physical education remotely? CRQ
8. What professional development have you used that helped you prepare to teach physical education remotely? SQ2
9. Describe any other teaching practices that you used during remote teaching of physical education and rate them in terms of their effectiveness. CRQ
10. What was the hardest thing about teaching physical education remotely? SQ1
11. Describe how you felt when you began to teach physical education remotely. CRQ
12. What were the most significant factors that contributed to the success of teaching physical education remotely? SQ2
13. Describe how your teaching strategies and methods changed as a result of teaching physical education remotely. CRQ
14. Describe the ways that you sought to maintain relationships among your students while teaching physical education remotely. CRQ
15. What remote teaching platforms (Google classroom, Teams, Blackboard) were most successful for teaching physical education remotely? SQ2

These interview questions were included in the interview protocol because they are aimed at getting the interviewee to be open about their experiences teaching remotely during the pandemic. The goal of these specific questions was to understand the experiences of teachers that taught remotely during the pandemic. Each of these questions led the interviewee to be more and more open about their experiences of teaching during a pandemic remotely.

The purpose of the first question was to help the interviewee to open up and become comfortable with the interviewer. The second question helped me to understand the teaching

background of the participant. Questions three and four helped me to understand the ages and demographics of the students that the participant was teaching in physical education. This helped me to have a good picture of what the teacher's teaching experience was like before he or she began teaching remotely.

Questions five and six were essential because they helped me to understand the teaching practices that the participant used during remote teaching of physical education. These two questions were probably the most important questions during the interview because this study investigated the experiences of the teachers who taught physical education remotely. As the researcher, I wanted to know what teaching practices worked for teaching physical education remotely and what was difficult for the teachers during remote teaching. These questions helped to clarify these things.

Question seven was an open-ended question to allow the participant the space to add additional information to our discussion if they wished to do so. I wanted to provide a space for this if the participant wishes to add additional information. Question eight looked at professional development to see if there were any resources being developed or that have already been developed to assist in teaching physical education in a remote way. As a researcher, I wanted to know if these resources were out there and if so, if they were beneficial to these teachers.

Question nine was used to ask the teacher to think about all of the teaching practices and methods that they used during remote teaching and to rate them in terms of their effectiveness. I was interested in exploring this so that I could identify any overlap between the participants in terms of the types of teaching methods that were used and their effectiveness for remote teaching. Question ten was asked to allow me a greater understanding of what exactly is difficult

in teaching physical education remotely and how the participants felt about the difficult challenge of teaching physical education remotely.

Question eleven helped me to be able to understand the thoughts and feelings of the participants once they were told that they would need to begin teaching remotely. This was an essential question in the interview process because it assisted me in understanding the perspectives of the participants and some of the emotions that they had during this transitional time. Question twelve dealt with the successes that the participants had when teaching remotely and allowed a space for them to express what worked well as they taught in this way. Question thirteen was part of the interview because I wanted the participants to be able to verbalize how their teaching practices and methods had to change as a result of teaching remotely. This gave me as the researcher a greater understanding of what these teachers had to adjust and change in order to be able to teach physical education in a remote way.

Question fourteen dealt with the challenge of teachers maintaining relationships with their students and among the students themselves during times of remote teaching. Obviously, when a class is not meeting in-person, the social dynamics are different and it takes more of a direct effort to maintain relationships among the students and with the teacher. I wanted to have this question in the interview because of the importance of understanding how these relationships were best maintained during times of remote teaching. Maintaining relationships within an online class is a challenge, and I wanted to learn from these teachers to see if they had gained any insight or successful strategies on how to do this.

Lastly, question fifteen asked about remote teaching platforms. There are many options available for hosting an online class. However, I wanted to learn about these different options

and hear from the teachers who used them to see which ones were more effective than others specifically for the remote teaching of physical education.

Focus Groups

The final form of data collection was focus groups. The focus group was designed to initiate conversation between the participants about their experiences of teaching physical education remotely. There were six questions that were designed to foster a conversation between the participants in this study (Appendix D). When I analyzed the data from the one-on-one interviews, I was able to come up with the questions for the focus groups that were used as a follow up with the participants. During the focus group, I was not an active participant, but I focused on fostering the conversation between the participants and then identifying themes and ideas that were common among the participants. The six questions that I used in the focus group were:

1. Briefly introduce yourself to the group and include your teaching background and experience with teaching physical education remotely.
2. What challenges did you face as you taught physical education remotely?
3. What teaching methods or strategies did you find successful as you taught physical education in a remote way?
4. What online platform did you use to facilitate your online physical education course?
5. Looking back on your experiences with teaching physical education in a remote way, what types of lessons, tools, or activities did you find worked well when teaching physical education in this way?
6. What do teachers need to know before attempting to teach physical education in a remote way?

The first question served as an introduction, and the second question focused on the challenges that the teacher faced while teaching physical education remotely. This question was essential to understanding the experiences of these teachers and diving into the unique challenges that are presented with online teaching of physical education. I was interested in finding out if these teachers experienced similar challenges or if their experiences were each unique.

The third question focused on the teaching methods or strategies that the teachers found successful during remote teaching. Teaching physical education in a remote way is a relatively new concept, especially for elementary and middle schools, so I want to see what insight these teachers have into what practices were successful for this. Once the pandemic happened, and teachers were thrown into the realm of teaching remotely, they had to figure out what worked and what didn't work basically by trial and error. Question three allowed for discussion about these successes, and I wanted to see if there will be any overlap between the participants in this area.

The fourth question allowed for discussion of online platforms that were used for remote teaching. There are many options available, however, I was curious to see if some of the online platforms are more beneficial for physical education than others. For example, an online platform that does not allow a space for videos, probably wouldn't be the best fit for remote teaching of physical education. It is important in this type of teaching and learning for the student to be able to see the instructor demonstrating correct body positioning and movements. I wanted to hear from the participants what online platforms they had used, and what they liked or disliked about the different options available within these online platforms.

Question five was purposefully open-ended, and I wanted to give space for the participants to discuss what teaching strategies, activities, or tools they found to be successful for

remote teaching of physical education. Basically, I wanted to facilitate conversation here about the successes that these teachers found because this is one of the main goals of this study. As a researcher, I wanted this research to be useful to educators in the future, and in order to do that, I wanted to find out what was successful for these teachers and how this information can be used to help teachers and students in the future during times of remote teaching of physical education. This was probably the most important question of this focus group, and I hoped to come away with a lot of valuable information from the experiences of these teachers.

Lastly, question six dealt with what advice these veteran teachers would give to teachers who have not taught physical education remotely before. The insight that these teachers have is invaluable, and I wanted to create space in the discussion for these teachers to express their ideas, thoughts, and opinions for others. There is so much we can learn from teachers who have been there before and taught in this way, and this information is valuable for teachers who have not yet begun teaching physical education remotely but will need to do this in the future. The answers to this question provided key information about what new teachers need to know and be aware of concerning teaching physical education in a remote way.

Data Analysis

The data included answers from the individual interview questions, and information from the questionnaire, and the focus groups. I used a recording device to record all the data, and then I transcribed the data before I began the analysis.

In order to analyze the data, I used a form of manual coding. I then looked for themes and patterns. For the individual interview, I looked for significant statements (Creswell & Poth, 2019). I then looked for specific statements about how the interviewee experienced the phenomenon that was being studied. Once these statements had been identified, I worked to

create a list of non-overlapping statements that described the essence of the phenomenon being studied. Next, the significant statements were grouped together to form bigger units of information. Then I used these units to develop statements about what the participants in the study experienced during the phenomenon. Lastly, I wrote a complete description about the experiences of the participants during the phenomenon (Creswell & Poth, 2019).

After I identified patterns, themes, and over-lapping statements, I drafted answers to the research questions. As this process unfolded, I referred to all the notes I had taken and the new information that I had gathered from the coding and analysis and data gained from the interviews, focus groups, and journal prompts. As I did this, answers to my research questions began to become clear.

Trustworthiness

Trustworthiness was very important for this study to produce results that are both useful and reliable. Trustworthiness was established by using four different methods which were credibility, dependability, confirmability, and transferability. I worked hard to maintain and build trust with the participants so that the process would be valuable. Trustworthiness was also an important part of this study so that the participants could feel that they could be open, honest, and vulnerable during the process.

Credibility

Credibility in any research study is the extent to which the research findings accurately describe the reality that is being studied. Accuracy is according to the research participants and their current perceptions of reality (Lincoln & Guba, 1985). There are two ways in which credibility was achieved in this study. They were peer-debriefing and member checking. Peer debriefing was used and I discussed the findings of the research with my peers in order to make

sure that the conclusions that were found in the research and the data that was gathered in the study are sound (Marshall & Rossman, 2015).

The other way that I established credibility for this study was by member checking. Because of my experiences as a teacher and a student during the pandemic, I think that I probably did experience some of the same emotions, feelings, and experiences that other teachers were experiencing during the pandemic. This gave me some advantages because I had taught and was also taking classes during the pandemic. This allowed me to have an insider's perspective which is an advantage for research (Rossman & Rallis, 2016). During the interview process, I made sure that I asked questions to clarify that I understood the essence of the experience as close as possible. This was a form of member checking that made it more probable that the researcher has understood the experience of the participants in the best possible way.

Transferability

Transferability is showing that the findings of the research might be useful of applicable to other areas (Lincoln & Guba, 1985). This is best achieved by the way the findings are described. The descriptions that I used to describe the findings of my study accurately described the experiences of teachers during the pandemic. The goal of this study was to be a first step in understanding the experiences of teachers who tried to teach physical education through remote means. The findings are able to be transferable to any school or teacher that desires to have the ability to teach physical education during a time when students cannot come to in person classes.

Additionally, I attempted to establish transferability by being very thorough in my writing. It was my goal that my study ended with the potential for future research to build upon my conclusions. I ended my study by including additional questions that would inspire further research. Lastly, other researchers will be able to replicate my study if they desire based upon my

thorough descriptions and they would also be able to decide if my findings are indeed transferable.

Dependability

Dependability is the process of proving that the findings of the research could be repeated in another study and that they are also consistent (Lincoln & Guba, 1985). The way that the study was described and explained is thorough enough so that it can be replicated. Any school that wants to teach physical education or study what it looks like to teach physical education remotely should be able to replicate the study if they wish to do so.

Confirmability

I used confirmability as a method of trustworthiness. Confirmability refers to the neutrality of the study. Confirmability is important so that the research findings are shaped by the participants and not by any bias of the researcher (Lincoln, & Guba, 1985). In order to achieve confirmability, I used an audit trail so that everything was transparent and is able to be tracked if needed. I was careful to detail the process that I used for collecting data as well as analyzing it. I also detailed the process by which I interpreted the data. I made sure that I was be very thorough when I detailed my audit trail by recording the reasoning behind the choices that I made as well as how I manually coded the data. I explained in detail why I chose certain themes and patterns as I did my analysis of them, and I did my best to detail a logical explanation during each step.

Lastly, I used triangulation to establish dependability and confirmability as well. The three different data collection sources ensured validity, and so triangulation was important. If one of the ways that I used to collect data was not sufficient, then I relied on the other sources of data collection that I had to ensure that my data was valuable.

Ethical Considerations

There were many ethical considerations that were addressed during this study. I began my study by obtaining consent letters for every participant in the study. I also obtained permission to conduct this study from the Institutional Review Board (IRB). I obtained informed consent from every participant which includes informing them of the voluntary nature of the study as well as their rights which enable them to withdraw at any time during the study without question. The participants were notified that confidentiality was maintained during the entire study. The use of pseudonyms was employed for all the participants. All data was stored only on my computer and was protected by passwords. The data was not destroyed because the study may be expanded upon. Risks and benefits to the participants were discussed as well.

Summary

Chapter three focused on detailing an understanding of the study by providing an overview of the research, beginning with a summary of why a qualitative design, specifically a phenomenological design, was the best design for detailing the collected information. The chapter included the research questions that were used as well as a detailed explanation as to the importance of each carefully selected research item. This research study was a qualitative phenomenological study which sought to bring understanding and clarity about the experiences of physical education teachers who have taught physical education remotely. I detailed a description of the setting, the participants, the procedures, and the researcher's role in chapter three. The research participants were 10 physical education teachers who had taught physical education remotely in the United States. The data was collected through answers to a questionnaire, individual interviews, and focus groups. The data analysis included a form of manual coding, and I looked for overlapping statements and ideas that were prevalent throughout

the research. Eight themes emerged as I analyzed the data. Lastly, I provided detailed explanations of the data collection that was used and the analysis. I also explained the ethical considerations that were used to protect the study and the participants. The goal of chapter three was to give the reader an understanding of the most important concepts of this study.

CHAPTER FOUR: FINDINGS

Overview

The purpose of this phenomenological study was to explore the experiences of teachers who have taught physical education remotely. Throughout this study, it was my goal to understand the different views and experiences of the participants. I specifically focused on understanding what they deemed to be the most challenging aspects of teaching physical education remotely, as well as the teaching strategies that they found most effective when teaching remotely, and the successful teaching methods that they discovered during their experiences of teaching physical education in remote ways. Within chapter four, I provided a brief description of each of the participants in a tabular form. Following the descriptions, I described the different themes that emerged once I analyzed the data. Lastly, chapter four concludes by revisiting and answering the central and sub research questions of the study.

Participants

There were a total of ten participants in this study. The participants ranged in age from 25-65 and consisted of teachers who had taught physical education remotely for at least three months in a traditional K-12 school setting. Each of the ten research participants took part in the data collection process, which included filling out a questionnaire that I distributed through email, taking part in a one-on-one interview through Zoom, and participating in a focus group with other research participants.

Table 1

Teacher Participants

Teacher Participant	Years Taught	Highest Degree Earned	Time Taught Remotely	Grade Level
Sarah	50	PhD in Physical Education	3 years	K-12, College

John	31	Masters in Physical Education	4 months	K-4 th
Sam	29	Undergraduate Physical Education	1.5 years	K-6 th
Jess	17	Masters in Physical Education	2 years	8 th
Julie	8	Masters in Adapted PE	1.5 years	K-12
Heather	34	Masters in Physical Education	1.5 years	K-5 th
David	12	Masters in PE & Health	3 months	K-8
Mark	17	Masters in Education	1.5 years	PreK-8 th
Sue	20	Masters in Physical Education	1.5 years	K-12
Rebecca	32	Masters in Health	1.5 years	9-12

Sarah

Sarah is a physical education teacher with over 50 years of teaching experience. She has taught every grade level from kindergarten through twelfth grade. She has also taught some at the university level. Sarah has a Ph.D. in physical education and currently is part of a leading education movement in her country where she is able to influence the future of physical education in not only her community but also throughout her country.

John

John has 31 years of teaching experience. He has a masters in physical education and has taught in grades kindergarten through fourth as a physical education teacher. John enjoys teaching physical education to the younger grades, and uses ideas that he finds helpful with his own children as inspiration in the classroom.

Sam

Sam has 29 years of teaching experience and has an undergraduate degree in physical education. Sam has taught in kindergarten through 6th grade and enjoys teaching physical

education to these age groups. Sam taught remotely for 1.5 years and had many valuable insights about teaching physical education remotely. Although he felt successful during remote teaching, once he was able to return to the classroom, he was eager to do so. He enjoys teaching physical education in a traditional classroom.

Jess

Jess has a master's degree in physical education and also has seventeen years of teaching experience. The majority of her teaching experience has been in 8th grade, and she enjoys teaching this age group. Jess taught physical education remotely for two years before she returned to teaching in a traditional classroom. Jess enjoyed teaching remotely but was also eager to return to in-person learning.

Julie

Julie has eight years of teaching experience and a master's degree in adapted physical education. Julie has taught at every grade level including kindergarten through twelfth grade. Julie taught physical education remotely for 1.5 years before she returned to in-person teaching. She was successful teaching physical education remotely but she also was ready to return to the classroom when she was allowed to do so.

Heather

Heather has a master's degree in physical education and thirty-four years of teaching experience. Heather has taught physical education in kindergarten through 5th grade, and she taught physical education remotely for 1.5 years. Heather enjoys teaching physical education to the lower elementary school age children, and prefers teaching in-person in a traditional classroom.

David

David has a master's degree in physical education and health. He also has 12 years of teaching experience. He has taught in all grade levels including Kindergarten through 8th grade. David spent 3 months teaching physical education online. He found it challenging but was able to get through it. Like most of the other teachers that were interviewed, David was ready to return to in-person teaching once the Covid restrictions were lifted.

Mark

Mark has been a teacher for 17 years. He has a master's degree in education and has taught grades pre-k through 8th. Mark spent a total of 1.5 years teaching physical education remotely. Mark was able to find successful teaching practices for teaching physical education remotely during the time he spent doing so.

Sue

Sue has twenty years of teaching experience. Sue is a very experienced teacher because she has taught at every grade level including kindergarten through twelfth grade. Sue has a master's degree in physical education and spent 1.5 years teaching physical education remotely. During her time teaching physical education remotely, she thrived. Sue found ways to engage her students and connect with them. She was able to influence surrounding schools with lesson plans that worked well for teaching physical education remotely.

Rebecca

Rebecca has a master's degree in health. Rebecca also has 32 years of teaching experience. Her teaching experience was primarily in grades 9-12. She enjoys teaching the upper school students physical education but also was met with unique challenges for this age group when trying to teach remotely. Rebecca taught remotely for 1.5 years, and found creative ways to

try to engage her students. She remarked that getting them to participate in an online physical education course was challenging, but she found ways to encourage them to become more involved.

Results

This section details the analysis of the data and the themes that were generated during this research. This section also describes how the information that was gathered from each participant contributed to the development of each theme. This section also reveals answers to both the central research question as well as the sub-questions. The results of this study indicate that there are many challenges specific to teaching physical education remotely. However, many teachers were able to meet these challenges and develop creative ways to address them. The results of this study also shed light on some of the teaching strategies and methods that work well when teaching physical education in a remote way. This section will also conclude with a summary.

Theme Development

The three sources of data that I included in this study were questionnaires, one-on-one interviews, and two focus groups. I recorded the one-on-one interviews and focus groups on my phone so that I could later go back and transcribe them. I was careful to accurately transcribe each interview and focus group before I began the line-by-line coding process.

The sentence-by-sentence coding process that I used allowed me to understand and clearly see which thoughts, phrases, and ideas were most frequently used by the participants. In order to establish themes, I used a form of manual coding, which allowed me to see and identify which codes were most frequent and which codes were connect among the participants. These frequent codes and phrases allowed me to develop and create themes. After I developed these

themes, I began to answer both my central research question and the sub-questions of my study. I used my transcription notes, the answers to the questionnaires, and the repeated codes to answer my research questions.

When I used both axial and thematic coding, the following themes emerged from my research: These themes were student engagement, accountability, building relationships and rapport with students, lack of equipment, use of technology and online platforms, collaboration with other teachers and sharing lessons, successful teaching practices for teaching physical education remotely, and creating new content for online teaching of physical education.

Table 2.

Themes & Related Codes

Themes	Related Codes
1. <i>Student Engagement</i>	Difficulty, lack of student engagement, camera requirements
2. <i>Accountability</i>	Lack of accountability, difficulty of assessment of student progress
3. <i>Relationships</i>	Building rapport with students, maintaining relationships with students and staff
4. <i>Lack of Equipment</i>	No internet at home, no laptops, no basic physical education equipment
5. <i>Technology</i>	Use of online platforms
6. <i>Collaboration</i>	Sharing lesson plans, coteaching, working with peers
7. <i>Creating new content</i>	Creating, new lesson plans, remote teaching of physical education
8. <i>Successful Teaching Practices for Teaching PE Remotely</i>	Student choice, health-focused lessons, collaboration, project-based lessons

I formulated the different themes to answer the central research question of this study: What are the experiences of physical education teachers who have taught remotely? These themes answered my central research question and sub-questions by providing insight into the experiences of these teachers while specifically highlighting what worked well for teaching physical education remotely and what was particularly challenging for these teachers. The themes are organized below into two sections which are challenges of teaching physical education remotely and successful teaching methods for teaching physical education remotely. If a theme was considered a challenge of remote teaching then it was discussed under that heading. The theme of successful teaching practices for teaching physical education remotely was discussed after the challenges, and there were several sub-headings under that theme.

Challenges of Teaching Physical Education Remotely

Teachers agree that there are many challenges when teaching physical education in a remote way. It is clear that physical education is not well suited for remote teaching, and that it is best taught in-person. When speaking about his experiences teaching remotely, John remarked, “Teaching online was necessary for a short period of time, but once everything went back to normal, I was eager to get back in the gym with the kids and return to in-person teaching as quickly as possible.”

Every teacher that was interviewed during this study spoke about the challenges that they encountered while teaching physical education remotely. Heather reported that getting online and learning all the platforms was so overwhelming in the beginning. There were different platforms for different grade levels so learning how to log on to all of those different platforms was hard. Another challenge was that teachers couldn’t control what the kids were doing when it was time to be on for class. Heather had the requirement that cameras had to be on so she could see that

the kids were actually there but getting them to participate was a different story. She shared a story of login in and seeing one child bouncing up and down on the camera and when she asked him what he was doing, he answered that he was jumping on his trampoline. So it was challenging to get them to participate in the lesson while they were at home.

Another challenge noted by Heather was coming up with activities for the children to do that didn't involve another person. So much of physical education is partner work so it was hard to come up with activities that the children could do at home, especially if there wasn't anyone else home. Most activities in physical education involve teamwork and partners, so now we had to come up with activities for them to do alone. Heather stated, "We had to come up with alternative types of equipment that they could have at home. I couldn't guarantee that everyone would have a ball at home, so I would tell them how they could create the equipment if they didn't have it. So for example, a ball of socks could be used in place of a ball." These challenges led to the development of the first theme which was a lack of student engagement.

Lack of Student Engagement

It is interesting to note that out of the ten teachers that were interviewed for this study, ten of them reported that lack of student engagement was a challenge for teaching physical education remotely. Many schools did not require their students to have their cameras on during their online learning classes, so this made engagement in the class an option by default. Teachers reported that students would check in to the class, and then keep their cameras off the entire time so the teacher had no way of knowing if the student was there or not. The teacher could not tell if the student was participating in the lesson or even there. Student engagement was something that every teacher that was interviewed struggled with. When speaking about student engagement, Sam remarked, "There was no accountability and no way to know if the students were doing the

lesson or not.” Sam stated that he recorded himself doing a lesson, but then posted it, and at that point it was up to the students as to whether or not they would actually do it. He also stated that he was able to get more student engagement when he provided them with a project that they had to complete at home. This project activity required them to submit short videos of themselves doing an exercise or a routine involving a sport. In this way, the teacher could know if the students were working on it at home because they had to submit a video showing their progress. This was one way to work around having the cameras off during the lesson, but still monitoring student engagement. David remarked that accountability was a huge problem as students would log in and then turn their cameras off. It was a challenge to learn how to hold them accountable because we couldn’t tell what they were doing. Mark also noted that in the beginning when he first started teaching remotely, “It was really hard to get the students to turn their cameras on and let’s all do this exercise together.” The students that Mark taught were mostly middle school students and they did not want to be seen on camera, in front of their peers, performing exercises. Mark also noted that when he looked through the students records and saw IEPs and things like that, he understood why the students did not want to perform on camera in front of their peers, but this led to a problem of just not having the engagement among the students that one would have in the classroom. This was where Mark got the idea of asking the students to record videos of themselves doing the exercise that they were learning and then submitting it privately only to the teacher so that peers could not see it. He noted that he was able to get a lot more engagement from the students when this type of assignment was given.

Sue remarked that she constantly had to be emailing students and calling them to get them engaged in the course. She noted that with an online course, she struggled to get the students to participate, and felt burdened by the fact that she constantly had to be reaching out to

students and reminding them about assignments and logging on to the course in order to get them engaged.

Rebecca noted that the hardest part of teaching physical education online was keeping the students engaged. When they were at home, there was no way to keep them engaged or get them up out of their beds. It was different than in a gym because in the gym she would teach for a little bit but then the majority of the class was spent learning new movements or practicing the sport. There was just no way to really ensure that they would do this at home.

Building Rapport and Maintaining Relationships with Students

The next theme that emerged as I analyzed my research was building rapport and maintaining relationships with students. Mark noted that building rapport with students through an online class was very difficult. The students were not signing on or showing themselves and he didn't know if they were following along or not, so this was very frustrating. He would try to comment on the videos that kids would upload in order to build rapport with them but it just wasn't the same as in person teaching. Rebecca and Sue also noted that it was difficult to build and maintain relationships with students during remote teaching times. Rebecca noted that it was not the same as seeing the students in the hallway at school, and that maintaining relationships with them was challenging. Sue agreed with this assessment and said that she tried to build relationships with them through chatrooms and break out rooms online, but this was difficult, and relationships were much more easily maintained through in-person interactions at school.

Heather reported that she would greet each child individually when they came online, and set up protocols for them to interact or ask a question during the lesson. She also made sure that she created times that she was available on Zoom where the students could then log on and interact with her if they needed to. She also created a Physical Education while at Home on

Facebook group where she would post videos or have a live session where she would do an activity that they could do at home. The kids would respond if they did it. They would send it videos that they had done it. Heather would try to comment on what they were doing and pay attention and show that she cared.

Heather reported that she organized a Zoom dance party with the entire school. This was well attended and received, and it was an excellent way for them to maintain community. David reported he would do a Zoom meeting before class which would allow the students access to him if they needed help or had questions. They also had access to email if there were questions, but the students were not really interacting with each other.

Rebecca noted that once they started to teach online, it was difficult to maintain relationships with the students. She was in her office and they were at home. It was different than seeing them in the hallways at school and saying hi to them on a daily basis. Everyone was on their own and in their own space and this was difficult to maintain relationships that way. She had some students who never wanted to speak during the online class and they did not want to put their cameras on. She would promise them that she would not put them on the spot in order to encourage them to keep their cameras on. She noted that for the majority of students remote learning is not conducive to physical education.

Lack of Accountability

Several of the teachers that participated in this study found that accountability was an issue during remote teaching. It was difficult to assess students and to keep them accountable for participating in the lessons. Sue remarked that the hardest thing about teaching physical education online was that there was no accountability to know if the students were actually participating or not. At the beginning of each class students were required to log in and take

attendance, then after that, she posted a video of a workout that the students were supposed to do at home. At the end of class, they took attendance again, and that was how they got their points. But at that point Sue remarked that she had no idea if the students actually did the workout or not. It got to the point where it was almost laughable, and she would joke with the students that she was posting a video of a workout that she knew they were not going to do. She remarked that it was exhausting to put all this work into creating workouts and videos that she knew they weren't going to do.

Similarly, David reported having trouble figuring out how to adequately assess his students. He remarked that there just was really no way to do this, so he did not. He was not required to turn in grades for his students during the time that he taught remotely. He did feel somewhat concerned about this, but he felt that the way that the class was set up, there was just no way to assess his students. Cameras were not required to be turned on, and the students were not required to submit proof that they actually attended the class or followed along in the lesson so for him, there was no way to keep students accountable. He focused on teaching the best that he could during the time that he taught remotely, and tried to let go of keeping his students accountable for their lessons.

Use of Online Platforms and Technology

One problem that was noted among many of the research participants was the issue of whether or not to require that students have their cameras on during a lesson. Some research participants stated that their schools required the cameras to be on for accountability and to make sure that the students were actually engaging and participating in the lesson. Other schools required the cameras to be on just for attendance and then the student could choose to turn the camera off after that point. There were some research participants whose school districts did not

require cameras to be turned on at all. Sue and Rebecca noted that their schools did not require students to have cameras on. This was a multifaceted problem because on one hand, if cameras are not on, then the teachers cannot know what the student is doing or even if the student is there, and on the other hand, if the school requires the cameras to be on, then there is a risk of embarrassing the student because of what may be going on at home or what their home situation is like. Schools wanted to be sensitive to that so that students were not required to show their home. Mark reported that his school district was concerned about the mental wellbeing of the students so they did not require the student's cameras to be on but that led to other problems such as lack of student participation. Mark stated that when the lesson was over, there were students that didn't log off so he knew who was participating and who was not. When this happened, he would follow up with parents to ask if they could monitor their child because they were not responding to questions or logging off when the lesson was over so they thought they were not there. Additionally, Sue reported that she could never really know if a student watched her lesson or participated after they logged on. Cameras could be turned off at that point so she had no way of knowing what the students were doing.

Lack of Equipment

All the teachers that were interviewed during this study reported that lack of equipment at home was a challenge for teaching physical education in a remote way. Heather reported that she had to get really creative in order to help the kids come up with what they could use. David remarked, "Students did not have chrome books at home, so it was impossible to reach them. Kindergarten through second grade were not given chrome books, so I would post things but we had no grading system because we weren't sure if they could access it. We would post the videos but only 30-40% participated because we couldn't give them access."

Sue added that resources were a huge challenge. She stated that she taught in a lower income area and the district wasn't willing or able to invest in getting every student access to computers or internet at home, so that was a barrier for some students.

Creating New Lessons for Remote Teaching

Mark reported that when he first started teaching online, he was nervous about what he was going to teach online for physical education. He remarked "No one had done this before, so I didn't know how to do this." He also felt unsure about what sort of response he would get when he put his lessons out there.

Rebecca noted that her school provided some training on how to use the online platforms so that was helpful, but as far as what to actually teach and a curriculum that would work for physical education online, she was not given any guidance. This was a huge challenge initially just to figure out what to teach. She felt really overwhelmed at the concept of creating all of these new lessons that could be taught online. She found help when she reached out to colleagues and peers, and she remarked about the importance of using a support network of other teachers who were going through the same thing to trade ideas and assist each other. As she began to share her ideas with other teachers, they in turn, shared theirs, and they began to create new lessons and new content that was successful for online teaching of physical education.

Successful Teaching Methods for Teaching Physical Education Remotely

Although there are many challenges with teaching physical education in a remote way, this research also sheds some light on what worked well when teaching physical education remotely. Teachers were met with challenges but found creative and effective ways to address these challenges. The specific teaching strategies and teaching methods that worked well when

teaching online are covered in the following paragraphs. Although this is not an exhaustive list, these were the themes and ideas that were repeated among many of the research participants.

Project Based Lesson Plans

Mark spoke about the success he had when he asked students to create videos showing how they could exercise at home. This project was called “Exercise Anywhere” and the goal was to get students to think outside of the box and share creative ideas about how they were incorporating exercise at home. They would video themselves doing the exercise such as climbing a tree or climbing stairs in their apartment building and then upload it for the class to see. This gave the other students in the class ideas on what they could do at their house, and it also helped to build rapport among the students as they watched each other’s videos and then commented on them.

Mark noted that once he asked students to create videos demonstrating that they had learned a certain exercise or skill, and then required them to upload their videos so that he could evaluate them, he began to get more engagement with the students. He made sure the students knew that no one else would see the videos and that he would be the one giving them a grade based off of their ability to demonstrate that they had mastered the skill that was being taught. When lessons were presented in a project form that students could do on their own and they were not forced to perform on camera in front of the class, Mark got a lot more engagement from the students and also noted that it was encouraging to see their creativity come out when they were making the videos of themselves demonstrating a skill. Sam also was able to get more student engagement when he gave his students a project to complete at home. Similar to Mark, Sam asked for students to upload a video showing that they had mastered a certain skill or exercise,

and these types of home project lesson plans seemed to have a greater participation rate among the students.

Rebecca had a similar outcome when she asked her students to do a project within the lesson. She would ask the students to go and find certain household items for the lesson that day. For example, she might ask that they go and find a laundry basket and socks to use for throwing practice. Or she might ask that they go and get a paper plate and a ball to use for developing a certain swinging motion as in tennis. When she asked for students to get involved and go find things at home to do a small project during the lesson, she found that her students were more engaged and eager to participate.

Allowing Student Choice

Mark noted that he had great success when he asked students to choreograph a performance of six-eight steps in a sport of their choosing. For example, if a student loved to jump rope, they could create a short performance video of themselves showing 6-8 jump rope tricks to music. This video would then be uploaded for the teacher and class to see, but the advantage for the students was that they could work on it at home, take as many videos as they needed to get it right, and then submit it when they felt it was ready. Each week the students would work on their videos and add another trick or another sequence and then share their videos again. Peers and classmates could provide constructive feedback and watch each other's performances and Mark noted that the students really loved this assignment because they could choose to do it on something that they were interested in. He had students choose things such as basketball, skateboarding, rollerblading, trampoline tricks, juggling, and tree-climbing. He even had one student who did water aerobics. The students could choose anything where they could

create a movement composition. Every three days, he would ask for the students to show 30 seconds of their progress through a video.

Mark also focused on teaching the students how to match music to what they were doing. He would show them videos in class of ice skating or gymnastics and teach the students about matching movements to the music. Then they were to add music to their routine and make it match. He taught them to look for cues within the songs and how that would signal a change in movements. The goal was to get the students moving and motivated and this project based lesson with student choice worked perfectly to fulfill that goal. Instead of making the whole class do a dance or learn basketball, he allowed students to choose, and the students reacted very positively to this. In terms of assessment, he would grade their videos based on how well the routine flowed or matched the music, how many mistakes were made. This project also provided ongoing accountability because students were graded weekly based off of their video uploads and they were required to show what they had learned or added to their routine each week. Mark also grouped the students by interests so if several students were interested in gymnastics, he would put them in a group together, they would share their progress each week and offer feedback.

Sarah also used this technique when she separated students into breakout rooms. Then the students could provide each other with feedback. This also helped the students to get new ideas as they watched each other's videos. If one student learned a new gymnastics trick and shared it with the group, there might be other students that would like to learn that trick as well and could take what they saw their classmate doing and try to learn from that. In these groups, they would teach each other how they learned the new movements and so this was also a success because there was peer teaching happening.

Similarly, Rebecca has success when she allowed students a choice. She used a choice activity at the beginning of each lesson where students were allowed to choose between two options for how they would begin their class time. The students seemed to like this idea, and they participated in this readily. Providing students with a choice in their learning seemed to be a way to encourage them to remain active and engaged in the class.

Successfully Building Rapport with Students

Mark noted that students enjoyed meeting with one another in break out rooms. During class time, he would offer the opportunity for the students to work with each other in break out rooms and assess each other's videos. They could share their progress with each other and then offer feedback. Sue remarked that she also used chatrooms to help students to develop relationships with each other. When she noticed that a student might be struggling, she would ask them to jump into a chat room with her and she would have a conversation with that student in order to encourage them and build them up. She would also reach out to parents and ask to mentor their kids through chatrooms and Zoom meetings when she realized that a child was struggling.

Rebecca noted that she did some special challenges on each Friday to engage with the students and build rapport with them. She found that after teaching all week, when she was doing most of the talking, she needed a space for them to interact with her, so she created special challenges on Fridays that were interactive and the students enjoyed. This helped to build a relationship with the students and to build rapport with them.

Collaborating with Other Teachers and Sharing Resources

"Working with other teachers is I think what saved us," stated Heather when speaking about how she got through the time that she spent teaching physical education remotely. "We

collaborated and came up with a list of what the students could use at home. So thank goodness for that immediate community, but also Facebook and social media were completely amazing.” Other physical education teachers were creating Google slides and then sharing them all over the country. So the physical education community really stepped up and helped each other in that time of need. I can now use some of those resources even though we are back in the classroom stated Heather. This is a positive that came out of remote teaching. The sharing of resources was incredible.

Heather reported that the specials teachers collaborated and helped each other. She stated “We had a community to bounce questions off of, and if we didn’t have that we wouldn’t have survived. It was actually fun to get creative and think of ways that we could engage the students. In anything in life, you’ve got to collaborate and share and have that community, and that is what got us through,” Heather remarked.

David also remarked that it was helpful to lean on the resources of other teachers. Don’t reinvent the wheel but try to keep the normalcy as much as possible. “But, it was important to use what was already created and what other teachers posted that worked. Use those ideas that we know worked.” The resources of other teachers was a huge lifesaver in this situation.

Rebecca noted that she used Facebook and collaborated with other teachers. They shared ideas there and helped each other with lesson plans that worked well for online teaching. This collaboration was a huge part of how we made it successful. She also worked with her colleague and they shared ideas and took turns teaching. She felt that working with other teachers and sharing ideas was what really helped them be successful.

Technology

David remarked that communication was something that did work well during the remote teaching of physical education. He used Schoology and Zoom and both were successful platforms for teaching online. The technology that he used worked well. He was prepared because they had prepared beforehand and had some training in how to use the Zoom and Schoology so he knew how to use the platforms, but as far as what to teach for physical education, no one knew what to do.

Sue noted that the online platform that she used was Schoology, and once she learned how to use the platform, she found it very user friendly. She remarked that at the beginning of the quarter, she posted all the assignments that were due for that quarter. She felt that this seemed to help the kids understand what was due and then they could submit them as they had them ready. As the semester went on, she would tend to lose students, but when the assignments were posted at the beginning of the quarter, she tended to see a better result in terms of submission of assignments.

Sue also noted that taking some time to do some training on how to use Google Slides and how to engage students was very helpful. She participated in a training specifically to engage students in online learning and this was very helpful and successful in terms of engaging students. She remarked that because she was well trained in how to use the online platforms, she actually found teaching online enjoyable. She felt confident while using the platforms and enjoyed working from home.

Sue also noted that tapping into the use of their phones at the secondary level was helpful. She found that almost all of the students that she taught in middle school and high school had a phone so she used this as a way to get them to show some accountability. For example, she would ask them to use their phone to record themselves doing part of the workout and then

submit it to her. She stated, “If there is a tangible way to prove that they are engaged with the lesson the teaching online can work.” Accountability is needed to prove student engagement. Sue remarked, “Using something like a heartrate monitor or a My Fitness Pal app is the only way that teaching physical education online will work moving forward. Just hoping that they will do the assignment is not going to work.”

Health Focused Lessons

Both Heather and David remarked that one positive outcome of teaching physical education remotely was the ability to incorporate more health focused lessons into their lesson plans. Because it was difficult to figure out what could be taught remotely, both David and Heather found themselves focusing on health-related lessons. They taught about muscle groups and health and wellness during remote teaching so that the session was more of a lecture and the students were learning about their bodies and what they could do during this time of being at home to stay healthy. These two research participants both remarked that had it not been for the remote teaching times, they would have not incorporated these concepts into their lessons, but because health tended to be something that could be more easily taught remotely, it was something that they added.

Similar to this, Rebecca added the history of sport to her lessons. She focused on teaching them the history or the background of the sport because it was more conducive to online learning. She had to teach them more and talk more because they couldn’t be in a gym. Instead of actually getting up and doing the lesson, she had to use some google slides to teach the mechanics of the sports with the students.

Outlier Data and Findings

Outlier Finding #1

One finding that is notable is that online lessons that were created out of necessity during Covid can be used during other times. This is considered an outlier because it was only mentioned by one participant and it did not fit in with the other themes of this study. Heather stated, “Now that we have all of these remote teaching lessons, we have what we need during snow days or remote teaching days. I will use a more health related lesson because I have already created it. Health was a little bit easier to teach remotely so now when we have to go to a snow day, I will just teach a health lesson that I have prepared.”

Outlier Finding #2

Another finding that is notable is the ability to host a school-wide event virtually. David remarked that he used Open Physical Education to host a virtual field day for his students. He borrowed materials that they had and then modified it for his age groups. The students had to log in at a certain time, and there were a lot of home challenges and then had to submit it and they could earn a certificate. He was really pleased with the outcome and participation of the students during this day. Similarly, Sarah also noted that she and her fellow teachers organized a school-wide dance through Zoom. The idea was well attended and enjoyed by all the students.

Outlier Finding #3

One participant had success with creating videos one step at a time and having students follow along. Mark noted some success with video lessons where students were asked to follow along. He would teach the students a new skill one movement at a time. He noted that this worked well for lower elementary age students. He would also use his own children in his videos to help the students see what other kids would look like trying a new skill.

Research Question Responses

This section will offer the reader concise answers to the research questions that formed the framework for this study. The central research question will be discussed and answered first. Next, the sub-questions will be listed and answered.

Central Research Question

What are the experiences of K-12 physical education teachers who taught remotely? The participants' perspectives aligned in many ways. Most teachers reported that teaching physical education remotely was difficult and that physical education was better suited for in-person learning. Participants reported many challenges with teaching physical education remotely such as lack of equipment, difficulty of keeping the students engaged in the lesson, lack of curriculum written for online learning, and difficulty maintaining relationships with the students. Rebecca noted that, "Remote teaching is not for everyone. It takes a certain type of self-motivated student to be successful at this. For the majority of students, in-person learning is better." Most research participants noted that they felt overwhelmed when they were first asked to teach online and that they had to "reinvent the wheel" in terms of creating new content that would work for online teaching. They experienced frustration but for the most part, teachers reported that they rose to the occasion and found out what worked well, and by the end of their time teaching online, they had become more successful at it.

Sub-Question One

What are the most challenging aspects of teaching physical education remotely? The challenges of teaching physical education remotely are many. Most teachers reported experiencing the same challenges, which were lack of student engagement, lack of equipment, limited curriculum that worked well for online teaching, difficulty using online platforms,

difficulty building rapport and relationships with students, and lack of accountability in order to assess students. Sue noted that keeping herself motivated during this time was a challenge because getting the students to engage in the class was so difficult. She missed teaching in-person, and the students did not want to participate in the online lessons, and there was no way to require them to participate. It was a frustrating time for everyone, and it required extra effort to keep herself motivated to even continue.

Sub-Question Two

What methods proved most beneficial when teaching physical education remotely? The research participants noted several teaching strategies and ideas that were successful during online teaching of physical education. Teachers reported that using project-based lessons and activities seemed to garner more engagement among the students. Mark created entire units where the students were required to upload videos of their progress each week in order to require some accountability. Creating space for student choice was also a strategy that seemed to work well in terms of facilitating greater student engagement. Several teachers reported that they used this time as an opportunity to incorporate more health focused lessons into their teaching because this worked better for an online platform. Rebecca noted that she began teaching the students the history of different sports and the background of how the sport developed because she needed something that would work better for online learning. Almost every teacher that participated in this study noted that collaborating with other teachers and using each other's ideas was incredibly helpful during this time. Teachers began creating new content and posting it on Facebook or in Google meet for others to see and use. Teachers shared ideas and helped each other. They shared and posted new lessons that worked well for teaching online, and this was incredibly helpful because everyone was new at teaching physical education remotely.

Summary

In summary, teachers reported many challenges when teaching physical education remotely. Most teachers agreed that teaching physical education is better in-person, however, there are times when teaching must be done in a remote way. Teachers who taught physical education remotely for a significant amount of time met these challenges with grace and began to find solutions. This required creative thinking and out of the box ideas in order to engage students and create accountability. There were eight themes that emerged from this research. These themes were student engagement, accountability, building relationships and rapport with students, lack of equipment, use of technology and online platforms, collaboration with other teachers and sharing lessons, successful teaching practices for teaching physical education remotely, and creating new content for online teaching of physical education.

Growing through the challenge of teaching physical education remotely, teachers found ways to build rapport with students and maintain relationships even when it was hard to do so. They created new content that worked well for online learning. They also found ways to assess students and require accountability. Throughout this study, it was inspiring to see the way that these teachers were met with a huge challenge and how they worked together, created new content, and became successful at teaching physical education in a remote way.

CHAPTER FIVE: CONCLUSION

Overview

The purpose of this study was to understand the experiences of teachers who have taught physical education remotely. Chapter five begins with a summary of the findings. Following the summary, chapter five discusses the results and the implications of this study and how these findings relate to the relevant literature and theories. Chapter five also includes the mythological and practical implications of the research and will conclude with recommendations for future research.

Discussion

The purpose of this section is to thoroughly discuss the study's findings concerning the experiences of teachers who have taught physical education remotely in light of the themes that emerged from the research. The theoretical framework and the empirical background that was discussed in chapter two and was the base for this study will also be reviewed. This study was modeled after Dabrowski's (1964) positive disintegration theory, and this section will look into how the findings of this study correlate with this theory. In this section, the way that this data relates to the empirical literature cited in chapter two will also be discussed. The discussion section will have five sections which will cover the interpretations of findings, the implications for policy and practice, theoretical and empirical implications, the limitations and delimitations of the study, and will conclude with recommendations for future research.

Interpretation of Findings

In order to answer the central research question and the sub-questions of this study, the data revealed eight themes: student engagement, accountability, building relationships and rapport with students, lack of equipment, use of technology and online platforms, collaboration

with other teachers and sharing lessons, successful teaching practices for teaching physical education remotely, and creating new content for online teaching of physical education. Each of these themes directly answered either the central research question or one of the study's two sub-questions.

Summary of Thematic Findings

The findings of this study revealed important aspects of teaching physical education remotely for teachers to consider. First, there are many challenges associated with teaching physical education in a remote way. Physical education is a core curriculum subject that is not well-suited for online learning. Second, teachers found that there are certain teaching practices and types of lessons that work better and are more suitable for teaching physical education remotely. Third, teachers need to recognize that teaching physical education remotely is very different than teaching in-person and they need to be prepared for the specific challenges that they will face when teaching in this way. Lastly, although teachers and students have many challenges to face when participating in an online format for physical education, with the right resources, lesson plans, and activities in place, teachers can be successful at delivering engaging content and lessons for physical education in a remote way.

Successful Strategies to Target Unique Challenges when Teaching Physical Education Remotely. The challenges associated with teaching physical education remotely are many. Most, if not all, of the teachers that were interviewed for this study reported that they had problems getting the students engaged in the course. They also reported that students did not have proper equipment at home to be able to participate in the online lessons. This ranged from not having internet access or access to a computer to other practical things such as not having a ball or a set of hand weights. Accountability was also noted as a challenge as many teachers

struggled with how to evaluate their students or even know if they were participating in the lessons at home. Lastly, teachers reported that it was difficult to establish rapport and maintain relationships with students in an online format. There are many more challenges to teaching physical education remotely that are not listed here, but these were the themes that emerged from this research.

Several themes that emerged from this research were teaching strategies that worked well and were deemed successful by the teachers for teaching physical education in a remote way. These strategies included collaborating with other teachers and sharing resources, student choice in lessons and activities, project-based activities, and creative ways to build and maintain student relationships in an online classroom. These strategies and ideas served to combat the unique challenges of teaching physical education in a remote way. Teachers found these specific strategies and ideas while struggling to teach this subject in a new way. While switching from in-person learning to online classrooms, they found ways to address the unique challenges that lay before them.

In Dabrowski's theory of positive disintegration (1964), when people are met with a challenge or stressful events, they will use these events to gather information and adapt and change based off this information. In this study, these teachers were met with a series of adverse situations in that they were required to be teaching physical education remotely without any training or background in doing so. Most of the teachers reported feeling very overwhelmed and unsure of how to proceed. However, over time, they were able to adapt and change. They were able to assess what was working for teaching physical education remotely and what was not working. For example, when these teachers were met with the challenge of students not having proper equipment at home, they became very creative. One teacher noted that she had their

students create an “at-home PE kit.” This consisted of items that they could find around their house that could be used for their physical education class. She gave the example of asking them to find a laundry basket for a goal, balls of socks in place of a ball, and a paper plate or a light weight frying pan for a tennis racket. In doing this, she met the challenge, adapted and changed, and used what worked well for at home physical education learning. Just as Dabrowski theorized, she became successful as the result of adverse stimuli.

Another example of Dabrowski’s theory of positive disintegration was John holding his students accountable. He was having trouble getting them to turn on their cameras, and they were not participating in his online lessons. The school district where he worked did not make it a requirement for students to keep their cameras on, so he was faced with this challenge. It was here that he had an idea. He decided to ask his students to submit short videos of themselves demonstrating an exercise or a movement. The videos would not be shared with the class, but would only be shared with him. In this way, he could keep the students accountable for their learning, and they would need to demonstrate to him that they had mastered the exercise or movement. As John did this, he saw greater student engagement and he was able to have a way to keep the students accountable for participating in the lessons. Here John was met with a challenge, but used this information to adapt and change the requirements with a positive result.

Several themes that emerged from this research were teaching strategies that worked well and were deemed successful by the teachers for teaching physical education in a remote way. These strategies included collaborating with other teachers and sharing resources, student choice in lessons and activities, project-based activities, and creative ways to build and maintain student relationships in an online classroom.

Again, the emergence of these themes follows Dabrowski's theory of positive disintegration (1964) whereby a person will adapt and change based on adverse stimuli. Sarah was a good example of this in that she shared that if it were not for her colleagues and teaching team, she would have not survived the online teaching of physical education. She, like most teachers, was unsure about what to teach and how to teach it online when she began teaching. She found support in an online Facebook group for physical education teachers where everyone shared what they were doing and different ideas. These ideas allowed her to try them in her own online classroom and eventually helped her to thrive as an online physical education teacher. She used the advice of her colleagues and other teachers around her to determine what would work well for online teaching. She remarked that in anything in life, it is important to have a community of people around you so that you can thrive. She found the support she needed from her peers and was able to become successful in teaching physical education online.

Similarly, Mark found that his students were not engaged in his lessons. He had trouble even getting them to stay logged on to the course. Because he taught mostly middle school students, he also encountered the problem of students not wanting to keep their cameras on and not wanting to be seen by their classmates when exercising. It was then that he decided to create a project-based lesson plan that could be done at home on the student's own time. He would assign a project, and the students would work on it at home, then would be required to submit weekly videos to him showing their progress. In this way, he kept them accountable and was also sensitive to their desires to not turn their cameras on.

Theoretical Implications

Dabrowski (1964) suggested that the way that people grow is through trial and error. When people are pressured or feel anxious, they must choose how to respond. Human beings

determine how to best adapt and change based off what worked or what did not work well in the past (Dabrowski, 1964). When faced with the global pandemic and remote teaching, teachers and students had to adapt and change in many ways. Though this was a difficult experience, teachers can look back to determine the best practices for teaching remotely. With this information, teachers can better prepare for the next situation in which they will be required to teach their subjects remotely. The findings of this study demonstrated that the teachers who taught physical education in a remote way were able to look back on their experiences and reflect on what worked well and what needed to change, and they were able to adapt accordingly.

My research revealed that the teachers who taught physical education in a remote way did grow through trial and error. Just like Dabrowski suggests, these teachers were not given much guidance on what to teach or how to teach, but they were left to trial and error to figure out how to be successful teaching in this way. Many teachers reported that they were given some training on how to use online platforms, but as far as what to teach once they got there, they were not given any guidance. These teachers had to try different lessons and different approaches to find out what worked and what did not work. According to Dabrowski, these teachers would choose how to adapt and how to respond based off of what worked well in the past. When these teachers began teaching remotely, lessons that had worked well in the past in the gym or in a field with students in-person would no longer work. These teachers had to create new lessons that would work well for an online format. In response to the stress and anxiety that they felt in this challenging time, they had to adapt and change, and it was encouraging to see that most of the teachers that participated in this study did just that. They found the lessons that worked well. They found new ways to engage their students and they found new ways to keep them accountable. They got creative in trying to maintain relationships with their students and focused

on building rapport with them in the online format. Through trial and error, these teachers found out what worked well for online teaching and came out of their experiences having learned the hard way how to be successful in teaching physical education in a remote way.

Empirical Implications

Maintaining relationships with students is a concern with online teaching. Many teachers that took part in this study found ways to connect with students. In previous research, it was found that online communication tools were a successful way to maintain contact and relationships in both online learning and in the in-person classroom (Jarvie-Eggart, 2023). The experiences of David and Sarah aligned with this in that they both reported using break out rooms and chat rooms to maintain positive relationships with students. They reported success with these methods of communicating with students and found that they were helpful in maintaining relationships with the students during this time of remote teaching.

Similarly, research has shown that remote teaching of physical education also offers the opportunity for teachers to share their lessons and reduces the workload of teachers as they network with each other in order to gain more ideas (Ried, 2004). Many teachers that participated in this study found this to be true. Sarah remarked that without her support network of other teachers, she would not have made it through the remote teaching time period of the pandemic. My research aligns with the research of Ried (2004) and further highlights the importance of having a support network of teachers around you to share ideas with and support each other.

My research also supports the findings of Jarvie-Eggart (2023) with regard to developing community in the online classroom. In previous research it was suggested that teachers who taught remotely noted that if they were intentional about developing community within their

online classroom, they were able to develop an environment that was beneficial to students in building relationships and advancing in their learning (Jarvie-Eggart, 2023). Building positive teacher and student relationships helps to foster learning in remote teaching situations (Jarvie-Eggart, 2023). Teachers found that when they included activities within their online classrooms such as group projects, peer-review assignments, and discussion boards, they were able to foster growth and relationships amongst their students (Jarvie-Eggart, 2023). My research closely aligns with and supports these findings. Again, one research participant, Mark, found that project-based lessons and activities created more student engagement and helped to maintain relationships among students.

Implications for Policy or Practice

The purpose of this section is to discuss the implications for policy and practice. These implications will provide a framework for teachers, schools, and administrators to create new content and support systems for teachers and students who will be participating in online physical education courses. These implications aim to create more positive and effective learning experiences for students and to provide teachers with greater resources as they teach physical education in a remote way.

Implications for Policy

School districts serve as the primary support system of the teachers that I interviewed. Without the support of a school district, teachers are left on their own to figure out what to teach and how to teach it. School districts might consider offering more training to teachers in several areas. First, many of the teachers that I interviewed reported that they received little or no training in how to use the online platforms that they were required to teach from. Many teachers reported that it took weeks for them to feel comfortable using the online platform because no one

taught them how to use it. A few teachers reported that their school district did provide some training in how to use the online platforms. These teachers reported feeling more confident and more able to focus on what to teach rather than how to use an online platform.

School districts might also want to consider providing training to their teachers in what to teach and how to teach it in an online physical education class. All of the research participants that I interviewed for the study reported that when they first began teaching physical education remotely, they were given no training on what to teach or how to teach it in a remote way. These teachers reported feeling very overwhelmed. Some teachers tried their best to still have workouts and conduct their classes in the same way as if they were in a gym. Other teachers reported that they switched to a more health and history focused lesson because that was just more conducive to an online format. All teachers reported the greater need for school districts to provide training for teachers in how to teach physical education effectively in a remote way.

Lastly, many teachers reported that a lack of equipment was a huge challenge for their students. Some teachers reported that their students did not have access to the internet or to a computer so they could not even log on to an online class. Other teachers reported that although their students were given Chromebooks and internet access by their school districts, they were not given basic equipment that would have been helpful to have at home such as a jump rope or a ball. School districts might want to consider some additional funding in order to provide for some very basic equipment needs for students to be able to use at home. A jump rope or a small set of hand weights would be very helpful in assisting students in some exercises that they could do at home. All the teachers that participated in this study reported that they had to become very creative in helping their students with a lack of equipment at home. They reported asking their students to ball up some socks to use as a ball and laundry baskets could be used as a goal or a

hoop. School districts should consider these needs when allocating funding for the future of physical education.

Implications for Practice

Teachers serve as the main point of contact for students in online physical education courses. Teachers have a huge responsibility when trying to take a subject that is best suited for in-person learning and transition it to an online format. Teachers need to recognize that this is not easy, and that teaching physical education remotely has unique challenges.

Teachers first need to recognize that getting the students to engage in the course is a major challenge in online physical education classes. All of the teachers that were interviewed for this study reported that student engagement was a challenge. Teachers need to be aware of this and need to know that they will have to adjust their lesson plans and content in order to combat this issue. Results from this study indicated that when teachers provided project-based activities for students to do at home and when teachers provided students with choices in their learning, there was greater student engagement and involvement in the online class. Teachers need to create lesson plans and activities that provide students with choices and the freedom to work on project-based assignments at home.

Teachers also should recognize that collaborating with peers and other teachers was found to be incredibly helpful in teaching physical education remotely. Many teachers that took part in this study reported that they collaborated with colleagues, shared ideas and lesson plans that worked well for online learning, and even joined Facebook groups in order to share ideas. Teachers that had the support of their peers and other teachers reported feeling not as alone or isolated and reported feeling supported and helped by their peers. They shared the challenge of teaching physical education remotely together and they shared ideas and lesson plans that

worked well for teaching online. These teachers that had a strong support system seemed to feel more successful in teaching physical education in a remote way. In the future, teachers who teach physical education remotely should look to their colleagues and other teachers for support, ideas, and suggestions on how to most effectively teach physical education remotely.

Lastly, accountability was noted as a huge problem in teaching physical education remotely. Different schools handled this issue in different ways, but the majority of schools did not have a rule that the students had to leave their cameras on during the lesson. This led to the problem of students checking in for attendance purposes and then turning their cameras off and disappearing. Teachers had no way of knowing if the student was even there anymore. Several teachers that participated in this study found creative ways around this issue. Two teachers reported that they made a requirement that the students had to keep their cameras on for the entire lesson. Other teachers did not make that a requirement, but they did require that the students create short videos of themselves doing an exercise or demonstrating a movement and those videos had to be submitted to the teacher. In this way, the teacher could know that the students were learning and progressing. This is an issue in online teaching that will not go away, and teachers need to be prepared for how they will handle the issue of accountability. Teachers can learn from the advice of the teachers in this study who did require their students to be accountable in one way or another. Whether it is through video submissions or requiring cameras to be on, teachers do need to find ways to keep their students accountable so that they know they are participating and learning.

Limitations and Delimitations

This study contained several delimitations and one limitation. The delimitations were decisions that I made to place limits on the study. The limitations were things that could not be controlled and could possibly weaken the study.

Delimitations

There were several delimitations in this study. The first delimitation was that participants had to have taught physical education remotely for at least 3 months. I made this a requirement because I wanted to select research participants who had some experience teaching physical education remotely, and I wanted to eliminate teachers who had not spent at least that amount of time teaching in this way. Even though I made this one of the criteria for participating in this research, I actually found that all of the teachers that I interviewed for this study taught for much longer than this remotely. Teachers also had to have taught in a traditional school that switched to online teaching. I chose this as a delimitation because I did not want to include teachers who had been teaching at a remote school because their experiences would be very different from teachers who had been teaching in-person and then switched to online delivery.

Limitations

The main limitation of this study was that teachers had limited experience with teaching physical education in a remote way. Most of the teachers that I interviewed began teaching remotely when Covid began, and then went back to in-person teaching as soon as they could. However, the shortest amount of time that any teacher that I interviewed taught remotely was three months, and most of the teachers that I interviewed taught remotely for much longer than that, so I do think this is a strong study because of the research participants that I was able to

obtain had a much longer experience with teaching physical education remotely than the minimum requirement.

Recommendations for Future Research

The purpose of this study was to understand the experiences of teachers who taught physical education in a remote way. Most of the physical education teachers in my study taught remotely for a short period of time. Recommendations for future research may include physical education teachers who taught remotely for a longer period of time. Now that more time has passed since the pandemic a future study might look at teachers who taught physical education remotely for a greater amount of time. Researchers could look at teachers who continued to teach remotely and schools that stayed remote for a longer period of time. Schools had different timelines of going back to in-person learning so researchers could specifically look at schools that stayed remote for longer than 3 months. This research could offer greater insight into the experiences of these teachers and offer more answers as to what teaching practices worked well and what was not successful for teaching physical education remotely.

Future research should also look deeper into teachers who were trained to teach physical education remotely. Most of the teachers that I interviewed for this study were offered little or no training in how to teach physical education effectively online. Now that some time has passed since the requirement of teaching physical education remotely, there is more training and resources available to assist these teachers in the difficult task of teaching physical education remotely. Future research should look at teachers who were trained to teach physical education remotely and assess their successes and continued difficulties in this area.

Conclusion

My goal in this research was to understand the experiences of physical education teachers who taught remotely. Specifically, I wanted to look at the teaching methods that they found to be successful for teaching physical education remotely. I was also interested in the specific challenges of teaching physical education remotely. My hope was that by creating a greater understanding of the experiences of these teachers, and their successes and challenges, that I might be able to offer new insight and ideas to the world of education. A lack of research focused on the experiences of these teachers, and I wanted to bring that gap to a close. I used Dabrowski's positive disintegration theory as my theoretical framework (1964). I began my study by creating a central research question and two sub-questions which would help to interpret my data. My central research question was: What are the experiences of K-12 physical education teachers who taught remotely? My first sub-question was: What are the most challenging aspects of teaching physical education remotely? My second sub-question asked: What methods proved most beneficial when teaching physical education remotely?

There were eight themes that emerged as I began the process of analyzing my data. These themes were student engagement, accountability, building relationships and rapport with students, lack of equipment, use of technology and online platforms, collaboration with other teachers and sharing lessons, successful teaching practices for teaching physical education remotely, and creating new content for online teaching of physical education.

Each of these themes directly answered either the central research question or one of the study's two sub-questions. These themes helped to understand the experiences of the teachers that participated in this study and who had taught physical education in a remote way. They also

shed light on the specific challenges of teaching physical education remotely as well as the successful teaching practices for teaching physical education in a remote way.

Teachers, schools, and support staff should consider designing future physical education lessons for remote teaching with these findings in mind. They should create lesson plans and activities for remote teaching of physical education that are focused on building rapport and relationships with the students, allowing student choice during activities, and creating meaningful accountability for online learning. They should also focus on collaborating with other experts in the field of education and continue to share resources and ideas that work well for online learning in physical education.

Administrators should understand the unique challenges of teaching physical education remotely and provide additional training for their teachers in the use of online platforms. Administrators also need to understand the challenge of lack of equipment at home and consider additional funding to ensure that every student has access to the internet and to equipment needed to continue their physical education at home. Lastly, teachers should focus on creating new content specifically for teaching physical education remotely as the resources are still limited in this area. Content and lesson plans should focus on student engagement and project-based lessons that can be done at home.

Future research recommendations include studying teachers who taught physical education in a remote way for a longer period of time. Future research should also look into teachers who were trained specifically for teaching physical education in a remote way. This study lays a groundwork for other studies in the future, but additional research is not required.

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Appendix A

IRB Approval Letter

January 9, 2024

Danielle Brabston
Katelynn Wheeler

Re: IRB Exemption - IRB-FY23-24-1000 Teaching Physical Education Remotely: A Phenomenological Study

Dear Danielle Brabston, Katelynn Wheeler,

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).

For a PDF of your exemption letter, click on your study number in the My Studies card on your Cayuse dashboard. Next, click the Submissions bar beside the Study Details bar on the Study details page. Finally, click Initial under Submission Type and choose the Letters tab toward the bottom of the Submission Details page. Your information sheet and final versions of your study documents can also be found on the same page under the Attachments tab.

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, PhD, CIP
Administrative Chair
Research Ethics Office

Appendix B

Questionnaire

1. How did you feel when you first found out that you would be required to teach physical education remotely?
2. What were the most significant factors that contributed to the success of teaching physical education remotely?
3. What were the biggest challenges to teaching physical education in a remote way?
4. Describe how your teaching strategies and methods changed as a result of teaching physical education remotely.
5. Describe the ways that you sought to maintain relationships among your students while teaching physical education remotely.
6. What remote teaching platforms (Google Classroom, Teams, Blackboard) were most successful for teaching physical education remotely?
7. Describe teaching practice or assignments that you found that worked well for teaching physical education in a remote way.

Appendix C

Individual Interview Questions

1. Please introduce yourself to me and include any information that you think is essential to this study as well as your educational background.
2. Please describe your teaching experience through your current position.
3. How long have you been teaching physical education?
4. Describe the ages and demographics of the students that you teach.
5. Describe any challenges that you encountered while teaching physical education remotely.
6. Describe successful practices that you found to use while teaching remotely.
7. Is there anything else you would like to add to our discussion about teaching physical education remotely?
8. What professional development have you used that helped you prepare to teach physical education remotely?
9. Describe any other teaching practices that you used during remote teaching of physical education and rate them in terms of their effectiveness.
10. What was the hardest thing about teaching physical education remotely?
11. Describe how you felt when you began to teach physical education remotely.
12. What were the most significant factors that contributed to the success of teaching physical education remotely?
13. Describe how your teaching strategies and methods changed as a result of teaching physical education remotely.

14. Describe the ways that you sought to maintain relationships among your students while teaching physical education remotely.
15. What remote teaching platforms (Google classroom, Teams, Blackboard) were most successful for teaching physical education remotely?

Appendix D

Focus Group Questions

1. Briefly introduce yourself to the group and include your teaching background and experience with teaching physical education remotely.
2. What challenges did you face as you taught physical education remotely?
3. What teaching methods or strategies did you find successful as you taught physical education in a remote way?
4. What online platform did you use to facilitate your online physical education course?
5. Looking back on your experiences with teaching physical education in a remote way, what types of lessons, tools, or activities did you find worked well when teaching physical education in this way?
6. What do teachers need to know before attempting to teach physical education in a remote way?

Appendix E

Sample Interview Transcript

Interview 1: Sara

Successful Teaching Practices: I talked to other teachers. We found games they can play online with each other like the cup game. We would have them record themselves at home explaining an exercise and then submit it to the teacher. Also, I had them to record it in different languages, the audio in English, subtitles in French, using all of their languages, since I teach at a multi-language school.

Difficulties: There were many difficulties. How to use zoom, how to upload videos, no one told us what to do, they taught us much later how to use google-meet. Older teachers were very troubled. They did not know the computer. Another big problem was insurance. We tried to get the students up and doing an exercise, but then there was a big concern of if a student gets hurt at home while I am teaching them online. So we had to really just keep them sitting, and doing a game where they were sitting. The ministry of education said, do not do anything with physical education at first, its too dangerous. So the ministry of Europe made an official statement that spread to all of Europe after we published it, and it said physical education has to be done even remotely, and it has to be practical, but some exercise, such as abdominal, breathing, it can be safely done. Also the mood of the teachers and students was very low, so we would make some fun videos, but also motivational videos to encourage them. We would help them to use items at home to exercise such as a belt for jump rope. We made phrases like: I don't stop moving. And "there is no education without physical education." We spread these everywhere.

Other successful teaching practices: We made an Advent calendar for physical education. It was a sport Christmas Tree Advent, students created their own and gave to their friends as a present. Every day they open and found a physical education activity, 10 jumping jacks and so on. It was cumulative, so by the end of the month they had been doing 10-15 minutes of physical education. Challenges for students, maybe count how many steps they do instead of using the elevator, they are in groups so they add their steps together and so we have a competition between classes. Stairs are everywhere so we use them all the time, even without going out of their buildings. Another idea was to film an exercise and how to do it correctly and they can show mistakes and what not to do as well as what to do. Also the table games were good to get them to interact with each other. We would play these games together, show the cards on the table, ten pushups, so she would turn the camera, then all students watch her do the pushups but then someone else would go. We play this together, simple exercises to build community and bring the mood up. Let them speak about how they were feeling because they were so sad and depressed and it was good to connect with others. When we came back to school, they were so sad, and we had to push more on socialization and not competition when we came back. We focused more on bringing them back together, because some have suffered so much.

How to maintain relationships: Help them interact with each other: online we tried to do small groups so they could socialize, or in couples. When we go back to school, we had a problem with too much mobile devices, it was hard to get them to put it down after lockdown. We tried to let them have fun together again, grow their self-esteem, before we would do a warm up with exercises, now we would try to do one lap and they were so tired, they couldn't even do one lap without being worn out, they had missed a couple of years of physical education.

Appendix F

Informed Consent

Consent

Title of the Project: Teaching Physical Education Remotely: A Phenomenological Study

Principal Investigator: Danielle Brabston, Doctoral Candidate, School of Education, Liberty University

Invitation to be Part of a Research Study

You are invited to participate in a research study. To participate, you must be 22 years of age or older, a teacher who taught physical education in any grade k-12 remotely for at least 2 months, have held valid certification to teach physical education during the time it was taught remotely. 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 explore the experiences of teachers who taught physical education in a remote way.

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:

1. Fill out a confidential questionnaire that will take no more than 20 minutes.
2. Participate in an in-person, audio-recorded interview that will take no more than 20 minutes.
3. Participate in a video-recorded focus group that will take no more than 20 minutes.

How could you or others benefit from this study?

The direct benefits participants should expect to receive from taking part in this study include the opportunity to discuss with and learn from other physical education about the successful teaching methods and challenges of teaching physical education remotely.

Benefits to society include furthering the research surrounding teaching physical education in a remote way including publishing successful teaching practices for teaching physical education remotely.

What risks might you experience from being in this study?

The expected risks from participating 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 researcher will have access to the records.

- Participant responses will be kept confidential by replacing names with pseudonyms.
- Interviews will be conducted in a location where others will not easily overhear the conversation.
- 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.
- Data collected from you may be used in future research studies and/or shared with other researchers. If data collected from you is reused or shared, any information that could identify you, if applicable, will be removed beforehand.
- Data will be stored on a password-locked computer. After three years, all electronic records will be deleted.
- Recordings will be stored on a password locked computer for three years and then deleted. The researcher and members of her doctoral committee will have access to these recordings.

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

Participants will be compensated for participating in this study. At the conclusion of the focus group participants will receive a \$50 Amazon gift card. Email addresses will be requested for compensation purposes; however, they will be collected at the conclusion of the focus group to maintain your anonymity.

Is study participation voluntary?

Participation in this study is voluntary. Your decision whether 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 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 Danielle Brabston. You may ask any questions you have now. If you have questions later, **you are encouraged** to contact her 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, **you are encouraged** to contact the IRB. Our physical address is Institutional Review Board, 1971 University Blvd., Green Hall Ste. 2845, Lynchburg, VA, 24515; our phone number is 434-592-5530, and our email address is 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

By signing this document, you are agreeing to be in this study. Make sure you understand what the study is about before you sign. You will be given a copy of this document for your records. The researcher will keep a copy with the study records. If you have any questions about the study after you sign this document, you can contact the study team 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/photograph me as part of my participation in this study.

Printed Subject Name

Signature & Date

