

**Teaching Through the Pandemic: An Interpretive Phenomenological Analysis
(IPA) of Experiences from New Zealand Physical Education Teachers**

Written by

Nick Elrick

Student ID: 05011202

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Abstract

In early 2020, the world was informed of a new virus that was highly transmissible and life-threatening. This virus was COVID-19. Governments responded by enforcing lockdowns of cities and nations to stop the virus's spread. The flow-on effect meant educational institutions had to close their doors and open new classrooms via online platforms. Although online teaching is not a new term for teachers, the rate at which the transition from face-to-face education to full-time online teaching caught many, if not all, off guard. Many teachers were left to rapidly digitise resources and lesson plans and upskill their digital skills independently. This impact was felt more strongly in those curriculum areas that generally involve more active and hands-on learning. This research study aimed to examine the online teaching experiences of New Zealand (NZ) Physical Education (PE) teachers through the pandemic.

This study employed a qualitative approach that aligned with an interpretive paradigm, which utilised an Interpretive Phenomenological Analysis (IPA) framework from Smith (2004). Six New Zealand PE teachers currently teaching senior PE participated in one semi-structured interview. The participants' recollections were analysed through the cyclic analysis by Alase (2016), in which a three-step cycle refined the data into the 'core essence' of their online teaching experience. The findings revealed that overall, participants perceived the experience of teaching online during the pandemic as negative and detrimental to their job satisfaction. The main findings were that participants were under-prepared for the full-time switch to online teaching, resulting in stressful and unrealistic workloads. The participants also experienced substantial emotional loss and felt disconnected from their students, as it was difficult to foster or maintain relationships via online teaching. However, the findings of this research also demonstrate that participants

approached online teaching with a pragmatic outlook. They acknowledged that they were under-prepared for full-time online teaching but still demonstrated positive attitudes towards using online platforms to continue education and saw the pandemic as a catalyst for upskilling teachers with 21st-century skill sets.

A significant finding from this research was the 'shared experience' that participants used to connect with their students. Participants recalled how they spoke to their students about their struggles, and their students were sympathetic and shared encouragement towards the teacher. This new finding opens the possibility for future research into the dynamics of online teaching and the potential ability to build or foster relationships within online media.

Recommendations suggest a three-layered approach to address these research findings. Three recommendations suggest organisational, departmental, and personal approaches to address the pandemic's barriers and capitalise on the potential positives.

Overall, the pandemic brought a move to full-time online teaching at a time when teachers were unprepared, resulting in negative experiences. The detrimental effect on relationships was felt by teachers, reducing their satisfaction and enjoyment with teaching PE. However, participants could also see beneficial outcomes from this experience, which helped upskill teachers through their pragmatic approach. Lastly, the participants 'shared experience' theme uncovered a new dimension of the teacher-student relationships that have opened new avenues for future research.

Keywords: Interpretive Phenomenological Analysis, Physical Education, New Zealand Teachers, Online Teaching, Pandemic, COVID-19

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Attestation of Authorship

I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person (except where explicitly defined in the acknowledgements), nor material which to a substantial extent has been submitted for the award of any other degree or diploma of a university or other institution or higher learning.

Signed:

Date: 24th June 2022

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nga mihi nui ki a koutou katoa

Chapter One: Introduction

“The purpose of education is to replace a closed mind with an open one”

Malcom Forbes.

In early 2020, reports broke worldwide that a new infectious virus called COVID-19 was spreading rapidly throughout the Chinese city of Wuhan. Within weeks, the virus spread to every corner of the globe, resulting in a standstill of the modern world. Only a few months later, the virus had made it to the shores of New Zealand. At 11:59 pm on Wednesday 25th March 2020, Jacinda Ardern placed the entire country into Alert Level 4 lockdown restrictions, following recommendations from the World Health Organisation (WHO). These recommendations urged New Zealanders to stay home and only leave for essential priorities such as food shopping, exercise, or medical assistance (Hargreaves et al., 2021). The overall aim of these restrictions was to protect New Zealand's population and stop the virus' spread. Like the rest of the world, it meant international borders, businesses, and schools were closed to comply with this health order (Hargreaves et al., 2021).

Even though global pandemics are not new challenges for the educational world to overcome, COVID-19 was creating one of the world's most significant disruptions in human history (De Giusti, 2020). The immense impact of the virus led to 94% of the global population being impacted, resulting in more than 1.6 billion learners in over 190 countries being affected by school closures (De Giusti, 2020). The result of this saw educational institutions turn to digital technologies and online platforms in an attempt to continue education and minimise the learning losses (Filiz & Konukman, 2020) which led to an unprecedented change in education (Cruickshank, Pill, et al., 2021; Flack et al., 2020). The education sector saw online learning as a lifeline for education and was

considered the best solution to keep education ongoing during this time of disruption worldwide (Schleicher, 2020). School closures brought substantial change to the day-to-day operations of teachers, students, and families with the adoption of online teaching (Hood, 2020). The flow-on effect saw many of the key stakeholders in education having only days and, in some cases, hours to grasp the concept of teaching online and how this would be deployed (Cruickshank, Pill, et al., 2021; González-Calvo et al., 2021).

Countries around the globe started to use online learning to keep students engaged with educational resources. Many teachers used various online teaching tools or platforms during this time to conduct synchronous or asynchronous lessons and distribute educational content (Schleicher, 2020). For example, in Hungary, they used 'movement diaries' (Filiz & Konukman, 2020); in France, it was called "Ma classe à la maison" (My classes at home). In China, it was "School's Out, But Class's On;" and in Belgium and Italy they broadcast education into students' homes (Orhan & Beyhan, 2020). However, this was no ordinary transition during the shift to online teaching (Marshall et al., 2020). Instead, it struck when most educational institutions were not fully prepared for the full-time switch to this mode of teaching (Schleicher, 2020).

Overnight Switch to Online Teaching

Having gained interest over the last few decades, digital technology and online teaching has been encouraged to be used within teaching pedagogy. The idea of using digital technology for educational purposes is not a new concept in the field of education, and the effects and impacts on teachers (Cruickshank, Pill, et al., 2021; Parsons et al., 2022; Phillips et al., 2021), student engagement (Yu & Jee, 2020), and pedagogical practice (González-Calvo et al., 2021; Kim et al., 2021) have all been researched extensively. In

addition, before the global pandemic forced closures of schooling systems globally, teachers and educators were encouraged to use digital technologies and online learning within their curriculum areas due to potential benefits for students and rewarding outcomes for teachers (Barbour et al., 2020; Marshall et al., 2020). Nonetheless, the rapid shift towards online learning during the initial stages of the pandemic was unplanned and being forced upon the education sector was considered more of an 'emergency' shift for education. Recent literature refers to this shift as the 'survival' of education rather than a calculated and meaningful development of online pedagogies (Parsons et al., 2022). This rapid shift saw an almost 'overnight' change to online teaching, forcing many teachers to rapidly digitise teaching resources, lessons, and activities to continue educating during the pandemic (Wang & East, 2020). Hodges et al. (2020, as cited in Barbour et al., 2020) stated that:

Emergency remote teaching [is] an attempt not to re-create a robust educational ecosystem but rather to provide temporary access to instruction and instructional supports in a manner that is quick to set up and is reliably available during an emergency or crisis. (p.13).

This comment highlights the position many educators found themselves in within the first few days of the nationwide enforced lockdowns. In addition, the emergency shift further compounded teachers' need to become proficient in their school's online learning platform(s) to disseminate appropriate information and conduct live meetings and lectures (Lemay et al., 2021). This need for digital proficiency meant that teachers, who already faced challenges in their everyday classroom setting, would be significantly exacerbated due to the full-time shift to online teaching (Marshall et al., 2020). As mentioned earlier, digital technology (and online teaching) is not a new concept for

teachers; however, it is inconceivable that technology will not be a key component for supporting and developing education in the future (Newton, 2017).

Yet, teachers are at the frontline of this evolutionary movement inside the classroom and are responsible for mastering and deploying these pedagogical tools and enhancing educational experiences (Drossel et al., 2017; Van der Spoel et al., 2020; van der Vlies, 2020). This effect has been felt more so within the Physical Education (PE) realm. Being a subject traditionally viewed as 'physical' in nature is now being encouraged to be taught digitally, creating a paradox that goes against the principles and values of many PE teachers (Armour et al., 2020; Hinojo Lucena et al., 2020). This paradox was forced on many teachers, including their beliefs and principles, by the constraints necessitated by the pandemic, leaving many PE teachers feeling stressed and disillusioned with this immediate shift to online teaching (González-Calvo et al., 2021; Van der Spoel et al., 2020).

The Pandemic from a PE Perspective

The traditional approach to PE has always been considered 'hands-on' and requires movement for some, if not all, lessons (Kim et al., 2021). This traditional perspective to teaching PE is heavily grounded in teachers' ideologies associated with this subject and the concepts of present-day PE (Dyson et al., 2018). Yet, the almost 'overnight' change to the teaching profession to full-time online teaching meant PE teachers had to construct and implement new and alternative lessons for their subject. This swift change was also met with challenges of navigating new and confronting challenges within this online space, such as technical difficulties and reduced equipment for practical at-home lessons (Bodsworth & Goodyear, 2017; González-Calvo et al., 2021). Furthermore, previous

research into digital technology and online teaching found PE teachers believe digital technology takes away from the core concepts of PE (Baek et al., 2018). The resulting implication of this full-time shift to online teaching meant teachers had to create new resources and lessons and completely redefine their teaching approach to ensure students continued to learn about PE.

The actions of full-time online teaching saw PE lessons and the movement associated with those lessons were to be completed at home, so they would have to cater to many unknown factors such as space, safety, and equipment (Vilchez et al., 2021).

Additionally, the problematic nature of this task for teacher planning would only further cast doubt on whether online learning can benefit the educational outcomes of this subject (González-Calvo et al., 2021); and contribute to the stigma of being unfavourable or less desirable than face-to-face learning (Barbour et al., 2020). Nevertheless, many educational institutions called upon PE teachers to continue PE lessons for students to assist in the reduction of sedentary levels of students around the world. However, the flow-on effect of online teaching led to a significant increase in hours seated in front of their devices, creating further issues for students' mental and emotional health (López-Fernández et al., 2021). However, the modifications made to online PE lessons were created more through a method of 'trial-and-error' than what has worked previously (Centeio et al., 2021; Cruickshank, Pill, et al., 2021; Jeong & So, 2020; Vilchez et al., 2021). Through this development, the subject saw the departure of physical 'education' and was replaced with physical 'activity', resulting in many PE teachers feeling more like fitness trainers than teachers (Howley, 2021).

Rationale for this Study

The global pandemic, its influence on education, and the impacts on key stakeholders have been researched extensively from an international perspective (Centeio et al., 2021; Gobbi et al., 2020; López-Fernández et al., 2021; Marshall et al., 2020; Schleicher, 2020). Yet, relatively few studies have specifically focused on the New Zealand education system and an understanding of the impacts of the global pandemic – not to mention the focus relating to New Zealand PE teachers and their experiences. Exploring these experiences provides more information to develop New Zealand's teaching practice further. Centeio et al. (2021) and Gouédard et al. (2020) indicate the importance of research within this area, as the full effect of this time is yet to be fully understood. Contributing to this area of study can provide more information and perspective of this teaching time, allowing a better understanding of this experience. In addition, Gouédard et al. (2020) also highlight the importance of generating knowledge about this phenomenon, to limit the disruptions to learning and mitigate inequalities for all students with the possibility of future interruptions. Lastly, with additional research, it can assist with the future development of the delivery of an 'at-home' Physical Education with potential future pandemic and global crises alike that meets the physical, mental, emotional, and most importantly, the 'education' in Physical Education (Centeio et al., 2021).

This current research study aims to interpret the experiences of New Zealand Physical Education teachers while teaching online during the pandemic and was motivated by my personal experience and interests in this unique teaching time. I am a registered teacher currently teaching Physical Education. I also experienced this extraordinary time for education, and I was curious about the effects on others and how they recollect this experience. My curiosity was not just focused on the teacher's experiences of teaching

online but also on their perspectives and feelings towards PE and its purpose as an academic and physical subject. Furthermore, the experience of teaching through the pandemic personally and professionally motivated me to seek out high educational opportunities in which I could explore this further, which inevitably led me to start my Master of Education study at AUT. Lastly, this, to the best of my knowledge and at the time of writing this section, is the only research project explicitly focused on New Zealand PE teachers and the phenomenon of teaching online through the pandemic.

Overview of the Dissertation

The overview of the following chapters of this dissertation will comprise of a literature review, methodology, data analysis, discussion, conclusion, and the final recommendation of this research study.

The subsequent literature review in Chapter Two will explore the current literature relating to this phenomenon. The key themes that have been extracted from the literature will be investigated further and align with the research questions. The literature review will start by exploring the traditional construction of Physical Education in New Zealand and how it is slowly moving towards becoming more progressive. Next, the literature review highlights key themes within contemporary research related to this online teaching phenomenon. The key themes include the effectiveness of online teaching, teacher attitude and beliefs toward online teaching, the importance of PE during the pandemic, and the disconnect teachers felt during this unique time for Physical Education. Finally, each key theme will be unpacked and reviewed through the current literature on this topic and critically analysed and synthesised relating to the current research study.

Chapter Three explains and justifies the selection of research methodology and research methods applied within this study. Further justification also presents the application of the Interpretive Phenomenological Analysis and discussion of phenomenological elements to this research paradigm.

Chapter Four presents the data and findings from the research. Through the 'open coding' (Strauss & Corbin, 1990, as cited in Alase, 2016) and cyclic analysis, the combined data from all participants will be presented via key themes or the 'core-essence' of the participant's experiences. Each theme will be portrayed through the participant's experiences through verbatim recollections and responses.

In Chapter Five, the discussion mirrors the data presentation, in which each key theme will be discussed. Each theme will draw upon literature found in Chapter Two, current research related to this topic, and findings from the current research.

Finally, in Chapter Six, the conclusion will discuss the findings of this research and how they answer the research question and sub-questions. This chapter will also identify the strengths and limitations of the current study and conclude with recommendations and suggestions for subsequent areas of research.

Chapter Two: Literature Review

Online teaching has been discussed as the way forward for education, in which it can reach a broader student cohort at any time or place using these tools that students engage with daily (Schleicher, 2020). In New Zealand, digital technologies and online platforms involved in classroom teaching have been introduced at varying speeds with the aim of establishing schools that are 'digitally infused'. This 'infusion' of digital technology is achieved by gradually embedding more aspects of these digital technologies within curriculums and teaching and learning strategies, such as using digital devices, online learning platforms, and online teaching (Yates & Starkey, 2021). However, prior to the pandemic and school closures, many schools had not moved past the developmental stages or conducted any professional development for teachers. However, online teaching was expected to be used for whole school days to continue education during the pandemic (Flack et al., 2020). This under-preparedness was evident when the COVID-19 pandemic found its way to New Zealand's shores in early 2020, and the shortcomings of being unprepared for full-time online teaching were exposed in the frontline of education (Yates & Starkey, 2021).

The use of digital technology within education and teaching pedagogy has been steadily changing with increasing access to developing digital technologies (Newton, 2017). As a result, teachers were encouraged to use digital technology within their teaching and learning strategies, helping students develop essential learning and 21st-century skills (Gouédard et al., 2020). However, the rapid shift to online teaching during the pandemic, which was viewed as a move that was more of an 'emergency and forced change', resulted in quick adaptations and alterations to the teaching curriculum (Flores & Swennen, 2020). As mentioned earlier by Wang and East (2021), this resulted in many teachers rapidly

converting teaching material into digital lessons to continue education online. Be that as it may, New Zealand was better prepared for online teaching than others in the OECD world pre-pandemic (Schleicher, 2020). Nevertheless, the transition to online learning proved challenging for most, if not all teachers during this time (Yates & Starkey, 2021). Furthermore, the shift to online teaching, which was forced upon many by the pandemic, has changed or could potentially alter the way education is provided in the future. The effects of this period on education, students, and teachers are still yet to be known (Gouëdard et al., 2020; Schleicher, 2020).

The following literature review provides a critical summary and thematic analysis of the current research on this phenomenon. Firstly, a brief overview is offered of the concept of Physical Education within New Zealand's curriculum and an examination of the traditional viewpoints in constructing this subject. This section will also discuss the following: how traditional perspectives are still an underlying barrier for some PE teachers and the development of a more progressive subject in today's education system. Following this, I will explore the discussion on whether online teaching of PE can be effective and meet the requirements of this subject. The discussion will then focus on the key themes within the current literature on teachers' attitudes and the impacts on teachers during this unique time of teaching. This section will investigate sub-themes associated with teachers' readiness and confidence for teaching online, teacher attitudes and beliefs towards online teaching, the importance of PE during the pandemic, and finally, the emotional disconnect and disenchantment with the profession. Lastly, the limitations identified within current literature related to this phenomenon will be explored.

Physical Education – Traditional but Progressive

He oranga ngākau, he pikinga waiora – Emotional well-being and emotional growth.

Since 1877, PE has been included within the New Zealand curriculum to ensure the development of a disciplined and effective workforce and is inextricably linked to the colonisation process of early New Zealand (Culpan, 2005). This concept of physical 'activity' shaped traditional approaches within the PE curriculum that was seen in many classrooms around New Zealand. Additionally, the expansion of this subject throughout the decades saw PE take on many characteristics that are uniquely New Zealand, such as the endorsement of Te Reo kōri (the language of movement), the use of the Māori health concept of Hauora, and a greater emphasis on outdoor education and learning (Stothart & Culpan, 2012). Physical Education started to take shape in the early 2000s and advanced into a programme that encouraged students to become reflective and critical of their movements while making personal and social meaning from them (Culpan, 2005). This change made PE critical for schools and assisted young people's health and well-being, contributing to developing cognitive, physical, and emotional systems (Mizdrak et al., 2021).

With schools providing students the platform to be active within their timetables and curriculums, it set the foundation for these students to live healthy lives (Cruickshank, Pill, et al., 2021; Culpan, 2005; Mizdrak et al., 2021) and reinforces the underlying concepts, values, and other socio-economic perspectives within health promotion (Ministry of Education, 2007). This structure is still seen in New Zealand schools and is the cornerstone of many PE curriculums in New Zealand secondary institutions by providing students with a subject that emphasises that movement is integral to their development and

expression that enhances their daily lives (Dyson et al., 2018). Furthermore, through these movements, students develop an understanding of how to appreciate their bodies, relate to others positively, and understand the role and significance of being active (Dyson et al., 2018).

Traditionally, PE has always been considered 'hands-on' with 'physical body movements' and involves students moving in and around one another during lessons (Chan et al., 2021). The New Zealand Curriculum (Ministry of Education, 2007. p23) states that:

The focus is on movement and its contribution to the development of individuals and communities. By learning in, through, and about movement, students gain an understanding of that movement. They learn to understand, appreciate, and move their bodies, relate positively to others, and demonstrate constructive attitudes and values.

This detail highlights the critical aspects of the PE curriculum, not only for how students move and learn about their individuality but also for the community in which these actions take place. It is important to emphasise the social skills, which are critical for students to understand the role and significance of PE at an individual level. Additionally, this viewpoint emphasises the need for developing a PE curriculum that has moved away from a fundamentally flawed approach, which only focused on sporting skills and fitness accumulation (Culpan, 2005). Furthermore, Culpan (2005) suggests this new approach is not locked into a mono-dimensional function of the subject that only focuses on physical performance factors but instead builds a positive relationship with PE. He explains that a multi-varied approach that includes aspects of the sporting and physical performance and socio-cultural, health, psychological, and personal pathways can shape a more well-rounded subject and produce more beneficial outcomes for all. Adding to this, if a

curriculum reflects New Zealand's 'Kiwi culture' and establishes core values and connections between physical activity and Physical Education (Burrows et al., 2020), then this new focus on PE can provide students with multiple possibilities to explore. This also reflects a better educational and social value for this subject and a focus on the overall well-being of the students (Dyson et al., 2018).

Nevertheless, with changes to the curriculum and the advancement of digital technology use within secondary schools, it is worth considering if PE can continue to provide students with a subject that is fit for purpose and both 'Physical' and 'Educational' in its outcomes (Armour et al., 2020). This is a result of how digital technology is continuously reshaping how people explore, create, and interact with information in today's society (Benade, 2017). This reshaped engagement with information only adds a further issue for PE and whether this subject can be effectively delivered online in a way that is both 'Physical' and 'Educational.'

Effective Online Teaching of Physical Education

An aspect of online teaching that has always been questioned concerning PE is whether educators can deliver effective lessons online with engaging lessons for students, meet their learning needs, and continue their educational development. According to researchers, effective online teaching of PE has many different facets to manage for it to be effective. For example, digitisation of resources (Armour et al., 2020), maintaining student engagement (Chan et al., 2021; Hambali et al., 2021), ensuring the lessons are 'fit for purpose' (Armour et al., 2020), and is delivered through quality teaching (Yates & Starkey, 2020).

Recently, a growing body of research has begun focusing on the effectiveness of online teaching of PE during the pandemic (Armour et al., 2020; Chan et al., 2021). The current literature related to online teaching of PE; all confirm similar outcomes in reduced effectiveness of these online lessons. In their research paper, Gouédard et al. (2020) reviewed aspects of the initial stages of the pandemic and the effectiveness of online teaching. They argue that there is limited evidence to suggest that online teaching results in the same levels of learning when compared to face-to-face teaching. Adding to these arguments were the findings from Chan et al. (2021), whose survey data from in-service frontline PE teachers in Hong Kong produced convincing results that highlighted the difficulties of delivering effective PE online. The authors discovered multiple factors, such as teachers' lack of preparation to develop creative and engaging online lessons, lack of student engagement, social disconnection, and reduced ability to develop motor or skill acquisition through physical movement. All of which influenced their participants and their ability to teach PE online, either as a stand-alone issue or as a combination of factors. Similar findings were reflected in multiple studies conducted around the globe, for example, in Russia (Osipov et al., 2020); Turkey (Namli & Yücekaya, 2021; Orhan & Beyhan, 2020); Indonesia (Hambali et al., 2021); and finally, Australia (Cruickshank, Pill, et al., 2021), who all report findings of teacher dissatisfaction and limited effectiveness of the delivery of PE online during the pandemic.

Adding to this, Kim et al. (2021) also found that their participants, who were underprepared and nervous when using digital technology, could not replicate the same effect they had experienced with face-to-face teaching in online lessons. This was a direct result of an unforeseen factor related to the effective teaching of online PE, in which

equipment, space, and home settings of students restricted the scope in which these teachers could teach.

Similarly, in their study evaluating teachers' perception of distance education, Orhan and Beyhan (2020) also established that teachers were underprepared and lacked knowledge of using these platforms for full-time teaching. This led participants to negatively perceive distance learning, referring to online teaching as "a callous education" (p.33). Teachers' perception of online teaching was associated with their traditional approach to the subject, as many saw it as a continuation of formal education. Orhan and Beyhan (2020) further explained that participants in their study were technologically proficient and could create online resources but did not want to give up on traditional teaching methods, leading to students' disengagement and, therefore, reducing the effectiveness of their online teaching. These traditional approaches in classrooms are associated with teacher perceptions that are intertwined into what is referred to as the 'Digital Age Challenge' (Armour et al., 2020). The Digital Age challenge refers to the exponential growth of digital technology and how young people use it when engaging with online content. Through it they connect with networks of people, and this has an impact on how they learn (Armour et al., 2020).

The 'Digital Age Challenge' helps to explain one of the main obstacles to providing effective online teaching. Not only was the conversion of PE resources into the digital space difficult but also the issues of whether the delivery of these teaching and learning strategies is effective for student engagement (Chan et al., 2021; Hambali et al., 2021), whether it fosters positive teacher-student interactions (Orhan & Beyhan, 2020; Osipov et al., 2020), meets teaching and learning outcomes (Goat & Jones, 2017), and is fit for purpose (Armour et al., 2020) are also issues. This presents multiple obstacles for PE

teachers to contemplate when constructing and teaching online lessons. Adding to this, the nature of PE encourages students to learn through movement and participation, reflecting their subject's physical nature. However, many educators see online learning as an oxymoron and only adding more time in front of screens and inactivity (Goad & Jones, 2017), adding to the belief that online teaching of PE will always be ineffective compared to face-to-face teaching.

Furthermore, Armour et al. (2020) explains the prevalence of digital technology in the daily lives of young people. They reveal how key stakeholders, such as teachers and parents, struggle to acknowledge this generational change, leading to complications with how to engage and support young people in PE. In their article on the digital age challenges, these authors found that PE teachers place considerable emphasis on only using digital technology to supplement their practice, rather than using it to drive significant change. They state that:

Once we accept that digital technologies have come to represent a significant social space in the lives of young people in contemporary society, it becomes essential that we consider how this experience impacts upon them as learners in PE (p3).

The implications for PE teachers and this digital age challenge are that they must be better prepared to understand how young people interact with digital technology and how it impacts their learning experiences within PE. In addition, earlier research from Goad and Jones (2017) explored how physical educators were formally trained to deliver online content to learners. They specifically mentioned a new generation of students called 'digital natives' (Prensky, 2001). These new learners are said to be proficient multitaskers

and active learners that require the use of different technologies for communication and access to information (Goad & Jones, 2017). When considering this, it proposes questions about whether traditional educators can effectively teach online while using these dynamic platforms to connect, interact, and communicate with students (Goad & Jones, 2017).

Conversely, previous findings suggest that the delivery of online PE programmes can be effective and suggest strategies to reduce the digital challenges teachers face in PE (Amour et al., 2020). Armour et al. (2020) argues that the challenges of using online platforms for PE are associated with a persistent gap between teachers' knowledge of how young people use digital technology to learn and the need to acknowledge that this will inevitably impact the way they approach what 'Physical Education' is. These authors suggest that accepting digital technology as an educative tool is the first step in breaking down the barriers to producing an effective PE curriculum. When accepting digital technology as a pedagogical tool within the PE curriculum, the barriers to creating a positive relationship with this tool are reduced, and the development of an optimised curriculum can occur, which Amour et al. (2020) suggest as a 'co-creation' of the curriculum with students. By including students within the co-creation of curriculum for digital PE and how it can support healthy and positive relationships through these platforms, they can suggest possible solutions that could help optimise the benefits of PE within the digital age and move the subject into the 21st century (Armour et al., 2020). Contributing to these suggestions are the findings from Melton et al. (2015), who explore the integration of digital technology into physical activity. Their findings highlighted that app-based technologies significantly impacted participants' psychosocial aspects linked to the enjoyment and physicality of being active. They found that their participants displayed

more self-efficacy in regulating physical activity and showed higher levels of enjoyment. However, their research was not linked to educational purposes and did not focus on academic outcomes.

Lastly, for successful integration of digital technology into educational institutions, it requires previous provisions to be completed, such as teacher professional development and a well-designed model for integration (Baek et al., 2018). The global pandemic was not a situation many institutions around the world had considered would occur or a possible reason to shift to full-time online teaching. This only further contributed to the shift to teaching online that reflected more of an 'emergency' response than a methodical and planned change (Marshall et al., 2020).

Implications for Teachers with a Full-Time Online Shift

As the global pandemic struck classrooms around the world in early 2020, many educators and institutions were heading, unknowingly, into a cataclysmic event that changed their day-to-day approach to education. This change meant not only a new way to communicate to their students but also a new way to disseminate information, assess, and provide learning opportunities. Nevertheless, teachers were cast into the unknown and were passed the responsibility to continue educating students throughout this unique time in the history of humankind and education. Researchers can confirm that teachers are at the forefront of ever-developing digital technologies being used for education and are key stakeholders in utilising these tools for educational purposes (Tou et al., 2020). Initial literature on education and the global pandemic focused heavily on the educational issues faced during this time. For example, teacher readiness and confidence with online platforms for teaching (Mercier et al., 2021; Orhan & Beyhan, 2020), teacher attitudes and

beliefs towards online teaching (Baek et al., 2018; Marshall et al., 2020; Pongsakdi et al., 2021; Tou et al., 2020; Van der Spoel et al., 2020), the importance of PE during the pandemic (Almonacid-Fierro et al., 2021; Cruickshank, Hyndman, et al., 2021; Cruickshank, Pill, et al., 2021), and lastly, the emotional disconnect that resulted from online teaching (Cruickshank & Pill et al., 2021; Howley, 2021). The following sections will explore each sub-theme within the current literature on the topic and its implications on teachers and their time teaching online during the pandemic.

Teacher Readiness & Confidence

Teacher readiness and confidence have been extensively researched prior to the pandemic in relation to the use of digital technology in the classroom (Mercier et al., 2021). However, when considering the global pandemic and the shift to full-time education online, many teachers moved towards unknown ground with full-time online teaching and relied heavily on a 'trial and error' method to establish the foundation for their online teaching programmes (Centeio et al., 2021; Cruickshank, Pill, et al., 2021; Mercier et al., 2021). The almost overnight change to the delivery of education meant numerous teachers were not only caught off-guard and underprepared but this also resulted in a lack of teachers' confidence when using online platforms (Centeio et al., 2021; López-Fernández et al., 2021). It is important to note that the notion of 'readiness' in relation to online learning is a relationship between the key stakeholders in education (teachers) and the knowledge and experience in which stakeholders benefit from technology and can implement information (digital technology proficiency) through this process (Orhan & Beyhan, 2020). This lack of readiness, in conjunction with limited experience of digital technology combined with teaching PE, meant teachers needed to figure out how to implement quality PE lessons for their classes (Mercier et al., 2021).

A recent body of literature exploring teacher readiness and online teaching during the pandemic has identified multiple factors contributing to this theme. These factors, albeit unique in their own terms, have compounding effects on teachers and their ability to teach online. Further to this point, in their study investigating the experiences of teachers and their transition to online teaching, Marshall et al. (2020) surveyed over 300 teachers in the United States of America and found that a large majority of them (92.4%) had never taught online previously, nor had they received any formal or meaningful training from the school district. The outcome of this is ineffective lessons that lead to students losing motivation to stay engaged. Similarly, Kim et al. (2021) discovered that limited training and experience with online teaching prior to the pandemic resulted in participants expressing negative feelings towards online teaching. Their participants discussed their negative feelings as 'nervous' when considering how to use online teaching and that they were 'underprepared' for this full-time transition. Their findings confirm that teachers' basic knowledge of digital technologies was insufficient to implement effective lessons online for their PE students and that technological knowledge plays a critical role in enhancing online teaching. In addition, the authors expressed that negative feelings felt by their participants only further reduced teachers' positive perceptions towards online teaching. It was therefore recommended that professional training or assistance to help support teachers be provided, alongside the development of digital pedagogical practices.

In his critical research study into 21st-century teaching, Benade (2017) discusses the development and implications of digital technology on teaching and, more specifically, teacher preparation for this change. He stresses that professional development and ongoing development for staff are schools' priorities. However, previous training and

development to effectively use these tools have fallen short; meaning, that teachers do not fully understand how to use these tools (Benade, 2017). This restricts their ability to develop effective pedagogies and decreases their skill development and confidence (Benade, 2017). Furthermore, being prepared to use digital technology for online teaching and having the confidence to do so is best explained by Schleicher (2020) who states that "technology is only as good as its use" (p.16), and van der Vlies (2020), who further adds: "While digital technologies should ideally be designed to facilitate teachers, their potential cannot be reached if teachers do not have the right skills to deploy them" (p.17). So, when teachers are confident and capable of using these as pedagogical tools, digital technology can be used effectively and confidently. However, this teacher-technology relationship was impacted by the overnight switch during the pandemic, meaning the suggested professional development or teacher training needed to prepare teachers could not occur (Centeio et al., 2021; González-Calvo et al., 2021; Mercier et al., 2021; Rio Poncela et al., 2021; Said et al., 2021; Van der Spoel et al., 2020).

A consensus throughout the literature is that ICT training or professional development for teachers would have been beneficial prior to the pandemic (López-Fernández et al., 2021; Phillips et al., 2021; Reimers et al., 2020; Reimers & Schleicher, 2020; Rio Poncela et al., 2021; Said et al., 2021; Schleicher, 2020). The OECD's country notes about New Zealand with the delivery of online teaching suggested that the country was more prepared than many others (Parsons et al., 2022). However, the limitations of this technology meant some educators relied on more traditional teaching methods during the pandemic, which stressed the need for prior training (Parsons et al., 2022). This would have ensured that teachers were prepared to use these pedagogical tools effectively in their online classrooms. Schleicher (2020) argues that teachers need to develop and continue to

increase their ICT skills with regular professional development so that they can be innovative within their teaching due to the potential future developments of the pandemic.

Further, Armour et al. (2020) links this issue to the earlier term of 'digital age challenge' by explaining how many of today's educators grew up learning in vastly different educational environments, both physically and digitally. They highlight how this leads to a misunderstanding of how students' day-to-day affordances with online information works and underlines the issues at hand – being able to create an effective online PE lesson. These authors suggest that only when key stakeholders in education accept that digital technologies have a significant place in the lives of young people, can they then start to understand how this will impact their students. This acceptance will also help the pragmatic change required when addressing the paradox of being a physical education teacher using tools that could increase sedentary lifestyles.

A noteworthy finding from the 2021 research of Mercier et al., into teaching PE and the rapid shift to online teaching, was the self-evaluation of PE teachers and their effectiveness while teaching during the pandemic. They found that 20% of their participants rated themselves less effective when teaching students online. This finding suggests that perhaps PE teachers were somewhat prepared for the shift to online learning or that they digitised their teaching material and could still produce effective lessons. However, considering these findings, the authors did recognise that this finding may not be a true reflection of the impact on online teachers, as the criteria for which teachers were used to measure their effectiveness was unknown. Similarly, Flack et al.'s (2020) study on Australian and New Zealand teachers found that 47% of respondents to their online

survey agreed that online learning can be 'as-effective' as face-to-face teaching. As with the previous study, Flack et al. (2020) did, however, find contradictory results, in that 80% of teachers mentioned that students would need extra assistance with learning when returning to the classroom. This suggests that their lessons were effective by other measures, such as student engagement and participation in activities for the lesson. However, they may not have considered academic outcomes and achievements as measures of an effective lesson (Goad & Jones, 2017). Lastly, although findings related to the effective delivery of PE through online teaching are yet to be fully understood, these studies do contribute to the ongoing debate regarding teaching online and the links between the teacher's use of digital tools and, more importantly, their attitudes and beliefs (Phillips et al., 2021).

Teacher Attitude & Beliefs Towards Online Teaching

Incorporating online teaching and digital technology within the PE curriculum has always been a contentious debate amongst teachers and researchers. On one side of the argument, teachers who sternly hold a position for traditional pedagogical approaches within this 'physical' subject argue that digital technology will take out opportunities for students to be active, as well as diminish the role of the PE teacher (Tou et al., 2020). On the other side, researchers state that 21st-century learners require 21st-century education and that digital technology can not only enhance the student's experiences within PE but it can also help develop communication and collaborative skills (Kim et al., 2021; Tou et al., 2020).

Attitudes and beliefs are closely intertwined and often used interchangeably throughout literature, commonly expressed as going hand-in-hand (Pongsakdi et al., 2021; Tou et al., 2020).

Prior to the pandemic, research has shown that positive teacher beliefs and attitudes towards digital technologies and online teaching lead to PE teachers incorporating more aspects of these tools within multiple layers of teaching and learning (Van der Spoel et al., 2020). However, comparing this to some negative attitudes and beliefs, has shown that teachers are resistant to the use of these tools and believe that digital technology will take away opportunities for teachers to effectively instruct their students about physical activity (Baek et al., 2018; Tou et al., 2020). A recent study by Parsons et al. (2022) investigated the experience of online teaching among New Zealand teachers and their subsequent positive and negative outcomes. These authors found that a majority of their participants saw online learning as a valuable teaching tool and that digital technologies could help student autonomy and self-regulation. However, findings also confirm that participants struggled with switching to online teaching, stating it was not a viable option and further exacerbated socio-economic and cultural issues.

Digital technology has seen rapid growth and development in recent years, and research has claimed that including this tool can enrich the productivity of both students and teachers alike (Baek et al., 2018). In their research study focusing on PE teachers' technology challenges, Baek et al. (2018) identify two types of barriers that significantly impact teachers' integration of digital technologies within PE. They explain that first-order or external barriers affect teachers' technology integration through their lack of resources, budget, insufficient time to learn, and technical support. Second-order or internal barriers are held within the teacher themselves and influence their decision to use digital technology; these are expressed as more serious barriers. These barriers include teachers' knowledge and skills, self-efficacy, and pedagogical beliefs. The complexity of the

relationship between the first and second-order barriers is not clearly understood and takes more consideration than simply eliminating first-order barriers (Ertmer, 1999).

In her research study, Ertmer (1999) discusses the relationship between the first- and second-order barriers and how to overcome these to integrate the technology. She explains that when reducing first-order barriers, it is first necessary to address what teachers want to get out of using technology; this helps as a starting point in which to identify first-order barriers. Once that is clear, schools and teachers start to implement strategies such as modelling and observing other teachers using technology successfully, reflection and collaboration, and providing teachers with greater access and time to use these devices. She states:

Simply put, teachers need opportunities to observe models of integrated technology use, to reflect on and discuss their evolving ideas with mentors and peers, and to collaborate with others on meaningful projects as they try out their new ideas about teaching and learning with technology (p.54)

The collective approach from these strategies provides teachers with an opportunity to see the technology in use and understand how it can be deployed at an 'instructional' level, as opposed to just being given access to the device and discussing the mechanics of the tool. Additionally, by seeing these tools in action, it allows teachers to engage in the process of modifying their curriculum areas and start to engage with pedagogical changes involved with second-order barriers (Ertmer, 1999). These strategies do not seek to eliminate first or second-order barriers in this step-by-step process but rather with a potential 'multidimensional' effect, as one strategy can reduce multiple barriers on both the first and second-order levels. Importantly, Ertmer does discuss the possibility that some teachers may not face any barriers with digital technology. However, with digital technology

evolving at a rapid rate and the current climate of teaching with the pandemic, all aspects of teacher attitudes towards and understanding this influential relationship needs to be explored (Tondeur et al., 2017).

Additionally, research into PE teachers and this relationship in using digital technology has identified further influencing factors such as age (Starkey, 2020), gender (Van der Spoel et al., 2020), teaching experience (Cruickshank, Hyndman, et al., 2021) and subject teaching level (Marshall et al., 2020; Tou et al., 2020). These studies echoed previous findings in how teacher beliefs are complex and multi-layered, which heavily influences teachers and the successful and effective integration of digital technology. The complexity of these factors was seen when Tou et al. (2020) examined PE teachers' genders and their attitudes toward digital technology use within this subject, and reported both validating and contraindicating results. Their findings confirmed that male-gendered PE teachers were more confident and had higher expectations of digital technology when integrating digital technology into their classes. Similar findings from Van der Spoel et al. (2020) confirm this outcome. However, examining teachers' age and experience found conflicting results. Tou et al. (2020) reported findings of older and more experienced teachers displaying positive attitudes towards using digital technology within their teaching practice of PE.

This finding contradicts previous research findings from Kretschmann (2015), who saw younger teachers being more open to digital technology when compared to older, more established teachers. Nevertheless, Tou et al. (2020) explain that younger and less experienced teachers are more inclined to use digital technology. However, the younger teachers have limited teaching experience in PE and knowledge of the intricacies of this

subject. This experience gives the older teacher a better understanding of PE and how to best integrate digital technology into their teaching practice. Lastly, the integration of digital technology in this physical subject has many PE teachers concerned about the paradoxical situation. Teachers often battle with the decision to use digital technology in PE and find it challenging to encourage the use of a tool that has been extensively researched and linked as a major contributor to reduced physical activity levels among young people globally (Goad & Jones, 2017).

Traditionally, PE is by nature a physical and 'hands-on' subject (Kim et al., 2021). This means that movement is encouraged and should underpin the primary outcomes of planned lessons. However, PE teachers' perspectives on the benefits of digital technology and their increased use of these tools have been expressed as a potential concern and are to be approached with a 'fine balance' in mind (Centeio et al., 2021). Researchers, on the one hand, stipulate that having digital technology within PE programmes could produce beneficial outcomes for engagement and achievement for students (Hinojo Lucena et al., 2020; Killian et al., 2019) and be an effective and efficient teaching tool (Tondeur et al., 2017). However, on the other hand, evidence suggests that the growth in technology and its use by young people has a detrimental effect on well-being outcomes (Lemay et al., 2021) and increases sedentary behaviours (Hinojo Lucena et al., 2020; Morocho, 2021). This could lead to further reduction in young people's physical and, more importantly, mental health, which are both key priorities of this subject and for teachers (Almonacid-Fierro et al., 2021; Hargreaves et al., 2021).

Lastly, these concerns from PE teachers lie within their attitude and beliefs that PE is a 'physical' subject and digital technology should not need to be used to encourage

movement, nor does it contribute to building a positive relationship with being active (Baek et al., 2021). However, Baek et al. (2021) discuss that although some may view technology as unnecessary for PE, the purpose of this subject is not only to increase physical activity during lessons but also to educate students on the roles of technology within sports, movement analysis and creating a healthy lifestyle (Baek et al., 2021). These authors highlight the empirical study from Melton et al. (2015), which shows that the effective use of digital technology could increase physical activity in students.

Additionally, Baek et al. (2021) point out that a well-designed technology-integration programme with professional development learning activities can positively impact teachers' beliefs and digital technology use in PE. Furthermore, the inevitable impact of digital technology on education and how contemporary youth engage with it means PE teachers must be better prepared to understand this relationship and how their learning experiences may change (Armour et al., 2020). These actions will allow PE teachers to continue to teach and support students while retaining the importance of this subject within a 21st-century educational system (Armour et al., 2020).

The Importance of PE in the Pandemic

When considering PE from an educational perspective, it should be considered more than a subject that focuses just on the encouragement of being 'physically active'; exercise should also be used as a vehicle for learning (Almonacid-Fierro et al., 2021). Physical Education is an integral part of education and contributes to the overall development of students through movement, intending to foster an environment that develops a positive life-long relationship with being active (Almonacid-Fierro et al., 2021; Cruickshank, Hyndman, et al., 2021). However, the historical academic status attached to PE has always

been considered low and has fuelled continued debates about its place alongside other educational subjects; ones that carry with them academic significance and high priorities by students (Cruickshank, Hyndman, et al., 2021). This perspective of reduced importance was more evident during the pandemic from academic institutions and students (Cruickshank, Pill, et al., 2021).

PE itself should hold importance in any educational institution; however, despite mounting research supporting physical and mental health and cognitive development through positive physical activity participation, PE remains marginalised within the school curriculum (Cruickshank, Hyndman, et al., 2021). Extensive global research on this topic, both pre- and post-pandemic, confirms this perspective through consistent findings that PE is a subject that is viewed as one without academic importance. For example, Ng et al. (2021) in Norway; Chan et al. (2021) in Hong Kong; Namli and Yücekaya (2021) in Turkey; Almonacid-Fierro et al. (2021) in Chile; and Kim et al. (2021) in the United States, all reported their participants experienced a reduced priority, time given to teaching, or reduced importance placed on PE. Similarly, Cruickshank, Hyndman, et al. (2021) echo these findings and confirm the diminished importance and ranking of PE through the experiences of Australian PE teachers. The main findings from their research study were the continued marginalisation of PE due to lack of importance and student priorities with academic attainment.

Furthermore, Cruickshank, Hyndman, et al. (2021) highlight a contributing factor that may have increased this disparity, especially during online teaching. Their participants expressed that their focus for lessons was to accumulate physical activity, resulting in the 'education' aspect of this subject being replaced with physical activity tasks. All participants were aware of this change in their pedagogical approach, which is heavily

influenced by PE teacher ideologies attached to their subject and fulfilling the 'physical' part of this subject; they prioritised getting students away from their computers and reducing sedentary behaviours. The departure of the 'education' in Physical Education only added to the historical and current pandemic PE, perspectives of this subject being non-academic, reducing teachers to 'fitness trainers' (Cruickshank, Pill, et al., 2021; Howley, 2021). Furthermore, reducing the importance of PE within the hierarchy of subjects in schools in conjunction with the social perspective of education, can create insidious effects on the subject and the teachers who teach it (Lawson, 2018). This can lead teachers to create a sense of false meaning in educational perspectives, ultimately leading to teachers reducing their own perceptions of this subject (Richards et al., 2018).

The importance of PE also extends to the teachers, as many hold personal and professional connections to this subject (Dyson, 2014). When PE teachers themselves feel a loss of status, it leads to feelings of isolation from the other departments in the school (Cruickshank, Hyndman, et al., 2021). Participants in multiple research studies viewed the marginalisation of PE as a subject during the pandemic. Research from Cruickshank, Pill, et al. (2021) found their participants expressed that their subject was valued but not a priority learning area by the students. Similarly, Namli and Yücekaya (2021) reported that students did not participate in PE lessons as it was not part of the school examinations. Additional findings from Kim et al. (2021), in which participants indicated that the school administrators were less likely to advocate for PE, and Chan et al. (2021) found that schools reduced time allocation for PE lessons to focus on an academic subject. This resulted in both extensive absenteeism and reduced participation. Although changes to teaching and learning were inevitable with online teaching, the reduction in the significance of PE meant those teachers not only felt their subject was less important but

also decreased the teacher connection to their subject and relationships with the students in the class (López-Fernández et al., 2021; Phillips et al., 2021).

Emotional Disconnect with Online Teaching

Teaching is a profession where relationships with students and colleagues are an enjoyable, meaningful, and essential aspect of the profession (Kim et al., 2021). The importance of these relationships was expressed by Taylor and Ntoumanis (2007) as one that benefits both teachers and students, contributing to positive educational outcomes and professional satisfaction. Additionally, these relationships are considered crucial aspects of the PE curriculum, as students develop an understanding of the social and emotional learning through movement and interactions with others. They also develop an educational relationship with the teacher (Dyson et al., 2018; Howley, 2021). However, when the shift to online learning occurred during the pandemic, this ability to create and foster these essential relationships was hugely diminished (Hood, 2020; Parsons et al., 2022). This spawned a disconnect between students and teachers; many teachers expressed they struggled with the emotional connection and were concerned for their students (Flack et al., 2020).

The student-teacher relationship within PE teaching and learning during the pandemic has been a central focus for many researchers seeking to understand the impact during this teaching period (Almonacid-Fierro et al., 2021; Howley, 2021; Namli & Yücekaya, 2021). These multiple studies have produced findings that show the significant impact online teaching has had on these relationships and how this can lead to dissatisfaction from teachers throughout the profession. In their study focusing on US teachers' perceptions of online teaching, Kim et al. (2021) interpreted these experiences as strongly

negative experiences in both teaching and relationships. They mentioned that their participants tried to connect with their classes through asynchronous lessons and email communications but still felt 'disconnected' from the students and were unable to build relationships through online platforms. Although participants were aware of some potential benefits to online teaching, they agreed that it obstructed the real-time feedback given to their students in face-to-face environments. Similar findings from Orhan & Beyhan (2020) and Howley (2021) also confirm that a lack of interaction or opportunities with students reduces the ability to maintain or even build relationships through online teaching.

Earlier research from Dyson (2014) discusses how PE teachers value the social and emotional skills students develop within the subject. This requires teachers to teach the 'whole' student: physical, emotional, social, and spiritual. This approach helps establish positive connections and relationships between the teacher and the subject; however, if these connections are not created, then learning will be diminished. Dyson further comments that student-to-student, or student-to-teacher relationships, are of enormous value to learning key concepts. Additionally, research on this aspect from Almonacid-Fierro et al. (2021); Flack et al. (2020), and Cruickshank, Pill, et al. (2021) emphatically revealed that the connections and relationships during online learning were one area of the greatest loss, resulting in anxiety and reduced satisfaction from teachers in the profession. When focusing on New Zealand teachers, Hood (2020) provides insights into the initial teaching stages during the pandemic. The findings from the research showed similar results with diminished relationships and challenges in replicating the social component of education. She highlighted that there were minimal opportunities for 'teachable moments' during online lessons, meaning the natural flow of a face-to-face

lesson could not occur and reduced the richness of the educational outcomes. While students did appreciate that teachers tried multiple strategies to mitigate this issue, the overall outcome was still perceived as detrimental to the teacher-student relationship (Hood, 2020). Interestingly, Hood also found that some students were more positively engaged with online teaching and would participate more in classroom discussions, whereas they would struggle in face-to-face environments. However, the students who did thrive in face-to-face learning experienced the opposite effect: they withdrew from online teaching and struggled to contribute to these lessons.

Teachers of PE are drawn to this profession for the 'kinaesthetic spark' and enjoyment it provides for their students (Phillips et al., 2021). However, when considering online teaching, reducing the senses to only hearing and seeing can greatly reduce PE teachers' enjoyment and daily satisfaction (Phillips et al., 2021). The dissatisfaction in the profession when teaching online was further explored by Namli and Yücekaya (2021). Their research showed emphatic results that online teaching of PE produces lower job satisfaction. The authors explain that the combination of lack of engagement, anxiety, insufficient technical knowledge, and a restricted environment at home all lead to low motivation and emotional burnout. In addition, the emotional stress of teaching online and the disconnection from students also produced a flow-on effect on teachers. That is, many tried multiple strategies to teach PE online, and their workload was paid with 'emotional salary' during their time at home (Rio Poncela et al., 2021).

The workload of teachers during the pandemic was unprecedented. They were given the responsibility of continuing education through online teaching and at an incredibly rapid transition; some without instruction or guidance on continuing education (Cruickshank,

Pill, et al., 2021; Flack et al., 2020). Contemporary research into teacher's workload during the pandemic has produced substantiating evidence that they were exhausted, stressed, and felt like they had to be working almost 24 hours a day (Chan et al., 2021; Flack et al., 2020; López-Fernández et al., 2021; Phillips et al., 2021; Rio Poncela et al., 2021). The multiple research studies identified a long list of plausible reasons for this increase in workload. For instance, more time spent planning and preparing resources (López-Fernández et al., 2021; Parsons et al., 2022; Phillips et al., 2021), additional factors such as having to work and care for family members (Flack et al., 2020), expectations from parents and students (Chan et al., 2021; Rio Poncela et al., 2021); stress and disenchantment with the profession (González-Calvo et al., 2021); and being underprepared (Marshall et al., 2020). Research focusing on New Zealand teachers (Parsons et al., 2022) also saw unprecedented changes in workload and hours related to online teaching. Participants in their study explained how they spent more time creating resources and needed to upskill with the digital technologies being used. Parsons et al. (2022) did note that some participants found using digital technology to be a 'time saver' and were able to manage their time more effectively through online teaching. Alternatively, other positive considerations from González-Calvo et al. (2021) and teachers' use of online teaching have allowed PE teachers to develop this subject and provide a positive 21st-century outcome. Their research study identified how students could develop critical digital technology skills which can be utilised in the future and how digital technology can be blended into a PE programme, creating a 21st-century subject. In addition, these authors also alluded to the idea that the focus on digital technology skills development can also be influential on student motivation and an encouraging factor for PE.

Limitations in the Current Research

The embryonic research relating to this topic is primarily internationally focused and therefore provides limited insights into this phenomenon and the effect on New Zealand teachers, specifically New Zealand PE teachers. Furthermore, current research, although providing critical insights and contributions to this research area, may not truly represent the experience of PE teachers within New Zealand. This is due to many differences in teaching pedagogy, educational expectations, socio-cultural differences unique to this country, the physical and cultural values, and significance of this subject to New Zealanders (Ministry of Education, 2015). Focusing the scope of this research on New Zealand PE teachers can contribute to this research area and reduce the knowledge gap by creating new knowledge and understanding from a New Zealand perspective. That is, specifically, within promoting student learning in PE and developing effective digital technology teaching pedagogies (Ministry of Education, 2015). The Ministry of Education (2015) highlights that:

Schools should explore not only how ICT can supplement traditional ways of teaching but also how it can open up new and different ways of learning (p. 36).

Research into this phenomenon is important, as it can shed new light on the impacts on education and assist in producing new educational practice(s) (Newby, 2014).

Furthermore, more exploration into and creating new insights and information about this phenomenon of teaching PE online during the pandemic will provide a better understanding of how this period impacted PE and its teachers and the implications of the pandemic moving forward.

Conclusion

This literature review has explored and discussed the current viewpoints on the impacts of the global pandemic on PE teachers and teachers generally. We have looked at how the conception of PE in New Zealand has moved from a traditional to a multi-varied approach (Culpan, 2005) to educate the whole student and the impact of the pandemic on this. Attention to the effectiveness of delivery of PE, a traditionally hands-on subject, was examined during online teaching as to whether it was effective in achieving the goals of PE. The concluding evidence suggests that the sudden move to online learning was unfavourable for PE teachers due to being underprepared with lack of training, limited knowledge of online teaching, and the continued marginalisation of PE. Lastly, the emotional disconnect felt by teachers towards their students was expressed as a result of teaching through screens and the inability to fulfil the connections they make during face-to-face lessons. The full understanding of these implications found in literature and researched throughout the pandemic is yet to be extensively researched and understood (Flores & Swennen, 2020). This current research study aims to contribute to the current research on this phenomenon with a focus on New Zealand. By doing so, the information gap in the current research literature can be addressed with the generation of this new knowledge.

In Chapter Three, the focus shifts to the justification of the research design and the appropriate selections for the research paradigm, methodology, and methods implemented for data collection and analysis of this research study.

Chapter Three: Methodology

Introduction

In the following chapter, I outline the research methodology that was utilised within this research study. This section will justify the specific worldviews and paradigms associated with this research, which aligned with the research methodology and methods used to collect the data that was analysed. The first section explores the ontological and epistemological viewpoints and will lead to the justification of the phenomenological lens used to ground this research study. The following sections outline the research methods that were used for data collection, participant selection, and how the data was coded and analysed. Lastly, the ethical considerations and limitations of this research study will be discussed.

This study interpreting the experiences of New Zealand Physical Education teachers while teaching online during the pandemic was motivated by my personal experience and interest in this unique time of teaching. My curiosity led me to think about how other New Zealand PE teachers experienced this change to online teaching and their feelings toward the subject. Exploring these experiences provided an outcome to develop teaching practice further so that the delivery of 'at-home' Physical Education that meets the Taha tinana (physical), Taha hinegaro (mental and emotional), Taha whanau (social) and Taha wairua (spiritual) aspects of Hauora and most importantly, the 'education' aspect in Physical Education. Additionally, the findings from this research may also assist PE teachers in how to apply these new teaching and learnings outcomes that were learnt during this unique period of teaching, when returning to the classroom. This will be beneficial for these educators, who can ensure that the subject can effectively use online platforms and

face-to-face teaching, that meets the requirements of both the 'physical' and 'educational' focuses.

Philosophical Assumptions

Whether we are aware of it or not, researchers will always bring certain beliefs and assumptions to their research. A close tie exists between the philosophical approach one brings to the research and how one proceeds to use the framework for research (Creswell & Poth, 2016). All research is underpinned by a set of beliefs and principles and aligned through a conscious strategy to capture the meaning and precise data through a coherent framework or methodology (Wood, 2016). Therefore, it is essential to spend some time considering underlying personal assumptions. Thinking about 'what is' the foundation or nature of reality (ontology) and 'what we can know' or the nature of knowledge (epistemology) is needed, as these worldviews or paradigms shape research (Merriam & Tisdell, 2015; Wood, 2016). In other words, the view we have of the world and the questions we ask interact with one another to determine what we accept as evidence and how we make sense of the world (Newby, 2014).

The ontological and epistemological positions for the current research align with an interpretivist worldview in that the ontological standpoint is that there is no one reality and individuals create that reality in groups (Creswell & Poth, 2016). The epistemological view of the research study is that reality is interpreted and used to create an understanding and meaning of the phenomena (Creswell & Poth, 2016; Johannesson & Perjons, 2014; Newby, 2014). The interpretive worldview is common within qualitative research, as it assumes that reality is created socially and that there is no single, observable reality; rather, there are multiple realities which researchers and participants construct

(Merriam & Tisdell, 2015). Additionally, this worldview seeks to construct and reconstruct knowledge with the aim of generating meaning in order to understand it rather than just explaining the experiences of others (Guest et al., 2013; Mack, 2010). Lastly, the interpretive worldview accepts and understands alternative ideologies from participants and does not seek to question or alter their worldview but aims to achieve an overarching outcome of uncovering new knowledge and information, creating a rich understanding of their experience (Mack, 2010; Newby, 2014).

In addition, I needed to consider the axiological assumption, or researcher positionality, which characterises qualitative research (Creswell & Poth, 2016). Positionality refers to the "position that the researcher has chosen to adopt within a given research study" (Savin-Baden & Major, 2013, p.71, as cited in Holmes, 2020), which is constructed by my ontological and epistemological viewpoints that are associated with my own beliefs (Holmes, 2020). A researcher's positionality will inevitably shape the research process in its entirety, as well as the interpretations and considerations that follow (Foote & Gau Bartell, 2011; Holmes, 2020). When a researcher acknowledges their position within their research, it does not eliminate or distance the researcher from the research. However, it allows them to align with the research and connect with the investigated phenomenon (McHugh, 2014, as cited in Kassen et al., 2020). This allows the researcher to be more transparent (Salkind, 2010) and reduces the bias they may bring to the research process (Holmes, 2020). The positionality of the current research placed me as an 'insider,' as I am researching people within a social group that I am a part of, having prior knowledge and cognisance of the profession being investigated in this study. As an insider, it allowed me to gain access to the 'culture' of teaching, and more specifically, Physical Education teaching, and ask more insightful/purposive questions of the participants, as well as

understand the participants' terminology and language (verbal and non-verbal cues). However, as the researcher in this study, I needed to be perceptive and acknowledge my potential bias within the research and bracket my assumptions or preconceived notions towards the participants and information that was collected. Lastly, authors Allen (2017), Crouch and Pearce (2013), and Holmes (2020) highlight that positionality will unavoidably influence the research study. By acknowledging my position within the research, it did not eliminate the effect but rather reduced the effects on the research by lessening my bias and how I interacted with it (Durdella, 2019). Acknowledging my position made it visible to other researchers and reduced the power relationship that can occur between them and the participants, which created a better rapport during data collection (Allen, 2017).

Furthermore, my positionality as an insider within this research, and as a current teacher, also motivated my intentions to study the phenomenon of teaching online and interpreting these experiences from a PE perspective. I was intrigued to understand how other PE teachers experienced teaching online during the pandemic and how their experiences were similar or different to mine. This meant my personal philosophical and theoretical beliefs towards this research influenced the research process from the very beginning, and influenced the research paradigms and worldviews, to my interpretation and presentation of these findings (Holmes, 2020). However, throughout the research process I carefully attempted to 'bracket' my preconceived thoughts and assumptions. Bracketing my assumptions also influenced the relationship between the researcher and the participants. For example, if assumptions were to be made towards certain participants, then the data that was collected and was then interpreted, could have been biased, or influenced by the positionality taken to this research (Holmes, 2020). This could also be true within the interpretation and presentation of my findings. If I was to be biased

towards certain viewpoints or outcomes found within this research, then the findings would not be a true interpretation of the lived experiences from the participants (Alase, 2016).

Interpretive Phenomenological Analysis

Interpretive Phenomenological Analysis (IPA) is a qualitative thematic approach that was developed by Jonathon Smith and his colleagues in 1996 (Smith, 2011) and has since gained popularity within qualitative research (Creely et al., 2020; Love et al., 2020). The theoretical roots of IPA is grounded within phenomenology, a philosophical approach developed by Husserl, where researchers capture the primal, lived, and pre-reflective meaning of the experience without interpreting, explaining, or analysing (Goble, 2020; Van Manen, 2017). IPA, however, is concerned with examining the detailed recollection of the lived experience and interpreting to make sense of the experience from the participant's perspective (Smith, 2011). The purpose of IPA is that a researcher cannot understand an experience by simply drawing information from participants (Smith, 2011). It requires the process of engagement and interpretation from researchers. Furthermore, this hermeneutic approach to the phenomena during IPA research draws in both the participant, who is making sense of their experience, and myself - the researcher, who are trying to make sense of the participant's experience, meaning they are considered co-creators of the overall understanding (Love et al., 2020). This is termed a 'double hermeneutic' in that the I asked participants to portray their experiences while attempting to interpret their perceptions of reality (Smith, 2011).

Researchers applying aspects of phenomenology in educational research need to apply some basic tenets of the methodology to their IPA processes, such as withholding

assumptions or 'bracketing' (De Bruin, 2020). This will be critical for this research study, as De Bruin (2020) firmly recommends taking a phenomenological 'stance' during research. He continues to suggest that 'bracketing,' a term adopted from Edmund Husserl, is the withholding of presuppositions of the rationality and interconnectivity of the phenomena from the participants' perspectives. Moreover, Husserl proposed the need to 'bracket' the external worldviews or individual biases of the researcher to achieve contact with the essence of the subject's lifeworld (De Bruin, 2020). This was further developed into the practice of 'epoché,' which is the process of bracketing or mindfully separating the beliefs of the researcher and seeing the phenomena as it is; clearly and purely (De Bruin, 2020). Applying the act of 'bracketing' and 'epoché' was challenging for me. I was a novice researcher, however, by acknowledging my assumptions and exploring my beliefs and values, coming into this research will assist in this difficult task. Merriam and Tisdell (2015) recommend that researchers explore their own experiences of the phenomena to be aware of their assumptions, prejudice, and viewpoints before interviewing. This act of 'epoché' helps to bracket these assumptions and prejudices, to set them aside temporarily and is common practice for researchers to examine their own assumptions and biases about the phenomenon before conducting any research (Merriam & Tisdell, 2015). My personal assumptions and biases towards the phenomenon of online teaching during the pandemic have been recorded and included within my researcher's reflection, which is recommended post IPA research (Merriam & Tisdell, 2015).

The use of an IPA framework for this research study favoured a small sample size, which is common with most qualitative research, whereby the participants' recollections of the experience can highlight similarities (Love et al., 2020). The detailed interpretation of each participant's experiences to generate meaning for a particular group is the aim of IPA

research, instead of making generalisations (Smith & Shinebourne, 2012). In addition, using semi-structured interviewing as the research method is a favoured approach within previous IPA studies (e.g., Brocki & Wearden, 2006; Smith, 2011) and was deemed appropriate for this research study.

Methodological Framework

This current research study adopted an IPA theoretical framework, which explored and interpreted participants' personal experiences and perceptions of their worldview (Brocki & Wearden, 2006). Aligning with qualitative approaches and utilising an interpretive worldview, allowed me to portray multiple realities and understand how participants made sense of their world through the co-construction of knowledge (Guest et al., 2013). Additionally, the IPA framework did not set a rigid methodology to follow and allowed some flexibility; however, it aligned with qualitative research's central characteristics.

Firstly, Merriam and Tisdell (2015) pointed out that the IPA provides for constructing knowledge through people interacting with their social world and what meaning they attribute to their experience. Secondly, they emphasise that I, the researcher, is the primary instrument for data collection and analysis. This allowed me to expand on their understanding through verbal or non-verbal cues immediately to clarify and summarise material for increased accuracy of interpretation later in the data analysis.

With the guidance provided by the IPA framework, the research methodology allowed me to align to its framework and apply appropriate methods and research tools for the data collection. As mentioned earlier, qualitative research seeks to understand how participants interpret their experiences, construct their worlds, and what meanings this contributes to

their experiences (Merriam & Tisdell, 2015). Therefore, the qualitative methodology provided research methods that allowed for a robust analysis of the participants' worldviews, while gaining a new perspective and understanding of the phenomena by applying a phenomenological lens to the data to make sense of their world (Allen, 2017; Durdella, 2019; Guest et al., 2013; Newby, 2014).

When considering appropriate instruments for data collection, I needed to be deliberate with my action and apply the notion of 'fitness for purpose' to ensure it fits within the research aims and aligned with the paradigms and methodologies in use (Cohen et al., 2017). Therefore, the co-construction of knowledge in this study was conducted using semi-structured interviews, which have long been associated with qualitative research (Cruickshank, Pill, et al., 2021; Given, 2008; Guest et al., 2013; Newby, 2014). Doing this provided me with the instrument to co-construct knowledge about the experience with the participants during their interviews. Furthermore, the analysis of the interpretations of the participants' experiences aligned with the research paradigm and methodology to comprehend the sociocultural experiences of the participants (Lee, 2019; Wellington, 2015).

Research Questions

The IPA framework was utilised to assist the research study in answering the following question:

How have the experiences of online teaching during the pandemic changed the teaching and learning priorities of New Zealand Physical Education teachers?

And to develop further understanding of this experience, the subsequent set of research questions are:

- i. What was the experience of online teaching for New Zealand Physical Education teachers during the pandemic?

- ii. What significant changes to pedagogy resulted from teaching Physical Education online?
- iii. What implications could these pedagogical changes have on the teaching of the Health and Physical Education curriculum in New Zealand?

The set of research questions was developed to be broad enough to reflect the nature of the interpretive paradigm, aligning with the qualitative characteristics of the methodology (Durdella, 2019), and provided the structure to convey the purpose of research and the intended outcomes (Allen, 2017).

The research was conducted to interpret how the experiences of online teaching during the pandemic may have changed the teaching and learning priorities of New Zealand Physical Education teachers. The online teaching experiences of educators has been extensively researched internationally. However, the impact of this rapid shift from face-to-face teaching to online platforms in a Physical Education context was yet to be investigated in New Zealand. This research study aimed to generate new information about how the priorities of New Zealand Physical Education teachers altered during this online teaching period. Understanding how Physical Education teachers' priorities changed during this unique time of online teaching is essential for this subject area. By researching this phenomenon and interpreting the findings, it can assist in reshaping pedagogical approaches toward Physical Education when returning to the classroom and using effective online teaching post-pandemic.

Data Collection

The data collection method for this research study employed the use of semi-structured interviews. The use of this interview format has been recommended by researchers operating within the same methodology and paradigms (Qu & Dumay, 2011; Smith & Shinebourne, 2012) and is a favourable approach within many previous IPA studies (Brocki & Wearden, 2006; Smith, 2011) by drawing out detailed information from participants, which was analysed and interpreted in the next steps of this research. The purposeful selection of this data collection method provided flexibility and reflected the settings of human conversations, creating the environment for participants to fully express their responses and experiences (Qu & Dumay, 2011; Smith & Shinebourne, 2012). Further recommendations for using semi-structured interviewing granted me the ability to modify question structure or how to phrase questions, as well as following up responses with probing questions (Qu & Dumay, 2011). However, Smith (2009) stressed the need for the researcher to approach this aspect of IPA with a degree of open-mindedness, with the suspension (bracketing) of preconceptions. This act aimed to ensure that participants expressed their claims about the experience without any unintended influence from myself – the researcher.

Participant Selection

The research study called for specific participants who held particular information about the phenomenon of teaching online during the pandemic. This required me to select participants via purposive sampling. Purposive sampling (Smith & Shinebourne, 2012) is a key feature of phenomenological and qualitative research (Frechette et al., 2020).

Researchers identify participants to invite into the research due to possessing particular characteristics or information that are key to the research (Cohen et al., 2017; Wellington,

2015). However, it is acknowledged that this sample does not represent the wider population due to its selective nature and potential bias (Cohen et al., 2017). Nevertheless, the deliberate use of purposive sampling provided me the leverage to draw out information vital for the research and served the intended outcomes of the research, ensuring it is 'fit for purpose' (Cohen et al., 2017).

The participants for this research study were current New Zealand Physical Education teachers who taught online during the pandemic. The recruitment of participants was completed primarily through my personal networking with New Zealand Physical Education teachers. Participants were contacted via work emails gathered from the school's websites. They were then sent the participant information sheet and the written consent forms (contained in Appendix C). Six out of seven participants responded within the two-week timeframe, with only one declining the invitation to participate in this research study.

The sample size for the research study was small, with only six participants. It must be noted that this did not limit the research purpose or intended outcome, as with fewer participants examined allowed me to go more in-depth with each participant, rather than going broader and shallower with only simple descriptive analysis (Hefferon & Gil-Rodriguez, 2011). The primary outcome was not to generalise but rather to illuminate the lived experience of New Zealand Physical Education teachers' experiences so that there can be transferability from readers or researchers to their own contexts (Frechette et al., 2020).

Additionally, as participants were known to me in a professional capacity, it was imperative that my ethical considerations covered all aspects of participation protection. This meant they were able to be open, honest, and trust they would not have any personal information published that was exposed during the interviewing process. Lastly, as this research study was on the personal experience of the participants, care was taken to ensure questioning for the interviews did not ask participants to talk about their institution's involvement within this teaching time, nor were they led to make comments about other employees.

Interviews

Semi-Structured Interviews

Semi-structured interviews provide a relatively relaxed environment that allows participants to relive their lived experiences in a more detailed fashion. Wellington (2015) emphasises that this interviewing structure provides the researcher (myself) the control of the questioning, as the interviews are not predetermined, incorporating flexibility that suits the needs of the participant's answers. Semi-structured interviews did require some prepared questions that support the purpose of the research, this also allowed me space to have probing and follow-up questions if I needed to delve deeper into my participants responses (Newby, 2014; Qu & Dumay, 2011). Qu & Dumay (2011) point out that this interview style allows the co-construction of the information, which as mentioned earlier, aligned with the methodology and worldview used in the research study. The interview questions were sent to each participant prior to the interview.

The 'gold standard' for interviewing participants has always been face-to-face, gaining vital verbal and non-verbal data points from their participants (McCoyd and Kerson, 2006,

as cited in Deakin & Wakefield, 2014). However, due to recent changes in health measures and social distancing, conducting online interviews has become useful for research studies and participants. Digital technology has previously been used to conduct online interviewing and has been received well by both researchers and participants, producing strong and in-depth data collections (Deakin & Wakefield, 2014). In addition, using online platforms also reduces the geographical issues researchers find when locating participants (Merriam & Tisdell, 2015; Torrissi-Steele & Wang, 2021). For the current research study, this was a small barrier, with one participant being located outside of Auckland, New Zealand, and unable to travel due to restrictions in place during the time of data collection. So, online interviewing was employed to complete this participants interview.

The questions developed for these interviews (See Appendix A) followed the recommendations from Newby (2014) and Qu & Dumay (2011). These authors advised using initial or opening questions for introductions and setting up the interview. Following this, the questions moved towards a more focused approach, specifically themed and interpreting questions. Adding to this, Newby (2014) recommended using additional probing questions to understand the participant's experiences further. These probing questions did differ for each interview and relied on my knowledge and expertise to probe further into the participant's experiences.

Face-to-Face Interviews

The semi-structured interviews were conducted face-to-face in a private, secure, and safe location for the participants. All interviews took approximately 30-45 minutes to complete and were recorded on a personal and password-protected audio recorder.

Online Interviews

As mentioned earlier, national health measures and restrictions limited some participants' travel and therefore affected their ability to complete face-to-face interviews. One participant located outside of Auckland, New Zealand, completed their interviews via the Microsoft Teams platform and followed the same protocol for consent, written consent received prior to the interview and verbally at the start of the interview itself. Only the audio recordings of these interviews were recorded for analysis.

All audio recordings were then transcribed by the researcher and used for thematic analysis with digital assistance from NVivo.

Data Coding & Analysis

Smith (2009, 2011) posited that an IPA framework is 'participant-focused', and that the data analysis is best approached to understand the participant's experience and make meaning of these experiences. Therefore, the analysis needed to be interpretive and not just descriptive; this is achieved through me (the researcher) engaging in the process of the double hermeneutic; aiming to understand the participant and to make sense of their experience (Smith, 2011). In other words, the IPA analysis helped me interpret and amplify the 'lived experience' of the participants to generate an understanding (Alase, 2017).

The transcripts from the interviews were analysed through this IPA framework. The IPA is designed to help understand the participants' personal experiences, which assisted me in identifying commonalities between participants but not to reduce the data into simple codes and not lose the depth of the experience being researched. These commonalities

were coded through a process that Strauss & Corbin (1990), (as cited in Alase, 2016) referred to as 'open coding.' This process involved a three-step cyclic approach that broke down data into manageable chunks before the actual analysis.

This first step of this cycle was to collate participants' responses into meaningful statements and break down lengthy transcripts into a manageable format. This also helped me identify keywords or phrases that were repeated or common trends within the responses from the participants. Alase (2016) highlights this aspect of step one, as the keywords or phrases from the participants started to illuminate the beginnings of the 'core essence' of their 'lived experience' during the next steps. The process of data coding during step one of this cycle was time consuming but very straight forward, with themes starting to emerge from the interview transcripts. However, the aim of trying to complete data analysis was a daunting task but needed to trust the process of research (Given, 2008), and to remember that there is no one way of analysing the data and innovative ways of completing this step is encouraged (Alase, 2016). Having taken this advice onboard, I listened to the recording and re-read the transcripts simultaneously, which gave the data new perspectives, as even the pauses during the interview conversations gave different meaning to the way in which participants spoke or expressed their responses.

After completion of the first cycle, the second cycle allowed further condensation of the phrases and sentences into smaller sentences and sought to move closer to the 'core essence' the participants are expressing. The action of reading and re-reading these smaller data sets provided me with a more precise view of the data and allowed the extrapolation of the 'gist' of the lived experience. This double cycle of condensing and refining the data more accurately reflected the 'lived experiences' of the participants. After completing the

first cycle, the second cycle had more manageable data sets to code, which meant I could complete more in-depth analysis of the data during these sessions and not be overwhelmed by the sheer amount of data.

The third and final cycle is known as the 'category stage'. This provided me another chance to narrow the responses into smaller and more specific categories or themes. This final stage was where the research encapsulated the 'core essence' of the central meaning (meaning unit) of the participants 'lived experiences' in one or two words. Utilisation of this open coding method allowed me to methodically break down large data sets from participants without diminishing or misrepresenting the core meaning of their experiences (Alase, 2016). This was essential for this current research study, as the semi-structured interviews generated large data sets to process. This three-step cycle was time efficient and made analysing the data manageable for a novice researcher like myself.

Following this cyclic coding, the data analysis followed the advice of Creswell and Poth (2016). These authors suggest using a modified method from Stevick-Colaizzi-Keen, which was adapted and discussed by Moustakas (1994). The modified data analysis involves a personal statement from myself, in which I described my personal experience of this phenomenon. This was an attempt to put aside my own experiences and focus only that of the participants in this study. Following this, the data analysis then utilised the themes created in the cyclic coding process. First, these 'meaning units' assisted in creating 'textual descriptions' of 'what' happened from the participant's perspective. Next, the description of 'how' the experience happened highlighted the 'structural descriptions' of the experience. And finally, the combination of the 'textual' and 'structural' descriptions

helped to explain and highlight the 'essence' of the experience. The combination of these descriptions will be further interpreted throughout the discussion chapter.

Ethical Considerations

This study involved human participants; therefore, before I could proceed with the recruitment, ethics approval was required from AUTECH (Auckland University of Technology Ethics Committee). This was not considered a high-risk project though the identity of the participants would need to remain confidential (<https://www.aut.ac.nz/research/researchethics/ethics-approval>).

Ethical approval was granted by the Auckland University of Technology Ethics Committee (AUTECH) on 19 January 2022, number 21/452 (see Appendix A).

Ethical considerations for research within educational research needed to be consistently observed throughout research studies (Mutch, 2013) since the research was 'people studying people' (Wellington, 2015, p.112) and utilising human participants for the vital information they held (Wood, 2016). Furthermore, I aimed to protect the participants and consider all ethical aspects of the research study at all stages to uphold the welfare and protect the rights of the participants (Wood, 2016). If care was not taken, then the research design, methods, data analysis, and conclusions would be considered unethical (Wellington, 2015).

To ensure ethical research was conducted, the study closely followed the responsibilities, values, principles, and guidelines by AUTECH to ensure my research was conducted ethically and protected all those involved, including myself, as the researcher. These values and principles outlined within the AUTECH (AUTECH, 2019) guidelines were:

- To behave with honesty, integrity, and professionalism when undertaking their activities
- Informed and voluntary consent
- Respect for social and cultural sensitivity
- A commitment to the principles of the Te Tiriti o Waitangi (Treaty of Waitangi)
- Minimisation of risk for all those involved in the research study
- Truthfulness, including limitation of deception
- Research adequacy and avoidance of conflict of interest
- Be respectful to other people, including acting with cultural intelligence and intellectual rigour (pūkenga) while respecting diverse values and communities (manaakitanga)

Protecting participants was the obligation of myself (the researcher) while working within a qualitative methodology (Alase, 2017). However, within the IPA framework, which is heavily 'participant orientated,' it carried more importance for me to ensure all aspects within the research design protects rights and dignity and would never compromise the privacy of the participants (Alase, 2017). Therefore, establishing the ethical design for this research study was paramount, as the main source of information that was gathered was from human participants and their phenomenological experience. It was therefore essential that I ensured to protect all participants before, during, and after the interviews were taken place.

Participation in this research study was voluntary and had minimal risk for participants prior, during, and after the research study. The participants invited to be part of this research were informed of their rights and were given full disclosure that their personal

information and recollections of their experience were only for me to analyse and interpret. Each participant received information about the intentions and outcomes of the research. They were asked for written consent to participate in this research and then verbal consent before conducting the interview. All personal names and identifiable characteristics that arose within the research study were not published and were unconnected from the data analysis; this was vital for aiding in the participants' trust, as they felt protected when recalling their experiences and knew they will not be worse off for doing so (Alase, 2016). This was an important aspect of the current research study, as Rubin and Rubin (2011) have conveyed that participants should not be exploited or harmed by publishing materials that would cause job loss, promotion, or revealing information that would harm their character or considered embarrassing. Lastly, as the research explored personal experiences, it was expressed to each participant that they had the right to refuse to answer any question(s) during the interview and can withdraw from the research at any time, without any justification.

Finally, it is important to note that research using digital technologies to collect data must adhere to the same principles and values as face-to-face methods. With the development of new technology, the blurring of the private and public world is constantly being debated (Brooks et al., 2014) and therefore redraws the contours of research relationships and these practices (Miller et al., 2012). Therefore, the ethical considerations for conducting research this way were another aspect of this current research. Formal consent was gathered; both written (prior to the interview) and verbally (before the questioning started). This was achieved through a small passage read by me for the participant to confirm before any questions took place. This is necessary from an ethical standpoint and ensured participants voluntarily consented (Deakin & Wakefield, 2014).

Conclusion

This chapter has outlined the methodology and the steps to selecting the appropriate framework for this research. The IPA framework was deemed the most appropriate approach for the co-construction of information that assisted in interpreting the experiences of New Zealand PE teachers with online teaching during the pandemic. This was achieved through the purposeful selections of the data collection methods, cyclic analysis, and ethical considerations, which all aligned to ensure the research was well designed and met the intended research outcome. Although the data analysis was successful in refining large data sets into the 'core essence' of the live experience, the task of this was a large learning curve for a novice researcher. Lastly, the ethical considerations for the protection of all those involved in this research had been thoroughly considered and identified to align with the values and principles of qualitative research.

Chapter Four: Findings

This chapter presents the experiences of teaching Physical Education online during the pandemic. The findings presented in this chapter were constructed from the six semi-structured interviews. The data was analysed via the multi-step IPA data analysis recommended by Alase (2016) as outlined in Chapter 3. By following this cyclic analysis, the transcripts provided an insight into the participant's experience of teaching Physical Education online and helped extract the 'core essence' of these experiences.

Six New Zealand Physical Education teachers, who had an average of 12 years of teaching experience, agreed to participate in the research study. These participants held various roles and responsibilities within their institutions, for example, Head of Department or Head of Learning Areas, curriculum leader, Deputy Principal, and subject teacher. Each interview took approximately 30 minutes, and the audio recording was transcribed by me.

When analysing the raw data from the interviews, it was recommended, through the IPA cycle from Alase (2016), that the first step was to read the data multiple times. This was to immerse oneself within the data, and better grasp the participants' experiences. Following this first cycle of analysis, the data was refined through common trends and conversational points within the responses from the participants. These comments were then merged and then re-read to be further refined into themes that aligned with the research and helped to answer the research question. Utilising this generic coding method allows the researcher to methodically break down large data sets from participants without diminishing or misrepresenting the core meaning of their experiences (Alase, 2016). The refined transcripts were then re-read, while note-taking alongside the data that

helped to identify more specific phrases or themes within the responses. The data was then broken down into manageable 'chunks' before the final analysis of these themes that expressed the 'core-essence' of the lived experiences. The key themes extracted from the data are: Pragmatism with online teaching; Connection to the profession; Physical 'Education'; Workload; and Changes to Physical Education. First, I will present the data related to the theme of 'Pragmatism with online teaching.' This theme draws from the experiences of the participants and how they approached this new method of teaching and even though it was frustrating and stressful, participants were still optimistic and could see the potential benefits from online teaching. Following this, I will describe how participants experienced a change to their 'Connection to the profession' of teaching PE and the difficulties faced for relationships and satisfaction. The next section will represent how Physical 'Education' was modified during online teaching to suits the needs of the students and the prioritisation of physical activity. Following this, the data will present findings describing how the 'Workload' of participants became unmanageable during their online teaching experience. Lastly, I will present the participants considerations towards the future of PE and how these 'Changes to Physical Education' during online teaching may impact the subject when returning to the classroom. Each key theme will be further discussed through the identified sub-theme (see Figure 1).

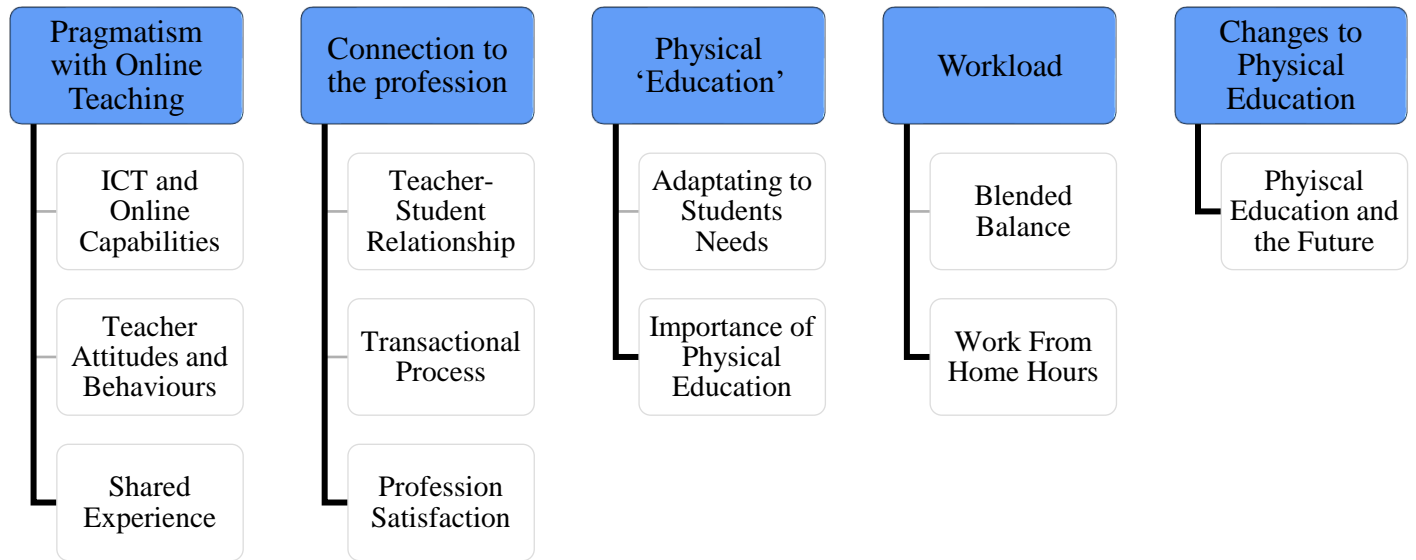


Figure 1: Themes and Sub-Themes.

The following sections will explore each key theme and the associated sub-themes to portray the participant's experience. This will also be achieved through verbatim extracts that collectively depict the 'core-essence' of their experiences.

Pragmatism with Online Learning

The initial switch to online learning during the pandemic was expressed by all participants as a 'learning curve,' and although this was new, it was approached with an optimistic yet confident outlook. Each participant mentioned that no digital technology training or professional development was conducted prior to the sudden shift to online teaching.

However, they did point out that their initial digital technology skills, although basic and somewhat underprepared for full-time online teaching, enabled them to take a pragmatic approach to this teaching experience. Therefore, they address this teaching time, knowing

it would be open for interpretation. Furthermore, participants also commented that being 'underprepared' for online teaching was not a barrier for them to stop teaching during this time, nor was it perceived with negative connotations towards using and adapting their ICT skills.

ICT and Online Capabilities

Being ICT competent was discussed by all participants as a key skill set in online teaching. Nevertheless, all the participants mentioned that they had no professional development or digital training prior to the pandemic. Their similar perspectives were conveyed in neither a positive nor negative manner in relation to the shift to full-time online teaching. Also, participants expressed the importance of digital technology skills but also that it was not essential to continue teaching online. This was seen in their recollections of their experiences, which pointed out that their ICT skills were already proficient enough for them to feel comfortable in the early stages of online teaching and these skills were developed as the pandemic continued.

All participants discussed for whom it was 'open for interpretation' at the beginning of the pandemic and that their digital skills improved as time passed.

Yeah, I think if I start at the beginning, it was pretty wide open of what that would look like.... And I think we fell into a more consistent kind of role and expectations out of teachers and also out of the students towards the end.... we got rapidly better at it, because we're a bit in the dark at first, when we first got onto it. And it was so different to normal operations.

These perspectives were explained further when participants discussed their schools' online environments (Online Learning Platforms, for example, Microsoft Teams or Google

Classroom) that were used prior to the pandemic. Participants explained that their rudimentary use of the school's online learning platforms was common within their teaching practice leading up to the pandemic, providing participants with some digital technology skills that allowed some positive interactions with online teaching.

I think we had an online environment but not to the degree when it actually all happened. Not explicitly for running whole sessions online with a class. But obviously, use of ICT in PE, but yeah not to that level.

In addition, participants acknowledged that their basic skills which were used to deploy information to their student cohort were not developed enough to deliver complete subject curriculums online. However, being 'tech-savvy' (Participant C) and 'dabbling into bits and pieces' (Participant F) in their own personal way prior to the pandemic, helped participants be adaptable.

No. Not deliberately but I think my adaptability led itself to being prepared enough, but I think I would admit, well I know a number of staff struggled with that shift.

These excerpts emphasise the participants' pragmatism with online teaching during the early stages of the pandemic. Their approach to the early stages of teaching online was to use 'trial and error' and to 'try and upskill as quick as they can' through this teaching period. Participant E expressed a constructive outlook on online teaching that lifted teachers' skill sets and capacity.

...this was like a forced situation where people had to get up to speed, it wasn't an optional thing, where you could hide from it and I do think that's definitely lifted the capacity of staff, which is a really good thing. Overall, I think it's been great in lifting the capacity of staff to use digital tools.

This point highlights the positive outcomes that all participants identified with, even though it was a forced shift to online teaching. This was a bi-product of the 'trial and error'

approach, and the forced situation which drove teachers to adapt and develop their ICT skills. Additionally, the participants described that their online teaching was not only new for them but also for the students in their classes. This meant both parties were in the same situation and inexperienced.

But I mean the context of it, everyone was adjusting right to a new normal, really had so there was always going to be teething problems to sort of navigate that sort of space.

The overall perception of this theme was that teachers knew their ICT skills were not up to standard for full-time online teaching. However, their trial-and-error approach led the participants to increase their skill sets and improve as the pandemic continued.

Additionally, all six participants acknowledged their shortcomings and optimistic approach but expressed frustrations and uncertainty with online teaching.

Teacher Attitudes towards Online Teaching

As mentioned earlier, the participants were pragmatic about the situation and expressed a positive outlook on online teaching. This was also reflected in their attitudes and behaviours towards the use of online platforms for online teaching. In addition, two participants also explained how they looked forward to the 'professional challenge' (Participant B) of teaching online and saw it as a stimulus for their creativity, and how it took the teacher outside their comfort zone of traditional teaching pedagogy. Participant B discussed this further with:

I found that stimulating creatively, like professionally...and could creatively sort of come up with, to try and sort of, I guess, tease out a genuine physical education experience for students....you had to get outside your comfort zone and try things especially with things like you know.

These comments reveal the positive attitudes and behaviours towards online teaching and digital technologies. Although these are only comments from two of the six participants, the other participants also conveyed the same positive approach to using online teaching, with one participant summing up the overview of this situation as *a positive outcome of probably a bad situation (Participant E)*. Furthermore, Participant C mentioned that seeing others using this technology and being *'prolific and in that online environment and doing it well'* contributed to his positive approach to online teaching. Seeing others using this technology was beneficial and encouraging for other teachers.

Conversely, participants also explained how this new teaching situation was problematic due to this challenge. On the one hand, they saw it as a beneficial tool and a professional challenge that allowed teachers to be creative and develop a new pedagogical approach to teaching Physical Education. However, on the other, participants believed that they had to create something engaging and creative for the students, even though they had a limited skill set and a restricted scope of what could be achieved in their students' homes.

I suppose that the hardest thing to try and make it creative and interesting and engaging, like, we work in a subject which is meant to be physically or attached to some kind of physical aspect, and it's relatively limited when you're working from home. So that was the challenge (Participant E).

This led to further frustrations with reduced student engagement and low productivity when using online teaching.

But then also incredibly like frustrating as well. So, frustrations, generally sort of stemmed from engagement from students, and how they sort of, sort of perceived that time, like during lockdown and their sort of productivity (Participant B).

Furthermore, participant D recalled how their behaviour changed. Not concerning PE but more with recognising the difficulties in communicating to the class through online teaching.

Yes. Well, not my behaviour towards PE. I think we very quickly realised the convenience of having PE in schools as a medium to get boys active, I think we very quickly realised that that's a very convenient thing. It's very hard to get them active, actually when we were communicating through a device.

The above extracts illustrate their positive attitudes towards online teaching during the pandemic. The participants were up-front about how this would impact their ability to teach PE online but did not let this deter them in the way of continuing with teaching.

Shared Experience

When analysing the data, the participants also referred to this time as a 'Shared Experience' with students and how this influenced their experience. When participants explained their challenges through this online teaching experience, they identified similar difficulties and obstacles that their students were also experiencing. This was viewed positively from the teaching perspective and experience. The following excerpt from participant C, portray how this experience benefited students and teachers alike.

One of the coolest things that came out of that we all became really aware that this and how it was really tough on both teacher and student.

Multiple participants also described how this aspect of online teaching helped fill some emotional loss for the participants, by which they explained that how their students perceived them as equals and saw them as 'human' in the same situation.

I think they see us more as humans as well knowing that we went through lockdown as well. It wasn't like we were at school just dishing out work. We were at home, trying to

keep them motivated as well. So, I think they're aware of that and that all we've got stuff going on. We are humans as well (Participant D).

I think it has that impact for, for some students but on the other hand, everyone's had some pretty unique shared experiences. So, that provides something that people consider and relate to almost like bond over but so, for some students will have enhanced the relationship because of the shared experiences (Participant E).

This outcome was also reflected by participant C. They explained that the negative impact on the teacher-student relationship occurred during this time. However, by going through this period as a shared experience, it created a new bond within these relationships.

I think to some it's impacted negatively, so it's actually harmed it...but on the other hand, everyone's had some pretty unique shared experiences. So, that provides something that you people consider relate to almost like bond over. So, for some students it will have enhanced the relationship because of the shared experiences (Participant B).

This was a surprising outcome discussed by four of the six participants. It reflected how participants observed a new dimension of digital technologies and provided a new aspect of the teacher-student relationship. These findings show how this 'shared experience' was a positive outcome in a time of uncertainty and high stress.

Connection with the Profession

This theme was commonly discussed by the six participants and their recollections of online teaching. The expression of this theme was strongly linked to the underlying reasons why participants enjoy teaching Physical Education and how it was diminished during online teaching. Participants explained that teaching through a computer lead to a disconnection with students and altered the ability to create, foster, and maintain the

teacher-student relationship. Also, participants explained how their teaching became more 'transactional' and reflected a more 'lecture style' of lessons during this time.

Teacher-Student Relationship

This recollection of the relationship and online teaching was commonly discussed within all participants' experiences. They all highlighted the difficulties they faced with this evolving and unique relationship concerning their classes and students. All participants stressed that online teaching was a negative factor in building or maintaining rapport.

And what's really negative is the lack of interactions, that relationship side of teaching that I love, and building those, helping build good character.....And you don't see any people, the boys never turned the camera on, never reacted too much.

Participant F brought a new perspective to this relationship, in which

You almost became like, like a parole officer rather than a teacher.

These recollections depict teachers' struggles when trying to create or maintain relationships during the online teaching period. The relationship side of teaching was one key aspect of why the participants enjoy teaching this subject. In addition, participants acknowledged how the online classroom differed from the 'offline' classroom, with teacher interactions with students and their willingness to do so in person but not reflecting the same eagerness when having these conversations online.

Participant C spoke about this relationship in-depth during his interview

I love the classroom. I love when they come in and you asking how was their weekend, for every class I've had online, it takes a while to have that same chat, I guess that's another barrier to break down. There's just, they're more willing to talk and just yell over each other and, and banter in a, in a classroom, like in a physical classroom. On the online space. It was the same question...you'll get one of them or they'll wait for someone to talk.

Participant C also recollects the differences between face-to-face learning and online teaching in building the teacher-student relationship. They describe how in the classroom it is easy and relaxed to talk to their students to build rapport but struggled with the same relationship building methods with online teaching.

Back in person we will often just have a little chat to you at the end of the lesson or chat to you at the start of that lesson and that's how you build those relationships. And then the teacher would often talk about weekends or sporting fixtures, whatever it was, and build that relationship. And you lose that you lose that without eyeballing kids. So, I think that's had a massive effect.

The previous comments emphasise the breakdown in the teacher-student relationships and link back to what participants enjoy about teaching Physical Education. Participants enjoy teaching a physical subject, which is challenging for students and involves building a positive connection with being active and the students themselves. However, when teaching online, this was difficult to replicate and detrimental to teaching Physical Education.

Finally, the expression and explanations of this relationship were viewed as a negative contributor and diminished the ability to maintain or build rapport with students. All participants recognised the difficulties with building these relationships during teaching online. Nevertheless, the participant's perspectives remained the same at the core of this relationship. Participants highlighted that being a PE teacher involves more than just teaching, such as being a 'guidance counsellor, second parent, you're a taxi driver' (Participant F) and used this approach during the pandemic for their student. Participant F explains how their role changed in the physical space but not the emotional one.

So that probably didn't change as much because you're still, you're still caring about the well-being the overall well-being and their students and you probably still trying to connect as much as you can with them.

In addition, there was a unique perspective from Participant B and their experience of online teaching, with the simple act of talking about their difficulties and how they were feeling to their classes. This led to a supportive environment for the teacher, which the students led.

...because you were talking to students about it, they actually talked about it..... sometimes, you'd have been coming in the class and just going, oh, look, I'm having a really hard time and then, you know, and then rather than boys engaging in banter, they'd be like, oh, you're doing good, you know, it's kind of a weird environment to be in.

The impact on teacher-student relationships was expressed as an overall negative aspect of teaching online during the pandemic. However, participants all acknowledged that this facet would change when they were back in the classroom and would still be an enjoyable aspect of their teaching role. Further to this, their acknowledgement that this relationship has changed during this teaching period did not limit teachers' ability to try and establish relationships and reflect their compassion for their students.

Transactional Process

This theme encapsulates the experiences of participants and their pedagogical change during teaching online. It was described as 'transactional' and was a notable experience for each participant. It represented their experiences as an emotion-less and unidirectional passing of information to the students, with all participants pointing out that the students only wanted to do what was needed and nothing more. The participants explained that their teaching style reflected a lecture-style presentation, with very little discussion taking

place during 'synchronous live meets.' Each participant expressed their approach to teaching online, but each mentioned that their teaching reverted back to 'teaching to the assessment' (Participant A) and only providing students with what they 'needed to know' (Participant A) just to pass. Most of the participants also recalled how the personal side of teaching was lost and became more 'transactional' with a comment such as:

*I just felt I was lecturing.....I think we just went to teaching the subject's assessments
...You just become a lecturer.*

This 'transactional' change was in reflection of the participant's awareness of the situation, in that students were not interested in doing more than what was needed. This was the consensus from participants, in which they 'just have to get the boys through and get them credits'. Participant A highlights this below:

You know, you can give extra stuff if kids want to read but, in the end, it's what do I need to get to Achieved, what I need to get Merit? What do I need to get Excellence? Which is a bit of a shame, because there's a lot more to teach pupils as they're going through school, and especially in PE as well.

Participant B added to this point by expressing his change in teaching style that was less 'human' and focused more on setting work with no additional teaching aspect. They explained:

So, the biggest change, I think, is that it just lost it's, the human side of it. It became more sort of transactional and, and less personal, so it shifted. I think, to more of like a kind of set and forget type thing with work and stuff.

The recollections depict the participants' experience and feelings with their inability to connect with students and replicate their lessons during online teaching.

Furthermore, their transactional approach moved further into additional pastoral roles by contacting parents to help them with students completing their work and continuing to become more of a transaction than teaching.

I had to do a lot more phone calling to go hey, how's your son going? Is he up to date, can you just keep an eye on him for us.... So, yeah, the role did change here (Participant D).

These multiple disconnections with online teaching produced a pedagogical approach of 'getting the student across the line' so they could gain their credits and not have to be too mentally impacted by the pandemic. With this change however, brought with it the loss of enjoyment for the participants and taking away from their connection to their subject.

Professional Satisfaction

During the interviews, each participant spoke of their reasons for why they enjoy being a Physical Education teacher. They explained that the positive impacts on students' development and teaching them in a unique environment were significant to their satisfaction with their profession. However, online learning diminished their enjoyment and satisfaction, resulting in both mental and emotional impacts.

Participant A explained their 'light bulb moment' from students with face-to-face teaching:

Yeah, it again, it's that love of seeing the kids develop. Like, I remember one time, one of the things that made me want to be a teacher was I was coaching cricket. And I was trying to get kids play forward defence. And he just wouldn't. In practice, and he kept getting out in games. And then finally, he had that light bulb moment in a game, and I saw it and I was umpiring, and I thought this was going straight through him, and he played a forward defence. And he kind of, looked up and smiled. And I was like, that's the satisfaction you get

from teaching in person. You see those light bulb moments of okay, that makes sense. I understand why he's taught me that. So that's our subject.

Participant A diverges to explain how this links to their own personal satisfaction and 'lightbulb moments' with teaching PE and being active as a teacher while teaching their students:

You can teach the boys about the body, how it works, and you can see them use it and not seeing that isn't great for me, you know, I don't want to be behind a laptop. And it's not me. So that's, that's what I missed. And I think that's the biggest effect, if you're on online the whole time, you miss those interactions, there's lightbulb moments.

Participant D also expressed similar experiences with reduced satisfaction when working from home and not having the daily interactions with colleagues on-site. For example, participant D explained their disconnect with colleagues in the department was 'mentally tough' during this time and how this shift also affected their mental and social well-being.

Being in front of a screen and then chat to you guys or the other PE guys, oh I had a nice chat and then you closed the screen and they're gone. So that was always quite weird.

The above excerpt illuminates an additional feeling of isolation from the colleagues they work with and connect with professionally and personally. This theme was also discussed through the dissatisfaction with teaching through the computer screen. Participant A highlights two points. Their first points stressed the emotional disconnect with their students when talking to a screen each lesson, with:

It's I think most teachers would be able to say the experience of feeling like they're just talking to the void.

They continued with potential future implications for teachers, their students, and this relationship.

You can't build those relationships so that the pupils walking around in 2022 that I taught last year, but really don't know who they are. And I feel guilty for that because I haven't built that relationship.... I think that student relationship that PE teachers especially have has had a massive effect, massive change. And it's a shame. It's a real shame. Because I mentioned the start, what I love is about helping pupils develop over time and seeing them develop and seeing that character come through their struggle values, and we're going to miss a few.

These recollections from the participants unveil the detrimental effects on professional satisfaction associated with teaching online during the pandemic. Although the participants each expressed a different dissatisfaction with online teaching, their overall experience was negative and has future implications for this relationship when returning to the classroom.

Physical 'Education'

The premise of this theme stems from the participants' priorities during the pandemic. Participants explained that they focused more on the emotional context of the situation rather than the educational side during online teaching. Participants revealed that their pedagogical approach toward this subject changed during the pandemic. This led to adaptations to their teaching and learning expectations for their students and developed into a Physical 'Education' subject that suited the needs of their students learning at home.

Adapting to Students' Needs

The participants explained how their adapted approach to their teaching and learning priorities and the curriculum focus during the pandemic reflected their students' needs. Participants justified how they reverted to 'teaching to the assessment' (Participant A) to get students 'over the line' (Participant D) with the aim of reducing stress. This teaching approach was identified within the 'Transactional Process' sub-theme and was further built on within this adaptation for students' needs.

Participant A discusses this further by adding:

I think pupils will want to know just what they need to do to pass, get the grades they want, they don't want the extra stuff, which I actually think is really important. So, more depth and things, more on the relationship side of things, more storytelling, all those things might disappear a little bit.

However, Participant D conceded that this adaptation was needed for the initial stages of online teaching and having students submit assessments but did stress that students will still need some additional assistance when returning to the classroom.

Get them over the line with getting work in on time. Otherwise knowing that when we're back, we'll just have to catch them up.

Additionally, this adaptation to the curriculum was expressed with a heavy focus on well-being within Physical Education. This was perhaps the largest modification within the curriculum for participants. All participants stressed that they emphasised their student's well-being and how the well-being of their students brought with it extreme importance during this time. This was especially emphasised regarding student feedback and providing them with physical activity and its benefits. Participants also recall how their students had a greater appreciation of physical activity during the pandemic and how 'small things like this' (Participant C) helped their students manage their own lockdown.

The feedback that we got from students is that we were more acutely aware of their well-being.....And also, you know, some of them a greater appreciation of what that physical activity can do for you under duress.

By being more aware of students' well-being, participants tended to discuss how Physical Education differed when compared to other subjects. Participants explained that the student voice greatly influenced this adapted approach and helped teachers feel like they were doing the right thing for their students. Comments from participants explained how other subjects had to 'get through content and will push and pull the kids' (Participant A) when PE teachers would 'listen to our boys' (Participant A) and make changes to suit their needs. This adaptation was also recalled through participant E and F's use of physical activity as the main driver for their lessons.

I think that the activity around it was really important for them, the ones that did it realised it was actually quite good for them to go do something. So go for a walk with their mum or go for a run or a bike ride or whatever it may be.....We were creating work for them but just trying to get them out once every two days.

All the participants perceived this and the importance of being physical during the pandemic was essential. The participants explained how they created lessons that would encourage physical activity to get away from computers and to interact with their families. Also, they explained how PE played a big role during the pandemic, 'particularly in the circumstances that student were locked down' (Participant C) and convey the message of how physical activity is good for you. Additionally, the benefits of this were mental and emotional outlets, and as Participant D conveyed:

I think as PE teachers, it's our job to make them aware that physical activity is very important. So, that's up to us to make sure that although work's now online, still going out there and doing something, an activity is very important

The adaptation of PE during the pandemic shows it combined student feedback and teacher awareness of the overall situation.

Importance of Physical Education

The importance of Physical Education throughout the pandemic was discussed in-depth by all six participants. Their descriptions explained how their perceptions of the importance of PE were reinforced during the pandemic and were essential for not only the subject success, but also for students and their well-being. The following comments reflect the importance placed on this subject by participants:

I think PE has its place, and then probably more, if anything, it should, you know, the importance of PE and what it can do for you.....It should have been sort of the, that should have increased actually, over this time, you know, and yeah, I think I think PE has a role..... which can improve your, well one part of your well-being and the theory behind it, you know, that's, that's important for, for students to learn

The participants' views on the importance of Physical Education were associated with their beliefs that being physically active can relieve stress and increase mental and emotional health factors. This was further vindicated when participants spoke about the subject through post-lockdown surveys, in which PE received extremely positive reviews from students and was considered 'the best over lockdown' (Participant A). Participant A stated it was due to their 'flexibility and the fact that the teachers listened to their students to push out dates and reduced student workloads'.

Furthermore, participants also mentioned how the underlying concepts of Physical Education were considered to be more important during the pandemic. Participant F highlighted this importance below in relation to mental, emotional, physical and also spiritual health:

Some people realised the importance of it because they didn't have it on the daily or the weekly anymore and they're probably finding they're getting out of shape or, you know, not feeling as good because they weren't actually getting any physical exercise. I think especially having that ability to just go outside and get away from your immediate bubble. Just a simple bike ride or a walk or run or you know, just something basic became, you know, people started finding joy in stuff again.

Participant E echoed this response by focusing on the core focus of PE teachers and how they try to build positive relationships by being active and the convenience of it.

We very quickly realised the convenience of having PE in schools as a medium to get boys active....But I do think a core aspect of PE, it's about just being physically active and building a positive relationship with being physically active.

In addition, the participants noticeably linked the underlying benefits of this subject by focusing on being active and the important outcomes of being active. However, participants did acknowledge that this change in Physical Education may have led to a replacement of the 'education' aspect with a focus on physical 'activity'. This change then influenced the notion of students that Physical Education is not a strong academic subject due to the prioritisation of physical 'activity' during the pandemic.

I think that was diminished a little bit from a student's point of view. I think the teachers still place value on it and are passionate about it (Participant F).

In terms of internals, I don't think it was too important. I think that the activity around it was really important for them, the ones that did it realised it was actually quite good for them to go do something (Participant D).

Participant F also highlighted that the online teaching of Physical Education could have contributed to why many students disengaged from this subject, as physical activity was not an important aspect of their daily lives prior to the pandemic. They continued to explain how:

Students that are not into it, it just gave them more of a reason to not do it, so those that were not usually into it, it just reinforced the fact they don't need it for them.

Lastly, as mentioned above, the importance of Physical Education is heavily focused on the subject's Physical 'Activity' strands. Participant D expressed this as the PE teachers' 'job' to make students aware of the importance and need for physical activity during the pandemic. Through this approach, the expressed outcome would be that their students would understand that being physically active is good for them and build a positive relationship that could strengthen their association with the subject. However, the act of replacing 'education' with 'activity' may have further implications for teachers and the subject.

Workload

The workload of the participants was reflected with all six teachers during online teaching. This theme gave a textual illustration of these experiences and an unintentional outcome for teachers during the pandemic. This theme emerged throughout the interviews as participants explained how they struggled to find a balance to work and life at home. The new working-from-home mode meant that the ordinarily separate parts of work and

private lives became blurred with online teaching, resulting in participants experiencing struggles with finding a balance in this new situation.

Blended Balance

This theme was created to depict participants' struggles in finding a balance in working-from-home during the initial stages of the pandemic. Additionally, the participants with children, pets, and young families had unique complications that affected all involved in their new working-from-home environments. Five participants described how they had to combat time, space, and stress-free environments in their homes. In particular, comments from Participant A reflected a stressful and difficult home life during the pandemic, which was further expressed by Participant C.

The worst part of it was the effect on my family to young, two young children. My wife's a teacher, we had to react when we had lessons. We sometimes had to cancel lessons, so one of us was looking after the children and then there was no time to mark or go through what pupils were doing. So, that would mean you're working till nine o'clock at night, so it has a negative effect on your family really, both working till late at night and then switch off, go to bed, start again the next day (Participant A).

I'd say that's how it impacted things like it definitely had a negative impact because that was more my doing and negatively impacted my family life there (Participant C).

These comments portray the challenges faced during this balance of life and work and how participants needed to find a balance that allowed them to manage their personal and professional lives. This struggle was further depicted when Participants A and E explained how it affected their family and relationships.

Yes, as I mentioned, previously, the, the effect on the family wasn't great, um because our daughters, they weren't at a stage of their life where they can play together for five minutes, 10 minutes, so between two of us being teachers. (Participant A)

Yeah. For me, personally, I, it was hectic from a personal point of view. I mean, I was assistant headmaster, head of PE, still doing a bit of teaching and, and other things. My wife was working full time. I had, at that point, a thirteen-month-old, I had sole care of because she was at, my wife's a pharmacist. So, trying to balance teaching and, you know doing that well, as well as the other aspects of being a school leader and having him around. Every time I got the laptop out, he wanted to play with the laptop, just the whole thing was pretty full on to be honest (Participant E)

However, some participants had a different experience, with more family time and personal space. Although this was a unique perspective, when compared to the other participants' experiences of teaching online, Participant B expressed the enjoyment of teaching online and how they enjoyed the time at home but acknowledged that this was not sustainable for an extended period of time. Positive outlooks were also mentioned by Participant D, who highlighted above, the benefits for his physical and mental well-being with extra time for physical activity due to the early finishes of his teaching day.

Participant B and D describe very different perspectives on working from home.

I enjoyed the balance and I enjoy the lifestyle afforded us time, like in that time. So, that was nice for a short time, but not sustainable for a long time (Participant B).

I think because the days when finishing early, potentially more free time in the afternoon....

I did physical activity every day besides two, I think. So physically I guess it was good for me (Participant C).

Although these comments uncover a positive outcome from online teaching, most of the participants struggled to find the balance that worked for their individualised home situations. The overall agreement from participants was that it was difficult to manage a balance that worked and only created further issues with online teaching.

Work-from-Home Hours

Another underlying subtheme from the interview data was termed 'work-from-home hours.' This was linked to the previous theme of blended balance, as these work-from-home hours differed with each personal situation and the interpretation of the participants. Participants discussed their experiences with teaching online from their homes and how the boundaries between personal and professional space, both physically and online, started to become distorted.

I don't know if it's a barrier, but I found that students and parents just thinking you are constantly available, like more available..... So yeah, I, I had to just draw some, some professional boundaries out there just with things as I will, with the promise that I would get back to them (Participant C).

Participant C supported this view and expressed challenges with managing the work-from-home hours at the start of the pandemic. They explained this further by describing how their perspectives changed throughout the pandemic and helped alleviate the situation.

Once I worked it out, like I was just doing mega hours, you know, like, I was really spending a lot of time initially I was going once I learned just how to be more efficient on how I did everything. I felt like I had to create so much from scratch, when actually there was faster ways to go through things.

The experiences of working from home from the participant's perspective, as expressed above, were that the boundaries of work life and personal life were very much blurred. This was due to the online teaching and being accessible any time of the day and no expectations or guidelines for this teaching period. In conjunction with this, these participants also had families of their own to manage, adding an extra obstacle to overcome with teaching from home. Participant A explained issues with their work-from-home hours:

We have to schedule our day and that affected pupils as well because we couldn't give them the time they needed if it was if there was a question, I can only really do meetings with my faculty or curriculum committees and things like that, they had to be during the time of our kids and at lunchtime, that was also the time that I'll be able to do an hour's work undisturbed. So, massively day-to-day affected. Certainly, we'd start working at 9 o'clock at night, which is wrong. We shouldn't have to work from 8:25am pretty much working till nine at night.

The issues that were expressed by participants represented the unknown effects of online teaching and the pandemic on external life factors. The combination of working from home and online teaching provided extra stress to the situation and further complicated this teaching time for the participants.

Changes to Physical Education

When asked about the changes to their educational practice during this teaching time and how it might look in years to come, participants agreed that online teaching had changed not only education but also Physical Education and the pedagogy of this subject. Their discussions focused on how they think Physical Education will be taught in the years that follow and the flow-on effect for teachers and students. Participants explained that, on the

one hand, the outlooks were considered by some as 'advantageous' for upskilling teachers and how this experience could positively influence the development of PE as a 21st-century subject. However, on the other hand, many were apprehensive and expressed concern about too much change with the digital delivery of PE. In addition, the importance of Physical Education during the pandemic was emphasised by all participants. However, they questioned whether the academic notions of Physical Education diminished due to the change in subject content and having lesser academic attention.

Physical Education in the Future

As mentioned above, the changes made to Physical Education during online teaching were considered by the participants as advantageous and could assist in creating new digital pedagogies when returning to the classroom. This was also viewed as a way of upskilling themselves to meet their students' needs and creating a 21st-century subject.

Participant A expressed their hope for positive change after the pandemic using digital pedagogies. They spoke about setting up 'weekly planners' for their classes and how this provided structure to their weeks, a strategy they will continue when returning to the classroom. Also, they continue to discuss how digital technology such as the 'flipped classroom' can provide more time for practical lessons due to prior knowledge that is covered at home.

I hope it'll change. I do hope it'll change. I've always been a fan of flipped lessons and recording lessons so pupils can watch that and come in with that prior knowledge so you

can really go into depth during the lesson talk about concepts rather than teach the concepts and then you can really push in see the boys understanding, so I hope teachers still do that.

Participant E also conveyed how the pandemic brought forward teaching digital skills:

It's been great in lifting the capacity of staff to use digital tools..., and comfortably go to an online environment, and have those systems in place. So that's, again, a positive outcome of probably a bad situation.

And more from Participant B:

So, I think it's been a shakeup for the better. I think it's sort of reinforced the need for good teachers and exposed weaker ones who don't perhaps have the sort of adaptability... My hope is that it's sort of forced PE teachers to broaden their toolkit from perhaps what it was prior to lockdown and remote learning

And finally, Participant F, who also expressed a personal improvement during the pandemic:

It's forced me to keep using some of those skills and tools and stuff that we push them a little bit harder. Which means a little bit extra time and your prep and planning to make sure you got it dialled in.

On the other side of online education were potential developments with student autonomy and their use of digital technology and online teaching. Participant B states:

I think kids because of these experiences get sort of used to the home environment and used to the autonomy that that afforded them. So, they can pretty much do things, from my experience, when they wanted and how they wanted it and on their own terms. So that could potentially translate into the income back to school and sort of almost expecting a level of autonomy and choice that perhaps they didn't have prior.

This discussion on student autonomy and digital usage within PE in the future was echoed by Participants C and F by explaining:

So, I think maybe the usage of technology, and that some of our students are actually quite competent with it. And yeah, so I think we can bring that into PE a little bit more with it with our not just with both our, our teaching and learning programmes and our assessment programme (Participant C)

Yeah, I think I think it's changed a little bit. Like we're already doing more stuff online. As opposed to like the, just the deliveries change.....it's just not as much chalk and talk as it probably would have been previously (Participant F).

The commentaries above display how the participants saw this unique period of teaching and the advantageous changes that may occur. However, contrasting this positive outlook to construct new teaching and learning skills, Participant B mentions the fact that teachers may resort back to the old ways of teaching Physical Education and reinforcing traditional methods.

The other way is that there could actually be a shift, the other direction, to a more sort of old school approach to take to PE and sort of perceiving a lack of structure through that time, leading to be replaced with a sort of more structure and sort of making up for lost time or lost ground...changes for good or worse? Traditional approach with new outlook for PE?

Participant A also raised some concern that some teachers may resort back to traditional methods due to comfort and heavily seated beliefs.

....So hopefully there are some positives changes, but I think some, some stuff will just go back to the way they used to teach because that's their comfort zone.

Another perspective when considering the changes from teaching online during the pandemic was an interesting consideration from Participant C. Their thoughts were on the impact of increasing the digital use when returning to the classroom and drawing back to the focus of being 'Physical' in Physical Education. They mentioned that this time has 'highlighted the risks and dangers of digital tech' and expressed that schools need to see

how their integration of digital technology is going to impact their curriculum, especially PE and the 'the value of in person PE and PE lessons....and varied skills that the PE subject area deploys and develops in students'.

These different considerations stress the potential effect online teaching has had and how it could have potentially changed pedagogical approaches when returning to the classroom through individual teacher ICT skill development and student autonomy. The participants' perspectives portrayed that the potential change may be for the betterment of the subject and move it forward into the 21st century or alternatively, revert to traditional approaches.

Conclusion

This chapter has presented the participants' lived experiences during their time teaching online during the pandemic. Although the participants conveyed online teaching during the pandemic as an overall negative experience, they all acknowledge that this time has been beneficial for upskilling teachers and having potentially positive long-term outcomes for PE. The key themes depicted throughout this chapter reflect the 'core essence' of this phenomenon from the participant's recollections and the interpretations of their experience. Along with verbatim extracts, helping to display these themes through the participants' perspectives, I have portrayed their experiences with online teaching and how they managed this unique period of teaching.

The presentation of data throughout this chapter described the overall experience of online teaching during the pandemic from the participant's recollections. These descriptions, along with the purposeful analysis of these experiences into key themes and sub-themes, provide an initial foundation for answering the set of research questions.

The following discussion will provide further examinations of these key themes by establishing links between the findings from this research study and the current literature that was introduced in Chapter Two.

Chapter Five: Discussion

In Chapter Five, the discussion is structured around the findings from Chapter Four and presented as a critical examination of each key theme. The purposeful selection of the IPA framework allowed the co-construction of the data through the use of suggested methods (semi-structured interviews), providing knowledge to allow the re-construction to understand, rather than explain, the experiences of the participants (Guest et al., 2013; Mack, 2010). The re-construction of these experiences throughout this discussion will mirror the layout of Chapter Four by individually exploring each key theme and establishing links to answering the main research question, which is revisited below along with the key themes. In addition, the discussion of the key themes will refer to current literature related to this phenomenon and establish further connections to the literature review in Chapter Two. Lastly, Chapter Five will provide a conclusion to the discussion and how the research will lead into the concluding chapters of this research study.

Main research question

This research study aimed to interpret New Zealand Physical education teachers' experiences of teaching online during the pandemic. The main research question was:

How have the experiences of online teaching during the pandemic changed the teaching and learning priorities of New Zealand (NZ) Physical Education teachers?

In addition to the main research question, key themes that emerged from Chapter Four were:

- Pragmatism with online teaching
- Connection to the profession

- Physical 'education'
- Workload
- Changes to physical education

The main research question and the themes listed above will provide the structure for the following discussion. Each theme will be discussed concerning the findings from this research and the current literature presented in Chapter Two.

Pragmatism with Online Teaching

The conception of this theme reflected the attitudes and outlook taken by participants in this research study. Their 'pragmatism with online teaching' is depicted through their recollections of this experience and helps display their understanding of this unique teaching period and how to approach it. The participants acknowledged that they were not fully prepared for the switch to full-time online teaching but knew many other teachers would be in a similar situation, as circumstances like this have never been seen before in education. However, adopting this pragmatic view toward online teaching allowed participants to focus on practical approaches, help them understand this teaching style better, and find solutions to the barriers they faced. Furthermore, even though some actions went against their ideological beliefs towards PE, this pragmatic approach demonstrated that they were aware of the issues with online teaching for all invested parties due to the rapid shift to online teaching. Nevertheless, the consensus from the participants within this research was that the frustrations were understandable outcomes of teaching online, and they knew the situation would ease with time and experience.

Many frustrations with teaching online during the pandemic, especially for PE teachers, were influenced heavily by the rapid transition from face-to-face teaching to full-time

online. Findings from this research found that participants' frustration with online teaching, such as digitising resources, unstructured guidelines and protocols, and lack of preparation, parallel that of many current research studies examining this phenomenon (Flack et al., 2020; Orhan & Beyhan, 2020; Phillips et al., 2021). The conclusion was that teachers were largely unprepared for full-time online teaching. Additionally, participants in this research study mentioned they had some experience with digital technology within PE but no prior training in online teaching; at least, not to the extent to which it was needed. They also noted that their school platforms were established before the pandemic, but like the teachers using them, these platforms were not fully prepared for full school days. This unfortunate lack of preparation resulted in reduced teacher confidence in using this medium to teach; meaning their ability to teach the students was greatly affected. This finding contributes to the work of Flack et al. (2021), who also confirmed that most teachers found themselves in an unprecedented situation that required educators to step up and continue education through a platform they were not fully trained in, or confident in using (Flack et al., 2020).

Extensive research from Flack et al. (2020) into multiple online teaching elements, such as lack of preparation during the pandemic, led to the discovery that teachers felt less confident and more like 'first-year teachers' than experienced educators when they switched to online teaching. Similarities in this current research produced findings, with participants expressing they felt 'left in the dark' during the initial stages of online teaching and what protocols to follow for teaching. This resulted in teachers' approaching their online lessons with a 'trial and error' approach to attempting some things that may or may not work. Interestingly, this research can confirm that participants were underprepared for full-time online teaching but discovered that they expressed confidence

in using online teaching. This finding opposes that of Flack et al. (2020), whose survey revealed that only 42% of New Zealand teachers expressed they were 'somewhat confident' or 'not at all confident' with online teaching. This contradictory finding from the current research suggests that participants acknowledged that the pandemic changed their day-to-day teaching environment and put them into a situation that was out of their control. However, this acknowledgement was not seen as a reason to stop trying but rather a time to develop their teaching skill sets and digital proficiency.

Further to this point, they emphasised they got 'rapidly better at it and relied on their 'adaptability' to mitigate the initial issues. This willingness to try new pedagogical methods and upskill allowed the participants the confidence to approach this new teaching environment as a professional challenge positively. Furthermore, the interpretations of the interview data were further assisted by the participant's body language and choice of language used to describe their experience. Extracting this additional finding was due to the use of the IPA framework and how flexibility within this framework allowed both research and participants to co-construct this new knowledge of their experience, in conjunction with the researcher bracketing his assumptions (Guest et al., 2013; Smith, 2011). This finding would have been missed if my perspectives had influenced the participants' recollection of their experiences.

Participants also discussed how the pandemic 'forced' teachers to upskill and brought forward gaps in knowledge and skill sets required in classrooms of today. As previously mentioned in Chapter Two, the use of digital technology within PE is heavily influenced by the attitudes and behaviours of teachers (Pongsakdi et al., 2021; Tou et al., 2020; Van der Spoel et al., 2020). These research studies confirm that positive attitudes toward digital

technology result in increased use of these tools, whereas negative attitudes result in decreased use. In addition to this were the personal ideologies of PE teachers and how they viewed PE as a physical subject. They thought that encouraging the use of digital technology, a known contributor to sedentary lifestyles, will contribute to the health issues of young people and can negatively affect the integration of these teaching tools (Armour et al., 2020; Hinojo Lucena et al., 2020). This reluctance to use digital technology directs back to Ertmer's (1999) research on first and second-order barriers. Ertmer (1999), who has exhaustively researched this relationship, expresses that second-order barriers, such as internal factors linked to attitudes towards using and the usefulness of digital technology, are more severe barriers to overcome. However, in this research study, the barriers faced by participants in this research study were only considered first-order due to external factors such as digitisation of resources, lack of experience, and time using these tools. The participants recall their adaptability and perceived online teaching as a professional challenge, reflecting how they do not view digital technology as negatively influencing their students or the subject. Many participants expressed their eagerness to use it more after the pandemic when back inside the classroom.

Furthermore, insights from Baek et al. (2018) contribute to this point. When exploring this teacher and digital technology relationship, they found that changing teachers' perceptions towards digital technology in PE is through observing others using these tools effectively, and the time to practice can assist in this paradigm shift. One participant in this research described this observational effect when seeing their colleague being 'prolific' in the online environment, making them more open to the use of online teaching.

The participant's experiences and recollections reflect their positive attitudes and behaviours towards this teaching time. A central finding from the current research was that participants' previous experience with digital technology was generally low, as well as them having limited experience of teaching online. Nevertheless, their perceived attitude towards using digital technology did not damage their approach to the pandemic. Interestingly, when exploring this attitude further, many participants expressed that they were excited about the professional challenge and saw an opportunity to develop their skill sets. Positive perceptions toward online teaching during the pandemic have been a common finding from other studies, for example, those of Niemi and Kousa (2020) and Centeio et al. (2021). Both studies found their participants to have a positive attitude when using online teaching during the pandemic, including how they overcame the barriers in the initial stages. Centeio et al. (2021) explained how teachers saw technology as a significant barrier, and through acquiring new knowledge and time using digital technology, they successfully used these tools to provide meaningful experiences for their students. Adding to this finding, Niemi and Kousa (2020) also identified that their participants (also teachers) had practical limitations in which they could provide education through online teaching. They acknowledged that online teaching would not be sustainable for those teachers outside of this global pandemic situation. Findings from the current research reflect this limited standpoint, with participants understanding the need to continue online education but knowing it was not a long-term solution. Teachers progressed towards a limit they could maintain for the time being.

Although these findings of positive perceptions toward online teaching contribute to past research, these findings also disagree with that of previous research from Kim et al. (2021), Orhan and Beyhan (2020), and González-Calvo et al. (2021). These research studies

discovered negative perceptions within all their participants and online teaching during the pandemic. Kim et al.'s (2021) study explored the perceptions of PE teachers' online teaching during the pandemic and discovered that participants felt 'overwhelmed, worried and not excited' to teach online due to being unprepared and lacking technical knowledge. This interrelationship of first and second-order barriers displays how teacher attitude and beliefs influenced their online teaching experience. As mentioned earlier in this discussion, participants in this research only faced first-order barriers due to the rapid transition. However, this current research contains a small sample, so generalisation cannot be made for all New Zealand PE teachers, who may have faced both first- and second-order barriers.

Despite this, their research also revealed potential benefits for online teaching by observing students considered 'unskilled' in PE and showed greater participation and enjoyment through online teaching. This finding is central to changing second-order barriers by seeing the usefulness of digital technology and the increased participation in physical activity (Baek et al., 2018). However, student perceptions and engagement were not a focus of this current study and could lead to potential future research.

Further to this point, second-order barriers were minimal factors for this current research study. Common first-order barriers did impact some participants. For example, such as creating engaging and exciting creative lessons due to participants initially replicating traditional classroom lessons that students were more accustomed to in the face-to-face setting. As Howley (2021) discussed, this narrow approach is ineffective for the online teaching of PE and results in further frustrations for teachers. The author points out that narrow and traditional approaches to teaching online PE were used due to their

participants' confusion and uncertainty early in the pandemic. He continues to explain that over time, participants adopting a social constructivist perspective became more innovative and developed more creative ways of teaching PE online by improving their understanding of digital technologies. Although this social constructivist approach was present in the findings from this research, with participants explaining how they observed others and also took on the suggestions and feedback from their students, it may not have resulted in the same effective lesson creation as found in the research of Howley (2021). However, adding to this further, previous research from Tondeur et al. (2017) concludes that by holding constructivist beliefs towards digital technology, teachers tend to use digital technology more as a teaching tool, helping them become more efficient and create student-centred learning opportunities. Also, adopting a social constructivist approach assists those in developing a more robust understanding of these tools, helps reduce first-order barriers for the participants, and creates positive perceptions towards online teaching. Therefore, the findings that participants used a social constructivist approach to online teaching, in which the participants' 'trial and error' approach was used in the initial stages, contributes to previous research findings. Lastly, findings confirm that some lessons or strategies became obsolete, leading participants to replace these with more effective lessons through collaboration with students and colleagues. Tondeur et al. (2017) confirm that when teachers start to understand digital technology as an information-sharing and teaching tool, they changed their lessons from teacher-centred to more student-centred, a change that was essential for online teaching (Goad & Jones, 2017). The overall effect of these findings is that they can further assist the development of an 'effective' online PE curriculum.

The global pandemic was an unforeseen and unplannable event that reached every continent. This effect was felt through all layers of education and influenced all stakeholders. The recollection of experiences felt by participants in this research brought a new perspective of the pandemic, which considered it a more collective effect and deemed the 'shared experience' of the pandemic. Participants explained this shared experience as a unifying bond between teachers, the teaching community, and students. Research into frustration with online teaching, social isolation and reduced effectiveness have been studied considerably within the current literature. However, there is limited research on the bonding effect of this 'shared experience' between teachers and students. This suggests that it is still a new avenue of research into this phenomenon and its unifying outcome, which could produce new information and knowledge about online teaching.

Furthermore, the shared experience was an evident theme discussed by participants as a positive construct for helping teachers and students cope during this stressful time. In the current research study, Participant B discussed how they spoke to their classes about the difficulties they were going through with online teaching, such as lesson creation or changes to teaching content for them. These actions produced an effect that was not expected, with students showing an understanding towards teachers and how they could relate to their teacher's challenges. This gave teachers mental and emotional support through their students' encouraging comments. This finding presents a new and exciting perspective incorporating the other side of this educational relationship and a unique relationship created through online teaching. Rio Poncela et al. (2021) also discovered that most of their participants (teachers) saw their students and peers as their primary support network, with whom they had a greater affinity through countless online meetings. These authors explored the 'invisible work of caring teachers' and how they navigated the

pandemic. They found their home setting was similar to that of the students they were teaching, such as sharing computers and home space, internet connection issues, and caring for other family members. A significant finding from their research was that the 'care' of teachers was difficult to reproduce via online teaching, and significant losses in the teacher-student relationship were felt. They explain how their participants looked to using social media platforms to discuss their issues and connect with other teachers in the bid for social support but still felt isolated during their online teaching time. Comparing these findings shows similarities with participants in this research study, with feeling isolated at home and reflecting similar home settings and pressures while teaching. These feelings were expressed as the most significant loss for participants, making online teaching emotionless.

Despite limited research on this effect on teachers and students, it opens the possibility for future research about the relationship between schools and students. Niemi and Kousa (2020) highlight an essential aspect of this relationship. These authors explain that one of the underlying roles of a school is to be a community with which students, teachers, and staff are associated. Their research displays how students use their schools to build social relationships and collaborate with peers for engaging learning opportunities. Also, the same can be said for teachers and staff at that same school, building those same relationships with peers and colleagues. In addition, Howley (2021) stresses the importance of this relationship and how the social and emotional aspects of learning are essential components to consider when face-to-face teaching cannot occur. When connecting these findings to the current research, it stipulates that schools share the experience of learning together, and although online teaching was difficult, it brought a new dimension of the 'shared experience' for teachers and students to connect through.

Overall, the participants experienced teaching online during the pandemic with a 'pragmatic' approach and acknowledged that they would inevitably face difficulties during the initial stages of teaching online. In addition, this pragmatic standpoint assisted teachers in addressing specific barriers to online teaching, developing a positive perception towards online teaching, and developing new skills as this teaching time progressed. Lastly, the interpretation of the data provided this research study with a new outcome of the 'shared experience' from teachers and students alike. This new finding opens a new avenue to explore this phenomenon and better understand this teaching period.

Connection to the Profession

When participants recalled their teaching experiences during the pandemic, they all spoke about the lack of preparation and barriers that impacted their ability to teach their students. However, when participants mentioned their philosophies of teaching PE and the loss associated with this and online teaching, they all expressed similar experiences and significant disappointment in connecting to their profession. Examples from participants were the isolation they felt from their colleagues in their educational departments, talking to blank screens with students who were reluctant to turn on their cameras and the loss of 'teachable' moments that provided a 'spark and energy' within the classroom setting. In addition, the consensus among participants was that their professional relationships were greatly affected by online teaching. Findings in this research reflect similar outcomes from earlier research by Kim et al. (2021). These authors confirm that teaching is a profession where critical relationships help create meaningful experiences for both teachers and students. Furthermore, their findings conveyed

comparable results, in which participants were looking forward to face-to-face teaching and how relationships could not occur via online teaching and felt 'disconnected' from their students.

The connection to the profession for PE teachers is central to their satisfaction and enjoyment of teaching this subject (Namli & Yücekaya, 2021) and is beneficial for educational outcomes (Taylor & Ntoumanis, 2007). The interpretations from the current research study revealed that participants experienced dissatisfaction with teaching and felt disconnected during the pandemic. These were among the most compelling findings from this study, with all participants noticing an extensive interference with the connection to the profession; personally, and professionally. These complement similar findings from current research focusing on the detrimental effect of the pandemic, such as the relationships they create in the classroom with students and in department with colleagues (Cruickshank, Pill, et al., 2021; Dyson, 2014; Kim et al., 2021), the action of teaching inside the classroom (Baek et al., 2018), and the satisfaction of seeing students succeed in their subject (Namli & Yücekaya, 2021).

When examining the relationship between teachers and students within PE, it is considered a critical aspect of students' academic success and professional satisfaction from teachers (Dyson et al., 2018; Howley, 2021; Kim et al., 2021). Dyson (2014) brings forward this relationship with a significant point, in that:

If the student does not have a connection to or relationship with the content, this will diminish their learning gains. This is a key area of consideration in any learning situation. Relationships, whether they be with the student and the content or a relationship with the student and the teacher, are of enormous value to learning – relationships matter (p.145)

The significance of this statement resonated with participants in this research study, as they expressed the importance of this relationship for students, their passion, and the teaching of this subject. Furthermore, findings from this research show how participants expressed this loss as 'really negative' and how it did not help the 'relationship side of teaching that I love'. Additionally, the lack of face-to-face interactions made it challenging to create or build relationships with students, a comparable finding from Almonacid-Fierro et al. (2021); Chan et al. (2021); Flack et al. (2020); Howley (2021); Kim et al. (2021); López-Fernández et al. (2021).

Moreover, research focusing on the implications of this relationship reflects the importance of trying to understand how relationships were altered by online teaching. Giles' (2008) previous research into the teacher-student relationship sheds light on the ancient tribal perspective of relationships, and how important they are for elders and younger tribe members. According to Palmer (1998, as cited in Giles, 2008), the ancient art of teaching was another way to build elemental bonds between the elders of the tribe and the young. He explains that when this bond is broken, both parties feel fearful and incomplete, and both try to reweave the relationship through any means possible. As oddly as this comparison may seem, the disconnect between the teachers (elders) and the students (young) created a fearful situation for both through the uncertainty and isolation. The teachers and students tried to reconnect through online media, albeit somewhat unsuccessfully. It is not to say that participants, or teachers for that matter, did not try; it was merely a combination of the rapid transition to online teaching, inexperience with using these tools and the unknown factors of communicating online.

Lastly, the findings from this research assist in further understanding how the teacher-student relationship was affected through online teaching, incorporating a New Zealand perspective. The relationship between teachers and students within PE and New Zealand is one of the key tenets of the curriculum (Ministry of Education, 2007). However, the findings of this research confirm that the significant loss created by online teaching impacted not only learning but also PE teachers feeling disconnected and dissatisfied, making them feel like they were not doing the job they normally enjoy. Furthermore, these findings draw attention to the importance of 'social skills' within PE and how this contributes to effective learning in PE (Culpan, 2005). These social skills help students learn and move within PE but also incorporate the teacher and their teaching skills/styles, which was difficult to achieve over online teaching and reduces teacher satisfaction with PE teaching overall (Namli & Yücekaya, 2021).

Physical 'Education'

Amid the pandemic, people worldwide were encouraged to participate in physical activity to help reduce the increased sedentary behaviours enforced by government lockdowns (Hargreaves et al., 2021). Stepping away from computers and television screens to be active and the known benefits for individuals' health have been researched extensively, even prior to the pandemic (Hargreaves et al., 2021). Similar messages were conveyed within the education sector to the millions of students learning at home during this time. In light of this, many schools turned to PE teachers to oversee this facet of online teaching, as PE is one way of increasing physical activity, achieving healthy outcomes, and reducing stress (Vilchez et al., 2021). However, current evidence argues that PE teachers took a different educational approach by prioritising the accumulation of physical activity while

removing the focus on the 'education' aspect of this subject (Cruickshank, Pill, et al., 2021; Cruickshank et al., 2022; Vilchez et al., 2021).

With this lesser emphasis on the 'educational' aspect of PE, it meant that PE teachers moved back to their traditional ideologies, in which getting students active and participating was their main goal (Centeio et al., 2021; Howley, 2021). Lessons would purely focus on being active or student physical movements, with no links to academic objectives being taught or association with the completion of required schoolwork (Centeio et al., 2021). Similar examples of this approach were documented throughout multiple sources of international research (Cruickshank, Pill et al, 2021; Hambali et al., 2021; Rio Poncela et al., 2021; Vilchez et al., 2021). Findings within the current research reveal how participants removed the 'education' from their PE lesson by replacing the educational outcomes/lesson objectives, with more physical or participation lessons, that had no link to their school or New Zealand curriculums. Examples of this approach was emphasised by participant D who explained that the removal of the educational content of their lessons was due to student well-being. They discussed further that PE was not important to students in relation to 'internals' (assessments), yet the activity around it was. Concurring with this viewpoint, participant F explained that physical activity was a good medium to get students active and became very convenient for PE teachers during lockdown to occupy their students during their online lessons. Although some adaptations were needed to accommodate online teaching and, more importantly, the diverse student home environments, these changes brought other implications for the subject, teachers, and students alike.

Findings from this current study uncovered that participants mirrored the common approach within the teaching of PE online. Their focus with online lessons was 'getting students away from their computers to be active' to decrease sedentary behaviour. Participants expressed evidence of this in this study and stressed that their lesson objectives moved away from the academic focus and more towards getting their students away from their computers and out being active. In addition, participants discussed their justification for these changes and how they felt this was more beneficial for students' overall well-being and the associated benefits with physical activity and cognitive task success. Similar justifications from multiple research studies (Cruickshank, Pill, et al., 2021; Dyson, 2014; Hambali et al., 2021; Vilchez et al., 2021) show matching reasons as to why PE teachers focus on more physical activity. Furthermore, expressions from participants with these changes reflected findings by Cruickshank, Pill, et al. (2021), who also confirmed their participants' focus was on getting students active and in any way they could, which led to them feeling more like they were replacing their teaching role with that of a 'physical trainer'. This demonstrates how PE teachers experienced similar challenges with their internal struggles with online teaching and how this impacted their ideologies and beliefs as PE teachers.

Further to this point, on the one hand, they wanted to look after their students with physical activity and ensure they were catering to their well-being by reducing workload and setting physical movement for lessons. However, on the other hand, they were removing educational content from this subject, which unintentionally reduced students' perceptions of this subject as academic. In addition, their challenge was that PE teachers wanted their students to be active and expressed the importance of this during the

pandemic for mental, emotional, and physical benefits but had to sacrifice the 'education' content to fulfil their physical outcomes (Cruickshank, Pill, et al., 2021).

Moreover, the participants' perspective within this current study firmly expresses the reasoning behind this shift in priorities. Their philosophies of PE influenced them to get students away from their computers to be active by any means necessary. Referring to the literature in Chapter Two, PE teachers struggled with the 'paradox' of using digital technologies within PE and feeling like they were contributing to the problem of inactivity by using online teaching and not getting their students active (Goad & Jones, 2017). This internal battle was further exacerbated during the pandemic and almost promoted the shift towards the priority of being active over learning theoretical content (López-Fernández et al., 2021). Similarly, the focus on physical activity accumulation was a finding from more recent work by Cruickshank et al. (2022). They discovered that their participants reflected the same philosophical reasoning behind this change in physical activity prioritisation. These authors believe that teachers' physical activity approach was associated with the historical ontological perspectives of PE being on the margins of schools' educational intentions. This idea re-emerged as the prioritisation of physical activity during the pandemic (Cruickshank et al., 2022). The implications of this ontological standpoint resulted in students reducing their prioritisation of PE due to the focus on physical activity and away from the educational aspect (Cruickshank, Hyndman, et al., 2021; Cruickshank, Pill, et al., 2021; Kim et al., 2021).

Recently, studies examining the marginalisation of PE as a learning area highlight that this issue was already present prior to the pandemic (Cruickshank, Pill, et al., 2021; Cruickshank et al., 2022). Moreover, like many other issues during the pandemic,

marginalisation was further amplified by the rapid changes to education, the curriculum, and adaptations made to teaching, resulting in less prioritising of this subject, resulting in the loss of credibility and academic importance with students (Cruickshank et al., 2022). The pandemic effect on PE and the marginalisation was notable in the current research study and confirmed findings from Cruickshank, Pill, et al. (2021) and Cruickshank et al. (2022).

The importance of PE for participants in the current research was discussed in-depth and conveyed by all participants as especially important, not just with an academic focus but also the benefits of being active. During the interviews, participants discussed prioritising students' well-being by reducing academic workloads and allowing more physical activities for online lessons. This academic change was initiated by student feedback and the links to participants' philosophies about the subject and its underlying meaning. They expressed that PE is important academically but also wanted students to be active in this 'physical' subject. Participant F further portrayed this meaning, who stressed the importance and firmly stated that PE should be more meaningful during the pandemic. Participant D further emphasised this point, which stated that it was the PE teachers' job to make students aware that physical activity is critical and get them away from their computers. These statements reinforced the participants' priorities during the pandemic and reflected the comparable findings from more recent research by Cruickshank et al. (2022).

Cruickshank et al. (2022) examined the experiences of Tasmanian PE teachers with online teaching to see if the educative integrity of the subject was maintained. Their findings compellingly confirm that the marginalisation of PE continued during the pandemic. Their

results, in conjunction with similar findings from this current research, contributes knowledge to understanding the effect of the pandemic and the diminished importance of the 'education' aspects of PE, and how PE shifted to the periphery of educational subjects with learning outcomes becoming neglected (Cruickshank et al., 2022). These findings link back to the earlier comment from Dyson (2014) in that he stresses that PE is much more than just physical activity, and the subject's future is harmed if we adopt a narrow agenda. Additionally, findings from this current study are consistent with Howley (2021), who also found that teachers knowingly elevated student well-being over academic outcomes. These intentional decisions to provide students with more physical activity and less academic content were student-centred decisions made by teachers, with student well-being as the focus (Rio Poncela et al., 2021). Although these decisions were made to benefit students, teachers unintentionally marginalised the subject's educative purpose (Cruickshank et al., 2022). The outcome of these actions was mentioned by participant D when explaining that when face-to-face classes do resume, teachers will undoubtedly have to help students catch up. A finding mentioned earlier in Chapter Two by Flack et al. (2020) mentioned that 80% of participants confirmed that students would need further assistance when returning to the classroom.

Lastly, it was interpreted from the participant statements that their focus on student well-being and getting them away from their computers to be active was in line with their perception that online teaching was only a temporary situation and normal classroom time would return shortly. Taking this into a New Zealand perspective and comparing this to other schools worldwide, participants in this research only face a maximum of seven (7) weeks for the first lockdown and a further eleven weeks in 2021 of teaching online,

making it somewhat easier to assist students in catching up with work that was put off for physical activity.

Workload

A prevalent theme from this research study was the workload the participants experienced during the pandemic. Each participant commented on how the increase in workload on teachers was unparalleled and expressed that they work 'mega hours' and struggled to find professional boundaries during online teaching periods. In addition, participants explained how their home and professional lives were blurred, with their house becoming their office. Recent literature exploring the phenomenon of online teaching during the pandemic has emphatically confirmed this finding, in which the workload of teachers during the pandemic grew disproportionately concerning their normal face-to-face classrooms (Chan et al., 2021; Flack et al., 2020; Lemay et al., 2021; López-Fernández et al., 2021; Marshall et al., 2020; Niemi & Kousa, 2020; Parsons et al., 2022; Phillips et al., 2021; Rio Poncela et al., 2021; Van der Spoel et al., 2020). Chou and Chou (2021) define this intensified workload and stress as 'technostress' and highlights how the rapid and forced transition to online teaching generated extra workload. Nevertheless, the expectations on teachers to continue education through online platforms meant that extra tasks and resources were required, and the added workload was a flow-on effect of this (Van der Spoel et al., 2020).

Findings in this research confirm that participants' workload grew during the initial stages of the pandemic. The description of each participant's experience displays how it was very individualised and related to their teaching approach. Their approach was influenced by what they thought they needed to do to help meet their students' needs and their work

from home settings. This was evident in the response from Participant C regarding that they were 'creating everything from scratch' and from Participant A's experience of working until late into the evening, which affected his family and young children. This finding is consistent with that of Marshall et al. (2021) and Phillips et al. (2021). Both studies confirm similar findings that highlight the relationship between an increased workload and being underprepared for full-time online teaching, a situation that participants in this current research acknowledged.

In addition, this relationship was also researched comprehensively by Flack et al. (2020) post-pandemic and focused their research on New Zealand and Australian teachers. These authors found significant evidence that teachers were 'exhausted' with the burden of teaching online while trying to care for their own families at home. Their data reveals that 70% of teachers from both countries said their workload had increased during the pandemic. While this was disorientating and demanding, it was business as usual in the shadow of the pandemic, albeit unrealistically. However, it was not until later in the pandemic that experts researching this phenomenon advised educators to reduce student workloads and their own (Merrill, 2020, as cited in Marshall et al., 2020).

Conversely, this research study has uncovered a different perspective on teachers' workloads with online teaching, revealing that participants expressed enjoyment and a better life balance when teaching online. Participants explained how teaching online afforded them a better work-life balance and allowed them to spend more time with family members and be more active throughout their normal working hours. Paralleling these findings, research from Parsons et al. (2022) discovered that their participant's workloads grew exponentially during the initial stages of the pandemic but also found

that they expressed positive consequences when teaching from home. Their participants recalled the time saved traveling to and from work, managing their time better, and using digital tools that allowed them to save time and complete other tasks. However, an important consideration of this finding was that participants highlighted that their students were more proficient with digital technology and required less online instruction, reducing teaching time and content sharing. This links back to the earlier reference from Prensky (2001), who claims that young people today are 'digital natives'. However, this is a contentious debate, as previous research suggests that students who are considered 'digital natives', in today's classroom are no more tech-savvy than their teaching counterparts (Peterson et al., 2018). Yet, the findings from Parsons et al. (2022), provides grounds for how digital technology can be effective for teachers and students concerning their workloads.

In summary, teachers' workload proliferated during the initial stages of the pandemic. Factors that influenced teachers' workload during the pandemic include being underprepared and finding a balance between working from home and working hours. Findings from the current literature agree that teachers were stressed and overworked but also acknowledge that teachers have learned more about online technology than ever before and may, in turn, be a catalyst for developing PE into a 21st-century subject (López-Fernández et al., 2021). Finally, not all teachers reported feeling stressed and overwhelmed by online teaching and expressed a better work-from-home situation with findings from similar research studies.

Changes to Physical Education

The last section discusses participants' considerations of how PE may change in the future due to decisions made during the pandemic and the participants' perspectives on this change. This research study uncovered participants' positive and negative evaluations of this teaching time and how PE may change in the future. Insights from the participants and how PE may move in the future were explained as a direct result of the 'forced' learning situation created by teaching online. They unanimously agreed that the pandemic has helped upskill PE teachers and become more digitally proficient at online teaching. These findings confirm that teachers and educators have seen the transition to full-time online teaching and a period that has brought forward changes to their teaching and learning priorities by allowing teachers an opportunity to re-evaluate their teaching pedagogy and to focus on core elements of their curricula (Centeio et al., 2021; Hood, 2020; Van der Spoel et al., 2020). In addition, this re-evaluation, along with participants' positive prospects from such a chaotic period in teaching history, has also reshaped PE teachers' outlook on teaching this subject post-pandemic when returning to the classroom. In addition, it is important to consider the changes from the pandemic and whether these changes to the curriculum, along with the advancement of digital technology use within this subject, if these changes continue to provide students with a subject that is fit for purpose and both 'Physical' and 'Educational' in its outcomes (Armour et al., 2020), or will it simply contribute to the increased sedentary behaviours of students?

Findings from this current study concur with similar outcomes from Parson et al. (2022) by confirming that PE teachers were aware of the benefits of online teaching for upskilling teachers with digital skills and how these skills will inevitably be needed in the near future. Unfortunately, this research's findings also displayed a bifurcated approach when

returning to face-to-face classrooms. On the one hand, participants in this research study stressed that PE is a physical subject, and teaching continually or heavily relying on digital technology after the pandemic goes against their philosophical perspectives of the subject. Participants were concerned about the dangers already associated with digital technology and believed that teachers should go back to more traditional approaches that align with the 'physical' aspects of PE. Yet, on the other hand, participants discussed how the outcomes from online teaching could reshape PE into a 21st-century subject. Participants explained how teachers could integrate digital technology into their PE curriculum, which can increase the 'physical' aspect of this subject and simultaneously caters to the 'education' qualities. Examples of possible solutions from participants were using flipped classrooms, online video homework, and online websites. These diverse beliefs about the future of PE have been previously discussed within Howley's (2021) research study, with participants expressing a hopeful outlook for PE and how it would continue to be important for students. However, participants were concerned with potential future changes and needed to complement the current pedagogy and curriculum with an effective blending of technology learned from the pandemic.

Centeio et al. (2021) adds to the previous considerations by highlighting that many PE teachers are concerned with students' already declining physical activity levels, which intensified throughout the pandemic. These authors argue that if PE was to move towards an online or hybrid system without addressing the barriers of inactivity within their students and how to integrate them effectively within a hybrid education system, it could further reduce the physical benefits and academic achievements. Nevertheless, PE still holds a relevant role in reducing sedentary lifestyles brought on by digital technology and the debate related to PE teachers and whether to use digital technology will continue.

Findings from this current research contributes to the conversation and future development of how a successful balance can occur; that is, both physical and educational. The pandemic should not be viewed as a negative period in PE and might better be seen as both a challenge and an opportunity (Lemay et al., 2021). It should positively awaken the potential attraction of using digital technology in PE to motivate physical activity (Hinojo Lucena et al., 2020).

Conclusion

This discussion has presented the key themes from the current research study and explained links to current literature and findings within Chapter Two. The discussion explored the key themes that emerged from the data in Chapter Four. Each theme demonstrated how New Zealand PE teachers experienced online teaching during the pandemic, the changes that were made, and some that were forced upon them. Pragmatism with online teaching and how teachers approached this unique time displayed how participants approached this time with a practical understanding and knowing their limitations to online teaching. In addition, their outlook from this time and the learning from this have been beneficial outcomes for upskilling teachers with 21st century skill sets. However, their participants' connection to the profession and the disconnection felt from their profession was a significant loss for teachers. It took away what they enjoyed about teaching PE and how this limited the effective building of relationships with their students and the curriculum. In addition, how Physical 'Education' and the adaptations made to the subject were student-centred but resulted in an unintentional contribution to the subject's continued marginalisation was acknowledged. Also, the workload and pressures felt by the participants when teaching online during the pandemic grew exponentially, causing disruptions to their home lives

and damaging some relationships. Finally, changes made to Physical Education as a result of the pandemic; these need to be purposeful and meet the needs of the 'physical' and the 'education' aspects of PE.

In Chapter Six I will answer the main research question and sub-questions with explanations from the findings of this research study. I will then examine the methodology of this research study, explain the strengths and limitations, make future recommendations for research regarding online teaching and discuss my researcher's reflection on this research study.

Chapter Six: Conclusion, Recommendations, Strengths & Limitations, and Future Research

The final chapter will summarise this research study by providing a brief overview of the intended aims and methodology. Following this, I will first revisit the main research question and sub-questions for the reader, which will provide the structure for this concluding chapter. Additionally, by answering these questions it will allow me to explain how these findings contribute to knowledge and literature related to this research area. Next, recommendations will be presented on how to address the issues that online teaching created, along with the strengths and limitations of this research study. Lastly, I will make suggestions in Chapter Six on recommendations for future research related to this topic and conclude this section with my researcher's reflection.

Research Questions

This research study aimed to interpret New Zealand Physical Education teachers' experiences of teaching online during the pandemic. The research aimed to answer the following question and sub-questions:

How have the experiences of online teaching during the pandemic changed the teaching and learning priorities of New Zealand (NZ) Physical Education teachers?

To develop further understanding of this experience, the next set of research questions are:

- i. What was the experience of online teaching for New Zealand Physical Education teachers like during the pandemic?**
- ii. What significant changes to pedagogy resulted from teaching Physical Education online?**

iii. What implications could these pedagogical changes have on the teaching of the Health and Physical Education curriculum in New Zealand?

Overview of the research

This research study aimed to interpret New Zealand Physical Education teachers' online teaching experience during the pandemic. In addition, it aimed to interpret how the participants perceived the experience of teaching PE online during the pandemic, what changes to pedagogy resulted from this experience, and future implications.

This research's ontological and epistemological positions are aligned with an interpretivist worldview, as this standpoint perceives that there is no one reality and that is co-created, in this case, by me and the participants (Creswell & Poth, 2016). In addition, the study employed a qualitative approach through the interpretive phenomenological analysis (IPA) framework that complemented the worldview and assisted in answering the research aims. The data for this research was collected by interviewing six current Physical Education teachers throughout New Zealand via semi-structured interviews. These interviews took place via face-to-face and online. The findings were analysed through the three-stage cyclic analysis suggested by Alase (2016), presented in Chapter Four. These findings were then discussed regarding the current literature introduced within the literature review in Chapter Two. This final chapter will summarise the conclusions reached from this research and discuss how these findings answer the main research and the sub-questions. Recommendations, strengths and limitations, future research and finally, my researcher's reflection, will discuss my learnings throughout this research study, which is an essential aspect of IPA research (Smith, 2009) and will conclude this chapter.

Answering the Research Questions

Main Research Question: How have the experiences of online teaching during the pandemic changed the teaching and learning priorities of New Zealand (NZ) Physical Education teachers.

The global pandemic not only brought changes to the social constructs and how we live our day-to-day lives but also brought forward issues with education and those who provide it. This research study confirms that the pandemic influenced teachers to adapt their teaching and learning priorities when teaching PE online. Findings from this research depict how New Zealand PE teachers experienced online teaching and what changes they made to teaching this subject. Evidence of these changes in the present study saw participants adapting teaching and learning styles to suit their students' needs better by using a more transactional approach. This effect saw participants feeling less satisfied and took away the emotional and social connections to their profession. Also, findings confirm that participants changed their curriculum priority towards the educational aspect of PE. They also prioritised student well-being by reducing student workloads and shifting the emphasis of online PE towards physical activity accumulation. Nevertheless, these changes were made with the participant's best intentions; however, these changes unintentionally produced implications for the subject and PE teachers during online teaching.

A focus on reducing student workload and stress was perhaps the greatest change made by participants during the pandemic. Reducing student workload took on multiple strategies, such as setting physical activity for lessons and teaching only content needed to pass the current assessment. This resulted in teachers becoming more 'transactional' in

their delivery of online lessons and reverting to the unidirectional passing of information. This lecture style of teaching reduced the satisfaction of PE teachers and diminished the rewarding and emotional connections these teachers get from teaching this subject. Participants expressed that this change was for students; however, some participants also used this approach for their stress-reduction strategy, as setting work that was not completed took its toll on them. In addition, this transactional change saw teachers lose the ability to foster and strengthen relationships via online teaching, which only further removed them from enjoying online teaching.

A significant finding from this research confirms that the prioritisation of physical 'activity' over physical 'education' continued the marginalisation of PE. Furthermore, the departure of educational content from online PE lessons and being replaced with physical activity created student perceptions toward online PE that displayed a loss of academic importance for them. This also reduced teachers' feeling less important to their students. However, participants believed this change to be student-centred and in their best interests, yet the flow-on effect was that students perceived this subject as less important than other timetabled subjects. As mentioned in Chapter Five, this effect was seen globally and was a common effect with online teaching and findings from this research contributes a New Zealand perspective to the knowledge of this phenomenon, confirming that PE is marginalised globally, not just due to the pandemic. The outcome of this finding is important for future developments of online education and assists with contributions from countries around the globe that help to create a unique platform for each country that considers findings from others to include all identified barriers from the pandemic.

Although many findings from this research did draw negative conclusions, this research also produced new and intriguing findings linking to the shared experience and perceptions toward the improvement of digital skills of PE teachers. Perhaps one of the most intriguing findings from this research study was the discussions from participants about the 'shared experience' of the pandemic with their students. This was discussed as a positive experience that contributed to a new bonding aspect of the teacher-student relationship. This unique finding has not been mentioned in any literature related to this topic at the writing of this dissertation and presents a new avenue for future exploration and understanding.

Moreover, researching this finding further can contribute to how teachers can use this aspect of the teacher-student relationship to fill the void many experienced during online teaching. Lastly, this finding can contribute to how an online platform can be utilised to create or build relationships, as it was beneficial for participants in this research. In addition, it may also assist in bridging the gap between students-to-students and teachers-to-students that online education created during the pandemic.

In summary, the experience of teaching online during the pandemic resulted in teaching and learning changes by New Zealand PE teachers. Although viewed as student-centred, it resulted in a transactional and lecture style of teaching that taught what the student needed and nothing more. In addition, the prioritisation of physical 'activity' saw the continuation of the marginalisation of PE, with perceptions that it was not important or lacked academic significance for students. Finally, the intriguing finding of the 'shared experience' has produced a new avenue to research how sharing experiences online may assist in creating beneficial educational relationships.

Sub Question One: What was the experience of online teaching like for New Zealand Physical Education teachers during the pandemic?

The overall experience of New Zealand PE teachers and online teaching was that it was not enjoyable and took away the pleasure and enjoyment of teaching this subject. All agreed that it was not enjoyable for those involved but did acknowledge that the shift to online teaching was a necessary action for the continuation of education. Furthermore, the experience of teaching through the pandemic was stressful, exhausting, and time-consuming for teachers, yet their outlook toward online teaching during the pandemic reflected a 'pragmatic' perspective.

This pragmatic perspective emerged from the interpretations of the interview data and reflected how participants were 'pragmatic' in their approach. They understood online teaching was new to almost all teachers, so issues and complications would occur, but their online teaching skills would improve over time. In addition, participants were aware that their skillsets were underprepared for full-time online teaching, having only 'dabbled' in it prior to the pandemic. Nevertheless, the forced adaptations made to teaching curriculum and teaching styles allowed teachers to modify their teaching skill set, develop 21st-century teaching skills, and change their perceptions of digital technology (Tondeur et al., 2017). This outcome was recalled by participants as positive for their teaching skill sets and was a worthwhile result of their efforts during the pandemic.

However, the initial stages of the pandemic created an unrealistic workload for most and created 'blurred' boundaries for participants who were trying to work and live in the same environment. The term 'working from home' was greatly associated with a negative

experience for all participants whose work-life balance was unpredictable and damaging. This resulted in participants having to work for long hours in front of the laptop, working outside of normal hours, or even internal battles for spaces to work. This negative experience also contributed to participants' expressions when discussing their disconnection from the profession. Their workloads and stressful home life worsened their disconnect from enjoying being a PE teacher.

Moreover, these workload pressures also reduced PE teachers' joy and satisfaction from teaching this subject, as online teaching failed to produce the same conditions as face-to-face classrooms. This resulted in a significant loss of the student-teacher relationship over online teaching. This was perhaps the most significant loss to these participants and generated more negative online teaching experiences. This was evident when participants spoke about how their day-to-day interactions and conversations were non-existent, reducing their capacity to fill their and their student's social and emotional needs. This weakened relationship took its toll on participants and resulted in the loss of identity and disconnect with their students. However, linked to the main research question, participants established a connection through their shared experiences with students.

This intriguing finding from this study has identified a new perspective on online teaching and the teacher-student relationship. In addition, this finding was made possible with the flexibility provided by the IPA framework and the process of bracketing my assumptions towards the online teaching experience. For instance, I had not heard teachers or students talking about the online teaching period as something they shared, nor was it mentioned by my students or even me, for that matter. Instead, it was the general assumption that we

all had to go through it. Yet, for some teachers, this new finding was significant for their emotional needs and can provide a new avenue for further exploration.

This research found that some participants enjoyed the working-from-home setting. They were provided with more flexibility during their workdays and could manage their time more effectively. These participants experienced less stress and were afforded more time to spend with family members and engage in additional activities, with government restrictions pending. Although this was only a small majority of the participants in this research, it brings to light a new possibility of future developments for working and learning from home. Although limited research has found similar findings, it contributes to the work of Parson et al. (2022), who also found teachers appreciated the extra time for additional home enjoyments. This finding, albeit fortuitous, is significant in the overall development of online teaching and where it may move due to the pandemic. If online platforms can be further understood and developed, then enjoying teaching at home could be a future possibility. However, this begs the question of whether it can be developed to ensure academic success is similar, if not that exactly, like face-to-face environments.

Lastly, when building on this 'pragmatic' approach for online teaching, participants discussed how the pandemic had been a catalyst for upskilling teachers. As mentioned earlier, this upskilling of teachers with new digital technology skill sets can help bring PE into the 21st century. In addition to these new skill sets, participants also discussed how the pandemic allowed them to re-evaluate their teaching pedagogy. This action further assisted participants in considering how they taught their students and how their pedagogy may be too traditional. With upskilling of their digital technology skills, they

can adapt their pedagogical approaches to suit their students better. This re-evaluation was again expressed as a positive outcome of a stressful and challenging time.

In summary, the experience of teaching PE online through the pandemic was experienced as a negative time for teachers. A majority of the participants felt stressed in their homes, which became their offices, and struggled to find a work-life balance that worked.

However, the pandemic did allow teachers to re-evaluate their teaching pedagogy and develop new 21st-century digital technology skills. Although some participants found work-from-home beneficial for their well-being and extra-family time, the overall perception towards online teaching during the pandemic was still negative. Findings from this research confirms that emotional loss and difficulties with online teaching that participant's faced created adverse effects during this time and took away from the enjoyment and satisfaction of teaching PE.

Sub Question Two: What significant changes to pedagogy resulted from teaching Physical Education online?

The significant changes participants made to their teaching pedagogy during the pandemic were all associated with their inexperience with online teaching. Findings confirm that these changes were made due to participants' limited knowledge and not knowing how to use digital technology as a teaching tool effectively. Findings in this research show that participants' noticeable change to their teaching pedagogy was reverting to 'teaching to the assessment' or 'getting their students across the line'. The data interpreted this theme as 'transactional' and reflected the changes in teaching styles that moved from bi-directional to unidirectional information passing to students. Participants

explained how their online teaching was more like lecturing and only covered the work students needed to do to pass the current assessment. These significant changes were made as a cumulative result of multiple influences. For example, teachers were underprepared for online teaching and also students' workloads grew exponentially. By focusing only on the assessment-based work, teachers could be direct with the information they passed to students and could attract students to attend their lessons, as it could mean passing or failing their assessments.

In addition, this pedagogical change was also made to reduce their student's workload during the pandemic by prioritising physical activity accumulation.

A second significant change to pedagogy was to prioritise physical activity over educational outcomes for online PE lessons. This action reinforced the importance of being active for mental, emotional, and physical well-being, not to mention the added benefits of getting students away from their computers. Participants expressed how this action was hugely beneficial for their students and was reflected in student feedback saying that PE teachers listened to them and altered their teaching focus. However, these actions saw students prioritise other 'academic' subjects over PE, subjects they considered more important. The prioritisation of physical activity was a modification to the subject to suit their students' needs, but this also meant PE teachers were unintentionally contributing to the marginalisation of PE during the pandemic. This finding contributes to current research (Cruickshank, 2021; Cruickshank & Pill, 2021; Kim et al., 2021), exploring the marginalisation of PE and how this intensified during the pandemic. In addition, the contribution of these findings demonstrates how this same marginalisation was felt within the New Zealand curriculum system with online teaching. This finding also assists in further understanding this experience from a New Zealand perspective.

Conversely, some pedagogical changes made by participants were considered successful outcomes with their experience of online teaching. Participants discussed how they implemented the use of weekly plans for their classes and utilised new skills they developed during the pandemic. The participants spoke about how these changes provided some structure to their week and gave teachers and students some form of routine to follow. Although a small change to how online lessons occurred, participants spoke about how students in their classes reacted to the weekly schedule by saying it gave them the chance to plan by knowing when to be online for what lessons on which days. This change will be continued when returning to normal classroom settings. In addition, participants also mentioned the positive use of 'flipped classroom' or similar learning strategies when returning to the classroom, all of which were made possible due to the learnings and changes made during the pandemic.

Sub Question Three: What implications could these pedagogical changes have on the teaching of the Health and Physical Education curriculum in New Zealand?

The findings from this research suggest that the pedagogical changes resulting from the pandemic and online teaching could have two possible outcomes.

One outcome is that teachers use their new digital skill sets to continue the progression of PE into a 21st-century subject and provide students with essential digital and physical literacy. This will see more digital technology embedded in teachers' pedagogies and a slight move away from the traditional approach to teaching PE. Participants in this research study expressed similar suggestions and looked to continue using digital technology within their PE classes. However, as PE moves towards a more post-pandemic

21-century subject, participants did highlight their concerns with the reliance on digital technology within this 'physical' subject. The findings confirm that PE teachers want to use successful changes that were used during the pandemic but also explained how they wanted to keep to the 'physical' aspect of this subject. Keeping this traditional 'hands-on' approach is grounded within their enjoyment of being active and reflecting this within their pedagogy. However, the participants acknowledge that learning from the pandemic will benefit PE and encourage other teachers to find a balance that caters to both dimensions of the subject. If a good balance is met, teachers can still provide physical education that meets both intended outcomes. Also, if teachers are to integrate digital technology in their PE curriculums successfully, it will allow teachers the flexibility to teach some traditional aspects, movement in and around peers that is hands-on, combined with 21st-century lessons that will engage students. However, an important consideration is that simply embedding technology will not change students' perceptions of PE; this will require further actions and research into why students view PE with less academic significance.

On the other hand, it may see teachers returning to their traditional approaches, falling back to 'what they know works best' when returning to the classroom. This outcome will see the traditional perspective of this subject continue and may see senior leaders at schools questioning why the learnings from the pandemic have not been applied to the PE curriculum post-pandemic. In addition, if teachers are concerned that students did not get enough physical activity during the pandemic, prescribing more activity only further contributes to students' already low perceptions regarding PE as an academic subject.

Findings from this research suggest mixed beliefs about how and where the future teaching of PE will move post-pandemic. The participants believe a balance can be found and is essential for the future development of PE. However, they also want traditional facets of PE to remain. The traditional facets participants wanted to retain were not linked to the early conception of PE in New Zealand but more in line with the physical nature of this subject and how it can teach students more than just being active. For example, they believe movement and sports teach students social and interpersonal skills with the teacher and peers, which were difficult to teach via online methods. However, findings from this research confirm that participants hold a pragmatic outlook on the pandemic, so they can see the benefits of using digital technology as a teaching tool within their classroom pedagogy.

Conclusion

In summary, this research confirms that the experience of teaching PE online during the pandemic was perceived negatively. This was due to participants being underprepared for full-time online teaching, leading them to feel stressed and overwhelmed. Findings from this study show that participants approached the pandemic with a pragmatic outlook and developed essential digital technological skills. Additionally, findings show that participants expressed a significant loss of emotional rewards and professional satisfaction when teaching online. This loss was a result of teachers' pedagogical changes, such as the 'transactional' approach to simply teaching the assessment and replacing physical education with that of physical activity accumulation. The implications of these actions resulted in students perceiving PE as less important and associated it with little academic priority, thus reducing the importance and significance felt by PE teachers by their students. However, this research provides insights into new avenues for research, such as

the 'shared experience' teachers and students used for emotional support and for some participants how working from home afforded them more time to spend with family and manage their time more effectively. Lastly, the implications of the pedagogical changes made during the pandemic and the future teaching of PE produced findings that display diverse considerations regarding how PE will be taught post-pandemic. Findings show that participants see the learning from the pandemic as beneficial and should be encouraged to embed more digital technology into the PE curriculum. At the same time, others want to hold on to the traditional ideas of PE and not lose it all to digital platforms. Overall, the pandemic was negative for participants and caused stressful teaching environments at home. However, the developments and learning from this teaching time are significant for PE teachers and the future of this subject.

Recommendations

Completing this study has produced findings that have led to three recommendations. The following recommendations recognise the interrelationships between the key themes within this research study's findings and how each key theme affects different layers individually and collectively on multiple stakeholders. The following recommendations address the issues identified in this research that impacts schools at organisational, departmental, and personal teaching levels. Each recommendation will flow on to the lower levels, but it is essential to approach the level above before moving down to the subsequent level.

Recommendation One: Online School Structure (Organisational)

The first recommendation concerns the online structure schools use when teaching online. This online structure aims to create an online day structure and curriculum that reflects the learnings from the online teaching periods. The creation of this over-arching school structure will be established by the senior leaders of the school, who have the authority and wider-school outlook to create guidelines for their school to follow. Senior leaders will need to consider what changes need to be made to promote effective online teaching, such as reducing online lesson times, recommended online contact time for teachers, and attendance requirements for students. Once the initial structure is in place, senior leaders will seek input from the head of departments and teaching staff for collaborative feedback and additional inclusions, such as student feedback from their classes. This will have complete coverage from the top-down, ensuring all aspects of the school organisation and administration set the foundations that each educational department can build upon.

Creating an online teaching structure provides departments and individual teachers with protocols and guidelines to follow. This will then further assist with the planning and transition to full-time online teaching if needed in future years and will reduce the uncertainty and stress created by the initial switch to online teaching. Additionally, having a school structure gives teachers a guideline to follow and pass on to their students, resulting in a more concise approach by the school and, more importantly, decreasing teacher and student workloads with online teaching.

It is important to note that this recommendation will take some time to develop. This is because senior leaders need to consider the multiple implications of these actions and how they are best suited to their organisation. However, the experience of the pandemic and the lessons that were learnt from this unique time in education will assist the development of this online school's structure with first-hand experience.

This recommendation's intended outcome is to further develop schools with online protocols and structures. This is because digital technology is omnipresent in today's society, and it is difficult to imagine it not being incorporated into education after the pandemic passes. This was the main barrier that created a negative experience for participants in this research and teachers globally as they were under-prepared for full-time online teaching. In addition, this online structure will also assist teachers in finding a manageable workload for their online classes, reducing their students' stress and workloads. Furthermore, this online structure will address first-order barriers for teachers using digital technology, as this action will reduce the impact of this external factor. Lastly, by providing a structure to follow and set guidelines, the transition to online teaching will be more of a planned execution than an emergency as seen in early 2020.

Recommendation Two: Professional Development for Teachers (Departmental)

The following recommendation moves into departmental levels to develop specific digital skills for subject teachers. This process addresses three issues, especially with the PE curriculum.

1. Integrating digital technology into the curriculum
2. Increase digital technology skills
3. Seeing others use these tools effectively

Each step above will address multiple first and second-order barriers many teachers faced during their online teaching experiences. However, it is important to note that these professional developments will take time and should have dedicated time to complete each essential step.

This departmental focus on digital technology will occur during professional development courses or time set aside for these actions. Adding more professional development focused on digital technologies within PE can help teachers improve their digital literacy but also help the transition of PE from a 'traditional' subject to one that is viewed as up-to-date and belonging in the 21st century. The benefits of moving into the department focuses on how digital technology can successfully be integrated into PE, as other subjects have different priorities for their online lessons. The outcome of this specific action addresses the first and second-order barriers teachers faced during the pandemic. First-order barriers include what resources to use for lessons and providing vital experiences using digital technology as a teaching tool. The second-order barriers, such as successful integration of digital technology into PE and seeing others using these tools effectively, can reduce those barriers faced during the pandemic and assist teachers in addressing internal factors they have challenges with when using digital technology in their teaching pedagogy of PE.

In addition, an intended aim of this recommendation is to reduce the 'digital age' gap discussed in this research. Teachers who develop digital literacy can reshape how they look at and use digital technology. Furthermore, it also allows teachers to see this technology being used and understand why and how their students use these tools for learning purposes. Also, another result of this action is that by incorporating more digital technology into the PE curriculum it can also assist students' digital literacy and improve their skill set for future opportunities.

Recommendation Three: Integrating Digital Technology within PE during Face-to-Face Settings

This research study found that teachers struggled to use and integrate digital technology in their PE lessons during the pandemic. This was due to not having experience with using these platforms and not having time to get used to using them. Therefore, this recommendation suggests PE teachers introduce the use of digital technology within their teaching pedagogy during normal face-to-face classes.

During the professional development held in the department, teachers can start to understand how to integrate digital technology into PE successfully. Furthermore, seeing others using this technology and developing new ideas through collaboration between colleagues also factors in a social constructivist approach, as the generation of new knowledge is through the co-construction of ideas and understanding via others' ideas and contributions.

More importantly, this recommendation provides two purposes, one for teachers and the other for students. First, it allows teachers to integrate and trial new digital technology lessons in a relaxed environment. Secondly, for students to gain experience using these as educational tools and give real-time feedback to the teachers if any issues arise. This dual effect will benefit teachers to see how students use this technology and make appropriate changes to their pedagogy, as well as allowing them to use digital technology for learning purposes and not just for entertainment. Lastly, this recommendation will also contribute to students feeling included and connected to this subject, as they are contributing to the development of the curriculum. This relates to earlier comments from Dyson (2014), who mentioned that it is essential for students to establish a connection to the teacher or subject, or their learning will diminish.

Strengths & Limitations

Strengths of research study

As mentioned in Chapter Five, the discovery of unintended results was possibly due to the flexibility of the IPA framework. The flexibility of the IPA framework is explained by Smith (2004) which states:

Thus, IPA researchers do not attempt to verify or negate specific hypotheses established on the basis of the extant literature; rather, they construct broader research questions which lead to the collection of expansive data. (p.43)

The IPA framework facilitated this flexibility within the data collection and analysis stages (Chapter Four) while I was engaging with the data and may not have occurred if the methodological framework was rigid and did not allow flexibility.

Limitations

All qualitative research has limitations; whether a result of methodological limits or research focus. For the present research, one limitation was related to the scope where it focused only on teachers and online teaching. Researching the perspectives and experiences from the other side of the online teaching relationship, the students, will provide a further understanding of online teaching from a student's perspective and contribute their influence to co-create an effective platform. Lemay et al. (2021) point to this consideration in their research exploring the transition to online teaching. Educators can develop successful interventions and potential future online platforms by examining student perceptions of online teaching. In addition, examining students' perceptions will allow researchers to evaluate students' digital competencies and answer the question if they are digital natives. This could also relate to their earlier comments from Schleicher (2020) that "technology is only as good as its use" (p.16) and van der Vlies (2020), "While digital technologies should ideally be designed to facilitate teachers, their potential cannot be reached if teachers do not have the right skills to deploy them" (p.17). These comments express the importance of research exploring students to see if they know how to use digital technology as learning tools effectively and how they can be integrated into future online teaching.

A second limitation of this research was the small sample size. When using small sample size, findings and conclusions cannot be generalised, as they do not fairly represent the total number of New Zealand PE teachers. The findings and conclusions are merely a snapshot of this specific sample of New Zealand PE teachers and their online teaching experience during the pandemic. Using a larger sample size would produce greater information for more generalised conclusions. Furthermore, Cohen et al. (2017)

recommend that readers of this research use these findings and conclusions and evaluate them concerning their own experience of this phenomenon.

Future Recommendations for Research

While this research study has arrived at conclusions on how New Zealand PE teachers experienced online teaching during the pandemic, more research into this phenomenon is required. This is to fully understand its impact, specifically, research on how a digital platform can recreate the classroom environment that caters to social-emotional and relationship aspects. In addition, future research into student perceptions of online teaching and the teaching of PE in New Zealand could provide new information from the other side of the online experience. Developing this new knowledge can contribute information from a student's perspective, how they experienced online teaching, and how it could be developed to suit their needs better and help create a digital tool that considers all the stakeholders involved.

Researcher's Reflection

This research study started out of pure curiosity from my own experiences of teaching online and how this shaped my educational development. By conducting this research study, it has enhanced my understanding of this unique period and experience with online teaching. In addition, the challenges of completing this study, while withholding my assumptions concerning this experience, was challenging but also rewarding and allowed me to discover new experiences from my perspective about teaching online. Furthermore, the challenge of conducting interviews with participants was stressful, as being a novice within the educational research realm meant I was always going to face challenges like

this. However, the constant application of bracketing and withholding my assumptions provided a strong reminder of the research study's intentions.

Nevertheless, these challenges were met, and completing the interviews was enjoyable and rewarding. My assumptions and biases toward this phenomenon differed considerably from those within this research. I had experienced some difficulties and issues, and my environments and relationships were very dissimilar during this time. Also, by bracketing my assumptions and approaching these interviews without presuppositions, I could explore new experiences through co-creating information about teaching online, which presented new considerations for my teaching practice. Lastly, the positionality adopted for this research study was useful for the co-creation of knowledge and understanding of the participants experience. I was under the assumption that my participants would be hesitant to talk about their true experience of online teaching, however this was not the case. The fact that I was an insider was beneficial for these conversations, as I knew the terminology and contextual meaning of these discussions.

This experience has also been enlightening for my educational development and, albeit unusual, allowed me to reconnect with my passion for teaching, the student-centred purpose of teaching, and their educational outcomes

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Appendix A - Interview Questions

Opening Questions

- What are your professional roles and responsibilities within this institution?
- How long have you been teaching for?
- What do you enjoy about teaching Physical Education?
- Have you had any prior ICT experience before this online teaching?

Teaching Online Experience

- Can you tell me about your experiences with online teaching during the pandemic?
- Did your behaviour towards teaching change during this teaching time?
- How did you feel about recording video sessions in your surroundings at home?
- Do you think the role of the teacher changed during this time?
- Did you find any barriers with teaching online?

Teacher Priorities

- Do you think that the way of teaching PE will change after this experience? If so, in what sense do you think it will change?
- Do you think PE might lose its importance if teaching changes due to online learning?
- Do you think PE was easier to teach online when compared to then subjects?
- Do you worry about the implications of this online period towards students' notions towards PE as a subject?
- Do you think there has been an increased focus on Well-Being? If so, do you think that will continue?
- How important was PE for teachers and students during this online period?

Teaching Changes

- How do you think this time online has changed education? And PE?
- Has anything changed in the way you approach teaching due to this online period?
- How do you see PE being conducted in the future?
- Are there any aspects of this online teaching you would continue to use inside the classroom?
- How did your class feel in having more computer-orientated lessons?
- Do you think online learning has changed the teacher-student relationship?
- Did your day-to-day life get affected by this online teaching?

Appendix B: Consent Forms



Consent Form

Project title: Teaching through a pandemic: Interpreting New Zealand Physical Education teachers experiences in response to online teaching during the pandemic.

Project Supervisor: Dr John Milne

Researcher: Nick Elrick

- I have read and understood the information provided about this research project in the Information Sheet dated 19/1/2022.
- I have had an opportunity to ask questions and to have them answered.
- I understand that notes will be taken during the interviews and that they will also be audio-taped and transcribed.
- I understand that taking part in this study is voluntary (my choice) and that I may withdraw from the study at any time without being disadvantaged in any way.
- I understand that if I withdraw from the study then I will be offered the choice between having any data that is identifiable as belonging to me removed or allowing it to continue to be used. However, once the findings have been produced, removal of my data may not be possible.
- I agree to take part in this research.
- I wish to receive a summary of the findings (please tick one): Yes No

Participants Signature :

Participants Name :

Participants Contact Details (if appropriate) :

.....
.....
.....
.....

Date :

Approved by the Auckland University of Technology Ethics Committee on 19th January 2022 AUTEK Reference number 21/452

Note: The Participant should retain a copy of this form.

Appendix C: Ethics Approval



Auckland University of Technology Ethics Committee (AUTEC)

Auckland University of Technology
D-88, Private Bag 92006, Auckland 1142, NZ
T: +64 9 921 9999 ext. 8316
E: ethics@aut.ac.nz
www.aut.ac.nz/researchethics

TE WĀNANGA ARONUI
O TĀMAKI MAKĀU RAU

19 January 2022

John Milne
Faculty of Culture and Society

Dear John

Re Ethics Application: **21/452 Teaching through a pandemic: Interpreting New Zealand Physical Education teachers experiences in response to online teaching during the pandemic.**

Thank you for providing evidence as requested, which satisfies the points raised by the Auckland University of Technology Ethics Committee (AUTEC).

Your ethics application has been approved for three years until 19 January 2025.

Standard Conditions of Approval

1. The research is to be undertaken in accordance with the [Auckland University of Technology Code of Conduct for Research](#) and as approved by AUTEC in this application.
2. A progress report is due annually on the anniversary of the approval date, using the EA2 form.
3. A final report is due at the expiration of the approval period, or, upon completion of project, using the EA3 form.
4. Any amendments to the project must be approved by AUTEC prior to being implemented. Amendments can be requested using the EA2 form.
5. Any serious or unexpected adverse events must be reported to AUTEC Secretariat as a matter of priority.
6. Any unforeseen events that might affect continued ethical acceptability of the project should also be reported to the AUTEC Secretariat as a matter of priority.
7. It is your responsibility to ensure that the spelling and grammar of documents being provided to participants or external organisations is of a high standard and that all the dates on the documents are updated.
8. AUTEC grants ethical approval only. You are responsible for obtaining management approval for access for your research from any institution or organisation at which your research is being conducted and you need to meet all ethical, legal, public health, and locality obligations or requirements for the jurisdictions in which the research is being undertaken.

Please quote the application number and title on all future correspondence related to this project.

For any enquiries please contact ethics@aut.ac.nz. The forms mentioned above are available online through <http://www.aut.ac.nz/research/researchethics>

(This is a computer-generated letter for which no signature is required)

The AUTEC Secretariat
Auckland University of Technology Ethics Committee

Cc: nick.elrick@gmail.com

Appendix D: Research Invitation

Nick Elrick
Primary Researcher - AUT
Email: hfh1636@autuni.ac.nz
Mobile: 021449106



An invitation to participate in a research project into understanding New Zealand (NZ) Physical Education teachers experiences of teaching online during the pandemic



Kia Ora,

My name is Nick Elrick, a full-time teacher at Westlake Boys High School in Auckland and am currently working on completing my Master of Education at Auckland University of Technology (AUT). The focus of my research is understanding the experiences of NZ Physical Education teachers during the pandemic and how their priorities towards teaching this subject has changed due to this unique period of teaching.

I would like to invite you to participate in this research by taking part in a one-on-one semi-structured interview with myself. I am interested in NZ Physical Education teachers, to hear about their experiences of teaching online and the understand the implications this teaching period had on their professional and personal priorities towards curriculum.

If you are interested in finding out more about my research, please see the attached information sheet.

If you are willing to participate in my research, please view the attached consent form and email me: hfh1636@autuni.ac.nz within two (2) weeks of receiving this correspondence, if you do not wish to take part, then you do not need to reply to this email.

Kind Regards

Nick Elrick



Appendix E: Participant Information Sheet



Participant Information Sheet

TE WĀNANGA ARONUI
O TĀMAKI MAKĀU RAU

Date Information Sheet Produced:

19th January 2021

Project Title

Teaching through a pandemic: Interpreting New Zealand Physical Education teachers experiences in response to online teaching during the pandemic.

Kia ora,

My name is Nick Elrick, a full-time teacher at Westlake Boys High School and currently working towards completing my Master of Education research at Auckland University of Technology (AUT). The focus of my research is understanding how teaching online has shifted the priorities of New Zealand Physical Education teachers towards teaching their curriculum during the pandemic and interpreting this experience through their perspectives. I would like to invite you to participate in this research by taking part in a one 30-minute interview.

What is the purpose of this research?

The purpose of this research project is to generate knowledge about the experiences of New Zealand Physical Education teachers during online teaching during the pandemic and if this led to a change in the way teachers perceive this subject. This information will provide the researcher in-depth recollections of the participants experiences and will assist the researcher to interpret the experiences of teaching online during the pandemic and the changes in priorities towards Physical Education. By understanding how Physical Education teacher perceptions have changed, we may gain insights into the way teaching this subject online may move in the future and reshape the pedagogical approach.

How was I identified and why am I being invited to participate in this research?

Participants are being recruited based on their suitability, which is why you have received this information sheet because you are regarded as someone who fits the inclusion criteria for my research. The inclusion criteria for the proposed study includes: New Zealand Physical Education teachers, who were teaching online during the pandemic in New Zealand. Since this is only a small research project, a limited number of participants are being recruited. This means that not all people who want to participate may be included, once sufficient participants have been found any remaining potential participants will be notified.

No teachers (particularly from Westlake Boys High School) will be invited to participate where the researcher holds a position of authority over that teacher. Any potential participants who wish to exclude themselves from the research due to perceived conflicts of interest may do so.

How do I agree to participate in this research?

Your participation in this research is voluntary (it is your choice) and whether or not you choose to participate will neither advantage nor disadvantage you. You are able to withdraw from the study at any time. If you choose to withdraw from the study, then you will be offered the choice between having any data that is identifiable as belonging to you removed or allowing it to continue to be used. However, once the findings have been produced, removal of your data may not be possible.

If you wish to participate in this research, you will need to complete the Consent Form and send it back to hfh1636@autuni.ac.nz within two (2) weeks of receiving this correspondence.

What will happen in this research?

Each participant is being asked to complete a 30-minute, one-on-one interview with myself in a secure and private location. The interview time will be set up that is suitable for you and in a location to be determined that best suits your needs. These can take place before, during, or after working hours and can be online or in person at a location of the participant's choosing. Prior to the interview you will receive a copy of the general outline of the questions/topics to be discussed. The interview will be conducted in a semi-structured format and will be recorded on a personal and password protected device, for me to refer to at a later date. You can choose not to answer any question and do not need to explain why. All data collected from these interviews will be confidential and stored in a secured location at AUT. Your personal details and employer(s) name will not be published within the findings of these interviews. The online interviews will follow the same question structure to the in-person format and will be completed over a platform that

the interviewer and see and hear the participant during the interview. The recording of these interviews will only be audio based.

What are the discomforts and risks and how will they be alleviated?

Minimal Risk statement will be included for most projects:

It is expected there will be very little risk to the participant since the research focuses on methods and techniques of data collection, and the topics under discussion are unlikely to prove personally intrusive. Additionally, if you would not like to answer any question(s) within the interview, you may refuse without explanation. I am hoping you find taking part in the research enjoyable. However, if something distressing comes up during the interview process, then I will:

- Offer to stop recording
- Offer to give you time to process / calm down
- Offer to stop the interview entirely

What are the benefits?

You will receive no direct benefits from participating in this research, but it may help improve our understanding of the experience of teaching Physical Education online during the pandemic. You will have the opportunity to be informed of the outcomes of the research. This research is part of my dissertation and contributes to me completing a Master of Education.

How will my privacy be protected?

Your confidentiality will be preserved because you will not be identified in my final dissertation. You will be identified by a pseudonym. Additionally, no identifiable information will be published in the findings and to protect privacy and all recordings, consent forms and documents related to this research will be kept in a secure location on AUT's campus. It is possible that answers to some questions may provide information that limit the degree to which full anonymity can be assured.

What are the costs of participating in this research?

The cost associated with participation is your time. You can expect that your involvement will take between 30 – 40 minutes to complete the interview.

What opportunity do I have to consider this invitation?

Please consider this request and if you are interested in participating, please contact me within two (2) weeks of receiving this information sheet. If I have not heard from you by then I will assume that you do not wish to participate.

Will I receive feedback on the results of this research?

If you would like to receive a summary of my findings, please indicate this on the consent form.

What do I do if I have concerns about this research?

Any concerns regarding the nature of this project should be notified in the first instance to the Project Supervisor, Dr John Milne, john.milne@aut.ac.nz, 09 921 9999 ext 7953 Concerns regarding the conduct of the research should be notified to the Executive Secretary of AUTEK, ethics@aut.ac.nz, (+649) 921 9999 ext 6038.

Whom do I contact for further information about this research?

Please keep this Information Sheet and a copy of the Consent Form for your future reference. You are also able to contact the research team as follows:

Researcher Contact Details:

Nick Elrick – hfh1636@autuni.ac.nz, 021449106

Project Supervisor Contact Details:

Dr John Milne, AUT School of Education. Email: john.milne@aut.ac.nz Phone: (09) 921 9999 ext 7953

Approved by the Auckland University of Technology Ethics Committee on type the date final ethics approval was granted, AUTEK Reference number type the reference number.