



**He Pukenga Pūrākau, Ka Ora te Tamaiti:
Pūrākau-based Physical Activity and Hauora
Outcomes for Tamariki Māori**

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Abstract

He Pukenga Pūrākau, Ka Ora te Tamaiti centres on the transformative power of pūrākau-based physical activity and its impact on hauora outcomes for tamariki Māori. He Pukenga Pūrākau, Ka Ora te Tamaiti emphasises that a flood of pūrākau results in the health of the child. The enduring nature of pūrākau, spanning thousands of years, attests to how Māori narratives have encoded knowledge, values, and played a vital role in transmitting mātauranga Māori across generations. Central to this research is a focus on tamariki, including a commitment to empowering their creative potential and amplifying their unique voices.

Pūrākau-based physical activity involves applying and transmitting mātauranga Māori through traditional and contemporary forms of physical activity to achieve hauora. It is underpinned by three foundational pou: hauora, pūrākau, and Māori physical activity. Three pūrākau-based physical activity programmes served as the focal point of this research, including Pau te Hau, a curriculum-based, pūrākau-inspired high-intensity interval training programme; He Pī Ka Rere, a kaupapa Māori movement programme that fuses kori tinana, pūrākau, and mātauranga Māori; and Tākaro ki te Taiao, a whānau-led, tākaro programme which uses pūrākau and is set in the taiao.

This research aims to understand how pūrākau-based physical activity impacts hauora for tamariki Māori. The research participants included tamariki, kaiako, and matua. Pūrākau formed the primary methodological framework underpinning this research and paved the way for understanding the very essence of mātauranga Māori, identity, and knowledge transmission using storytelling. Data collection methods included wānanga activities with tamariki, interviews with kaiako and observational research. Kaupapa Māori Theory in Praxis was also used as a method to actively challenge Western-centric research paradigms and prioritise Māori cultural norms. Employing this approach resulted in the development of Tākaro ki te Taiao, which centred on a wānanga in the taiao as a forum for knowledge sharing and data collection. Pūrākau was integral in allowing participants to tap into Māori narratives to share their experiences, express their truths, and promote cultural innovation. Deductive analysis methods were used to apply key themes to the four dimensions of Te Whare Tapa Whā. Kura huna were drawn from a series of ancestral pūrākau to illustrate an alignment with the data and further deepen comprehension.

The findings of this research highlighted that pūrākau significantly enhances physical activity experiences for tamariki, enabling them to achieve hauora and participate authentically 'as Māori'.

The study focused on three research questions. The first question sought to understand what pūrākau-based physical activity entails. Notable findings included a precise definition of pūrākau-based physical activity, encompassing three definitions for each foundational pou. Additionally, it revealed that system leaders fail to recognise a Māori construct of physical activity, emphasising the need for a shared language developed by Māori for Māori. The second question delved into how pūrākau-based physical activity impacts hauora, with a specific focus on 'as Māori' participation. Findings indicated that Pau te Hau offered limited 'as Māori' participation, while He Pī Ka Rere prioritised and built strong bicultural foundations within the school for it to flourish. Tākaro ki te Taiao stood out as a programme, approach, and philosophy which enabled many opportunities to engage authentically in physical activity 'as Māori.' The final research question centred on exploring the perspectives of tamariki, kaiako, and matua regarding the impact of pūrākau-based physical activity on their hauora. All programmes demonstrated a positive impact on hauora to varying extents. Pau te Hau excelled in te taha tinana but lacked connection to te ao Māori. He Pī Ka Rere had a substantial impact across te taha hinengaro, te taha whānau, and te taha wairua, with a holistic approach playing a pivotal role. Tākaro ki te Taiao excelled in embracing all dimensions of Te Whare Tapa Whā, and its connection to the taiao contributed to a heightened sense of spiritual connection.

Future implications for this study were anchored in the title of this research, He Pukenga Pūrākau, Ka Ora te Tamaiti. He Pukenga Pūrākau is a research paradigm that recognises the pivotal role of pūrākau in shaping the entire research journey. It played a crucial role in forming the methodology as well as driving the research methods and data gathering activities employed. Additionally, pūrākau significantly contributed to the development of Tākaro ki te Taiao, which exemplifies Kaupapa Māori Theory in Praxis. Pūrākau influenced the analysis process, resulting in the creation of three pukapuka. These pukapuka are an accumulation of the insights gathered and they serve to challenge conventional academic ideals about what constitutes appropriate, valid, and legitimate research outputs. This multidimensional impact therefore showcases the transformative power of pūrākau and the crucial role it can play. Ka Ora te Tamaiti is a research praxis that centres on tamariki as agents of change and recognises the mana of tamariki as our most sacred taonga. It argues the need to explore creative methods for engaging tamariki in the research process and highlights the importance of their active participation as leaders and decision-makers in programme design and implementation. Embracing pūrākau in this research signified a commitment to decolonise the research process, exercise tino rangatiratanga, prioritise mātauranga Māori and empower the mana of tamariki.

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Ethics Approval

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Thesis Conventions

A Note on Te Reo Māori

When we write it in English and translate it in Māori, we've already compromised the Māori worldview.

(Ross, 2021)

This thesis contains Māori words as the research centres on Māori voices and privileges a Māori worldview. Therefore, Māori words are not italicised throughout. This is the approach I used in my master's thesis (Timu, 2018) and is also utilised by my fellow Te Koronga (Māori research excellence group) doctoral graduates Chanel, Ngahuia and Terina (Phillips, 2019; Mita, 2023; Raureti, 2023).

An English definition is given for Māori words in brackets the first time a word is used, for example, pūrākau (Māori cultural narratives). A glossary of key terms is also provided at the end of the thesis. Te Aka Māori-English Dictionary (Moorfield, 2011) was the primary source for most definitions and is a resource that also provides audio recordings of the words to aid pronunciation. It is essential to recognise that te reo Māori (Māori language) is contextually bound within te ao Māori (Māori worldview), therefore, English translations will never fully encapsulate the true meaning nor capture the cultural nuances that exist (Clifford, 2023). The words in the glossary and their translations are relevant to the context of my PhD, and the same word in another context may not carry the same meaning.

Te reo Māori uses macrons (a small horizontal bar above a vowel) to indicate a long or stressed vowel sound. For example, 'Māori' has an elongated 'a' which sounds more like 'Maaori' than 'Maori'. I have used macrons throughout this thesis for consistency. Many tribes have their own mita (tribal dialect); to honour this diversity and the authors' or participants' mita and language selection, all quotes are presented as they appeared in their original publication or orally.

Capitalised Māori terms, such as names, places, concepts, or theories, signal proper nouns. While all other Māori terms within the text are presented in their natural spoken form. For example, Kura Kaupapa Māori (Māori-medium primary), kaupapa (topic, purpose, programme, agenda), Kaupapa Māori (Māori approach, topic, ideology) and Kaupapa Māori Theory (a theory by Maori, for Māori).

Footnotes

Footnotes have been used to provide more information about specific topics that require further explanation for clarity.

Italicising Quotes

Chapters 4-6 are analytical chapters, where literature and data are interwoven. I use vignettes in these chapters, which represent direct quotes extracted from the participants' transcripts. These quotes have been indented and italicised to make the interview data more distinguishable. When a quote is not italicised, this indicates that it is not interview data, but rather data from an existing publication.

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 of higher learning.

31 January 2024

Chapter 1 - Introduction

Ko Wai Au?

Figure 1: Tāku Pepeha



My pepeha (tribal expression) above serves as an introduction to who I am, highlighting my ancestral connections to people and places of cultural significance in my life. It represents my whakapapa (genealogy, lineage), which despite its static appearance in this traditional thesis format, is inherently dynamic and multi-layered. Within my pepeha are kōrero tuku iho (narratives passed down), codes and clues that breathe life into the people and places I descend from. For

example, stories of the characteristics and traits of my tūpuna which I see in myself and my tamariki (children), the ancestral names that transcend generations to the present day, the profound significance of my maunga (mountain), awa (river), moana (ocean) and waka (canoe) that talk of the places where my whānau (extended family) journeyed and later settled within Aotearoa (New Zealand), and the countless memories I have from experiences on my marae (ancestral meeting place) and at our whānau pā. My pepeha references the people I call whānau and indicates the places where I feel I belong, ultimately contributing to the richness and complexity of whakapapa.

Reciting my pepeha has deepened my desire to uncover further layers of understanding. While I grew up with a solid connection to my papa kāinga (whānau home base, village), marae, awa and maunga in Tauranga, I have only recently discovered other whakapapa lines. Interestingly, many places mentioned in my pepeha called me home throughout my PhD journey, and I subsequently felt compelled to visit these places and people to strengthen my whakapapa ties. For example, choosing to pursue this PhD came with an opportunity to conduct research in Te Matau-a-Māui (Hawkes Bay region) which became particularly meaningful to me given the chance to delve deeper into my Ngāti Kahungunu (tribe in Te Mātau-a-Māui) whakapapa. Professionally, the work I conducted simultaneous to this research also helped unlock layers of my whakapapa. Over the past two years, I have immersed myself in the histories and knowledge of both my Whakatōhea (tribe in Opotiki) and Ngāti Porou (tribe in Te Tairāwhiti) whakapapa and I have come to realise that this continuous search for knowledge has always been a driving force within me, constantly pushing me to learn more.

Growing up in a city far from my tūrangawaewae (ancestral homelands), I clung to every glimpse of Māori culture I could from a young age. Although I received education in an English-medium setting, I yearned for opportunities to connect with my ao Māori. I nurtured a deep passion for sport, physical activity, and fitness, and I also loved participating in kapa haka (Māori performing arts) during my time in school. There were moments when these passions converged, such as during Māori netball competitions and in waka ama (outrigger canoe racing). Through these events, I had the chance to travel the country, visit different marae and immerse myself in the pūrākau, waiata (song), and haka (posture dance, chant) from each rohe. Similarly, kapa haka offered opportunities to travel the country and stay at various marae on our way to performances. However, I never recall being afforded opportunities within the school curriculum to explore pūrākau within a physical activity context.

While it was common at the time for English-medium schools to provide opportunities to learn te reo Māori, such as through the Taha Māori programme (Jenkins, 1994; May, 2004; Leoni, 2012) and Te Reo Kori (Hokowhitu, 2001), there was a lack of integration or meaningful engagement of mātauranga Māori (Māori knowledge) within the curriculum. Where such knowledge was included, its success heavily relied on the levels of passion, cultural competence, confidence, and commitment from the teacher and school. My only memory of mātauranga Māori intersecting with physical activity at school was through waka ama, which I encountered late in high school. While I felt a deep spiritual connection to the water participating in waka ama, my overall experience primarily focused on developing the necessary skills and competencies to perform in the sport. Unfortunately, delving into the ancestral knowledge, history, language and cultural aspects, was not the focal point.

More recently, mau rākau (Māori weaponry) has been introduced into schools. This opportunity was only ever afforded to me through kapa haka, not as part of the regular curriculum. This practice is growing in schools where the cultural capability and commitment exists, especially in Māori-medium school settings. However, in English-medium schools this integration is still relatively new and novel. One of the significant challenges for programmes in English-medium schools lies in the availability of culturally competent teachers or the reliance on established relationships both individuals and schools have with mātanga (expert, specialist) who possess the required expertise and knowledge. Despite ongoing efforts to revive this knowledge, resources are scarce, posing challenges in establishing, maintaining, and sustaining these initiatives. Furthermore, during my time as an undergraduate student at university (2005-2007), there was a noticeable resurgence in the revitalisation of traditional Māori games, with Kī o Rahi being one of those experiencing renewed interest (Brown, 2008). Kī o Rahi is fast becoming a popular addition to the physical education curriculum nationally, in effect, raising levels of awareness, knowledge and understanding. While this is positive and demonstrates some progress, this research argues that these pūrākau-based physical activity opportunities in English-medium school settings remain rare.

My life experiences have shown me that there is important work to be accomplished in this domain, and I am driven by my passion for affecting change for Māori, using the platforms of physical activity, health, and education. This PhD serves as an opportunity to be a storyteller, to share my own pūrākau, one that holds significance and value to my whānau. I am committed to leaving a legacy worth following, one that honours my ancestors, enriches the lives of my loved ones, and paves the way for future generations. Whakapapa is what drives me in all that I do, not

just in my role as a researcher, but as a mokopuna (grandchild), a daughter, a māmā, a wife, and a kaimahi (worker) striving for mana motuhake (sovereignty) and tino rangatiratanga (self-determination) in the mahi (work) space.

Whakapapa serves to guide me in my decision-making and my actions. This profound connection to whakapapa forms the essence of my 'why' and becomes evident as I delve into the wisdom and guidance of my tūpuna (ancestors). When it comes to whānau, my husband and I also share a love for physical activity, health and education. As a raukura (graduate) of Kura Kaupapa Māori, his primary focus of work is on the design and delivery of kaupapa Māori approaches to kori tinana (physical activity, exercise, movement) and kai (food, nutrition) by, for and with Māori. My primary focus is on reclaiming, restoring and revitalising Māori approaches to kori tinana for Māori who primarily find themselves in non-Māori settings including but not limited to, local and central government, not-for-profit organisations, and English-medium education settings. Given that we work in the same sector, many of our endeavours overlap both professionally and personally, and coincidentally it is no different with this research. Our children and extended whānau often play pivotal roles in helping shape the programmes and initiatives we lead, including He Pī Ka Rere which forms a core focus of this research. As such, I position myself as a māmā (mother) of four, as a tākaro (play, game, recreational activity) practitioner and a wahine Māori (Māori woman) researcher with a steadfast commitment to tino rangatiratanga and hauora (holistic wellbeing). Nurturing and empowering our whānau and community, particularly those Māori who have come through English-medium spaces, lies at the heart of my journey, striving to create positive change, and fostering wellbeing for all those within my reach.

I share this personal insight first, to forge a deeper whakapapa connection with you, the reader. By offering a glimpse into who I am and the driving forces behind embarking on this PhD journey, I seek to provide a broader context and foundation for this research. My commitment to this kaupapa stems from a place of profound passion and purpose, therefore through this shared understanding, I hope to create a meaningful and authentic connection that will resonate throughout the pages of this work. You will see throughout this thesis that the boundaries between research, work, and family become blurred as my passion for understanding, learning, and connecting with my whakapapa grows on this journey. This PhD serves as a solid commitment to honouring and preserving the wisdom and traditions of my ancestors, while also striving to contribute positively to my community and society as a whole. This isn't just research for me, it's a way of life!

Aka Matua

*He pukenga wai, ka puta te rākau, he pukenga te tangata, ka puta te kōrero
In a flood of water a tree appears in a confluence of people dialogue comes out.
(Moorfield, 2011)*

The central thesis, or aka matua (parent vine), of this research asserts that pūrākau significantly enhances physical activity experiences for tamariki, enabling them to achieve hauora through facilitating authentic participation ‘as Māori’. This aka matua forms the foundation of this research and has guided how I’ve chosen to navigate the research journey. The research title He Pukenga Pūrākau, Ka Ora te Tamaiti,¹ which derives from the whakataukī above, centres on the transformative power of pūrākau-based physical activity and its impact on hauora outcomes for tamariki Māori. It emphasises that a flood of pūrākau results in the health of the child, and represents the pivotal role of pūrākau across the various facets of this research process, serving as a research topic, methodology, method, analytical tool, theory, and praxis. It also holds transformative power as a culturally relevant pedagogical tool, that fosters authentic engagement with tamariki, who are our most sacred taonga. Embracing pūrākau has afforded opportunities to exercise tino rangatiratanga as an emerging Māori scholar and has served as a catalyst for acknowledging and empowering the mana (prestige, authority) of our tamariki. In this thesis, I actively decolonise the research process as I welcome you into this kaupapa. This thesis represents my contribution toward restoring Indigenous knowledge, language and cultural practices, as well as advocating for and affirming the rights and perspectives of tamariki Māori.

Pūrākau-based Physical Activity

The first challenge I encountered early in this study was the multitude of terms associated with pūrākau-based physical activity. Examples included kaupapa Māori movement (Toi Tangata, 2022), ngā mahi a te rēhia (Royal, 1998c; Penetito-Hemara, 2020), tākaro (Penetito-Hemara, 2020; Mules et al., 2022; Penetito-Hemara et al., 2023), ngā taonga tākaro (Brown, 2008; 2016), hupara (Brown & Brown, 2017), mau rākau (Te Whare Tū Taua, n.d.; Timu, 2018), aro-tākaro (Brown & Brown, 2019), ira tākaro (Brown & Brown, 2022), culturally distinctive play, active recreation, and sport (Sport NZ, 2020b; 2020d; 2020e; 2022b; 2022c), mātauranga Māori enhanced HIIT (Harris et al., 2022) and more. In addition, others have opted for frameworks and

¹ E mihi ana kia koe Ranganui Rikirangi-Thomas thank you for gifting this kōrero (narrative, speech) to bind all the thinking in this research and whakamana the kaupapa.

philosophies using terms such as Te Reo Kori (Hokowhitu, 2001), Atua Matua (I. Heke, n.d.; I Heke, 2017; I. Heke, 2019; D. Heke, 2021), Tūpuna Kori Tinana (Rangi, 2020) Māori Movement (Māori Movement, n.d) or programmes such as Mātaiao (Sport NZ, 2023a; Heke, 2021; Wikaere-Lewis, 2023), He Pī Ka Rere (Toi Tangata, 2022) and many more which are explored throughout this thesis. Pūrākau-based physical activity as a term, to my knowledge is not covered in the literature. Therefore, to provide the analytical lens through which I intend to explore the aim and objectives of this research I have developed a series of working definitions. First is a definition for pūrākau-based physical activity followed by working definitions for the three pou which form the foundation of pūrākau-based physical activity.

Pūrākau-based physical activity working definition – Pūrākau-based physical activity involves the application and transmission of mātauranga Māori contained in pūrākau, expressed through both traditional and contemporary forms of physical activity to achieve hauora.

Foundation of Pūrākau-based Physical Activity

Hauora working definition – Hauora is framed within a Māori worldview of health, highlighting the interconnected nature of physical, mental, emotional, social, and spiritual dimensions as integral elements contributing to overall wellbeing outcomes.

Pūrākau working definition – Pūrākau encompass both ancient and contemporary Māori narratives and techniques used to deepen understanding and the application of mātauranga Māori, te ao Māori, te reo Māori and Māori concepts, values, and practices both in innovative and creative ways.

Māori physical activity working definition – Māori physical activity refers to any traditional or contemporary movement, play, sport, exercise, or recreation that incorporates elements or aspects of mātauranga Māori in order to exercise tino rangatiratanga.

These definitions will undergo a thorough exploration, analysis, and review in this thesis to determine their effectiveness as robust descriptions. The objective is to ascertain whether they contribute to a clear and meaningful framework for establishing a shared understanding of pūrākau-based physical activity.

Research Aim

This research aims to understand how pūrākau-based physical activity (specifically Pau te Hau, He Pī Ka Rere and Tākaro ki te Taiao) impacts hauora for tamariki Māori.

Research Questions

1. What is pūrākau-based physical activity?
2. How does pūrākau-based physical activity impact hauora for Māori?
3. What are the hauora experiences of tamariki, kaiako and mātua in engaging in pūrākau-based physical activity programmes?

A succinct description of the pūrākau-based physical activity programmes is as follows:

1. Pau te Hau – a curriculum-based, teacher-led, high-intensity interval training programme that draws from pūrākau, kōrero tuku iho, and traditional Māori movements to promote vigorous exercise for tamariki in schools.
2. He Pī Ka Rere – a kaupapa Māori programme that fuses kori tinana, pūrākau, mātauranga Māori, and atua-related movements to foster tamariki growth and development in early learning environments and schools.
3. Tākaro ki te Taiao – a whānau-led tākaro programme designed to leverage pūrākau, whakapapa kōrero, and mātauranga Māori to cultivate connection, creativity, imagination, and fun for tamariki in taiao settings.

In the interest of brevity, the original study featured a fourth research question examining possibilities for ensuring sustainability and scalability in pūrākau-based physical activity provision. Due to word count constraints and a misalignment with the aka matua, this data has been excluded from the thesis. Nevertheless, traces of this data remain throughout where necessary to present a comprehensive picture of the programme and its impact.

Methodological Considerations

Pūrākau as a core component of this research, has been used as the primary methodology, method, analytical tool and praxis. The culmination of these aspects constitutes a significant contribution to my research. To briefly summarise the methodological considerations of this research, I have chosen to do so by describing the whakapapa of this research journey. Whakapapa is crucial for comprehending the essence and genesis of events (Royal, 1998a). It helps establish connections, relationships, and patterns and can help explain why we do the things we do. Importantly, these will be discussed in further depth in Chapter 3. However, setting the scene early is vital to showcase how this research evolved and adapted.

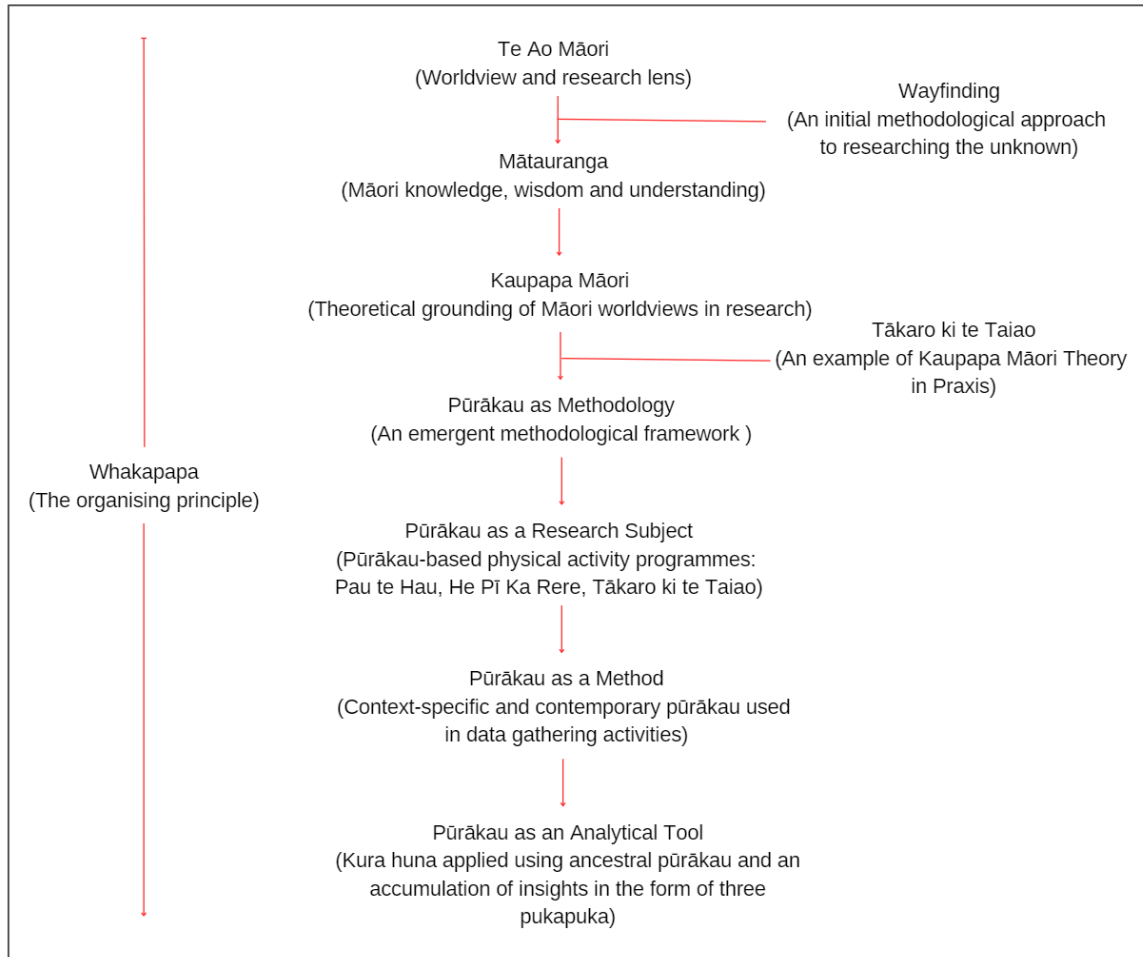
Drawing on my whakapapa Māori, this doctoral research was always going to inherently be approached from a te ao Māori worldview and driven by a pursuit of mātauranga Māori. In the preliminary phases of this research, I embraced a wayfinding methodological approach embedded within a Kaupapa Māori research paradigm. This approach allowed me to navigate the research journey while prioritising tino rangatiratanga. However, given the focus on pūrākau-based physical activity, pūrākau emerged as the primary methodological framework, serving all aspects of the research process.

Pūrākau played a multifaceted role alongside tamariki and kaiako, framing data gathering activities, providing valuable insights, and facilitating knowledge sharing that was both creative and meaningful. Yet, discussions with tamariki and kaiako highlighted a gap in data concerning whānau voice. To comprehensively grasp the impact of pūrākau-based physical activity provision not just within educational settings but also beyond, I instinctively began involving my whānau in the research process. This led to the creation of Tākaro ki te Taiao, with the addition of a matua (single parent) perspective, embodying Kaupapa Māori Theory in Praxis.

During the analysis phase, pūrākau emerged as a vital tool for deepening understanding of pūrākau-based physical activity. Ancestral pūrākau were identified to frame the analysis, and kura huna (hidden message) were extracted and applied to the data to deepen comprehension. This process resulted in the development of a pukapuka series, comprising three pūrākau, which form an accumulation of the insights gathered from each programme.

This wānanga (traditional method of knowledge transmission) process sets the scene for the research that follows and emphasises how pūrākau played a central role throughout. Figure 2 illustrates the whakapapa of this research journey.

Figure 2: Whakapapa of the Research Journey



Next, I offer insights into the three pūrākau-based physical activity programmes that will be examined in this research, Pau te Hau, He Pī Ka Rere, and Tākaro ki te Taiao. Within each overview I have offered a rationale for the inclusion of each programme to justify their distinct differences, all of which contribute to a more comprehensive understanding of the topic and warrant their inclusion.

Pau te Hau

Pau te Hau translates to being exhausted and out of breath (Moorfield, 2011), aptly reflecting the nature of this physical activity programme. Pau te Hau is a high-intensity interval training programme aimed at inducing vigorous levels of physical activity and exercise within a short

timeframe (Harris et al., 2022). The programme utilises simple bodyweight sequences and integrates exercises inspired by traditional Māori movements, drawing from pūrākau and kōrero tuku iho (oral traditions). Auckland University of Technology (AUT) are the project lead and creators of Pau te Hau. The programme forms part of a randomised controlled trial designed to facilitate the delivery of a teacher-led and technology-enabled movement programme for adolescents during curriculum time at school.

The rationale for examining Pau te Hau as a form of pūrākau-based physical activity stems primarily from the initial invitation to pursue this PhD. This research was funded by the Health Research Council of New Zealand (HRC Grant 20/168) and forms one part of a wider project surrounding Pau te Hau entitled 'Implementing high intensity interval training in schools.' The broader project² seeks to determine the efficacy and medium-term effectiveness of a teacher-led, mātauranga Māori-enhanced high-intensity interval training (HIIT) programme on cardiorespiratory fitness and other physical and mental health outcomes in youth. This research focuses specifically on the impact of the mātauranga Māori-enhanced components of the programme. Further rationale for investigating Pau te Hau includes an interest in understanding the benefits of the enticing technological elements such as an app, heart-rate monitors, videos, audio narratives and visual on-screen technology. Recognising the novelty and appeal of such technology to our tamariki as digital natives, I aim to investigate the impact of these components as attractive mechanisms in the delivery and implementation of pūrākau-based physical activity.

He Pī Ka Rere

He Pī Ka Rere embodies the symbolism of a young bird that has acquired its feathers and is preparing for flight. The whakataukī which accompanies the name explains how a young bird with wings extended, turns towards the wind, and propels itself into the sky — “He Pipi Paopao Noho Kōhanga, He Pī Ka Rere!” (Toi Tangata, 2022, p. 4). He Pī Ka Rere is an evidence-based kaupapa Māori movement programme that incorporates mātauranga Māori and other Indigenous knowledge to inform the significance of traditional activities in a child's growth and development

² Pau te Hau, as a wider research project, employed a cluster-randomised controlled trial approach, utilising a hybrid design where participating schools were designated as either 'intervention' or 'control' schools. Intervention schools were introduced to Pau te Hau, while control schools maintained their regular physical education practices. My research data was gathered in September 2022 across two of the intervention schools, during their second iteration of Pau te Hau.

(Toi Tangata 2022). Toi Tangata³, who are a named research partner in this study, serve as the creators and kaitiaki of He Pī Ka Rere.

The rationale for investigating He Pī Ka Rere as a form of pūrākau-based physical activity arises from a desire to examine a kaupapa Māori programme intentionally designed and developed by Māori, for Māori. The programme was purpose-built for tamariki in Kōhanga Reo, and since its establishment in 2012, is now delivered in numerous Kōhanga Reo, Puna Reo,⁴ and kaupapa Māori learning environments nationwide. At the start of this research project, only one English-medium school in Murihiku (Southern region of the South Island), sought permission to introduce He Pī Ka Rere and had been implementing it for several years before my visit. Given that the programme is delivered exclusively in te reo Māori, my interest lay in exploring how it had been adapted for an English-medium school setting.

It is crucial to recognise that He Pī Ka Rere is not just a programme; it's also a philosophy, framework, and mindset that fosters a creative and customised approach to suit specific local contexts, including iwi (tribe), hapū (sub-tribe), whānau and rohe (district, territory) (Toi Tangata, 2022). This adaptable philosophy, promoting responsiveness to the unique needs, values and aspirations of each community it serves, prompted an exploration of how kaiako in English-medium school settings aimed to maintain authenticity, safeguard the use of te reo Māori, sustain legitimacy in employing a pūrākau approach, and adapted the programme to suit their participants. Given the positive feedback on the impactful introduction of He Pī Ka Rere in Murihiku, I had a keen interest in understanding the key factors contributing to its success. In addition, I was made aware of an intention to scale the programme into other primary schools so that Māori, outside of Māori-medium education settings, would have an opportunity to experience it. Throughout the duration of this research project, He Pī Ka Rere was piloted in a further five English-medium primary schools in Tāmaki Makaurau, and there are plans for further expansion to Kura Kaupapa Māori and other English-medium schools in the coming years. To contribute to the evidence base supporting the achievements of He Pī Ka Rere, this thesis aims to investigate the enablers and barriers to its success within these settings, with a particular focus on hauora outcomes for tamariki Māori.

³³ As a national Māori health agency, Toi Tangata operates as a not-for-profit organisation with a primary focus on fostering positive health outcomes by utilising Māori approaches to nutrition and physical activity.

⁴ Puna Reo refers to Māori early childhood centres that distinguish themselves from Kōhanga Reo by being run by registered teachers instead of whānau. These centres receive funding and support from the Ministry of Education rather than the Kōhanga Reo National Trust. While maintaining a focus on te reo Māori, Puna Reo operate as bilingual units.

Tākaro ki te Taiao

Takaro ki te Taiao is a programme that organically emerged as an opportunity to apply my understanding of the gathered data in a practical setting. The programme encourages whānau to actively engage with the surrounding taiao, aiming to foster a connection to diverse environments, explore their imagination and creativity, and develop relationships within a cultural context. Using tākaro as a platform, the programme subsequently incorporates pūrākau, whakapapa kōrero (conversations about genealogy), mātauranga Māori, tikanga (Māori customary practices and protocols), kōrero tuku iho, and te reo Māori, while engaging in movement that is fun.

After an initial analysis of the research data, it became apparent that a significant gap existed in both my research approach and dataset. Discussions with tamariki and kaiako displayed a crucial absence of data concerning the foundational partnership between the school and home environments. This introduced a new focus for the research, specifically on whānau at home and environments beyond school settings. To bridge this gap, I instinctively began involving my whānau which gave rise to Tākaro ki te Taiao. Soon after, I realised that my aspirations for this research were intricately linked to my desires surrounding educational experiences for my own tamariki, as well as professional growth as a practitioner in the field. It wasn't until my final year of study that Tākaro ki te Taiao evolved into a core programme of focus for this research.

Significance of the Study

Physical activity is crucial for the health, development, and wellbeing of young people (World Health Organization, 2018; 2020). While the rates of physical activity for tamariki Māori are comparable to those of non-Māori (Sport 2019), health disparities for Māori overall are disproportionate (Ministry of Health, 2021). Māori health models indicate the importance of taking a holistic view to health and wellbeing, including the importance of cultural connection as an enabler of wellbeing (Durie, 1985; Pere, 1991; Durie, 1994). Studies have indicated that there is a strong connection between cultural identity and its impact on health and wellbeing (Durie, 1997; Williams et al., 2018). These models zone in on targeted recognition of spiritual wellbeing as a key cornerstone and this study centres on pūrākau as an enabler of that. This study focuses on hauora, and aims to expand upon Durie's concept and framework, Te Whare Tapa Whā (Durie, 1985). Creation narratives, such as the story of Tāne who shaped the first women from clay and breathed his mauri (life force, vital essence) to bring forth life, is an example of how pūrākau encode understandings of hauora. Prioritising the development and implementation of physical

activity in a way that is culturally appropriate for Māori and unique to all New Zealanders is paramount to this research.

Health behaviours established in childhood often persist into young adulthood and later life (Sport NZ, 2020a). Therefore, fostering quality physical activity experiences is crucial. Sport NZ reiterate this in their Physical Literacy approach which states, “physical literacy is the combination of one’s motivation, confidence and competence to be active and is a determinant of how young people value and choose to be involved in physical activity throughout their life” (Sport NZ, 2021b, para. 1). It is therefore imperative that we identify scalable efficacious approaches that have the potential to influence lifelong physical activity and wellbeing behaviours for Māori and all New Zealanders.

Education settings are important controlled settings whereby there is a significant audience of tamariki and kaiako who gather each day at the same place for a defined period each week. This creates an ideal platform for programmes and initiatives that nurture and promote the role of mātauranga Māori and physical activity for tamariki wellbeing. The New Zealand Government have already identified schools, kura (school) and early learning services as key sites for improving wellbeing through quality physical activity and healthy eating. For example, in 2020 they committed an investment portfolio of \$47.6 million into the Healthy Active Learning initiative (Sport NZ, 2020f) a collaboration between the Ministries of Education, Health, and Sport NZ as part of the Child Youth and Wellbeing Strategy (Department of the Prime Minister and Cabinet, 2019). The rationale for this initiative is centred on the discourse that if we can create the right conditions for change to occur, this will contribute to shifts towards positive wellbeing actions and outcomes that are both culturally relevant and meaningful. As our understanding and appreciation of Māori culture and knowledge continues to evolve, it becomes essential for educational institutions to prioritise the integration of mātauranga Māori into various aspects of the curriculum, including physical activity, sport, recreation and exercise. This effort can play a vital role in fostering a deeper connection to te ao Māori and promoting cultural diversity and understanding within the education system and society as a whole.

While Te Tiriti o Waitangi has served as a foundational document by which Māori have been able to advocate for equity and successfully drive Māori initiatives, the varying political willpower and commitment among government leaders has contributed to both progress and setbacks (Paewai, 2023). It is important to recognise instances, especially within English-medium settings, where efforts have been made to embed mātauranga Māori or introduce initiatives in health and physical education that centre on Māori knowledge systems, teachings, and practices. Amidst the current

political landscape, characterised by reduced funding for Māori initiatives, the return of government department names to non-Māori names, and the dissolution of co-governance arrangements which have painstakingly been established over the years (Paewai, 2023), now is an opportune time to showcase the benefits of initiatives that drive positive change for Māori health and educational advancement. One solution that this research project proposes is the integration of pūrākau-based physical activity within English-medium schools and home environments for tamariki Māori.

International Relevance

While this research focuses on pūrākau-based physical activity programmes in Aotearoa specifically, this study has international significance as well. The United Nations (2007) Declaration on the Rights of Indigenous Peoples (UNDRIP) is a significant international policy that was adopted by the United Nations General Assembly on September 13, 2007 (United Nations, 2007). It aims to protect the collective and individual rights of Indigenous peoples around the world and address historical injustices they have faced. Of particular importance to this study is Article 31, which declares that:

Indigenous peoples have the right to maintain, control, protect and develop their cultural heritage, traditional knowledge and traditional cultural expressions, as well as the manifestations of their sciences, technologies and cultures, including human and genetic resources, seeds, medicines, knowledge of the properties of fauna and flora, oral traditions, literatures, designs, sports and traditional games, and visual and performing arts. They also have the right to maintain, control, protect and develop their intellectual property over such cultural heritage, traditional knowledge, and traditional cultural expressions. (United Nations, 2007, p. 22)

Article 31 (United Nations, 2007) emphasises the imperative to safeguard and respect Indigenous contributions. Pūrākau-based physical activity stands as a tangible manifestation of this right, as it not only preserves and shares Māori cultural narratives but also honours the intellectual property embedded within them. By doing so, this approach ensures that the richness of Māori traditions remains protected and respected, aligning with the broader international recognition of Indigenous rights outlined in Article 31. However, an identified risk with introducing pūrākau-based physical activity programmes into English-medium schools is the fear of dilution, bastardisation, or misappropriation of Māori knowledge and cultural practices (Timu, 2018). Therefore, careful management is essential to ensure authenticity, integrity, and accuracy, especially in light of the colonial events of the past. These topics will be examined as part of this study.

Indigenous storytelling is not a novel concept, and its combination with physical activity may not be unprecedented. However, documenting and substantiating this approach through a cultural lens, as far as I am aware, has not yet been done. According to Professor Katrina Walters (Choctaw Nation of Oklahoma), "Indigenous ways of knowing not only imagine a more healthful world for Native people, but for all of humanity" (in Clifford, 2022, p. 2). Pūrākau-based physical activity, as an approach, plays a vital role in preserving and promoting cultural traditions and expressions. Essentially, these programmes work to revitalise, normalise and reindigenise cultural knowledge and practices within an Aotearoa context. An evidence base that highlights the health and educational benefits of traditional knowledge transmitted through storytelling and physical activity holds potential value for international audiences, particularly Indigenous peoples around the world. Furthermore, pūrākau-based physical activity serves as a unique cultural expression contributing to the flourishing of Indigenous traditions.

Another pertinent international policy is the United Nations (1990) Convention of the Rights of the Child (UNCRC) (Mana Mokopuna, 2019). The UNCRC is a comprehensive international policy that sets forth a broad range of civil, political, economic, social, and cultural rights for children (Ministry of Social Development, n.d.). Of particular significance to this study are Articles 12 and 31, which state that:

Article 12 – Parties shall assure to the child who is capable of forming his or her own views the right to express those views freely in all matters affecting the child, the views of the child being given due weight in accordance with the age and maturity of the child. (Mana Mokopuna, 2019, p. 21)

Article 31 – Parties recognise the right of the child to rest and leisure, to engage in play and recreational activities appropriate to the age of the child and to participate freely in cultural life and arts. Parties shall respect and promote the right of the child to participate fully in cultural and artistic life and shall encourage the provision of appropriate and equal opportunities for cultural, artistic, recreational and leisure activity. (Mana Mokopuna, 2019, p. 34-35)

Firstly, Article 12 emphasises the importance of respecting and considering the opinions of children in decisions that affect them, recognising their evolving capacities and maturity levels. This is important to justify why capturing and amplifying the voices of tamariki is crucial in this research. Above all, tamariki are the future of our society and their experiences shape their understanding of the world around them. By listening to their voices, we gain valuable insight into their unique perspectives, needs, and desires. This insight is vital albeit often missed when developing policies, programmes, and initiatives that address their needs and promote their wellbeing. Furthermore, understanding their lived experiences is an essential step towards

ensuring that their rights are respected and upheld. The UNCRC recognises the importance of hearing children's voices in decision-making processes that affect their lives (Mana Mokopuna, 2019). By giving tamariki a platform to share their experiences during this research process, I seek to empower them to become active participants in shaping their own future, specifically the pūrākau-based physical activity programmes they engage with at school and at home. The way in which this research is conducted with and alongside tamariki for the benefit of tamariki could demonstrate a replicable model for an international audience who perhaps would otherwise choose to exclude children from their research endeavours.

Secondly, Article 31 (United Nations, 1990) recognises children's rights to engage in play, recreation, and cultural activities. Article 31 provides significant justification for the provision of pūrākau-based physical activity as it offers a culturally rich and holistic approach to play and recreation for tamariki Māori. For international audiences, especially those with Indigenous populations, pūrākau-based physical activity serves as a model for incorporating cultural traditions into health and education initiatives. It showcases how traditional knowledge, storytelling, and physical activity can be integrated to promote holistic wellbeing among Indigenous children. The cultural frameworks and approaches introduced in this context are transferable and offer a blueprint for other nations to uphold and celebrate their Indigenous cultures within contemporary practices, fostering cultural revitalisation and resilience. In summary, these international declarations provide further impetus for this research and the application of findings globally.

Thesis Structure

Chapter 1 has provided an introduction of myself as the primary researcher, including my motivations behind this study. It also provided an overview of pūrākau-based physical activity and the three foundational pou. Then, it establishes the overall research agenda and highlights the methodological considerations which set the scene for the research undertaken. Finally, it discusses the significance and international relevance of the study.

Chapter 2 proceeds with a comprehensive review of existing literature to establish the background for the research. It begins by providing an in-depth exploration of the foundations for pūrākau-based physical activity which include hauora, pūrākau and Māori physical activity. The chapter then provides an overview of the historical context, commencing with Te Tiriti o Waitangi, followed by an examination of the education and health systems in Aotearoa.

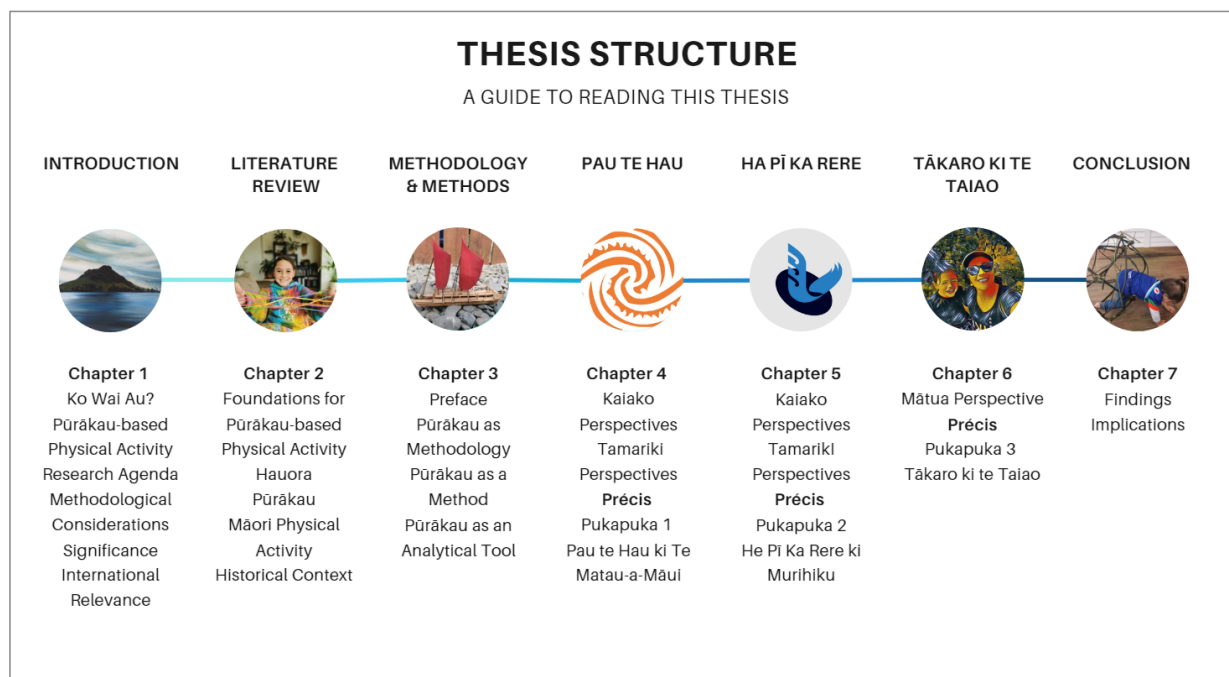
Chapter 3 commences with a preface centred on wayfinding as the initial methodological approach. It delves into the whakapapa of the research process, highlighting the epistemological and ontological foundations that underpin the study. The chapter discusses the impact of te ao Māori, mātauranga, and kaupapa Māori in shaping my worldview and the interconnectedness within it. It then focuses on the adoption of pūrākau as the primary methodological approach before delving into the application of pūrākau as a method and tool for analysis.

Chapter 4, 5 and 6 are the analytical chapters. Chapter 4 presents an analysis of Pau te Hau in Te Matau-a-Māui focusing on both kaiako and tamariki perspectives. Chapter 5 presents an analysis of He Pī Ka Rere in Murihiku, focusing on both kaiako and tamariki perspectives. Chapter 6 presents an analysis of Tākaro ki te Taiao in Tāmaki Makaurau, focusing on a matua perspective. Each analytical chapter concludes with a pukapuka that showcases stories as an accumulation of insights gathered. Presented as précis⁵ these pukapuka should be regarded as individual volumes representing the conclusive findings of each chapter.

Chapter 7 synthesises the key findings from the research concerning each research question. Additionally, it encompasses two major implications that signify my original contribution to knowledge in this field. The first He Pukenga Pūrākau refers to the transformative power of pūrākau in shaping a culturally relevant research paradigm. The second Ka Ora te Tamaiti is a research praxis and emphasises the importance of empowering the mana of tamariki as agents of change. It also aims to amplify the voices of tamariki as leaders and decision-makers in programme design and implementation. Figure 3 below should be used as a visual guide and structure for how to read this thesis.

⁵ A summary or abstract of a text or speech. In this study these are reserved for the pukapuka series.

Figure 3: A Guide to Reading this Thesis



Chapter 2 – Literature Review

This research emphasises that pūrākau significantly enhances physical activity experiences for tamariki, enabling them to achieve hauora through facilitating authentic participation ‘as Māori’. This chapter provides a synthesis of existing literature drawn from various sources to establish the background surrounding the research agenda within an Aotearoa context. The first section of this chapter provides the research context. I situate this research within three pou which form the foundation for pūrākau-based physical activity, these include: hauora, pūrākau and Māori physical activity. My intention in examining literature related to these pou is to equip the reader with the necessary depth required to fully comprehend the impact and potential influence of pūrākau-based physical activity in the chapters that follow. The second section of this chapter provides the historical context of this research. It begins with an introduction to Te Tiriti o Waitangi, followed by an examination of the education and health systems in Aotearoa. Subsequently, there is an exploration of the play, active recreation, and sport system, culminating in an overview of the sector and system evolution. The concluding section reviews health and physical education in schools, emphasising it as a key setting for pūrākau-based physical activity provision, thereby centring the discussion back on tamariki.

Foundations For Pūrākau-based Physical Activity

This research centres on the impact of pūrākau-based physical activity on hauora outcomes for tamariki Māori. In Chapter 1, I formulated a working definition of pūrākau-based physical activity which is restated below:

Pūrākau-based physical activity working definition – Pūrākau-based physical activity involves the application and transmission of mātauranga Māori contained in pūrākau, expressed through both traditional and contemporary forms of physical activity to achieve hauora.

In alignment with this working definition, I have identified three pivotal pou that form the foundation of pūrākau-based physical activity. These foundational pou are hauora, pūrākau, and Māori physical activity.

Hauora

The first of three key pou is hauora. Hauora is firmly rooted in a Māori worldview and represents a comprehensive concept of holistic health and wellbeing (Durie, 1985). Its foundations draw from various elements of te ao Māori such as te reo Māori, tikanga Māori, pūrākau, mōteatea (lament, traditional chant), karakia (traditional incantations, prayer), whakataukī (Māori proverb), pepeha and ancestral landscapes, all of which contribute to its rich meaning. In te reo Māori, hauora is composed of two words, 'hau' signifying breath and 'ora' denoting wellbeing (Jackson et al., 2018). As a conceptual framework prominent Māori health advocate, Tā Mason Durie, provided profound insight into hauora through the development of Te Whare Tapa Whā (Durie, 1985). Te Whare Tapa Whā is a framework that illustrates health and wellbeing through the symbolism of a whareniui (meeting house) featuring four walls. Each of these walls symbolises one of the four fundamental aspects of life: taha tinana (physical wellbeing), taha hinengaro (mental and emotional wellbeing), taha whānau (social connections and family wellbeing), and taha wairua (spiritual wellbeing). The interconnectedness of these dimensions is essential, and each wall must be in balance so that the whareniui remains standing – a metaphor for the health and wellbeing of people (Durie, 1999). This is depicted in Figure 4 below:

Figure 4: Tā Mason Durie's Te Whare Tapa Whā



Source: Adapted from <https://mentalhealth.org.nz/te-whare-tapa-wha>

Te taha tinana relates to the body and one's physical health. It is often the most familiar territory for Western health professionals and for this reason, most health promotion initiatives concentrate here. However, for Māori there are many ritualised practices which separate what is sacred and therefore have associated restrictions, versus what is common and thus less restricted. For example, practices related to touching one's head, stepping over people, preparation and consumption of food, cutting hair and nails all have tikanga which ultimately aim to protect the wellbeing of people both physically and metaphysically (Durie, 1985). Durie (1985) provides an example which highlights a difference in opinion between Western and Māori worldviews on physical wellbeing in the following quote;

Ironically, a hospital ward with its focus on hygiene and high health standards, can appear particularly hazardous to Māori people. The bedside locker provides a convenient surface for the food tray, the urinal or bedpan, water for washing the face and often a Gideon Bible. It offers storage for toilet paper, oranges, towels and clothes. For Māori people this practice causes considerable personal distress and greatly undermines confidence in the health professionals whose failure to observe Māori health values is construed as ignorance of basic standards. (p. 484)

Te taha hinengaro focuses on the psyche, including one's thoughts, feelings and emotions. In contrast to Western thinking about analytical capacity, Māori thinking is more appropriately described as holistic (Durie, 1985). This point is further reinforced by Durie (1985) who asserts that;

Consistent with this style of thinking, health is viewed as an inter-related phenomenon rather than an intrapersonal one. An individual whose thinking embraces several systems and who is able to join these together with integrative ideas demonstrates a level of wellness much admired within Māoridom. Healthy thinking, in Māori terms, is integrative not analytical. (p. 484)

Te taha whānau denotes an extended kinship system that relates to family. Before European arrival, Māori children were nurtured not only by their biological parents but also by tribal elders (a common practice by some people today). This system both enabled younger generations to return to the workforce as well as acknowledged the wisdom, skill and tolerance of older generations to nurture the children. Family remains the paramount support system within Māoridom (world or sphere of Māori), especially when it comes to identity. Māori are more likely to foster a group identity rather than an individual one, as reiterated by Durie (1985) in the following quote;

A Māori viewpoint of identity derives much from family characteristics. The searching question 'What do you do (for an occupation)?', is much less likely to be heard in Māori society than the equally searching questions 'Where are you from' or 'Who are your

people?' On the one hand identity is gleaned from vocation; on the other from tribal affiliation. (p. 485)

Te taha wairua acknowledges one's spiritual awareness including both cultural and religious beliefs and practices. Spiritual wellbeing remains one of the least explored and understood facets of health. According to Durie (1985) te taha wairua;

Acknowledges man's limitations over his environment and the need to humble oneself to the elements. Belief in God is acknowledged in prayer, both formal and informal, but spiritual wellbeing also implies a spiritual communion with the environment; land, lakes, mountains, reefs have a spiritual significance, quite apart from economic or agricultural considerations and all are regularly commemorated in song and formal oratory... Land is a symbol of continuity with those who have passed on to the spiritual world and respect for land augments one's spiritual strength. (p. 484)

Spiritual health also encompasses the presence of 'mana'. Mana refers to a state of spiritual authority bestowed upon people by higher powers (Marsden, 2003). Durie (1985) asserts that "to possess mana is to know health" (p. 484). Collectively these four dimensions combine to create a holistic and all-encompassing Māori health model that encourages us to recognise that we are holistic beings. If one aspect of our wellbeing is not well, our overall wellbeing is affected.

Although there are numerous Māori health models and frameworks, along with various te reo Māori terms like *oranga* (livelihood, wellbeing), *toiora* (wellbeing, welfare), *waiora* (health) and *mauri ora* (flourishing wellness) used to describe Māori health (Durie, 1994; Jackson et al., 2018), this research primarily centres on *hauora* and seeks to deepen comprehension using Durie's Te Whare Tapa Whā framework. This choice stems from *hauora* being a Māori concept rooted in Māori worldviews and beliefs, intended to benefit tamariki Māori in English-medium school settings. Moreover, as mentioned previously, *hauora* and Te Whare Tapa Whā are already integral components of the New Zealand Health and Physical Education School Curriculum and therefore demonstrate a natural alignment (Ministry of Health, 2015). As a result, this research operates under the assumption that *kaiako* and *mātua* (parents) already possess a certain level of awareness regarding Te Whare Tapa Whā and the concept of *hauora*. Hence, there is an expectation that they are more inclined towards its application as a Māori model.

My working definition for *hauora* serving as the analytical lens through which I am approaching this research is as follows:

Hauora working definition – *Hauora* is framed within a Māori worldview of health, highlighting the interconnected nature of physical, mental, emotional, social, and spiritual dimensions as integral elements contributing to overall wellbeing outcomes.

Pūrākau

The second foundational pou essential to pūrākau-based physical activity is pūrākau. Pūrākau are more than stories, they provide a source of strength for Māori and Indigenous peoples worldwide. As distinct narratives and stories, pūrākau draw on Māori ways of seeing, speaking, and expressing themselves. They tell of Māori experiences and pass on culturally specific messages which foster a sense of identity and pride in Māori traditions.

To initiate an exploration into pūrākau, I first turn to Rev. Māori Marsden, a healer, Anglican Minister, scholar and tohunga (spiritual leader), who provides the following description in his (2003) book:

Myth and legend in the Māori cultural context are neither fables embodying a primitive faith in the supernatural, nor marvellous fireside stories of ancient times. They were deliberate constructs employed by the ancient seers and sages to encapsulate and condense into easily assimilable forms their view of the World, of ultimate reality and the relationship between the Creator, the universe and the man. (p. 56)

Marsden's depiction of pūrākau as "deliberate constructs," which are "easily assimilable," accentuates the power of pūrākau as a primary means through which Māori have preserved, sustained, and transmitted their accumulated knowledge. He also alludes to the intertwined nature and power of both the physical and spiritual realms, reinforcing another strength of pūrākau as storytelling tools.

Professor Jenny Lee, now Jenny Lee-Morgan, has extensively explored the concept of pūrākau also. In her influential works (2005, 2009) and her doctoral thesis (2008), she describes pūrākau, in their simplest form as myths, ancient legends, or stories. Albeit she also advocates that they are much more than mere stories. Lee (2005) suggests that pūrākau are part of our oral literature, encompassing karakia, waiata, and mōteatea, whakapapa, whaikōrero (formal speechmaking), and whakataukī. In terms of a definition Lee (2009) asserts that pūrākau represent:

A traditional form of Māori narrative, containing philosophical thought, epistemological constructs, cultural codes, and worldviews that are fundamental to our identity as Māori.... Pūrākau are a collection of traditional oral narratives that should not only be protected, but are understood as a pedagogical-based anthology of literature that is still relevant today. (p. 1)

This definition affirms a longstanding cultural practice of storytelling within Māori communities and illustrates the multifaceted role of pūrākau. However, Lee also suggests that pūrākau transcends ordinary storytelling, encompassing profound cultural and philosophical meanings that offer insights into Māori beliefs and perspectives on the world. Moreover, by characterising pūrākau as

a "relevant" and "pedagogical-based" tool, she implies that these narratives maintain cultural, educational, and spiritual significance in a contemporary context. These foundational works play a crucial role in uncovering the diverse strengths of pūrākau, especially when exploring the context of pūrākau-based physical activity.

Dr Hauiti Hakopa (2019) refers to the metaphor of a tree and its relationship to the environment to define pūrākau. He states:

The word pūrākau is derived from the combination of two words: pū, meaning root or base, and rākau to mean tree, the combination thereof forming pūrākau; a synergistic term/relationship where the sum of the parts is equal to more than the whole.... It comprises of all its parts: the root system, the trunk, the branches, the leaves, and in some cases the fruit/berries; the whakapapa to Tāne-te-wao-tū, even the very ground that it inhabits, the bush or ngahere it resides in, the air it breathes, the sun it captures in the leaves and the mauri it emanates. (p. 34)

For the most part, Hakopa's (2019) thesis centres on pūrākau as sources of ancestral knowledge anchored on ancestral wisdom from his iwi, Tūwharetoa (tribe in the central region of the North Island). His research is grounded in the notion that pūrākau encompasses narratives of revered ancestors, describing journeys of exploration and discovery, navigation across vast oceans, and recounting pivotal historical events and places crucial to Māori identity. He argues that within pūrākau lie traditional ancestral scholarship, capable of nurturing academic leadership and laying the foundation for excellence and engagement in the digital environment (Hakopa, 2019). Preserving the fundamental essence of whakapapa is the central focus of his work, with pūrākau serving as the cornerstone of this discourse. Knowledge transmission, particularly that of whakapapa and local sites of significance, were central to the discussions with participants in this study, including the interplay between pūrākau and digital technologies.

Renowned Māori filmmaker Merata Mita (2000) emphasises the crucial function of pūrākau in strengthening the succeeding generation of mokopuna through the narration of Māori stories, in particular the accounts that depict our identity and origins. She (2000) succinctly affirms:

We must not overlook the fact, that each of us is born with a story, and each of us has responsibility to pass those stories on. To fortify our children and grandchildren, and help them cope with an increasingly material and technological world, we have to tell them the stories which re-enforce their identity, build their self-worth and self-esteem, and empower them with knowledge. (p. 8)

Mita (2000) contends that the skill and act of storytelling continues to play a vital role in contemporary times, much like its significance in pre-literate Māori society when our ancestors employed it for teaching, instructing, and safeguarding our distinct cultural knowledge. The

emphasis on cultivating “self-worth”, “self-esteem”, and reinforcing one's “identity” as positive hauora outcomes is particularly noteworthy in the context of this thesis.

Dr Carrie Clifford (2023) provides another complementary view on pūrākau in a practical sense. Clifford (2023) characterises pūrākau as follows:

When we contemplate the distinctive form and function of pūrākau, unlike waiata, which are sung, and whakapapa and whakataukī, which are recited verbatim (or near verbatim), pūrākau are conveyed in a much more adaptable and nuanced manner. (p. 19)

These points hold significance as they indicate that a pūrākau approach is not only “adaptable” and “nuanced”, but, at its essence, pūrākau provide a distinctive expression of Māori practice and traditions. Clifford’s (2023) research explored the current and potential future use of pūrākau in contemporary mental health settings in Aotearoa. She identified storytelling as an important intergenerational wellbeing practice that provides a holistic and culturally relevant therapeutic approach to mental health. By adopting a pūrākau approach, she advocates for the promotion of elements such as emotion, wairua, tension, ancient philosophy, and contemporary lessons to be conveyed utilising appropriate, purposeful, digestible and innovative methods (Clifford, 2023). As an innovative creative tool, pūrākau can help paint a picture of the experience and engage with an audience in both culturally relevant and creative ways (Cavino, 2019). Pūrākau exhibit an artistic quality that inspires Māori to express themselves in ways that generate interest, provoke inquiry and connect with or engage people in the real world.

The potential for diverse portrayals of pūrākau is significant, a sentiment which is reinforced throughout this section. Here, we have identified that pūrākau function as a mechanism to safeguard and preserve cultural knowledge, depict culturally significant narratives, provide insights into our past, offer a unique expression of Māori practices and traditions, and facilitate the transfer of mātauranga across generations. While various platforms exist for transmitting Māori knowledge, such as through kapa haka (Pihama et al., 2014; Smith, 2014), mahi toi (Māori art), raranga (weaving), tukutuku (decorative lattice-work), and whaikōrero (to name a few), this research uniquely centres on the exploration of pūrākau alongside Māori physical activity, a topic that will be delved into in the upcoming section.

As in the preceding section, here is my working definition for pūrākau, which serves as the analytical lens through which I wish to examine the impact of pūrākau-based physical activity:

Pūrākau working definition – Pūrākau encompass both ancient and contemporary Māori narratives and techniques used to deepen understanding and the application of mātauranga Māori, te ao Māori, te reo Māori and Māori concepts, values, and practices both in innovative and creative ways.

Māori Physical Activity

Physical activity has always played an integral role in Māori life. In pre-colonial times physical activity was logical and natural, inherent in the way Māori functioned daily and pivotal to whānau wellbeing (Erueti, 2015; Timu, 2018; Rangi, 2020). Price (2003) quotes:

The Māori race developed a knowledge of Nature's laws and adopted a system of living in harmony with those laws to so high a degree that they were able to build what was reported by early scientists to be the most physically perfect race living on the face of the earth. (p. 214).

While there are many terms that encompass aspects of physical activity such as kori tinana (physical activity, exercise), hākinakina (sport), tākaro (play), ngā taonga tākaro (traditional games), and ngā mahi a te rēhia (leisure, recreational activities) these terms describe an interwoven relationship as experienced from a te ao Māori worldview (Timu, 2018).

During the 12th century, whare tapere (house of entertainment) were a prominent feature of communities throughout Aotearoa (Royal, 1998c). Most pā (homebase, village) in Aotearoa had whare tapere to gather as whānau, hapū and iwi to partake in a collection of entertaining activities. These activities included waiata, haka, kōrero (stories), taonga pūoro (musical instruments), taonga-o-wharawhara (adornments), karetao (puppets) and taonga tākaro (Royal, 1998c). Whare tapere offered opportunities to engage in activities founded on the whakataukī, “Kia kaweā tatou e te rehia, we are allured by the arts of leisure” (Royal, 1998c, p. 171). Activities were aligned with pūrākau and supported the growth of knowledge related to whakapapa.

Furthermore, early 19th century writings on Māori approaches to physical activity recorded cultural traditions associated with performing arts like haka (Karetu, 1993; McLean, 2013), the use of waka for transportation (Best, 1925c), traditional games (Best, 1925a; Brown, 2016), and other activities such as tending to community gardens (Best, 1925b), and training in the art of war (Best, 1902; Reedy, 1996). Whare Tū Taua (houses of war and weaponry) were other whare built to engage in teachings about battle formations, weaponry, attack and defence moves, dexterity

of footwork, balance, speed, economy of movement and rituals of engagement (Te Whare Tū Taua, n.d.; Timu, 2018). There has been a resurgence of Whare Tū Taua teachings during the renaissance of te reo me ōna tikanga (Māori language and customary practices) to reclaim the art of mau rākau, albeit not always accompanied by the physical whare (house) structure but rather utilising existing infrastructure to support the learning. In the past, Māori would also compete in inter-iwi tournaments consisting of mamau (wrestling), manu tukutuku (kite flying), waka ama, toro teka (dart throwing), and aquatic activities (Brown, 2008; Best 1901; Mato, 2011).

Well known tākarō writer and practitioner, Harko Brown, has extensively explored and applied concepts surrounding ngā taonga tākarō in his influential works (2008, 2016) and in his collaborative works alongside his two daughters, Yves (2017, 2019) and Miracle (Billie) Brown (2022). These books serve as valuable resources for educators and practitioners alike, offering insights into the 300+ traditional Māori games and pastimes we know of today. Not only that but he delves into ngā aro tākarō (Māori games artefacts), mara hupara (ancient Māori artefacts for play, learning and exercise) and ira tākarō (schema, the physical behaviours and abilities you are born with). The workshops he conducts nationally, engaging with both Māori and non-Māori to raise awareness of the benefits of tākarō, along with his scholarly work encouraging system leaders to rethink health, sport and education in Aotearoa, provide vital context to this research.

Another significant contribution to the field of traditional Māori physical activity can be found in Te Miri Rangi's Master's thesis on an ancestral Māori approach to physical activity. Rangi (2020) posits that traditional Māori physical activity can be characterised by several key elements, as conceptualised in his proposed framework – Niho Taniwha: A Model of Tūpuna Kori Tinana. The first theme – He Māori te Noho, describes the characteristics of traditional Māori society in a pre-Colonial era. Within this theme, Rangi (2020) asserts several distinct features such as “Māori having autonomy over their lives and affairs; the active way of life; the social and communal approach to living; the mātauranga and tikanga that maintained wellbeing; and the spiritual aspect of traditional Māori life” (pp. 54-55). Traditional Māori physical activity, according to Rangi (2020), occurs when Māori exercise tino rangatiratanga, mana motuhake, thereby maintaining control and complete agency over their lives. The second theme – He Māori te Āhua, positions physical activity as part of a broader wellbeing system underpinned by mātauranga Māori and Māori values. The third theme – He Māori te Taiao, illustrates how significant the relationship with the natural environment is for Māori and how it informs knowledge about physical activity. It recognises connections to various atua and incorporates spiritual experiences, known as wairuatanga. The final theme – He Māori te Tāmi, highlights the profound and ongoing impacts of

colonisation on traditional Māori physical activity (Rangi, 2020). Consequently, Rangi (2020) introduces the term Tūpuna Kori Tinana, denoting traditional Māori physical activity that is dynamic, with diverse meanings shaped by mātauranga and recognising whakapapa connections to atua. In essence, Tūpuna Kori Tinana is influenced by the conditions of traditional Māori society and is articulated in te reo Māori to preserve mātauranga and acknowledge Māori beliefs and worldviews.

The detrimental effects of colonisation on Māori wellbeing, extend to the realm of physical activity too. Nowadays physical activity is considered separate to everyday living, whereby it is scheduled into a certain part of the day (i.e., physical education at school, sport trainings, activities within recreational facilities, sports events, gym sessions) (McConnell, 2000). However, for Māori living in contemporary times, we have seen several developing trends. While there was a decline of whare tapere in the 19th century following the movement of communities from pā to urban settings (Derby, 2011), we have experienced a growth of contemporary whare tapere within school settings often related to Māori performing arts (Royal, 1998c). The renaissance of mau rākau within and outside of school curriculum is a direct result of the restoration efforts of Te Whare Tū Taua as an institution (Penetito-Hemara, 2020). This has contributed to a developing trend of rangatahi (young people) involved in various games. Examples include Hopu te Ariki,⁶ which was designed and developed by Te Whare Tū Taua, and features on a Māori Television series showcasing Māori students from across Aotearoa competing for the overall title of Ariki (chief) (Te Karere, 2022). The development and implementation of ngā taonga tākaro including Kī o Rahi, waka ama, manu tukutuku and more. These efforts receive support from initiatives like He Oranga Poutama, Waka Ama NZ, Regional Sports Trusts, local marae, local councils, and various entities across national and regional districts.

Currently, there are a growing number of Māori practitioners who are developing and running Māori physical activity, exercise, and movement programmes by Māori, for Māori. These programmes revisit concepts that once connected traditional Māori to their natural and spiritual realms through physical activity, to provide the foundations for optimal health (Penetito-Hemara,

⁶ Hopu te Ariki, or 'Catch the Chief', is a game that helps promote te reo Māori through the art of war and weaponry.

2020). Examples include PATU™,⁷ Māori Movement,⁸ Aka,⁹ Tāne te Waiora,¹⁰ Whare Ā-lo¹¹ and Rangatahi Tū Rangatira¹² to name a few. These programmes assist in reinforcing a connection to whakapapa through physical activity, and pūrākau happens to be a central feature of them all (Penetito-Hemara, 2020).

By Māori, for Māori physical activity events such as kura events, whānau games, inter-iwi and inter-marae sports tournaments also remain a feature today. They have a heightened sense of importance, as they offer unique opportunities for whānau, hapū and iwi connections to be maintained. These tournaments include Iwi of Origin,¹³ Iron Māori,¹⁴ Wiki Hā,¹⁵ Māori national sports tournaments, Marae games and Pā Wars.¹⁶ They provide the foundation for Māori to celebrate their unique identity through activities such as waiata, mōteatea, haka and whakapapa teachings. These Māori-led events involve pre and post festivities such as opening parades and whakangahau (entertainment concert) which adds other distinct cultural layers to the experience. According to Penetito-Hemara (2020) “these culturally specific sporting contexts create a platform for mātauranga Māori, Māori values, beliefs and whakapapa to be shared from one generation to another” (p. 18). While all the events mentioned above focus on Māori participation, some necessitate a level of proficiency in te reo Māori or knowledge of whakapapa ties. In these cases, for whānau who lack familiarity with their cultural identity, have a disconnect from their Māori heritage, or have limited ability to speak te reo Māori they often feel discouraged to participate, leading to lower involvement rates. This deterrence arises because some gatherings, especially

⁷ An enterprise aimed at improving the fitness and health of Māori and Pasifika people who wouldn't normally go near a gym and is inspired by the movements of atua (Te Karere, 2015).

⁸ A unique health and wellbeing programme that brings together fitness and knowledge of atua to inspire an approach to a movement system (Māori Movement, n.d).

⁹ A fitness and health programme that draws substance from a broad expanse of Māori history cosmology navigation, migration, medicinal remedies, Martial Arts, hunting, fishing, conservation, and the environment (Toi Tangata, 2021).

¹⁰ A men's wellness and empowerment wānanga which offers an opportunity to learn a range of ancestral gifts which are aimed at promoting a healthy kaupapa Māori lifestyle (Hawaiki Kura, 2023).

¹¹ A kaupapa offering tāne and wāhine wānanga that focus on providing a sacred space to learn about breathing, feeling, energy, balance, atua gifts and their connection to people as humans (Turuki Healthcare, 2023).

¹² A national training provider promoting cultural and physical wellbeing for rangatahi Māori through the delivery of ngā taonga tākaro wānanga to develop rangatahi as future leaders (Rangatahi Tū Rangatira, 2022b).

¹³ A festival of Māori physical activity, established in 2006 when the need arose to promote health and wellbeing among urban Māori based in Tāmaki Makaurau, Auckland (New Zealand Herald, 2023).

¹⁴ An annual sporting event in Aotearoa that involves a combination of swimming, biking, and running. It is designed to foster a sense of community, wellbeing, and cultural pride through physical activity (Iron Māori, n.d).

¹⁵ An annual sports event called Te Wiki Hākinakina o Ngā Kura Kaupapa attended by kura (big and small) from across Aotearoa (Paewai, 2022).

¹⁶ Inter-marae, hapū and tribal sports festivals run across districts nationally, which celebrate family values, kinship, competition and healthy lifestyles.

those related to schools (e.g., Wiki Hā and Hopu i te Ariki), were designed and established to address an unmet need for physical activity events that prioritise the use of te reo Māori, particularly those who attend Māori-medium kura. This justifies an exploration of pūrākau-based physical activity within English-medium school settings, where a significant majority, 76% of our tamariki Māori are (Ministry of Education, 2023) and who would otherwise miss out.

This summary provides justification for a growing movement and desire within Ngāi Māori to reclaim, revitalise, restore and normalise traditional Māori practices surrounding Māori physical activity. The formation of these connections result in nurturing and maintaining cultural identities as Māori which is vital to this research. Māori physical activity is at the heart of this study, therefore, understanding its evolution, trajectory and attraction for Māori is crucial in understanding the significance of pūrākau-based physical activity. As in the previous two sections, here is my working definition for Māori physical activity, which serves as the analytical lens through which I wish to examine the impact of pūrākau-based physical activity:

Māori physical activity working definition – Māori physical activity refers to any traditional or contemporary movement, play, sport, exercise, or recreation that incorporates elements or aspects of mātauranga Māori in order to exercise tino rangatiratanga.

Pūrākau-based Physical Activity

Now we turn, to pūrākau-based physical activity which is at the heart of this research. The fact that our stories have lasted thousands of years is a testament to how Māori stories codified knowledge, codified values, and formed a key role in the transmission of mātauranga Māori across generations (Penetito-Hemara, 2020). One example of this within the context of physical activity is articulated in the story of Tinirau and Kae which is as follows:

Driven by grief and an unwavering determination to bring Kae to justice for eating his pet whale, Tinirau rallied a formidable troupe of women, led by Hine Raukatauri and Hine Raukatamea, to capture Kae and avenge the death of Tutunui (a pet whale). Each woman personified various aspects of Māori performing arts, with Hine Tikatakata embodying laughter and music, Hine Mārekareka representing the rhythmic body movements in haka and waiata, and Hine Raukatamea the entertainer. While Hine Raukatauri served as the guardian of musical instruments, personified as the case moth, and represented in the shape of the pūtōrino (flute).

Empowered with the knowledge that Kae possessed broken teeth, the troupe embarked on a mission to locate him. The kāhui of women arrived at the Whare Tapere where they employed every dance, game, and song within their repertoire to expose the true identity of the elusive Kae. The activities included whai (string games), tītī-tōrea (stick games), pōtaka (spinning tops), kū (hand games), and the use of various musical instruments including the pūrerehua (spinning disc on a long string), pūtōrino (flute) and tōkere (castanets) among others. Undeterred, the women pooled their talents, unleashing a captivating, provocative, and alluring pōtēteke (haka in an upside-down position) that seduced Kae's emotions. Finally, laughter burst forth from Kae's lips, revealing his crooked teeth and confirming his true identity.

Through the power of karakia, Kae was rendered unconscious and subsequently the troupe of women transported him back to Tinirau's village. There, Tinirau exacted his revenge upon the perpetrator responsible for the demise of his beloved Tutunui.

(Adapted from Pomare & Cowan, 1987; Reedy, 1996; Royal, 1998c; Smith, 2014; Penetito-Hemara et al., 2023)

This pūrākau serves as evidence to the profound significance of play, games, and performing arts, not merely as sources of entertainment but as vessels for cultural expression. As an ancient origin story, this pūrākau imparts a myriad of lessons concerning the whakapapa of cultural traditions in relation to physical activity and movement (Royal, 1998c). Narratives from our past assist us as Māori in defining our cultural connections that bind us to the land and to our people (Cunningham, 2016). Embracing and bridging across worldviews requires a willingness to interpret and shape words and concepts to resonate with the ears that are listening and the eyes that are reading. Therefore, pūrākau-based physical activity involves applying the movements, lessons, and learning within the story of Tinirau and Kae, utilising physical activity as a vehicle to breathe life into the narrative. This method of application not only facilitates knowledge transmission but also aids in retaining our cultural narratives and foster a cultural connection to stories of the past, with relevance in contemporary contexts. But also, for tamariki, it's fun! It's role modelling, acting, physical activity, creativity and play all in one.

Another example of pūrākau-based physical activity can be attributed to the traditional Māori game – Kī o Rahi. The game was founded on the pūrākau of Rahitūtakahina (Rahi) and Tīarakurapakewai (Tīara), which tells the story of how a tribe of patupaiarehe (fairy people of the night) kidnapped Tīara, and how Rahi and his people showed relentless determination in their pursuit to bring her back home (Rangatahi Tū Rangatira, 2022a). This pūrākau is woven into all aspects of the game, including its setup and the rules that govern it. The rules of Kī o Rahi can differ from region to region, so an approaching team must first learn and/or negotiate the specific rules with the host team through a process called tatū (negotiation process). This process mirrors the essence of the pūrākau, whereby both tribes held wānanga about Tīara until they agreed on

an activity or game to resolve their differences, return Tiara and strengthen the relationship between their respective tribes (Rangatahi Tū Rangatira, 2022a). The significance of mātauranga Māori aspects within Kī o Rahi is evident not only in the storytelling but also in the names of the teams, boundary areas, and equipment used in the game (W. Sarich, personal communication, July 11, 2021). Each element is a reflection of the pūrākau, underscoring the importance of ancestral knowledge and the unique cultural depth it brings to the game. As Kī o Rahi and other traditional Māori games experience a revival (Brown, 2008), it is heartening to witness the celebration and incorporation of mātauranga Māori, connecting present generations to their rich cultural heritage.

These revitalised games serve as a bridge between the past and the future, fostering a sense of identity and pride in our Māori traditions while promoting understanding and appreciation among diverse communities. However, their prevalence is limited, and at times, elements of these traditional Māori games are at threat of becoming diluted. While I acknowledge the tireless efforts of Māori in preserving the authenticity of Kī o Rahi and other traditional Māori games, the impact of colonisation remains a reality (Walker, 2016). If greater efforts are not made to safeguard this authenticity, there is a risk of normalising colonial practices, such as prioritising the physical aspects of the game over enduring cultural traditions, ultimately transforming games like Kī o Rahi into a competitive sport.

One final example of pūrākau-based physical activity involves Dr Ihirangi Heke's Atua Matua framework which focuses on a shift back to mātauranga Māori, whakapapa connections and environmental wisdoms (Heke, 2013). There are five dimensions to the framework, which I have applied to the kauri (large native tree in NZ), as presented in the Table 1 below:

Table 1: An Example of the Atua Matua Framework Applied to the Kauri Tree

Dimension	Heke's Description	Kauri Example
Mātauranga	The environment where we can access the knowledge (e.g. Rangi – sky; wai – body of water; whenua – land).	Refers to the knowledge gained from the whenua in which the kauri tree thrives.
Whakapapa	The engagement with that environment and a particular ancestral line (e.g. Tāne Mahuta, Hinemoana).	Relates to the genealogy of the kauri such as, whakapapa lines to Papatūānuku and Ranginui, who are the primordial parents of Tāne Mahuta, also referred to as the kauri.
Huahuatau	The metaphorical interpretations that explain the learning within that environment (e.g. pūrākau, whakataukī, haka, waiata).	Involves narration of pūrākau. Appropriate in this context is Te Wehenga, the story of how Tāne Mahuta separated his parents to bring about te ao marama.
Whakatinanatanga	The action and application of knowledge in physical activity form.	Encompasses a series of movements mimicking Tāne's actions to bring light into the world and is the physical activity component of the programme.
Tohutaka	The signs, symbols, and messages we observe from the trees, fish, birds, insects and weather that determine when to do certain things.	Would involve observation of the various signs and symbols within the bush, such as indications of the weather patterns which would determine the type of activity to engage in during one's interaction with kauri.

Essentially, what is proposed above is a framework for pūrākau-based physical activity. Of particular importance is the relationship between 'mātauranga', representing knowledge derived from the environment, and 'whakatinanatanga', the application of that knowledge in the form of physical activity. Additionally, 'huahuatau' are the metaphorical interpretations explaining the learning that occurs within an environment, and this is where pūrākau plays a significant role.

This, in a nutshell, is pūrākau-based physical activity. Dr Heke is a close friend of our whānau. We have learned from and collaborated with him on Atua Matua for over a decade now. In fact, just before beginning this PhD we were approached by Dr Heke to develop a set of resources for tamariki and mātua to support their learning of Atua Matua at home. We were experiencing a COVID-19 pandemic at the time and collectively we realised a need to support whānau with Māori physical activity resources. Given that lockdowns prevented tamariki from attending school, this raised the expectations of parents to find ways to support their child's learning at home. As such, we were able to create a series of resources including, one pukamahi (student workbook), a series of kiriata (videos), a series of kōnae ipurangi (podcasts) and a set of kaitiaki kāri (resource cards) to support both tamariki and mātua to continue their learning at home.

Figure 5 and Figure 6 are some examples of the resources we developed alongside Dr Heke and perhaps shed further light on what pūrākau-based physical activity might look like as a resource utilising the Atua Matua framework.

Figure 5: Atua Matua at Home - Example of Pukamahi/Workbook



Source: Integrated Hauora Initiatives & Kori Collaborative Limited. © (2020b). Atua Matua: Pukapuka mā te Ākonga [Te Reo Māori version]

Figure 6: Atua Matua at Home – Example of Kaitiaki Kāri/Resource Cards



Source: Integrated Hauora Initiatives & Kori Collaborative Limited © (2020a) Atua Matua: Kaitiaki Kāri [English version]

On a more personal note, throughout this research journey, I made a significant discovery as a Māori parent working in the play, sport and active recreation sector. That is, my whānau and I have been organically implementing pūrākau-based physical activity programmes since the very

beginning of our parenthood journey (our eldest child is now 18 years old). Developing programmes, activities, games and resources which are grounded in mātauranga Māori, and focus on physical activity, movement, and play is an integral part of our professional roles. It comes as no surprise that this learning and expertise naturally found expression in our whānau environments, including at home. Each of our children have actively engaged in He Pī Ka Rere (a focus of this research). For instance, Kimiora has been involved in the development of He Pī Ka Rere since her birth. Now 11 years old, she has led He Pī Ka Rere activities at wānanga (Te Karere, 2020), national and regional conferences (Department of the Prime Minister, 2021), online sessions and workshops for many adult audiences, both large and small. What I have learnt over the years is that what resonates with Māori and what engages them in this approach, which I have called pūrākau-based physical activity, is the connection to Māori ways of knowing and doing, as has been exhibited in the thriving growth of ngā taonga tākaro (Brown, 2008; Brown, 2016), waka ama and kapa haka (Penetito-Hemara, 2020; Pihama et al., 2014).

To aid the reader, I have formulated a working definition for pūrākau-based physical activity below. This definition serves as the guiding approach and analytical lens through which I intend to explore the aims and objectives of this research and will be examined again throughout this thesis.

Pūrākau-based physical activity working definition – Pūrākau-based physical activity involves the application and transmission of mātauranga Māori contained in pūrākau, expressed through both traditional and contemporary forms of physical activity to achieve hauora.

Pūrākau-based physical activity sits within a wider historical context that I will explore next. This historical context aims to shed light on key events of the past that have contributed either positively or negatively to pūrākau-based physical activity provision over time.

Historical Context

Māori look to the past to inform the way to move into the future, this is reflected in the whakataukī, “Ka mua, ka muri” which translates to mean walking backwards into tomorrow (Aydon-Pou, 2022). The impact of colonisation on Māori forms of physical activity has been substantial, as discussed earlier in this chapter (Rangi, 2020). Therefore, this section examines the impact in greater detail, commencing with the foundational document Te Tiriti o Waitangi. It then traces the evolution of the education and health systems, followed by an examination of the play, active recreation and sport system, concluding with an exploration of health and physical education in schools.

Te Tiriti o Waitangi

Te Tiriti o Waitangi is Aotearoa's founding document (Penetito, 2011; Ministry of Education, 2017). Signed in 1840 by representatives of Māori and the Crown, this agreement set out to provide the foundation upon which Māori and non-Māori (often referred to as Pākehā) would build their relationship as citizens of Aotearoa. Central to this relationship was an acknowledgement of tangata whenua¹⁷ and our rights as Indigenous peoples. This was coupled with a commitment to coexist alongside tangata tiriti¹⁸ in a spirit of partnership, marked by a shared acceptance of obligations for participation and protection, as outlined in the three articles of the treaty.

However, the text of the Treaty of Waitangi in English differed from the text of Te Tiriti o Waitangi¹⁹ in te reo Māori which caused much tension. An example is in Article Two of the Treaty which guarantees Māori the full, exclusive, and undisturbed possession of their lands, estates, forests, fisheries, and other properties. In Te Tiriti o Waitangi, Article Two recognises and protects 'rangatiratanga' promising to uphold the authority that tribes had always had over their lands and taonga (Waitangi Tribunal, 2023).

Soon after the signing of the Treaty, the British Empire set out to confiscate and make claim to land that was not theirs, impose their cultural views on tangata whenua ways of living and establish political domination. The British Empire's expansion at the expense of Māori was driven by power, authority, trade, capitalism and consumerism (Walker, 2016). The consequences of historical events of the past contributed to the establishment of the Treaty of Waitangi Act 1975 which sought to make recommendations on claims relating to the practical application of the principles of the Treaty as outlined in the three articles (New Zealand Legislation, 2012).

It is beyond the scope of this research to delve into further detail on Te Tiriti, however its significance to this research lies at the interface between the role, place and impact of mātauranga Māori and Māori practices such as pūrākau-based physical activity within English-medium school systems. This section offers crucial background information by acknowledging Māori as tangata whenua or and recognising that, Te Tiriti o Waitangi is a bicultural partnership agreement between Māori and the Crown that is important to all who choose to live in Aotearoa. There are tensions for Māori in maintaining tino rangatiratanga, contributing to the imperative of Māori to reclaim and revitalise mātauranga Māori, te reo Māori and Māori cultural customs, traditions and practices.

¹⁷ Tangata whenua refers to the Indigenous people of Aotearoa New Zealand, it refers to Māori and all iwi.

¹⁸ Tangata tiriti refers to all non-Māori people who choose to live in Aotearoa.

¹⁹ Te Tiriti o Waitangi refers to the version in te reo Māori and the Treaty of Waitangi refers to the version in English.

Currently, there is a dearth of literature that explores the use of pūrākau within contemporary contexts, such as physical activity programmes within schools, to restore and normalise mātauranga Māori. In addition, this research aims to investigate how these reclamation efforts manifest in English-medium school settings and home environments, which may or may not possess the capability, knowledge, skills, or power to achieve this goal due to the impact of colonisation. Arguably, Pākehā domination and Māori subordination continues to sustain education and health systems that were built to maintain a social order in favour of Pākehā (Walker, 2016). Therefore, the next section explores the evolution of the education system in Aotearoa from the 19th century to the present day. This endeavour seeks to establish a contextual backdrop for the research, with a specific focus on opportunities to uphold tino rangatiratanga, especially for tamariki Māori within English-medium schools.

Education System in Aotearoa

The provision of State education in Aotearoa was developed post-European arrival from Western ideas of teaching and learning during the 19th century (Penetito, n.d.). The legacy of colonialism changed much of the Indigenous systems of education that already existed and forced Māori to assimilate to a Western social order. This has had a terrorising impact on Māori education and wellbeing in Aotearoa (Lee-Morgan & Hutchings, 2016). For example, pre-European arrival, where wānanga were prevalent as established systems of education and higher learning. These where wānanga prioritised the preservation and transmission of tribal histories, genealogies, spiritual knowledge, traditional arts, and various facets of Māori culture and lore (Calman, 2012). However, the introduction of mission schools with the arrival of Anglican missionaries in 1816 was attractive to Māori. Walker (2016) emphasises that Māori "wanted to send their children to mission schools to access the Pākehā knowledge that produced large ships, powerful weapons and an amazing array of goods" (p. 21).

Several strategies were established to assimilate Māori within the education system, this included the introduction of church boarding schools in 1844, rules to speak and teach English only, exclusion of Māori knowledge from the curriculum and subsidised missionary school experiences (Jones & Jenkins, 2011). Despite the establishment of native schools in 1867, where Māori was the primary language spoken, Māori attendance in boarding schools remained high. This trend intensified during the urban drift as Māori migrated to towns for employment, which significantly impacted whānau dynamics (Derby, 2011; Hill, 2009). A decade later, the Education Act 1877

was created to provide a free and compulsory national education system for all Pākehā New Zealand children. While the Act did not apply to Māori children, they could attend the free schools if their parents wanted them to. According to Walker (2016) the Government's motives for funding mission and boarding schools included "isolating Māori children from the 'demoralising influence' of their villages... civilising the natives and pacifying the country" (p. 23). Primary school education wasn't made compulsory for Māori children until 1894. It wasn't until 17 years later that the newly established Department of Education provided the national curriculum and allocated funding to regional boards (Walker, 2016).

Tā Āpirana Ngata was a pivotal leader during the 20th century who recognised the relationship between power and knowledge. He could also foresee the role of the state in generating knowledge and therefore set out to promote the study of te reo Māori, culture, and traditions during the 1920s. Walker (2016) writes that in 1926, Tā Āpirana Ngata proposed to the University of New Zealand that Māori language be included as a subject for the Bachelor of Arts Degree. In 1935 the importance of secondary school education for every child became a priority for the then first Labour Government to come into power. During this time, the Department of Education implemented a Māori quota system for teacher training which led to graduates and intellectuals who were proficient and able to incorporate elements of Māori culture back into classroom settings (Walker, 2016). The significance of this effort became evident in the 1961 Hunn Report on the Department of Māori Affairs, which identified key challenges to Māori wellbeing, aligning with predictions made years earlier by Tā Āpirana Ngata (Hunn, 1961). Notable concerns included a Māori life expectancy 15 years lower than that of Pākehā, a 'statistical blackout' period for Māori in higher education, and unemployment three times higher than that of Pākehā (Hunn, 1961). This report played a pivotal role in highlighting the overall impact on Māori wellbeing at the intersection of both the health and education systems.

With a growing body of Māori in the teaching profession and several key academics driving a movement to prioritise Māori educational advancement, the concept of biculturalism was introduced in the second half of the 20th century. Walker (2016) asserts that:

Biculturalism is predicated on the fact that the new nation created by the Treaty of Waitangi is founded on two cultures. The base culture is that of the tangata whenua, the people of the land, whose mythology and tribal traditions connect them to their signifying symbols on the landscape. The overlying culture is that of the coloniser, who attempted to obliterate Māori culture by assimilation. (p. 32)

The New Zealand Government moved during this time to create a society that was more bicultural in practice. Consequently, the Māori renaissance of the 1970s which saw the establishment of Ngā Tamatoa, a Māori organisation with a mission to advocate for Māori rights, identify and expose breaches of Te Tiriti o Waitangi, combat racial discrimination and address injustices committed by the New Zealand Government. This group of university-educated Māori played a key role in petitioning for the inclusion of te reo Māori in schools in 1972 (NZ On Screen, 2012). Te Ataarangi, a language revitalisation movement committed to the survival of the Māori language, was established during this time also (Te Ataarangi, 2024). Developed by Kahurangi Kāterina Te Heikōkō Mataira and Te Kumeroa Ngoingoi (Ngoi) Pēwhairangi, Te Ataarangi highlighted challenges with finding funding to sustain the movement which resulted in tensions with having to partner with tertiary institutions, while struggling to maintain autonomy of their kaupapa (Waka Huia, 2010). During this period, bilingual education was also introduced, encompassing schools or specific units within schools that provided instruction in both English and Māori (Leoni, 2012). The inclusion of bilingual education in Aotearoa showed growth in the government's attitude towards Māori education, particularly with regard to their strategy which was aimed at increasing te reo Māori fluency whilst teaching the national curriculum in English-medium schools (Leoni, 2012). This is important because te reo Māori is fundamental to understanding the depth of pūrākau. A targeted effort to enhance te reo Māori fluency, particularly within English-medium school settings, is a positive step towards providing opportunities for tamariki to engage in physical activity 'as Māori.'

The 1980s saw the continuation of the Māori renaissance, surfacing a radical view on the potential to reform education for Māori. In 1982 Māori educationalists established the first Kōhanga Reo at Pukeatua in Lower Hutt. Kōhanga Reo are Māori language immersion learning environments that cater to children aged between 0-6 years old, established to reclaim, revitalise and preserve te reo Māori (Te Kōhanga Reo, n.d). Kōhanga Reo began with the Māori play centre movement, where young mothers broke away from early childhood centres to create a Māori preschool system whereby Māori-speaking kuia (nannies, female elder) took responsibility for teaching while helping young mothers learn the language as well (Walker, 2016). Within the first five years of establishment, 550 Kōhanga Reo were formed across Aotearoa. By 1990 the number of Kōhanga

Reo peaked to 800, the result of which was 50% of Māori infants were enrolled in Kōhanga Reo by 1993. During this period, the Kōhanga Reo National Trust was established with the responsibility of ensuring that Kōhanga Reo nationwide were grounded in a whānau Māori environment, aspiring to foster generations of te reo Māori speakers (Irwin, 1990). Currently all Kōhanga Reo are chartered to Te Kōhanga Reo National Trust, however, they are licensed by the Ministry of Education under the Education (Early Childhood Services) Regulations 2008 (Ministry of Education, 2022).

Following closely behind was the establishment of Whare Wānanga, Māori tertiary institutions developed by Māori to revitalise te reo Māori, mātauranga Māori, and elevate the academic achievement of Māori in tertiary education (Calman, 2012). The initial institution, Te Wānanga o Raukawa, was founded in Ōtaki in 1981, succeeded by the establishment of Te Wānanga o Aotearoa in Te Awamutu in 1984, and later by the inception of Te Whare Wānanga o Awanuiārangi in Whakatāne in 1992.

The Māori Education Conference in 1984 marked a pivotal moment where the schooling system in Aotearoa was called into question for being racist. Many of the papers presented at the conference addressed the need for major changes to ensure educational success for Māori (Lee-Morgan, 2016). Much concern also surrounded a fear that te reo Māori as a language would die, which presented both a site of struggle and potential. Heightened to this level of risk, Māori leaders began developing a pathway for Kōhanga Reo children into Māori-medium primary schools. Kura Kaupapa Māori were subsequently established as alternative primary schools modelled on the precedent set by Kōhanga Reo. Three independent Kura Kaupapa Māori were initially established to maintain and sustain the language and cultural knowledge including Te Kura Kaupapa Māori o Hoani Waititi Marae (1985), Te Kura Kaupapa Māori o Waipareira (1987) and Te Kura Kaupapa Māori o Maungawhau (1988). The curriculum was, and still is, based on Te Aho Matua. Te Aho Matua is divided into six focus areas: Te Ira Tangata, Te Reo, Ngā Iwi, Te Ao, Āhuetanga Ako, Te Tino Uaratanga and centres on te ao Māori worldviews of education for tamariki (Te Rūnanganui o Ngā Kura Kaupapa Māori o Aotearoa, 2020). The establishment of Wharekura Māori which are secondary schools run on Kaupapa Māori principles soon followed. Marae-ā-kura and Kura-ā-iwi also formed culturally specific decolonising strategies for education. These kura were deliberate educational interventions formed to resist English-medium conformity and recover core aspects of Māori identity for cultural regeneration (Lee-Morgan, 2016). However, these efforts to revive Māori ways of knowing through Māori-medium pathways fall short in addressing the crucial gap for tamariki Māori to engage 'as Māori' in physical activities within English-medium schools. This

research seeks to prioritise the large majority of tamariki Māori who, for various reasons, have opted for an English-medium pathway.

While, for the most part, the Māori-led education initiatives mentioned above have been positively received and, for some, they have generated excitement, Māori have remained vigilant, keeping their guards up. For Kōhanga Reo there was a decline after the Ministry of Education determined training and qualification requirements be met. This led to a claim to the Waitangi Tribunal against the Ministry of Education (Walker, 2016). Additionally, the Kura Kaupapa Māori movement wanted to entrench its philosophy of Te Aho Matua in legislation to protect their model of cultural transmission from external influences and appropriation (Penetito, 2011).

This historical overview emphasises key milestones, hardships, and ongoing challenges. It highlights how Government policies of assimilation, integration, and multiculturalism have selectively incorporated Māori culture into the curriculum, challenging efforts to reclaim Māori education (Lee, 2013). As Penetito (2011) notes:

Historically, Māori want more of their knowledge, values, practices, and philosophies injected into the system, but they tolerate, albeit grudgingly, what they are actually permitted. They are faced constantly with the fact that the hegemonic system expects Māori to offer new knowledge, directions and practices from their culture as required, but remains vigilant about the quality of these offerings in its determination to retain hegemony. (p. 22)

Although strides have been made in decolonising and preserving Māori values, language, and mātauranga in Aotearoa, current educational practices present challenges in achieving true Māori liberation (Lee-Morgan & Hutchings, 2016). This juncture is where the focus of this research aligns with the education system in Aotearoa. For tamariki opting for an English-medium school pathway, hegemonic systems pose a threat to the integrity, authenticity, and quality of physical activity experiences that encourage 'as Māori' participation.

Despite ongoing efforts to uphold Te Tiriti o Waitangi and restore tino rangatiratanga in this country, challenges continue. Māori continue to create space for Māori educational advancement, that is initiated and led by Māori, for Māori. Māori immersion education movements continue to push for Māori educational success by upholding te reo Māori and tikanga Māori. However, we must acknowledge that the vast majority of tamariki Māori continue to receive education in English-medium schools. As of July 1, 2023, of the 103,472 tamariki that identify as Māori, 76% are in English-medium schools and 24% are in Māori-medium schools (Ministry of Education, 2023). While I recognise the benefits of Māori-medium education and acknowledge that 95.8% of students in these schools identify as Māori (Ministry of Education, 2023), it's crucial to note that

the majority of tamariki Māori are not enrolled in these schools. Although ongoing efforts aim to promote Māori-medium education, substantial changes in enrolment patterns are not expected in the immediate future. Māori consistently choose English-medium schools as the primary education providers for their tamariki. Therefore, further investigation is warranted to examine the extent to which tamariki in these schools are afforded opportunities to authentically participate in physical activity 'as Māori'.

The literature has demonstrated that Māori revitalisation efforts have significantly contributed to raising the profile and value of Māori ways of knowing, being, and doing. As a result, tamariki who choose Māori-medium educational pathways are afforded opportunities to participate 'as Māori.' Furthermore, the evidence suggests that the education system in Aotearoa has come a long way in recognising the value of Māori knowledge traditions and language as valid, legitimate, and valuable, not just for Māori but for all New Zealanders. While there are policies, strategies, and a general appetite for embedding this knowledge into the national curriculum, there remains apprehension around the extent to which it is being effectively achieved. What is missing from this literature is a focused examination of how Māori can genuinely engage 'as Māori' in English-medium schools. Of particular concern is whether the opportunities provided are diluted, deprioritised, or entirely absent. This study concentrates on physical activity as a medium for incorporating mātauranga Māori in these contexts, particularly through pūrākau, with the aim of revealing how tamariki perceive the impact of these programmes on their hauora.

Understanding the influence of the health system in Aotearoa will continue to provide further context on how pūrākau-based physical activity programmes can be effectively integrated to foster holistic wellbeing for tamariki. Therefore, the following section uses the same structure to examine the health system in Aotearoa, this time from the arrival of Māori to Aotearoa up until the present day.

Health System in Aotearoa

The health system in Aotearoa has, too, seen a series of changes over the years. Māori adapted to their new environment upon their arrival to Aotearoa by creating a cultural landscape that supported oranga, a holistic state of wellness (Cram et al., 2019). Traditional knowledge systems contributed to the cultural practices that surrounded wellness which included maintaining a balance between natural, spiritual, cultural, social, and political settings. Paramount to Māori prospering in this new environment as Indigenous people was an intimate understanding and

practice of cultural determinants of health such as whakapapa, whenua and whānau (Cram et al., 2019). However, much like the education system, the health system in Aotearoa has failed to produce equitable health outcomes for Māori (Waitangi Tribunal, 2019). Reid and Robson (2007) emphasise that “it is impossible to understand Māori health status or intervene to improve it without understanding our colonial history” (p. 4). While Durie (1985) asserts that:

Attempts to define, let alone measure, health, and wellness, have been much less successful than our efforts to delineate and grade illness. Additionally, full appreciation of health requires an understanding of a particular culture rather than an assumption that health principles are equally relevant to all situations. (p. 483)

The nation’s move to adopt Western approaches to healthcare deviated from traditional Māori practices and encouraged more dependence on immediate family health, rather than an emphasis on wider cultural factors affecting whānau, hapū and iwi. Māori attitudes to health and faith in this foreign system have been severely tested over the years, and as a result have posed a major threat to Māori health advancement (Durie, 1985). With the arrival of Pākehā to Aotearoa came several introduced infectious diseases. Between the mid-1800s to the mid-1900s epidemic disease ran rampant across Aotearoa. Smallpox, scarlet fever, measles, typhoid, whooping cough and polio were widespread occurrences in various communities during this time (Ministry of Health, 2017). This contributed to a significant decrease in the Māori population in the 1890s which saw a decline of 40% in size in comparison to pre-colonial contact (Pool, 2019). Understanding and addressing these historical and cultural dimensions are crucial for promoting authentic Māori well-being, echoing the importance of pūrākau in enhancing physical activity experiences for tamariki and achieving hauora.

The Department of Public Health was established in 1900 and was actively involved in the provision of health policy. Between 1938 and 1983 the health system developed a dual approach to public and private provision under the Social Security Act 1938, which was the cornerstone of the Labour Government’s welfare programme at the time (McLintock, 1966). In 1984, the Hui Whakaoranga²⁰ brought together community leaders and Māori health practitioners to look at ways to improve Māori health disparity. The hui (gathering) recognised that Māori approaches embedded in Māori worldviews were key to Māori health advancement (Jackson et al., 2018). This highlights the ongoing importance of Māori worldviews in shaping health policies and addressing health disparities.

²⁰ Māori Health planning workshop held at Hoani Waititi Marae in March 1984.

Strategies to improve health inequity in Aotearoa saw Māori health frameworks become introduced, embedded and endorsed by the Ministry of Health including Te Whare Tapa Whā (Durie, 1985), Te Wheke (Pere, 1991) and Te Pae Māhutonga (Durie, 1999). These models, one of which forms a central anchor for this research, privilege indigenous views to health and wellness and highlight deficiencies in modern health services when considering the impact of spiritual wellbeing on hauora (Ministry of Health, 2015). By 1990 the Ministry of Health was established as the Government's primary agent for implementing health priorities and policies within the health and disability sector. Responsibility for improving, promoting and protecting the health of all New Zealanders under the New Zealand Public Health and Disability Act 2000, was a priority for this governing body. By statute, this included a duty to work directly with communities, advocates and health practitioners to set a vision, goals and accountabilities for the sector (Waitangi Tribunal, 2019). The integration of Māori health frameworks, notably Te Whare Tapa Whā, which is central to this research, aligns with the pivotal role of pūrākau in enriching physical activity experiences for tamariki and promoting overall hauora. This study is inherently connected to the broader initiatives aimed at addressing health inequities in Aotearoa.

As part of the ongoing transformation of the health system, He Korowai Oranga – Māori Health Strategy was introduced in 2002 and has undergone evolution since its inception. Serving as the overarching framework, it aims to guide the government and the health and disability sector to achieve the best outcomes for Māori (Ministry of Health, 2014). Functioning as a high-level strategy, its objective is to support the Ministry of Health and district health boards (DHBs) in improving Māori health by addressing the New Zealand Health Strategy, New Zealand Disability Strategy, and New Zealand Public Health and Disability Act 2000. Recognising the importance of measuring the Ministry's adherence to Te Tiriti obligations, a Te Tiriti o Waitangi Framework was introduced in 2020 (Ministry of Health, 2020). This framework facilitates the realisation of the overarching objectives of He Korowai Oranga and promotes outcomes for the entire health and disability system. It also serves as a tool for the health and disability system to fulfil its kaitiaki (guardian, steward) role and honour the unique relationship between Māori and the Crown. These Tiriti obligations, outlined in the framework, form the foundation of the most recent implementation plan, launched in 2020, called Whakamaua – Māori Health Action Plan 2020-2025 (Ministry of Health, 2020).

Whakamaua outlines a set of actions designed to achieve four high-level outcomes. These are:

- Iwi, hapū, whānau and Māori communities exercising their authority to improve their health and wellbeing;
- Ensuring the health and disability system is fair and sustainable and delivers more equitable outcomes for Māori;
- Addressing racism and discrimination in all its forms;
- Protecting mātauranga Māori throughout the health and disability system.

During the three-year duration of this PhD journey, the political environment saw major shifts with a new co-governance arrangement within the Ministry of Health. In April 2021, the Labour Government announced details of the reforms that culminated in the passing of the Pae Ora (Healthy Futures) Act 2022 which, among other changes, established Te Whatu Ora – Health New Zealand and Te Aka Whaiora – Māori Health Authority in July 2022 which are presented in Figure 7 (Te Whatu Ora, 2023; Te Aka Whaiora, 2023).

Figure 7: Structural Framework to Support a Fairer Health System in Aotearoa



Source: <https://twitter.com/minhealthnz/status/1636163061479542784>

The purpose of Pae Ora (Healthy Futures) Act 2022, was to provide for the public funding and provision of services in order to:

- Protect, promote, and improve the health of all New Zealanders;
- Achieve equity in health outcomes among New Zealand’s population groups, including by striving to eliminate health disparities, in particular for Māori;
- Build towards pae ora (healthy futures) for all New Zealanders (New Zealand Legislation, 2022).

The evolution of the health system, embodied by He Korowai Oranga – Māori Health Strategy, which aims to honor Te Tiriti and the partnership between Māori and the Crown, resonates with the broader objectives of pūrākau-based physical activity within English-medium school settings. Additionally, the aspirations outlined in Whakamaua – Māori Health Action Plan underscore the potential of pūrākau-based physical activity to foster equitable health outcomes for Māori and safeguard mātauranga Māori within the system.

Within a year and a half of the establishment of Te Whatu Ora and Te Aka Whaiora, a significant development occurred. In late November 2023, the incoming coalition government comprising of National, ACT, and New Zealand First announced its intention to abolish Te Aka Whaiora and revert to a single integrated health system (Waatea News, 2023). The plan to eliminate Te Aka Whaiora and revert to a single integrated health system reinforces the precarious political environment where Māori leadership and governance face threats (Paewai, 2023). Amplifying the importance of evidence-based literature such as this research, that focuses on tino rangatiratanga for Māori in health, wellbeing, and education is therefore heightened.

While various strategies have been employed to guide the Aotearoa health system, with a particular focus on Māori health equity, Māori continue to experience significant inequitable health outcomes compared to non-Māori. For instance, the life expectancy of Māori is influenced by mortality rates that are three times higher for chronic pulmonary disease, twice as high for cardiovascular disease and diabetes, and one and a half times as high for strokes and various cancers compared to non-Māori (Ministry of Health, 2015). The New Zealand Health Survey’s annual data for December 2023 revealed concerning statistics too. Among the 110,000 children aged 2–14 years, (13.5%) were classified as obese in 2022/23, while these numbers increase to (21.7%) for tamariki Māori (Ministry of Health, 2023). Acknowledging that obesity is just one health indicator and may not fully encompass dimensions such as nutrition, emotional wellbeing, spiritual health, and social aspects, these findings justify the need for further investigation and potential intervention. These statistics coupled with the unstable political landscape emphasise an

increased urgency for pūrākau-based physical activity, as various strategies have failed to address Māori health inequities to date.

Despite the complex layers of colonisation revealed in this section, the evolution of the health system in Aotearoa, particularly with the introduction of He Korowai Oranga and subsequent strategies, reflects a journey towards embracing te ao Māori views of health and wellbeing in the future. Grounded in the belief that acknowledging the past and supporting a decolonised agenda is essential for the future wellbeing of Māori, this research posits that pūrākau-based physical activity could serve as a valuable avenue for exploring and addressing some of these health concerns. To further explore the notion of 'as Māori' participation in physical activity, it is essential to examine the play, active recreation and sport sector, with a specific focus on the role of Sport NZ Ihi Aotearoa (Sport NZ), as a prominent sector leader.

Play, Active Recreation and Sport in Aotearoa

Sport NZ are regarded as the kaitiaki of the play, active recreation and sport system in Aotearoa. The organisation has a key function as outlined in Section 8(F) of the Sport and Recreation Act 2002 to "promote and support the development and implementation of play, physical recreation, and sport in a way that is culturally appropriate to Māori" (Sport NZ, 2022c, p. 4). In 2019-2020, Sport NZ actively pursued a vision for the future of play, active recreation and sport in Aotearoa, emphasising an obligation to protect and enhance opportunities for physical activity as outlined in their key strategic plan, Every Body Active – 2020-2024 (Sport NZ, 2020a).

During my tenure at Sport NZ from 2019 to 2023, the organisation were actively embarking on a cultural journey and in 2019, one focus shifted toward understanding tākarō Māori (Māori play) within an Aotearoa context. It was during this time that I was initially contracted to produce an insights report, collecting the voices of play to illuminate the lived experiences of whānau Māori nationwide. The result saw the development of the Māori Voices of Play - Insights Report (2020) which explored Māori play in the past, its significance to whānau in the present, and aspirations for its future (Penetito-Hemara, 2020). This research aimed to inform the development of a Play Strategy for national rollout and contributed to a series of work that focused on honouring Te Tiriti and moving toward a bicultural future that genuinely embraces the treaty principles of partnership, protection, and participation. The report concluded by outlining potential short and long-term priorities, accompanied by a set of recommendations for further action and consideration. This illumination of a Māori perspective on play, where none existed previously, empowered Sport NZ

to present the Government with a comprehensive plan for advancing a play agenda in Aotearoa that was truly representative.

Simultaneously, in May 2019, Sport NZ initiated an exploration into the future of play, active recreation and sport in Aotearoa, with a specific focus on the sector's evolution up until the year 2045 (Sport NZ, 2019b). Recognising the imperative to adapt to ongoing changes, particularly heightened by the global COVID-19 pandemic, Sport NZ were guided by its commitment to the Treaty principles. These principles had recently been established in the organisation under the leadership of Toihautu Māori, Moana-Lee Raihania, and the Rautaki Māori. This led to the organisation's adoption of a Waka Hourua – Partnership Model, which was symbolised by two hulls: tangata whenua (Māori) and tangata tiriti (non-Māori). Dedicated to this bicultural future, Sport NZ co-designed a process to genuinely honour its commitment to the Treaty principles by establishing two working groups, Te Tuarā Futures Group (tangata whenua) and The Futures Working Group (tangata tiriti). These groups united sector leaders nationwide who were tasked with challenging existing perspectives and envisioning diverse futures for Aotearoa and the sector (Sport NZ, 2020c; Sport NZ, 2020d; Sport NZ, 2020e). Selected as a sector representative, I contributed to the development of two Te Tuarā insights reports. Of particular interest to this study were discussions on future system leadership decisions by Māori, for Māori. Notably, these discussions focused on addressing key challenges identified in the second Te Tuarā report, titled Mauri Ora – Māori in the Future (Sport NZ, 2020d). The primary challenges, as articulated by the sector representatives and outlined in the report, include:

Sport NZ does not recognise a Māori construct of physical activity. They need to let Māori define physical activity for ourselves. (p. 6)

Addressing the inequity that exists across the sector is a huge challenge. We're not the first generation to have a crack at it, and unfortunately probably won't be the last. (p. 12)

It is a challenge when one partner is expected to strengthen the other, while at the same time reindigenise ourselves. We must figure out how this is best done. (p. 13)

The play, active rec and sport sector are unable to comprehend a te ao Māori perspective of kori tinana – it is missing the cultural layers. We participate as Pākehā. (p. 7)

How do we address Māori capability, if we do not address capacity? (p. 13)

Who is responsible for building cultural capability across the sector? (p. 13)

The monocultural view of what constitutes play, active rec and sport means Māori activities remain unrecognised and unsupported. (p. 5)

In the context of the challenges posed above, it was clear that the sector was failing to “recognise a Māori construct of physical activity,” necessitating Māori autonomy in defining it. Addressing pervasive sectoral inequities was acknowledged as a significant challenge, with recognition of past attempts and anticipation of future efforts. The report highlighted the intricate task of “strengthening one partner while reindigenising ourselves,” emphasising the need for a thoughtful approach. The report also pointed to the sector’s perceived inability to understand a te ao Māori perspective of kori tinana, raising concerns about the absence of cultural layers. Furthermore, concerns arose about the sector’s “monocultural view,” resulting in the oversight and lack of support for Māori activities. Finally, the report concluded with a series of questions about addressing Māori capability and building cultural capability sector-wide. While these questions raise a great deal of concern, the fact that these discussions are occurring with and amongst Māori leaders within the sector demonstrates a commitment on behalf of Sport NZ to ensuring a bicultural future and one that honours Te Tiriti o Waitangi is at the centre of their decision-making.

The Futures Work formed the impetus for many changes across the organisation and sector. The result of which saw the launch of a number of key Māori strategies and investment streams, including, but not limited to, Te Pākē o Ihi Aotearoa, Sport NZ’s Māori Outcomes Framework (Sport NZ, 2022c), Te Aho ā Ihi Aotearoa, Sport NZ’s Māori Activation Plan (Sport NZ, 2022b), and Sport NZ’s Kaupapa Māori Response Plan (Sport NZ, 2020b). The Kaupapa Māori Response Plan saw a \$7 million investment to Māori National Sports Organisations which saw the establishment of Te Huinga Tākaro o Aotearoa,²¹ an expansion of He Oranga Poutama, funding for MaraeFit,²² the launch of Te Ihi Activation Fund,²³ and finally, the formation of Hawaiki Hou²⁴ (Sport NZ, 2023b). The transformative impact of the Futures Work highlights Sport NZ’s commitment to cultural responsiveness and aligns with the potential of pūrākau-based physical activity provision nationally.

With dual reporting lines to the Sport NZ Play Unit and Rautaki Māori I was able to contribute to each of these major pieces of work which set out to create systemic change for the benefit of Māori. My primary role however, He Mātanga Māori – Tākaro (Māori Play Systems Consultant), centred on leading the establishment of a five-year national play strategy, which focused on bicultural foundations and was designed to support the development of play in Aotearoa. The

²¹ National Māori sport collective which aims to foster the development of Māori sport in Aotearoa.

²² Sport NZ’s marae-centric ‘Everybody Active’ initiative.

²³ \$7 million investment and activation fund to increase Māori participation and Māori physical activity outcomes.

²⁴ \$45 million investment into selected community-led kaupapa that form a catalyst to move the physical activity system towards the attributes of the preferred future in Aotearoa.

culmination of work that we conducted as a Play Unit, with the support of the Rautaki Māori resulted in the launch of Kia Hīanga – Sport NZ Ihi Aotearoa Play Action Plan, 2022-2025 (Sport NZ, 2022a). During this time the Sport NZ Play Unit also commissioned two significant insights reports which I also contributed to and are, again, aligned with this research. These reports were the result of named actions within Kia Hīanga (Sport NZ, 2022a) and aimed to deepen perspectives on tākarō from a te ao Māori worldview. Oi Collective²⁵ partnered with Sport NZ on the development of these reports, whereby, the first project, Hīhiri te Ngākau – Tākarō Insights from Te Tai Tokerau (Mules et., 2022), explored whānau experiences of tākarō in Te Tai Tokerau. The goal was to cultivate inclusive and collaborative conversations, generating practical outcomes for local whānau concerning tākarō in the region. Ultimately, the ensuing report became a driving force behind advocating for the establishment of tākarō spaces that allow Māori to be Māori, particularly within Te Tai Tokerau. Simultaneously, it shed light on the need for additional resources, increased capacity to realise tākarō aspirations, and skill development within communities (Mules, et al., 2022). The report proposed the utilisation of a Tākarō Framework presented in Figure 8 to guide decision-making. It categorised tākarō into three key domains: 1) taiao, 2) mātauranga and 3) tāngata, which became a helpful reference in the later stages of this research. The significance of this report, particularly in the framing of these three categories, aligns with the aka matua for this study. Specifically, pūrākau, as a form of mātauranga, facilitates the formation, exploration, transmission, and expression of Māori knowledge, and therefore, enhances physical activity experiences for tamariki.

²⁵ Oi Collective is a group of wāhine Māori (Māori women) that can safely weave cultural innovation and community-led design thinking to disrupt systems, unlock creative potential and lead a process towards social change.

Figure 8: Oi Collective's - Tākaro Framework



Source: Mules, R., Riddell, E. & Penetito-Hemara. (2022). Hīhiri te Ngākau – Tākaro Insights From Te Taitokerau. Oi Collective.

Following the completion of their first report, Oi Collective agreed to another research opportunity centred on wāhine tākaro experiences. The subsequent insights report, titled *Ko te Mana o te Wahine – An Exploration of Manawāhine and Tākaro*, utilised the same framework mentioned above, however, it specifically acknowledged the central role of wāhine in the realm of tākaro (Penetito-Hemara, Pekepo & Mules, 2023, p. 49). This insights report aimed to honour wāhine voices, autonomy and choices in shaping their pursuits in physical activity, play, active recreation and sport. The findings revealed that:

Tākaro activities among wāhine Māori, play a profound role in nurturing growth, empowerment, and holistic wellbeing. They fuel self-expression, creativity, skill development, and foster health for both wāhine and those they influence. These activities create supportive spaces that disrupt gender norms, break barriers, and advance gender equality. (Penetito-Hemara, et al., 2023)

I emphasise the importance of these reports for two key reasons. Firstly, my involvement in both during my PhD significantly shaped my perspectives, particularly in relation to Tākaro ki te Taiao. Secondly, the insights derived from these reports play a pivotal role in addressing the context of whānau environments, beyond school settings. Revisiting the motives driving my pursuit of this PhD research has remained constant throughout this journey. As mentioned earlier, a primary objective of mine has always been to challenge and transform systems that do not serve the interests of Māori. Therefore, my dedication, leadership and contributions to driving essential

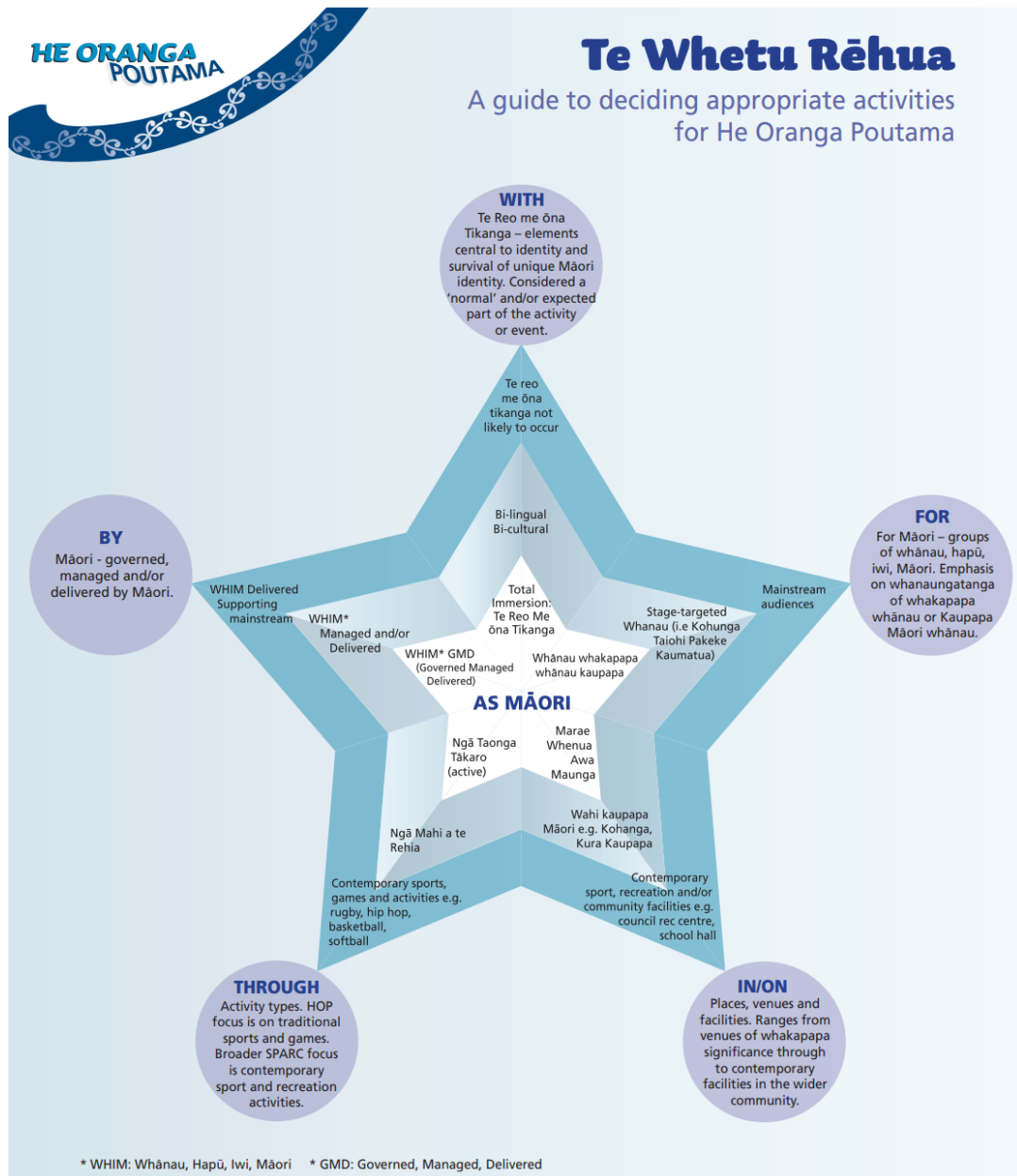
systemic changes within Sport NZ, with a focus on benefiting Māori, as outlined in this section reaffirms this commitment. Additionally, my experiences in this domain have played a crucial role in shaping the focus of this PhD thesis.

Another important initiative driving Māori participation is He Oranga Poutama. He Oranga Poutama is an initiative led by Sport NZ with a focus on promoting Māori wellbeing through sport and recreation (McKegg, Pipi, Wehipeihana & Thompson, 2013). The primary goal of He Oranga Poutama is to develop, promote, and implement physical activities in a manner that is culturally distinctive to Māori people (Sport NZ, 2021a). The programme aligns with the broader strategic vision within Sport NZ (Sport NZ, 2020a; Sport NZ, 2020c), and is dedicated to supporting Māori wellbeing by promoting increased participation and leadership development through play, active recreation, and sport. In 2009, the programme transitioned from a focus on increasing Māori participation 'by Māori', to one of participating and leading 'as Māori' (McKegg et al., 2013). This shift, although only a small word change, was indicative of a profound system shift according to McKegg et al., (2013) who state:

Sport NZ was acknowledging the need to support Māori to revive, learn, and re-develop the knowledge, skills and confidence to re-build a secure platform for the provision of Māori sport and recreation. Having access to culturally distinctive pathways for sport and recreation was essential if Māori were to be able to recreate and participate as Māori. Sport NZ, along with other government agencies, was coming to recognise that a strong and secure cultural identity for Māori helps facilitate their access to wider society, as well as being vital to overall wellbeing. (p.8)

As Sport NZ and other government agencies acknowledged the importance of a robust cultural identity for Māori in facilitating their integration into wider society and contributing to overall wellbeing, the He Oranga Poutama initiative became a means to invest in and establish a stronger platform for Māori to engage in sport 'as Māori'. Twelve providers were selected to deliver the programme nationally, and this has since expanded over the years (Sport NZ, 2023b). Another outcome of this work was the launch of Te Whetū Rehua which recognised the complexity of living 'as Māori' (Thompson, 2021). Te Whetū Rehua is recognised in Figure 9 below.

Figure 9: He Oranga Poutama: Te Whetū Rehua



Source: <https://sportnz.org.nz/media/1264/te-whetu-rehua.pdf>

The outer blue star represents mainstream provision and participation, inclusive of Māori involvement, but is more closely associated with 'by Māori' participation. The inner light blue star symbolises progression towards bicultural involvement, while the very inner white star represents participation in sport and recreation 'as Māori' (McKegg et al., 2013; Thompson 2021). The framework aims to utilise the five key dimensions to "distinguish the difference between

participation in sport and recreation by everyone including Māori and more culturally distinctive participation as Māori” (McKegg et al., 2013, p. 18). The mention of He Oranga Poutama and the inclusion of Te Whetū Rehua as a fundamental framework will hold significance throughout the analytical chapters of this thesis. Now, we shift our focus to one of the central settings for this research – the point at which each of these systems converge. At the crossroads of the health system, education system, and the play, active recreation and sport sector, lies health and physical education in schools, which will be the focal point of the next section.

Health and Physical Education in Aotearoa Schools

Health and Physical Education has been part of the primary and secondary school curriculum in Aotearoa since 1877 under the provision of the New Zealand Education Act 1877 (Stothart, 2000; Tawhai, 2016). In 1946, Physical Education became a core compulsory subject in secondary schools (Green, 2013). During the 1940s, a trend emerged to incorporate Māori knowledge and practices into the English-medium school system, marked by a significant study commissioned by Philip Smithells (Tawhai, 2016; Jackson et al., 2018). Following this, the integration of Māori content into Physical Education curricula, including Taha Māori and its derivative Te Reo Kori (Māori Physical Education Curricula), occurred in 1987 (Hokowhitu, 2001). Although Te Reo Kori provided Physical Education with a chance to spearhead the promotion of cultural identity in curricula, it was noted to have had "little value to Māori students, especially for those who had previous interaction with their culture" (Hokowhitu, 2001, p. 122). Durie's influential hauora model and Te Whare Tapa Whā framework were introduced in 1999 and emerged as an integral component of the New Zealand Health and Physical Education curriculum (Tawhai, 2016; Jackson et al., 2018). The acknowledgment of Kaupapa Māori Theory in mainstream teaching resulted in the implementation of Te Kotahitanga, a project giving rise to Ka Hikitia in 2008, serving as a cross-agency strategy for the education sector (Ministry of Education, 2021a). Supporting documents for Ka Hikitia, like Tātaiako, also emphasised the growing trend regarding the development of cultural competency among teachers (Tawhai, 2016). Tawhai's (2016) study identified an untapped desire and an unfulfilled potential for the inclusion of Māori knowledge and practices by Health and Physical Education teachers, showcasing a clear appetite for further exploration in this direction – an enticing sentiment considering the aims of this research.

Health and Physical Education is one of the eight learning areas taught as part of the New Zealand Curriculum (Ministry of Education, 2007). According to the Ministry of Education (2015):

In health and physical education, the focus is on the wellbeing of the students themselves, of other people, and of society through learning in health-related and movement contexts. (p. 22)

While health education centres on the social determinants of health and developing competencies for mental wellness, reproductive health, positive sexuality, safety management and nutrition (Ministry of Education, 2007), physical education focuses on achieving the following objective:

By learning in, through, and about movement, students gain an understanding that movement is integral to human expression and that it can contribute to people's pleasure and enhance their lives. They learn to understand, appreciate, and move their bodies, relate positively to others, and demonstrate constructive attitudes and values. This learning takes place as they engage in play, games, sport, exercise, recreation, adventure, and expressive movement in diverse physical and social environments. (Ministry of Education, 2015, p. 23)

A move toward enabling tamariki to be more physically literate has also been a focus for Sport NZ in recent years with the introduction of the Physical Literacy Approach mentioned in Chapter 1 (Sport NZ, 2021b). The intent of this approach is to recognise and respond to the needs of people of all ages, encouraging participation in physical activity and in a variety of ways throughout life (Physical Education New Zealand, n.d.). As a result, in 2020 the government launched a new initiative called Healthy Active Learning mentioned previously, which received its inaugural funding as part of the New Zealand Treasury Wellbeing Budget (Sport NZ, 2020f; New Zealand Government, 2022). Spearheaded by Sport NZ and in collaboration with the Ministries of Health and Education, the initiative centres on enhancing the wellbeing of tamariki and rangatahi. It also strategically engages regional sports trusts, regional education offices, and public health units in collaborative efforts to support schools in implementing healthy eating and drinking, as well as quality physical activity programmes across Aotearoa (Sport NZ, 2020f). Aligned with the Government's Child and Youth Wellbeing Strategy, which envisions that Aotearoa is the best place in the world for children and young people to live (Department of the Prime Minister and Cabinet, 2019), Healthy Active Learning embodies a key actionable step towards that vision. Mātaiao, formerly known as Tapuwaekura, represents the culturally distinctive pathway for Healthy Active Learning (Sport NZ, 2023a). It reflects a purposeful commitment to honour and uphold the principles of the Treaty. While it draws on Healthy Active Learning aims and objectives, it maintains a distinct Māori approach by taking a deep dive into a Māori worldview within kura Māori and kura-ā-iwi nationally. According to Sport NZ (2023a), "Mātaiao is a kaupapa Māori initiative supporting kura and kaiako to implement a te ao Māori approach through whakapapa and mātauranga Māori to connect tamariki to te taiao (natural environment) for better health and wellbeing outcomes" (para. 1). Co-founder Dr Wayne Ngata describes Mātaiao as an

opportunity to reconnect students with the languages and environmental knowledge of atua Māori. He asserts that by “utilising the natural world, where Māori knowledge thrives, whether that’s our mountains, rivers, or native bush, there are always teachings for Māori to follow” (Wikaere-Lewis, 2023, para 5.) Mātaiao, shares similar goals, aspirations, philosophies and practices with a pūrākau-based physical activity approach, albeit it is not described as such. Mātaiao is also underpinned by Heke’s (2013) Atua Matua framework, introduced in Chapter 1, which is also used to inform this research.

This section, much like the preceding ones, provided background information for this research, highlighting the detrimental impact of colonisation on Māori education and health outcomes. It serves as a crucial reference point when discussing the significance of this study, where key points will be analysed in relation to the research agenda.

Conclusion

This chapter introduced the key components of the study, reviewed relevant literature, identified gaps in the existing research and provided the historical context to this study. I examined the research context surrounding three key pou: hauora, pūrākau, and Māori physical activity, which, when combined, offered insights into the impact of pūrākau-based physical activity. Each pou was accompanied by a working definition, emphasising the analytical lens I wish to use throughout the remainder of this thesis. This section provided rationale for the application of hauora as a concept and Te Whare Tapa Whā as a central framework used within this research. A comprehensive examination of pūrākau as a mechanism to safeguard and preserve cultural knowledge, depict culturally significant narratives, offer a unique expression of Māori practices and traditions, and facilitate the transfer of mātauranga across generations was also provided. Furthermore, investigation surrounding the evolution of Māori physical activity from pre-colonial times up to today, highlighted a growing movement to revitalise and normalise traditional Māori practices surrounding Māori physical activity.

This chapter then explored the historical context and shined a light specifically on Māori education and health outcomes in the context of physical activity. Starting with an emphasis on Te Tiriti o Waitangi, I then explored the evolution and triangulation of relevant systems and sectors. Of particular interest were, the education system, health system and the play, active recreation, and sport sector. Understanding their role in shaping tamariki experiences at the interface of health and physical education in schools provided crucial context surrounding Māori educational and

health advancement. This was of particular relevance when considering the implementation of hauora initiatives for Māori who choose non-Māori educational environments. Furthermore, this chapter also delved into the ongoing impact of colonisation, emphasising the significance of incorporating Māori cultural knowledge, language and practices into system leadership using Te Tiriti as an advocacy tool. Chapter 3 will now delve into the research methodology, providing the overarching framework that guides the study and details the research methods employed for the collection and analysis of data.

Chapter 3 – Methodology and Methods

Preface

I can't teach you things innately in you. My job is to begin to draw it out of you.

(Spiller, Barclay-Kerr & Panoho, 2015, p. 10)

A Wayfinding Methodological Approach

The quote above speaks to the power of intuition and ancestral wisdoms. Tohunga waka (expert waka navigator), Hoturoa Barclay-Kerr, recognises the need to tune into our internal knowledge systems to establish the right path to take and he urges us to seek guidance from those who possess the skills to draw out this inner wisdom (Spiller et al., 2015). This quote opens this chapter to emphasise the significance of wayfinding, which served as the dominant theoretical framework during the early stages of this study. Simultaneously, it encapsulates a sentiment that guides the unfolding of the entire research journey. Wayfinding has origins that are deeply rooted in our history books as navigators of the Pacific Ocean. "Wayfinders go beyond the known, and journey on voyages of discovery to new horizons" (Spiller et al., 2015, p. 3). In determining a methodological framework for this research, it felt fitting to embark on a journey reminiscent of my ancestors. Just as they employed wayfinding traditions to navigate uncharted waters and uncover new realms of understanding, I too sought to embrace a similar approach in delving into new areas within my field of research. Wayfinding is a process of orienting and travelling from place to place, navigating by the sun, stars, birds, waves and other cues within the taiao (Spiller, et al., 2015; S.K.I.P, 2021). However, in the context of this research, while honouring its traditional origins in navigating physical spaces, the term "wayfinding" takes on a more nuanced meaning. Here, it more appropriately refers to the process of navigating conceptual terrains, guiding me toward the realisation of my research agenda. This is an approach which follows in the footsteps of Professor Chellie Spiller, Hoturoa Barclay-Kerr and John Panoho in their (2015) book titled: *Wayfinding Leadership: Groundbreaking Wisdom for Developing Leaders*.

In the preliminary phases of this PhD, adopting a wayfinding approach involved the development of a framework that harnessed the personification of a waka hourua along with a sequence of five waypoints. Waka hourua are large double hulled waka intended to travel great distances. By virtue of design, they were built to withstand the harshest of conditions (Spiller, et al., 2015). Within the confines of this study, the symbolic embodiment of a waka hourua served as a metaphorical vessel through which wayfinding behaviours could be transmitted from the waka to the research

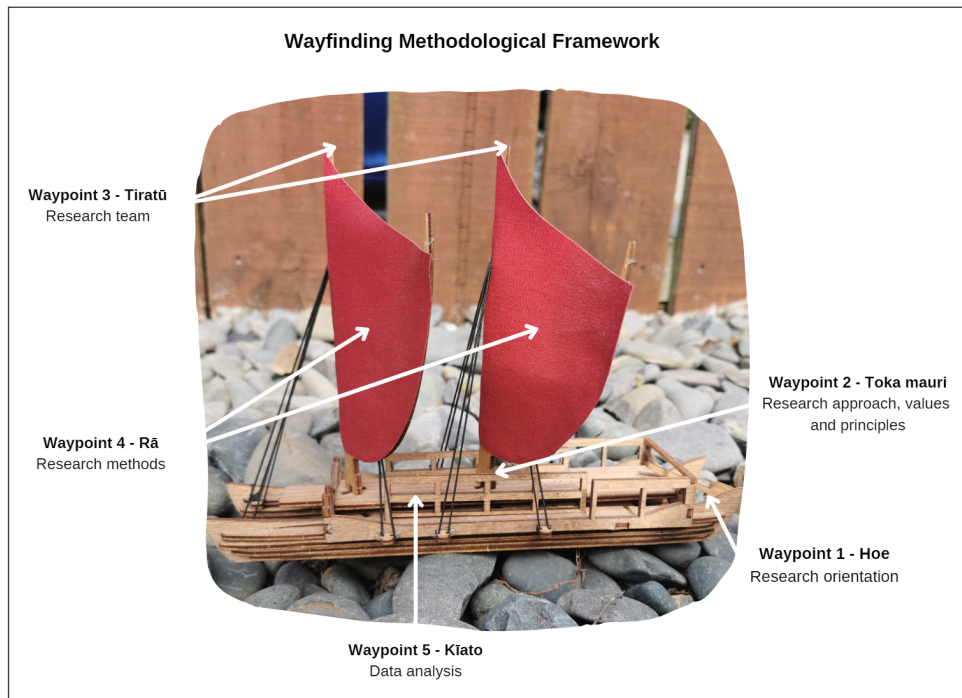
context. As a navigator aboard waka hourua, a great deal of importance is placed on the need for balance, equity, mutuality, strength, and shared accountability in an attempt to reach one's destination. As such, the waka hourua metaphor resonated deeply, with its twin hulls symbolising the voices, perspectives, aspirations, and experiences of both tangata whenua and tangata tiriti. Importantly, both hulls are part of the same waka and if one hull is weak or unbalanced, the whole waka is compromised. Given the context for my research lies primarily within English-medium school settings, yet the focus is on tamariki Māori, my initial intentions for this study largely centred on concepts such as equity and biculturalism. In light of this, my vision of a bicultural future took on vital significance, with an emphasis on mana ōrite and equity. The term mana ōrite refers to equal partnerships with mutual outcomes (Sport NZ, 2022c). Sport NZ (2022c) declares that:

Partnership at its core requires both partners to maintain the mana of the other as equals (ōrite). It requires that Māori ways of knowing and doing are not subsumed, but rather recognised and included in ways that are valued, participatory and enable agency (p. 9).

In essence, wayfinding as a methodology paved a way to honour both worldviews, with an overarching intention to present a series of findings and discussions that reflected mana ōrite. This endeavour seemed paramount in my attempt to actualise transformational change whereby tamariki Māori were able to experience mauri ora (flourishing wellness) on a daily basis.

The metaphor of a waka hourua as a wayfinding methodological approach was complemented by a sequence of five waypoints, acting as pivotal markers that played a crucial role in steering the course of the research journey with intent and purpose. These five waypoints, each representing a part of the waka hourua are illustrated in Figure 10 below. They span from the research orientation to a series of research values and principles, then from research participation to the research methods employed, and finally data analysis. Each waypoint represented a part of the waka hourua for example, the hoe (steering paddle), toka mauri (mauri stones), tiratū (the masts), rā (the sails) and kīato (the crossbeams) and each metaphor aimed to illustrate how each waypoint would be actioned throughout the research process.

Figure 10: Originally Proposed Wayfinding Methodological Framework



However, given wayfinding encourages us to look to our past to inform future opportunities ahead, I was encouraged along the way to revisit my methodological framework. Our traditional navigators sailed the ocean adapting naturally to change and harnessing the potential of uncertainty (Spiller et al., 2015). Thus, wayfinding as a methodology, especially onboard waka and during long voyages, requires a dynamic and strategic approach, certainly not a static one. We have much to learn and celebrate from the achievements of our tūpuna and those pivotal leaders whose efforts across the health and education sectors (as described in Chapter 2) are etched into our history. Navigating these cultural differences can be a harsh reality for those who venture into this space and unfortunately inequity still exists for Māori across both the health and education sectors. The literature review has already illustrated a turbulent partnership history between Māori and the Crown. This turbulence is common onboard waka, particularly evident when the waka's path involves tacking, diving, and zigzagging through space. Employing a wayfinding approach in these early stages allowed flexibility for emergent possibilities to unfold during the research journey, and indeed, these opportunities eventuated.

While maps, instruments, strategic plans, and goals are all considered helpful tools they can also inhibit one's ability to read the environment and therefore achieve the intended purpose (Spiller

et al., 2015). During the data collection phase of this research, I was compelled to create ways to connect with tamariki and kaiako through storytelling. The research methods employed within the wānanga with tamariki were framed around pūrākau, the activities I ran and the questions I asked encouraged them to share their stories with me. This continued into the interview space whereby kaiako were encouraged to share their lived experiences with me in narrative-driven ways. However, it wasn't until the data analysis phase where a natural and intuitive pivot occurred and pūrākau surfaced as the dominant and most compelling way to not only guide my research journey, but it also formed a captivating way to articulate, represent and share the research findings. The following chapter, therefore, preferences the use of pūrākau as the primary methodological framework used in parallel with Kaupapa Māori Theory and Methodology as a way of legitimising space for tino rangatiratanga and mana motuhake to thrive.

Introduction

Each of us have a unique story to tell, influenced by ancestral knowledge and teachings that shape our behaviours (Mita, 2000). Establishing pathways to amplify these stories in authentic and transformative ways is at the heart of this research. Within this context, pūrākau served as a valuable platform and approach for preserving ancestral insights which will continue to be woven into our cultural fabric long after we've gone. These narratives, voices and lived experiences were the source in which I drew my knowledge and understanding from to inform this study. However, conducting research within an academic environment, primarily steeped in Western ideologies and systems came with challenges, particularly when there were conflicting worldviews. This is not new, nor surprising and is why Kaupapa Māori Theory and Methodology was also foundational to this study. The objective for this research has always been to navigate this space, ensuring Māori perspectives and worldviews take precedence, ultimately informing innovative approaches to elevate hauora outcomes for Māori. This chapter explores pūrākau as the core theoretical framework that forms the methodology for this study, but not without first discussing foundational elements that have contributed to the research process.

Firstly, I delve into the whakapapa of the research process, offering an illustrative perspective into the epistemological and ontological foundations that underpin this study. Following this, I explore the profound influence of te ao Māori, mātauranga, and kaupapa Māori in shaping my perception of the world and interconnectedness within it. This leads to a dedicated section detailing how I

have adopted pūrākau as the central methodological framework for this research. Together these philosophical pillars collectively guide and inform the research process.

Following a description of pūrākau as the primary methodological framework shaping this study, this chapter delves into the diverse methods employed throughout the research journey. First, I address the ethical considerations that underpin this research, providing a general overview into the intricacies of research participation. Then the methods utilised for data collection, including observations, interviews, wānanga, and the application of Kaupapa Māori Theory in Praxis, are thoroughly discussed. A particular emphasis is placed on the incorporation of pūrākau as a research method, detailing the integration of both context-specific and contemporary narratives into each data-gathering activity. Followed are detailed insights into how the research methods were specifically applied during data collection. I provide a comprehensive overview including examples of the application of these methods in the context of each of the three programmes, with an aim to equip researchers with sufficient detail to comprehend and potentially replicate the same approach. Finally, the unique methods applied for data analysis are outlined to provide the step-by-step process I employed during the data analysis phase. An exploration of deductive themes interwoven with kura huna is presented, alongside discussion on how pūrākau served as an analytical tool, focusing on the inclusion of local ancestral pūrākau and the pukapuka series.

Research Methodology

Whakapapa – The Organising Principle

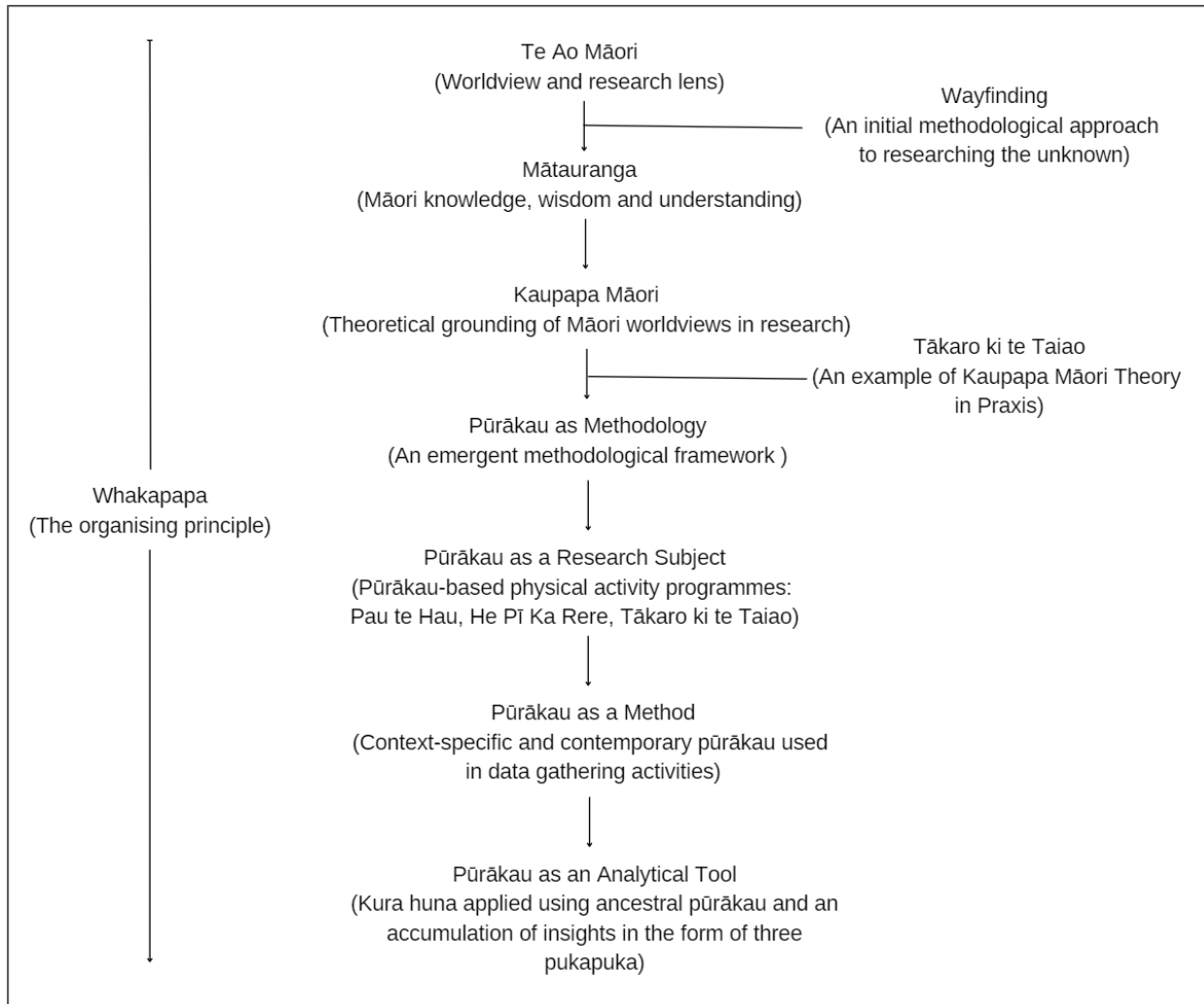
Heke (2021) describes whakapapa not as a noun, but as a verb. He asserts that “whakapapa is something you do, not something you list. Whakapapa is something you live, something you strengthen and something you stretch every time you connect to the taiao” (I. Heke, personal communication, March, 3, 2021). Heke urges us to reflect on the notion that adopting a whakapapa approach necessitates moving beyond a static description. Paramount to utilising this approach, is recognition of the living essence of whakapapa, which calls for its embodiment in praxis. Professor Te Ahukaramū Charles Royal (1998) emphasises that whakapapa helps us understand the nature and origin of phenomena; their connection to and relationship between each other, locating and displaying trends, and extrapolating and predicting future phenomena. Essentially, whakapapa embodies a dynamic process of interweaving narratives, relationships, connections and understanding. It signifies a conscious engagement with the wisdom of the past, then translates it into contemporary interactions and decisions. This approach was pivotal in

creating a framework that not only revealed connections with and between people and place, theory and praxis, but also established a means to organise and navigate my thoughts holistically. Living a whakapapa approach within this research journey, helped to shape my sense of purpose, as well as foster deeper connections with my participants, my research design and the intended outcomes.

Whakapapa embodies a concept rooted in layering, symbolising the multi-dimensional act of placing elements upon each other in a sequence (Te Rito, 2007; Ngata, 2019). These layers encompass both linear (descent) and lateral (kinship) connections and relationships, not only between people, but also between all features of the environment (I. Heke, 2017; Roberts, 2013; D. Heke, 2021). Positioned as an approach, whakapapa functions as an organising system for the theoretical and practical dimensions of mātauranga Māori (Heke, 2021). This application aligns with how I've employed it within the context of this study.

Whakapapa as 'the organising principle' follows in the footsteps of Dr Ngahuia Mita (2023) in her doctoral thesis, where she used whakapapa to organise her thoughts and research in a way that made sense to her. Recalling that one of the initial motivations driving my pursuit of a PhD was the chance to conduct research in Te Matau-a-Māui, a region with which I share whakapapa connections, this approach seemed consistent. In fact, my original intent revolved around using whakapapa as the methodology for this research. As my research journey progressed, I chose a wayfinding methodological framework to initiate an understanding of the research journey I was about to embark on. Eventually, a sequence of activities and interactions culminated in the formation of pūrākau as the central research methodology, a topic I delve into further in this chapter. This type of layering is a typical response to employing a whakapapa approach, where ideas, constructs, and concepts are interwoven into a fabric that reflects the interconnectedness inherent within a Māori worldview. Figure 11 depicts a series of layers that highlight the epistemological and ontological foundations of this research, including how whakapapa threads and connects each layer.

Figure 11: Whakapapa Foundations of the Research Journey



Te Ao Māori – Worldview and Research Orientation

Te ao Māori contributes significantly to the research orientation for this study. Te ao Māori encapsulates a complex system of Māori customs, values and attitudes that are derived from an Indigenous body of knowledge concerning the creation of the universe (Roberts, Norman, Minhinick, Wihongi & Kirkwood, 1995; Mita, 2023). The ontological and epistemological orientations of this research reflect the nature of a Māori worldview. Ontology considers the nature of being, while epistemology is concerned with the nature of knowing (Gratton & Jones, 2004). For Māori, whakapapa threads through both orientations whereby the nature of our human existence is firmly connected to our environment and therefore how we perceive our world and the phenomena within it (Timu, 2018). Consequently, recognising the genesis of te ao Māori

through the lens of whakapapa becomes an imperative anchor. Furthermore, it is relevant then to use pūrākau to ground this research within context. One of the most common creation narratives in te ao Māori is best described by Royal (2005) who states:

Every culture has traditions about how the world was created. Māori have many of them, but the most important stories are those that tell how darkness became light, nothing became something, earth and sky were separated and nature evolved. (para. 1)

Royal (2005) provides an overview above of the evolution from te kore (nothing) to te pō (the darkness) and through a process of te wehenga (the separation of earth and sky) came te ao marama (the light). He highlights that there are many origin stories that acknowledge the creation of the world and therefore dictate how we see ourselves within it. I have selected the origin story below purposefully as it mirrors my perception of the world and is reflected in my approach to this study. It draws on my Ngāti Kahungunu whakapapa and the beliefs of the creation of the universe within the context of the voyage of my waka, Takitimu, from Hawaiki (ancient homelands) to Aotearoa. The following passage is extracted from John Hikawera Mitchell's (2017) book titled: *Takitimu: A History of Ngāti Kahungunu*:

To the Supreme Deity, parentless, eternal, the Māori gave the name Iho or Iho. Iho was the creator of the heavens and the earth and all other life and creation originated from him[...] Prior to the departure [of Takitimu waka] the sacred gods were taken from their sacred places and stowed in the special compartments in the bow of the canoe immediately in front of the seat of Ruawharo, the priest. Carved out of wood and stone, the relics represented the children of Rangi, the sky parent, and Papa, the earth mother. They were gods covering all that Māori life was dependent upon. Tāwhirimātea was the origin and personification of the wind, thunder and lightning, and the elements. Tane-nui-a-rangi (great offspring of Rangi) was the personification of forests, trees and birds. Tangaroa, the Māori Neptune, was the ruler of the waves and the origin of all fish and deep sea creatures. Rongo, or fully titled Rongo-marae-roa, personified peace and the arts of agriculture, and all cultivated foods. Uncultivated food, such as the rhizomes of the common bracken fern, a sure source of food, was represented by Haumia. Last, but certainly not least, we mention Tu-matauenga, who was usually referred to by the first syllable only. Tu was the supreme god of war and was treated as the most important offspring of Rangi and Papa[...] These gods, the offspring of Rangi and Papa, who were second only to Iho can be called the gods of the origins. The origins of all life, whether that life emanated from the elements, the forest, the sea or the soil. (pp. 34-35)

This pūrākau acknowledges the genesis of the natural world and encapsulates Ngāti Kahungunu belief systems that emphasise the vital roles of these deities in sustaining life and ensuring survival onboard Takitimu waka. Considering this narrative is grounded in the voyage of Takitimu to Aotearoa, the alignment seemed particularly fitting, given this research centres on pūrākau-based physical activity. Due to the diverse localities where data collection occurred in this study

(i.e. Te Matau-a-Māui, Murihiku, and Tāmaki Makaurau) it was crucial to ensure that when holding space with others there was always opportunity to affirm important whakapapa connections to these deities, to ancestors of the past, to places of significance and to ensure acknowledgement of all those present. Nestled within te ao Māori, and interwoven with whakapapa, lies mātauranga Māori. This knowledge forms the cornerstone of Māori wisdom and understanding, upon which the philosophy of pūrākau is firmly built.

Mātauranga – Māori Knowledge, Wisdom and Understanding

Mātauranga Māori refers to the collective body of knowledge, understanding, and wisdom that is deeply rooted in Māori cultural traditions and practices (Smith et al., 2016; Hikuroa 2017). There are a plethora of debates surrounding what does and does not constitute mātauranga. For example, Mika (2012) argues that while mātauranga Māori is often considered a non-traditional equivalent to Māori knowledge, this description tends to undermine the relationship with ‘knowing’ and ‘being’. He argues that consideration of the pursuit of knowledge, in the absence of ‘being’, is a colonised approach. This debate is particularly pertinent to this research as we navigate the intersection of knowledge creation, particularly the conceptual meaning derived from pūrākau and their validity within dominant sites of colonisation such as education settings, especially English-medium education settings. Smith et al., (2016) further reinforce this by emphasising that:

Indigenous Peoples have struggled for the legitimacy of indigenous knowledge and are wary, sceptical even, of academic attempts to over-determine IK [Indigenous Knowledge] mātauranga Māori to ensure that it ‘fits’ existing academic regimes of control such as research performance measures, publish or perish drivers, and even genuine desires to include mātauranga in the curriculum. (p. 132)

The above quote refers to the debate around seeking legitimacy of Indigenous forms of knowledge such as mātauranga, within non-Māori institutions. Māori and other Indigenous academics worldwide are often forced to validate the knowledge being constructed, produced, and authorised against Western measures, effectively perpetuating a power imbalance in academic discourse. According to Cooper (2012) “Māori are regarded as producers of culture rather than of knowledge” (p. 64). This debate speaks also to the hierarchy of knowledge, failing to recognise the depth of expertise and multidimensional aspects of mātauranga such as spiritual and metaphysical realms of knowledge and application. An example of such knowledge is the mātauranga which lie in abundance within pūrākau. These cultural narratives comprise codified knowledge, and are littered with clues, with life lessons, with tools, techniques and verified

knowledge that have been continuously tested and evolved over time (Hikuroa, 2017). However, pūrākau, particularly ancient ones or those which delve into the metaphysical realms, have mostly been ignored or disregarded due to their association and definition as myths, legends, and mere tales of fantasy. Durie (2012) further addresses the issue, cautioning scholars and researchers alike not to consider mātauranga as simply ancient, but rather evolutionary. He posits:

Some people think Māori knowledge is something ancient, and therefore static... when actually mātauranga Māori is about evolving knowledge... knowledge is always changing, and that there are different approaches to it. The values might be derived from long ago, but knowledge changes. There is a difference between discovering, developing, and being excited by new knowledge, and simply being told the old knowledge... when you look back on ancient times, mātauranga Māori was an evolving form of knowledge. (p. 23)

Informed by the above debate, my working definition of mātauranga in the context of this research refers to the pursuit, creation and application of Māori knowledge, wisdom and understanding. It assumes that mātauranga is not static, nor subsumed to only ancient or traditional knowledge, but rather is ever evolving and emerges from people, place, and whakapapa (Mita, 2023). Moreover, mātauranga aims to avoid institutionalisation, instead choosing to remain connected to Māori communities and the contexts in which it originated. This ensures that it continues to transform cultural ways of knowing, being and doing into the future. To assist in interpreting, validating and legitimising mātauranga several esteemed Māori scholars formulated Kaupapa Māori Theory and Methodology which will be explored in the next section as a forerunner to the use of pūrākau as a methodology.

Kaupapa Māori Theory and Methodology

Kaupapa Māori Theory and Methodology provides the philosophical foundation and the tools for Māori to assert their cultural identity, challenge systemic injustices and contribute to positive change for Indigenous peoples (G. H. Smith, 1997; Jackson, 2015). It has been pivotal in creating space for Māori and Indigenous research within the academy (Bishop, 1998, 2003; Moewaka Barnes, 2000; G. H. Smith, 1997; L. T. Smith, 1999; Walker et al., 2006). As a theory, Kaupapa Māori emerged amidst a cultural revitalisation movement as a response to the dissatisfaction with non-Māori approaches to research and education that did not recognise or include Māori (Bishop, 1998; Walker et al., 2006; Mita, 2023). It provided a space whereby research could be conducted, by, for and with Māori aspirations at the fore. Kaupapa Māori Theory and Methodology supports research that is transdisciplinary; research that is centred on social change for Māori

communities; research that aims to challenge oppressive structures; and research which demands tino rangatiratanga (Eketone, 2008; Jackson, 2015). As a methodology, Kaupapa Māori has enabled me to empower Māori voices, restore cultural practices such as the use of pūrākau-based physical activity and create spaces where Māori voices and realities are legitimised and valued.

Kaupapa Māori Theory and Methodology provides a robust framework that resonates deeply with the essence of this study. According to Nepe (1991) the foundations of Kaupapa Māori Theory and Methodology lie in the wisdom passed down through generations via oral traditions and its origins lie in mātauranga Māori. Given that the core focus of this research centres on pūrākau-based physical activity, a practice inherently tied to oral traditions, the alignment with Kaupapa Māori Theory and Methodology is particularly compelling. It not only provides a theoretical underpinning for this research but also offers guidance in navigating the complexities of merging traditional knowledge within contemporary contexts, in this case, education and home environments. Essentially, its emphasis on privileging Māori worldviews, participation, and cultural values aligns with the objectives of this study. By grounding the research in this framework, the intention is to amplify Māori voices, recognise the significance of oral traditions, cultivate a space where the richness of pūrākau-based physical activity can be understood and shared authentically, as well as contribute meaningfully to the wellbeing of tamariki Māori.

As a methodology, Kaupapa Māori honours the values and guiding principles that reflect ngā tikanga Māori which were handed down to us by our ancestors. This is further reiterated by Nepe (1991) who emphasises that “Kaupapa Māori knowledge is the systematic organisation of beliefs, experiences, understandings and interpretations of the interaction of Māori people upon Māori people, and Māori people upon their world” (p. 4). Māori knowledge, Māori paradigms of thinking, Māori forms of inquiry and Māori tools for action form the bases of Kaupapa Māori research and provide the cornerstones of this study (G. H. Smith, 1997; L. T. Smith, 1999). Positioning the research agenda in this manner directly stems from the visionaries who crafted Kaupapa Māori Theory and Methodology. They anticipated and spearheaded a transformative shift towards prioritising tino rangatiratanga within educational institutions. At this point I wish to acknowledge the many Māori scholars who have fought for Kaupapa Māori Theory and Methodology within the academy. This study is a beneficiary of that vision, foresight and drive for change. The literature review has already highlighted how the Kaupapa Māori Movement has addressed some of the detrimental effects that colonial institutions have imposed on Māori worldviews and knowledge systems (Cram et al., 2019). While there remains more to be done, Kaupapa Māori Theory and

Methodology has carved a pathway for the proposed methodological framework using pūrākau. I now guide our journey from exploring the foundations of Kaupapa Māori Theory and Methodology to shift the reader's attention towards pūrākau as a research methodology informed by Kaupapa Māori in the following section.

Pūrākau as Methodology

In crafting the primary methodology for this doctoral research, the convergence of purpose and approach found its essence in pūrākau. Extensive exploration of pūrākau is detailed in the literature review, therefore, this section is dedicated to the practical application of pūrākau as a methodology. Lee (2009) asserts that “Storytelling has always been one of the key ways knowledge was sustained and protected within Indigenous communities” (p. 2). Moreover, according to Kopua and Kopua (2021) pūrākau fosters critical thinking, creative expression and the ability to reconnect whakapapa while deep diving into a new way of being. The significance of pūrākau as a methodology gradually unfolded and solidified over the course of this doctoral research, whereby the foundational principles inherent in pūrākau began to shape every facet of the research journey. Along the way these narratives, which are deeply rooted in Indigenous cultural wisdom, organically started to illustrate the important relationship between my methodology and my practice, calling for a pivot toward a new methodological grounding. Here, I provide insight into how pūrākau was used as a core methodology in serving to illuminate the many dimensions of pūrākau-based physical activity.

Embracing pūrākau as a methodology in this study has allowed me to delve into the very essence of mātauranga Māori, identity, and knowledge transmission using storytelling. Given pūrākau are rooted in the oral literature of our ancestors, and they encompass a rich tapestry of ancient narratives that transcend time and space (Lee, 2005; Hakopa, 2019), I sought to use them in a variety of ways to form the basis of my research approach. The defining characteristic of pūrākau lies in their inherent flexibility, allowing them to assume a multitude of forms, lengths, and tones. As aptly noted by Pihama, Campbell and Greenshill (2019), these narratives are not bound by a rigid format; they can be short and succinct, or long and descriptive, yet they consistently engage the learner. Thus, pūrākau function as dynamic tools for understanding Māori practices and principles.

I have used pūrākau as a methodology throughout this research in two distinct ways. The first lies in the integration of ancestral stories relevant to the specific places or contexts in which data was

collected, thereby fostering a connection between participants' lived experiences and their local environments. According to Mita (2000) pūrākau are imbued with ancestral messages and values which form conduits in bridging the gap between the past and the present, as well as traditional and contemporary contexts. Therefore, ancestral pūrākau have been used to frame each of the following three analytical chapters (i.e. Chapters 4 – 6). To contextualise the data gathered from current experiences, relative to a historical framing of our ancestor's past involvement in physical activity, ancestral pūrākau are used as reference points throughout the analysis. In these analytical chapters, pūrākau are not merely illustrative tales but rather profound tools for insight, conveying lessons and values that echo Māori engagement in pūrākau-based physical activity. These narratives are rooted in various environments and contexts of relevance to the participants, thus anchoring the research within the very spaces where the stories hold significance and connection. They also have a particular focus on messages and lessons pertaining to key forms of physical activity. While the pūrākau chosen may not foreground a focus on physical activity, they all capture the essence of it through the kura huna that are sometimes hidden within them. Moreover, they are used to guide my understanding of the benefits of pūrākau-based physical activity for tamariki Māori.

The second dimension takes form in the framing of the findings, whereby I have developed a pukapuka series of three contemporary pūrākau, using rotarota (rhyme, rhythm, verse, assonance) to articulate the key themes which emerged from the data. Within these contemporary pūrākau are brief inserts from the ancestral pūrākau used to frame the chapter to demonstrate connection. Pūrākau used in this way serve as vehicles through which the participants' (predominantly tamariki Māori) narratives are retold, reclaimed, and reinterpreted, allowing for a comprehensive understanding of their personal experiences and perspectives on physical activity. Both aim to amplify the importance of pūrākau as a methodological construct and both seek to enhance the value of the insights. By weaving additional layers of narrative that have lasted generations, influenced our behaviour and helped shape our cultural practices into the future, the importance of pūrākau as the primary methodology for this study is affirmed. Next, my focus shifts to illuminating the research methods employed throughout the study. I begin by outlining the principles I use to guide my ethical practice.

Research Methods

Ethics

As a practitioner, māmā, kaimahi, scholar and researcher, my ethical approach is anchored in three fundamental principles within te ao Māori, pono (genuine, sincere, valid), tika (true, correct, fair), and aroha (love, compassion). These principles, which are also considered values, interconnect to guide my actions. Here, I aim to briefly discuss how I interpret these principles and how they have served to guide and shape my actions throughout this research process.

For an extended period, I have been guided by these fundamental values. However, it was during my time with the Sport NZ Rautaki Māori team that I truly appreciated an extension to how I would typically frame them. Essentially, Sport NZ adopts these principles as their organisational ethos, symbolised by three mauri pounamu which are located in their Wellington office. Sport NZ (2023d) articulates this ethos as follows:

Kia pono ki te kaupapa – Be authentic to the purpose;

Kia tika te mahi – Act with integrity;

Me aroha ki te tangata – Respect for others.

Kia pono ki te kaupapa in the context of my ethical practice within this research signifies a commitment to staying true and just to the purpose and long-term goals. According to Moorfield (2011) pono means to be true, valid, honest, genuine, and sincere. To me, staying pono involves a dedication to see the project through to completion, amplifying the voices shared, listening to the guidance of my tūpuna, and making decisions with a focus on a better future for our mokopuna. Being authentic during this research necessitated honesty and transparency in all my actions and an adherence to my own truth and the truths of those who shared their perspectives with me.

The intentional decision to involve tamariki as research participants was made right from the start of this research journey. Despite encountering various challenges such as navigating ethical approval, securing consent, addressing assent considerations, and ensuring appropriate koha (gifts of generosity) for tamariki, my focus remained firmly on the end goal. This goal was rooted in the belief that this work should not be done for tamariki, but rather with and alongside them. Too often, children are excluded from participating in research that directly concerns them (Powell & Smith, 2006; Sanders, Golden & Thomas, 2020). When it comes to research involving young people, Sanders et al., (2020) reinforce that:

Young people need to be involved in the process right from the beginning. Not invited into boardrooms and planning meetings, but genuine members of boards and planning groups. Working in partnership with young people means not coming in with preconceived ideas, assumptions or decisions already made. It is about being open and truly valuing the process, the mess and the possibilities! We know when you're talking to us to tick a box, and we know when you're talking to us to truly hear what we have to say. If it's about us, without us, it's not for us (n.p).

However, there are also several risks in conducting this type of research including safeguarding tamariki from physical, emotional, and psychological harm, respecting their cultural beliefs, values, and practices, and addressing power imbalances so that they feel they can freely express themselves. Despite recognising these associated risks, I prefer to view tamariki as agents of change, thus justifying their inclusion. Prioritising tamariki participation and safety in this study illustrates the efforts made to maintain authenticity while remaining true to the kaupapa.

Kia tika te mahi in the ethical context of this research demands adherence to tikanga, encompassing customs and traditions that exemplify the correct way of doing things. Stewart et al., (2021) emphasise that "tika is a central principle of ethical behaviour towards other people and the world" (pp. 15-16). Therefore, the dedication to upholding research practice that is tika involved a commitment to act with integrity, often centred on a goal of leaving spaces in a better way compared to when I first engaged with them.

At times this research journey has led me to exercise tino rangatiratanga by challenging the systemic institutional barriers within AUT that failed to serve me as a student. In these instances, I have advocated for a review of academic processes pertaining to tikanga, including the proposal process, remuneration for external supervision, and considerations for conducting oral examinations which embrace Kaupapa Māori principles. The overarching goal was to collectively uphold the mana of all those impacted. Disrupting systems that are not effective for Māori is a driving force in all my endeavours. Consequently, I have felt compelled to find ways to do so not only in my writing, but also in asserting tino rangatiratanga within the system. I hold the belief that when individuals buy into systems of oppression and perceive themselves as powerless, they may come to accept the dominant behaviours as acceptable. Navigating the challenges within an academy, shaped by a Western-dominated institution marked by power, elitism, and privilege, has compelled me to address these issues for the betterment of the research, for those emerging researchers following in my footsteps, and for the ethical foundation of this work. To me, this embodies being authentic to the purpose.

Ironically, I have since learned from the article titled: Ko te Tika, ko te Pono, ko te Aroha: Exploring Māori values in the university by Stewart et al., (2021) that the three fundamental principles of tika, pono and aroha also constitute the values of AUT. The following explanation is taken from the AUT (2023) website:

Our values – tika, pono and aroha (integrity, respect and compassion) – are at the heart of everything we do. Our integrity helps us do good work. We're genuine, accountable and efficient, and people know they can trust us to stay true to our word. How we respond to each other makes a huge difference. That's why we're welcoming, helpful and kind, and always try to show each other compassion. Respect is at the core of how we work together. We're collaborative, inclusive and open, and our staff value different viewpoints and challenge conventional ways of doing things; the same characteristics AUT graduates are well-known for.

Although my experiences at AUT have not always demonstrated an awareness as an institute of the value system described above, I am hopeful that by advocating for change, subsequent measures will be implemented to mitigate challenges faced by other Māori postgraduate students in the future.

Me aroha ki te tangata within the ethical framework for this research is pertinent when collaborating with and working alongside others. Pā Henare Tate (2010) asserts that “tika presupposes pono and is the basis for aroha” (p. 126). Aroha necessitates approaching interactions with all those who I have encountered, with care, respect, empathy, generosity, and compassion, for aroha is, “the essential element in interpersonal relationships” (Tate, 2010, p. 134). Such engagement has at times required personal sacrifice and, in all instances, have involved a mutual exchange of aroha and reciprocity.

Within the framework of this research and across all things I do, it is crucial that I emphasise that taking without giving is never acceptable to me. In my commitment to honouring the individuals who generously shared their time and space with me, I have sought to reciprocate this generosity through various means. While at times this has involved the exchange of koha, on other occasions, it included sharing a meal together, offering my time, reviewing the work of fellow PhD students, helping with tasks at the marae, or simply being present ā-kanohi (in person) to support a kaupapa.

Across Pau te Hau and He Pī Ka Rere each participant was gifted koha in a form that adequately nurtured and respected the sharing and learning that occurred.

In accordance with tikanga, koha is the kawa of giving in recognition of contribution, commitment, and generosity and fulfills the obligation of reciprocity which is key to upholding the mana of both the giver and the receiver. (Te Ātiawa o te Waka-a-Māui Trust, 2020, p. 1)

Koha was selected on the basis of the whakataukī, “Ka tuku atu, ka tuku mai” (Te Tari Taiwhenua, 2021, para. 2) which emphasises a desire to build relationships and create spaces that encourage the equal distribution of power and recognise the importance of developing shared understandings. It acknowledges the value of lived experiences, current realities, and the contributions of all. Tamariki each received a koha to the value of \$50 to recognise their participation. This consisted of a backpack, drink bottle and a hat, which supports Kaupapa related to kori tinana. While kaiako received a \$100 gift voucher as recognition of their time, knowledge and experience shared. In addition, for those kaiako involved in He Pī Ka Rere, a resource pack with the new He Pī Ka Rere workbook and a few other goodies were donated by Toi Tangata. Catering was also provided during wānanga interactions with participants to ensure they remained nourished over the period of time I spent with them.

This section outlined just a few ways I have employed tika, pono, and aroha to shape my ethical practice. In large part, aligning with these foundational principles comes naturally and feels inherent, reflecting not only the manner in which I conduct research, but also the values that profoundly influence how I choose to live my life. Now that we have outlined the ethical principles guiding this research, the following sections will illustrate how these principles were applied during my interactions with the research participants.

Research Participation

The participants forming the research community in this study were selected using a purposive sampling method. This method involves strategic participant selection based on their potential contributions to the theoretical understanding of the research topic (Bryman & Bell, 2011). Considering that the research questions for this study specifically centre on the impact of pūrākau-based physical activity programmes for tamariki Māori, schools with a high Māori population were selected, and the opportunity to participate was extended exclusively to tamariki of Māori descent. This approach stems from the intention to broaden the scope of Māori narratives and, more importantly, embrace Māori concepts of physical activity, enhancing the resonance of the kaupapa among Māori in Aotearoa. Tamariki ranged in age from 8-13 years old, with the exception of my son who was three years old at the time. On certain occasions, particularly during the noho marae

(overnight marae stay), younger siblings participated in the wānanga activities; however, their data was excluded from analysis. It is important to highlight that I chose to emphasise the term tamariki over alternatives such as tauira (student, pupil), rangatahi, or even ākonga (student, learner) because I believe that the term tamariki more accurately reflected the maturity levels of the participants involved.

The recruitment goals for this study focused on gathering data from 20 tamariki Māori and 4-5 kaiako per school. These goals align with the number of kaiako facilitating Pau te Hau and He Pī Ka Rere within the school environments, as well as the class sizes of tamariki Māori who fit within the target age group to participate in this study.

This study integrated viewpoints from both Māori and non-Māori participants, serving as supplementary and supportive components of the overarching kaupapa. While the voices of tamariki Māori were given priority and contributed valuable insights to this research, it was equally crucial to gather diverse perspectives from non-Māori. In terms of the kaiako and matua participants, they were selected based on their involvement with the programme in question. I was particularly interested in how non-Māori kaiako supported tamariki Māori with the provision of pūrākau-based physical activity within English-medium schools, therefore both Māori and non-Māori kaiako were invited to participate. Furthermore, understanding the opportunities and challenges faced by both tangata whenua and tangata tiriti offered valuable insights into how these two worldviews and knowledge systems could thrive within English-medium education settings. Table 2 below provides a summary of all the research participants who took part in this study:

Table 2: He Pī Ka Rere Research Participants

Programme	Tamariki (Total)	Kaiako/ Matua (Total)	Kaiako/ Matua (Māori)	Kaiako/ Matua (non-Māori)
Pau te Hau	29 <i>School 1 = 22</i> <i>School 2 = 7</i>	3	1	2
He Pī Ka Rere	23	6	3	3
Tākaro ki te Taiao	1	1	1	0

Across the three programmes combined, there were a total of 53 tamariki participants, nine kaiako, and one matua. All 53 tamariki participants identified as Māori. Among the 10 kaiako and matua participants, 50% identified as Māori, and the remaining 50% identified as non-Māori.

Considering the goal was to gather insights from 20 tamariki Māori and 4-5 kaiako (Māori or non-Māori) per programme, I am content that I successfully attained this goal. Additional details regarding research participation for each of the three programmes will be elaborated upon later in this chapter.

Effects of COVID-19

The global COVID-19 pandemic made its presence felt in Aotearoa in February 2020, coinciding with the onset of my engagement with this doctoral research opportunity. By July 2020, I was approached with the prospect of embarking on my PhD, leading to my formal application for admission into the doctoral programme at AUT. I was confirmed as an enrolled candidate in September 2020, around the same time Tāmaki Makaurau (Auckland) experienced its first regional lockdown²⁶. This marked the beginning of a research journey amidst an unpredictable global pandemic.

Subsequently, Tāmaki Makaurau underwent a series of regional lockdowns, alternating between Levels 2²⁷ and 3²⁸. As I approached my PGR9 proposal presentation in September 2021, Tāmaki Makaurau entered a national Level 4²⁹ lockdown. This significant shift resulted in the transition of my proposal presentation from a conventional face-to-face format to an online setting. My candidature was later confirmed in November 2021, and ethics approval was obtained in December 2021. It was after obtaining these approvals that the challenge of navigating the ongoing landscape, marked by extended lockdowns which lasted more than 100 consecutive days in Tāmaki Makaurau, began to take a toll on our whānau. The constraints imposed by the restrictions and the pressures of home-schooling our four children across different age ranges compounded the challenge of dedicating ample time to my research pursuits. Maintaining the

²⁶ New Zealand implemented a system of alert levels in response to the COVID-19 pandemic. The alert levels, ranging from 1 to 4, were designed to indicate the severity of the outbreak. National and regional lockdowns were enforced based on these alert levels, with higher levels involving more stringent restrictions on movement, social gatherings, and business operations. These measures were dynamic, with the country shifting between alert levels based on the evolving situation and public health considerations (Unite against COVID-19, 2022).

²⁷ Alert Level 2: COVID-19 is contained but there is a risk of community transmission, requiring physical distancing, restrictions on gatherings, and increased hygiene measures.

²⁸ Alert Level 3: COVID-19 is actively spreading, leading to strict restrictions on public movement, closure of non-essential businesses, and remote work and learning where possible.

²⁹ Alert Level 4: COVID-19 is widespread in the community, necessitating a nationwide lockdown with only essential services operating and everyone required to stay home.

balance between regular supervision meetings, household management, family wellbeing, and other responsibilities further exacerbated the demands on me during this period.

In addition, the schools where I aimed to gather data were grappling with similar challenges. Considering my research design centred on visiting schools and engaging in interactive wānanga with tamariki and kaiako, my timeline for data collection was profoundly affected by national lockdowns and COVID-19 school regulations. The government's introduction of a traffic light system further exacerbated the complexities of any interactions with schools. Understandably, research was not a high priority for schools during this time, demanding both patience and time instead. As a parent with four school-aged children, I was acutely aware of the pressure's schools were facing. Thus, these circumstances pushed me to undertake a 3-month leave of absence from my PhD studies, a decision based on adapting to the unprecedented circumstances.

Consequently, I managed to conduct my my first wānanga starting with He Pī Ka Rere, Murihiku in June of 2022, followed by Pau te Hau, Te Matau-a-Māui in September 2022. Surprisingly, these dates were not significantly different from my original intended timeline. Data collection for Tākaro ki te Taiao took place in Tāmaki Makaurau in March of 2023, and was not significantly affected by the pandemic. I have chosen to recognise the impact of the COVID-19 pandemic in this section because of the effects it had particularly on the recruitment of my research participants in schools and the impeded opportunity to undertake data collection. Additionally, the profound impact it had on the ongoing implementation of both Pau te Hau and He Pī Ka Rere, during the time of the pandemic cannot be overlooked. These programmes faced prolonged shutdowns and attempts to resume programme delivery in 2022 when it was deemed safe to do so, was not easy. Next, I aim to offer a broad overview of the data collection methods, commencing with wānanga as a research method. Importantly, the reader should understand that the practical details of how these methods were applied to each programme will be discussed later in this chapter.

Data Collection Methods

Wānanga

The primary method employed for collecting data from tamariki was through a series of wānanga activities. Wānanga "is a traditional method of Māori knowledge transmission, and has been described as a place, a school, an act, and a form of governance, practice and pedagogy" (Mahuika & Mahuika, 2020, p. 369). Opportunity to wānanga with tamariki allowed for a deep exploration of their experiences across the three programmes, serving as powerful

demonstrations of storytelling and collective sharing. These sessions provided an avenue to integrate pūrākau alongside a variety of design thinking tools, resources, and activities, fostering the discovery of alternative perspectives, concept development, and idea generation.

In total, I facilitated four wānanga, each lasting approximately 3-4 hours, with breaks for morning tea and lunch. As the primary wānanga facilitator, I strategically paced the activities to ensure they were suitable for the developmental age and stage of the tamariki. Due to the dynamic nature of the wānanga, I enlisted additional support in two instances to effectively capture data across all activities for later analysis.

Storytelling in the form of pūrākau was instrumental in the data collection phase. Detailed insights surrounding the incorporation of pūrākau across the three wānanga can be cross-referenced with the wānanga run schedules (see Appendix L & M). Pūrākau served as a method for participants to tap into Māori narratives, sharing their experiences and expressing their truths. In conjunction with pūrākau, I employed a series of design thinking tools during the wānanga sessions. According to Razzouk and Shute (2012), “Design thinking is generally defined as an analytic and creative process that engages a person in opportunities to experiment, create and prototype models, gather feedback, and redesign” (p. 330). Utilising creativity and movement to engage young participants was essential in unlocking their fresh perspectives regarding the design of the pūrākau-based physical activity programmes. This approach aligns with Clifford’s (2023) assertion that a pūrākau approach promotes innovation. By empowering tamariki to be part of the solution, space was created for ideas that were honest, insightful, and innovative.

Each wānanga provided opportunities for tamariki to convey their experiences in creative ways, leaning heavily into activities which engage their senses. This encompassed activities such as crafting games, performing haka or waiata, sculpting using playdough, manipulating resources from the taiao, and drawing. Subsequently, tamariki were expected to reflect upon and share their creations with the wider group. Various forms of data capture were employed, including photos, text, video, audio recording, and modelling. These collaborative and interactive techniques facilitated a space for tamariki to express both positive and negative aspects of their experiences. The tools allowed them to describe different stages within their journey, giving substance and rationale to their encounters, helping them to envision future or ideal experiences from beginning to end. This approach also facilitated the contextualisation of their journey within a te ao Māori frame. Moreover, it recognised the tamariki as active participants in the research process, empowering them to showcase their experiences ‘as Māori,’ thereby positively impacting their

wellbeing. Another research method utilised throughout this research was observations, which will be discussed next.

Observations

Observational research is a fundamental research design wherein a researcher carefully observes participants within their natural environment, refraining from intervening or manipulating variables. This type of research is categorised under ethnographic research, which is defined as, "a way of studying people in organised, enduring groups, which may be referred to as communities or societies" (Angrosino, 2007, p. 3). According to Angrosino (2007), the role of an ethnographic researcher is positioned along a continuum comprising four primary points:

1. The complete participant (the researcher is fully immersed in the community without disclosing their research agenda).
2. The participant-as-observer (the researcher is immersed in the community, known to be conducting research, and has permission to do so).
3. The observer-as-participant (the researcher is somewhat detached from the community, interacting only on specific occasions, such as interviews).
4. The complete observer (the researcher collects entirely objective data from a distance without becoming involved in the activities or announcing their presence).

In this study, two of the above observational research roles were relevant. I adopted the roles of observer-as-participant during my site visits regarding Pau te Hau and He Pī Ka Rere, and the role of the complete participant during my wānanga with Tākaro ki te Taiao. These roles will be further explained in relation to the individual programmes later in this chapter. Next, I discuss how I used interviews as a data collection method.

Interviews

Recognising the significant role kaiako play as facilitators of the pūrākau-based physical activity programmes, I conducted empathy interviews with them to gain insights into what aspects were effective, what challenges were encountered, and why. Empathy interviews, as defined by Nelsestuen and Smith (2020), are "one-on-one conversations that use open-ended questions to elicit stories about specific experiences that help uncover unacknowledged needs. A protocol allows the interviewer to probe more deeply into stories than a more traditional interview" (p. 59). As I engaged in these interviews with participants, my focus was on fostering relationships

grounded in reciprocity and respect, uncovering connections that might not have been immediately apparent (Spiller et al., 2015), and delving into their extensive pool of knowledge through the medium of pūrākau.

As a method, empathy interviews were infused with questions of cultural relevance to the participants, which in this research we have called kōrero tuku iho. Much like taonga tuku iho (treasures passed down through generations), kōrero tuku iho are face-to-face conversations centred on the transmission of cultural knowledge which lends itself to oral traditions, storytelling and the implementation of kaupapa Māori values and principles (Hudson et al., 2010). This research method takes a lead from Phillips (2019) whereby kōrero tuku iho was applied. Phillips (2019) explains that kōrero tuku iho refer to:

A conversation (or talk) between the researcher and interviewee with the knowledge that the dialogue you receive from your participant is knowledge that has been passed down the generations to that person, hence the meaning of 'tuku iho'. (p. 56)

This type of interaction is unique and requires a trusting relationship to be established first and then built upon along the journey together. Engagement was underpinned by certain values, principles and tikanga that enable a strong connection to flourish. Phillips (2019) further reiterates that:

There are a number of elements required for kōrero tuku iho to be appropriately employed. The information is obviously not shared freely and to just any researcher that comes along. This is why a strong relationship between the researcher and interviewee is crucial for kōrero tuku iho to take place. The nature of this relationship will always determine: (1) what information is shared to you; (2) how much is given; (3) the accuracy of what is given and; (4) the depth and breadth of that information passed to you. (p. 56)

Examples of kōrero tuku iho which were shared with me included discussions centred on maramataka (Māori lunar calendar) within the region. This kaiako shared with me their intentions to infuse this learning and teaching for future implementation of the programme in her school. Similarly, one of the kaiako I interviewed also held a role within the local rūnaka around revitalising pūrākau in the region. Fortunately, the programme of focus in this region had already reaped the rewards of this new mātauranga. A range of activities had been strategically developed, all of which were framed around these localised narratives. Additional instances included a range of pūrākau that were generously shared with me. Subsequently, excerpts from these narratives found a place within the pukapuka series. It is important to emphasise here that I sought and obtained permission from the interviewees before utilising them. In other contexts, owing to my personal connections to specific rohe and my knowledge of certain pūrākau passed down to me,

along with whakapapa kōrero relating to my own whānau, I have chosen to share these with the liberty befitting a descendant and beneficiary of such wisdom. Ultimately, these instances of kōrero tuku iho hold the potential to positively impact my own whānau who may choose to read my doctoral thesis.

Kaupapa Māori Theory in Praxis

Kaupapa Māori Theory in Praxis refers to the practical application and implementation of the principles and values underlying Kaupapa Māori (G. H. Smith, 1997; L. T. Smith, 1999). It involves incorporating Māori ways of knowing, being, and doing into various aspects of daily life and in practical terms, it means centring Māori perspectives, cultural values, and aspirations in the design, execution, and evaluation of policies, programmes, or projects. This approach aligns with Rangi's (2020) Niho Taniwha framework, whereby the theme, He Māori te Noho advocates for Māori having autonomy over their lives, utilising mātauranga and tikanga to help sustain wellbeing. In essence Kaupapa Māori Theory in Praxis emphasises self-determination, collective wellbeing, and cultural integrity, fostering a more inclusive and equitable environment for Māori individuals and communities.

Conversations with tamariki and kaiako highlighted a crucial absence of data pertaining to the foundational partnership between the school and home environments. This introduced a new focal point for the research, being whānau at home in their own environment and as a result Tākaro ki te Taiao was introduced into the study. As mentioned previously, my aspirations for this research are intricately linked to my future aspirations for my own tamariki. I envision a world where they can embrace their culture, understand their identity, and joyfully explore their whakapapa Māori through movement and physical activity. This realisation led to the development of a whānau-led framework for a pūrākau-based physical activity programmes to be implemented at home. One that embodies mātauranga Māori, kōrero tuku iho, whakapapa kōrero, te reo Māori, tikanga, kori tinana, and tākaro. This resulted in the creation of a programme and praxis I've named Tākaro ki te Taiao, which aims to breathe life into the narratives, wisdom, and expertise acquired through knowledge shared with me both before commencing this research and throughout the research journey. It is practical in nature and was undertaken in collaboration with my own whānau and tamariki. The underlying concept is grounded in offering insights into how whānau could leverage their local taiao, knowledge of pūrākau (whatever that looks like) and te reo Māori (with varying levels of proficiency) to reinforce either the teachings acquired in school, or their own kōrero tuku iho and whakapapa kōrero that have been passed down to them. Now that we have addressed

the data collection methods in a general sense, the next section aims to once again provide a broad overview of how pūrākau was employed as a research method, followed closely by more detailed information pertaining to each programme.

Pūrākau as a Method

Context-specific Pūrākau

The application of context-specific pūrākau as a method was prominent within the wānanga sessions involving tamariki. During these sessions, a diverse range of narratives and references to atua, tūpuna and local sites of significance were incorporated. This integration was purposeful, as it established a mātauranga Māori foundation that not only guided the essence of the wānanga activities but also prompted participants to embrace a Māori worldview when approaching them. Additionally, integrating these context-specific pūrākau enabled tamariki to begin to build their own cultural narratives. The tamariki engaged in a series of interactive and playful activities, prompting them to share their knowledge on various topics orally through storytelling, waiata, haka, or dance. Context-specific pūrākau were also used during wānanga to render an understanding of specific topics of focus, such as hauora. Ultimately, this approach fostered critical thinking, creative expression, and the ability to reconnect with whakapapa while deepening their understanding of a new way of learning.

Contemporary Pūrākau

Contemporary pūrākau took on a personal dimension as kaiako shared their lived experiences through empathy interviews. These interviews centred on guiding kaiako through a narrative journey, where they were asked to share stories and provide insight into the planning, implementation and reflection of the pūrākau-based physical activity programme they were involved in. Kaiako were encouraged to consider their experiences through a te ao Māori lens where they were asked to address essential Māori topics, regardless of their descent. In this context, my aim was to capture their reflections on how mātauranga Māori, Māori culture, and te reo Māori, were embedded into the programmes based on their first-hand experiences. Lead kaiako were prompted to craft narratives detailing their introduction to the programme, what drew them to it, cherished aspects throughout, and its overall integration into the school. They shared stories of achievement, challenges, and perspectives around how hauora outcomes were

achieved as a result of the programme. Kaiako also drew on their experiences to shape future programme development. Importantly, this approach helped me to document their journeys, ultimately creating a legacy beyond their tenure. Their valuable feedback was then used to create the journey maps as visual illustrations of their experiences, and their feedback is analysed in Chapters 4 and 6. Next, I shift the attention to how I implemented the research methods mentioned previously within each pūrākau-based physical activity programme.

Implementation of Research Methods in Each Programme

The next three sections adhere to a similar format, beginning with a programme overview which is divided into the three key pou as outlined in Chapter 2. Following this, I offer details regarding recruitment and research participation before delving into the specifics of the data collection methods used within each focal programme. These subsequent sections are structured to serve as templates for researchers conducting similar studies, providing a useful guide for their own research endeavours. The initial programme overview pertains to Pau te Hau.

Pau te Hau

Programme overview

Pau te Hau is a curriculum-based, teacher-led, high intensity interval training programme which draws from pūrākau, kōrero tuku iho, and traditional Māori movements to promote vigorous exercise for tamariki in schools. In this section we explore the three pivotal pou identified in Chapter 2, which constitute pūrākau-based physical activity to uncover the programme's alignment.

Figure 12: Pau te Hau Logo



Source: <https://www.faqinteractive.com.au/2021/07/13/pau-te-hau/>

Hauora – Pau te Hau aims to improve cardiovascular fitness and power while providing an opportunity to incorporate mātauranga Māori within the school’s physical education and cross-curricula identity. The programme emerged from a concern about the decreasing fitness levels among adolescents, and their evidently decreasing participation in physical activity (Harris et al., 2022; Harris et al., 2021). Pau te Hau seeks to recognise the value of physical activity, exercise and fitness in reducing anxiety, and enhancing self-esteem, particularly among young people dealing with mental health challenges. The well-established connection between physical fitness and mental health further emphasised the significance of encouraging physical activity (Biddle et al., 2021). However, a reported rapid decline in physical activity during adolescence (Wheatley, Wassenaar et al., 2020) raised the need for innovative solutions to address these public health challenges associated with mental health and physical activity among adolescents.

Pūrākau – The inclusion of pūrākau or more appropriately termed kōrero tuku iho offered a unique opportunity to investigate links to Māori elements within the health and PE curriculum (Fox et al., 2018) such as te reo Māori and te reo kori, while simultaneously reinforcing cultural identity for Māori participants (Warbrick et al., 2020; Williams et al., 2018). These kōrero tuku iho provide brief descriptions of the movements and provide a te ao Māori context to the exercises that follow. Most reference atua (Māori deity) as sources of knowledge to inspire tamariki to engage with strength, determination, and endurance. During the design of Pau te Hau, AUT partnered with Toi Tangata to develop a series of kōrero tuku iho descriptors to provide te ao Māori context for each movement. Table 3 below presents various examples of the kōrero tuku iho embedded into the app technology through voiceovers, narrated by Darrio Penetito-Hemara and me. Darrio Penetito-Hemara, my husband and the CEO of Toi Tangata, assumed multiple roles in this study, as Toi Tangata was a key research partner involved in Pau te Hau, and they are also the creators and kaitiaki of He Pī Ka Rere. His name will be frequently mentioned throughout this thesis.

Table 3: A Selection of Kōrero Tuku Iho Embedded in Pau te Hau App

Exercise/Activity	Kōrero Tuku Iho (Narrative Embedded in the App)
Piki ake a Tāne	This movement represents Tāne climbing the 12 heavens to gather ngā kete o te wānanga. Remember, to climb to such heights requires great coordination and timing.
Haka taparahi	This movement allows you to practice being aligned, alert and in tune with the taiao (the natural environment). It requires rhythm and discipline, a much-desired characteristic of all our atua Māori.
Hīkina	Hīkina means to 'lift' or 'raise' and this movement represents the final big heave used to separate Rangi and Papa. Imagine the control, strength and stability required to achieve this feat. These are the traits of Tāne that reside within us all.
Tūwaewae takahia	As an ope taua (a war party) journeyed from one location to another, they would travel in a synchronised manner using movements like tūwaewae takahia. These movements using your feet are a demonstration of discipline, togetherness, coordination, and skill.
Tūtū ngārahu	This movement was commonplace within ope taua (war parties). On approach, ngā toa (or soldiers) would demonstrate an explosion of movements which showcased their athleticism and physical prowess. Your challenge is to keep your whole group in sync.
Ringa pakia	This movement has connections to many atua. Think about your haka stance tāne mā in preparation for the challenge. Imagine how Uanui - atua of heavy rain fall, might influence your technique and how your arms fall down to strike your hands on your knees.
Tipatapata	Speed, concentration and stability are three things to focus on with this movement. Just like the sound of Uanui as the heavy rain hits the whenua, aim to keep on the balls of your feet. Imagine you are as light as a feather!
Squat low pulse	With this movement, think about how Tāne Mahuta may have positioned himself to prepare for the explosive movement required to push Ranginui (Sky father) up to the heavens, and Papatūānuku (Earth mother) down to the fertile lands.
Shadow box jab with dodge	Shadow boxing is one way to represent the battle that took place 'Te Pakanga Atua.' When in battle you have to think about attacking, defending, evading and many other skills to ensure your survival. Harness the energies of our atua who fought for superiority in this way.
Skater	The marae ātea is the realm of Tūmataunga atua of war. You will notice during a pōwhiri that the kai wero (the warriors) are set forth to lay a challenge to better understand the intentions of the approaching party. In this process you will see them conduct a series of prancing actions, quick shuffling steps and dramatic jumping movements like this.
Press ups	The children of Papatūānuku and Ranginui had minimal space to move. The press up was likely one of the first movements that ngā atua Māori used to separate their parents.
Lunge	Ngā hau e whā represents the four winds. A traditional lunge replicates movements with a focus on back-and-forth motions. When you step forward to lunge this symbolises Hauraki the northern winds and when you step back to lunge this symbolises Hautonga the southern winds.
Lying down pushing legs up	To fully separate his parents, Tāne, lay on his back against Papatūānuku, with his feet firmly on the chest of Ranginui before extending his legs and ending up in a handstand position. This movement requires you to replicate this moment in time where light entered the world and ngā atua Māori spread far and wide as kaitiaki of our taiao (natural environment).
Trunk Twists (Russians)	This movement requires the ultimate core strength. It represents several rotational movements as demonstrated by our atua of the winds, such as Tāwhirimātea, Hau Āwhiowhio and Huru te ārangī. Imagine the different types of winds, their intensity and their strength. The more intense the winds, the more destructive. Or in other words, the harder you work the better the rewards.

It is crucial to note that while these kōrero tuku iho descriptors are concise, they are complemented by a video clip illustrating the movements (refer to Figure 13). I want to also recognise the limitations within the app technology, as the full versions of these pūrākau could not be embedded, albeit that was a preferred option. Additionally, I acknowledge that the descriptions, enabled through the app, were supplementary to the existing version of Pau te Hau. In the previous iteration, there was an accompanying handbook that guided teachers on how to incorporate mātauranga, such as maramataka, other pūrākau and ideas on how to embed them into the programming. In the version of the programme that I examined, this approach was replaced by the inclusion of kōrero tuku iho and set programming based on the different phases of the local maramataka which were predetermined.

Figure 13: Challenge Zones, Instructional Videos for Pau te Hau



Source: <https://www.faqinteractive.com.au/2021/07/13/pau-te-hau/>

Māori Physical Activity – Pau te Hau adopts a high-intensity interval training (HIIT) approach, recognised for its effectiveness in yielding positive health outcomes for adolescents, including benefits for mental health. (Costigan et al., 2015). Pau te Hau sessions have been designed to fit within 15-minute timeframes twice-weekly during PE periods at school. Kaiako utilise an app-based platform to load the programme onto their classroom televisions or projector screens, while tamariki fit their heart rate monitors and clear a space within their classrooms to actively participate. Each Pau te Hau session includes a warm-up, and several intervals of between 20 and 60 seconds interspersed with brief recovery phases, all framed by kōrero tuku iho such as the descriptions above. Tamariki are encouraged to engage fully in the vigorous exercises to elevate their heart rates, with the goal of entering and maintaining the so-called ‘red zone’. The aim is to reach a specific target heart rate of 90% of the estimated maximum heart rate towards

the end of most intervals. The programmed exercises are designed to challenge the whole body, including movements such as lunges, squats, sprints, and other movements inspired by Māori traditions. Occasionally, group challenges are integrated to foster synchronised participation. Tamariki can anonymously track their progress by checking their heart rate against their corresponding number on the television screen, and their scores are uploaded into the app for further review and research analysis.

I would like to emphasise that while the above description of the elements of physical activity included in Pau te Hau may not overtly reflect Māori physical activity, it is important to refer back to the working definition established in Chapter 1. That is, “Māori physical activity refers to any traditional or contemporary movement, play, sport, exercise, or recreation that incorporates elements or aspects of mātauranga Māori in order to exercise tino rangatiratanga.” While I acknowledge that the elements of mātauranga Māori in Pau te Hau are limited, they still exist, and their presence is intended to cater to tamariki Māori who would otherwise be participating in a non-Māori programme without any Māori dimension or Aotearoa context. The effectiveness of the inclusion of these aspects will be determined later in this thesis.

Recruitment

The recruitment process for Pau te Hau was conducted in collaboration with AUT. The central research team included Dr Isaac Warbrick (Co-Primary Supervisor), Professor Nigel Harris (Secondary Supervisor, Pau te Hau Project Lead) and Jacqui Pratt (Pau te Hau – Project Manager). Throughout this phase, I relied heavily on the support and connections within my research team, leveraging established networks and direct contact with schools. As part of a larger Health Research Council NZ funded project, pre-existing relationships with Pau te Hau schools were already in place. Jacqui Pratt, in her role as Project Manager, played a pivotal role by gathering data on actively participating schools, particularly those with significant Māori student populations. Her expertise facilitated initial interactions and liaison with schools, streamlining the recruitment process and providing a valuable entry point for my involvement.

During the recruitment phase of Pau te Hau, several factors contributed to a series of back-and-forth correspondences. Firstly, being an unfamiliar name to school representatives posed initial communication challenges, as trust had not yet been established. Additionally, the global pandemic introduced strains leading to delays or non-responsiveness from schools. Staff turnover during the introduction of Pau te Hau at these schools further complicated matters. These

challenges highlighted the limitations of relying solely on email communications. It is important to note that while *kanohi ki te kanohi* (face to face conversations) was my preferred method of engagement as a way to integrate *tikanga* into my practice (Hudson et al., 2010), this was disrupted by the impacts of COVID-19. Nevertheless, a significant shift occurred when I had the opportunity to connect with the *kaiako* over Zoom.³⁰ This shift toward more personal interactions not only facilitated the initial establishment of rapport, but also laid a fundamental foundation for ongoing interactions with *Pau te Hau* research participants. Following the initial contact, school representatives held discussions with senior school management to secure approval for the research to be conducted within their school. This step was straightforward for the *Pau te Hau* schools due to the administrative alignment between this research project and the broader research initiative already underway.

Gathering *tamariki* voices can be challenging for practical and ethical reasons. Since all *tamariki* were under 18 years of age, parental consent, *tamariki* assent and *kaiako* consent were all requested to confirm their participation in the study. In an effort to present the research project in child-friendly terms, I crafted participant information sheets (see Appendix B, C, D), consent forms (see Appendix F, G), and assent forms (see Appendix H). These documents detailed the research purpose and project aims and clarified the participants' roles. Administering the forms for *Pau te Hau* from a distance posed challenges. It was my preference that the lead *kaiako* from each school would facilitate this process before my arrival, given their established relationships with the *tamariki* and their *whānau*. This approach was chosen to optimise the limited time available during the *wānanga* and to address the necessity of obtaining prior parental consent, which would not have been feasible during my on-site visit. This approach also aligned with the standard practice of teachers seeking permission forms from students in schools. Subsequently, all consent and assent had been obtained and sent to me before my trip to *Te Matau-a-Māui*, providing an indication on *tamariki* numbers and enabling effective planning, including ensuring adequate *koha* for each participant during my interactions there.

Participants

Obtaining the required number of *tamariki* participants posed no challenge in *Pau te Hau*, in fact, I was able to exceed the number of *tamariki* participants. However, I struggled to reach the desired

³⁰ Zoom is a widely used cloud-based video conferencing platform for virtual meetings, webinars, and collaborative online interactions.

benchmark for kaiako interviews. I suspect that this was due to limited single-school participation in Pau te Hau. Within the participating schools only a select group of classrooms and therefore a limited number of kaiako were allocated to lead the programme which further impacted recruitment. In both cases, across the two schools I visited, only one or two kaiako were familiar with the programme or had engaged in its delivery. Also, one kaiako who had previously agreed to being interviewed, decided not to participate on the day of the wānanga, as he had only recently taken on a lead kaiako role implementing Pau te Hau in the school. He felt that he didn't possess sufficient experience to contribute any value to the study at that point.

Table 4: Pau te Hau Research Participants

Programme	Tamariki	Kaiako Total	Kaiako (Māori)	Kaiako (non-Māori)
Pau te Hau	29 School 1 = 22 School 2 = 7	3	1	2

There was a total of 29 tamariki who participated across two schools in Te Matau-a-Māui. School 1 involved intermediate school age children (Year 7-8) ranging between 11-13 years old. Out of the 22 who participated from School 1, nine were female and 13 were male. School 2 involved primary school age children (Year 6) ranging between 10-11 years old. Out of the seven who participated from School 2, five were female and two were male. All tamariki participants across both schools identified as Māori. However, there was only one out of three kaiako who identified as Māori and this kaiako was associated with School 1.

To maintain the confidentiality of the participants in Pau te Hau, pseudonyms have been utilised in the subsequent analysis chapters. Each interviewed kaiako has been allocated a substitute name, and each tamaiti (child) has been referenced by a unique number. Additionally, for any responses reflecting group input resulting from facilitated group activities, I have assigned a rōpū number as an identifier in Table 5.

Table 5: Pau te Hau Participant Pseudonyms

Programme	Tamariki	Pseudonyms	Total Kaiako	Pseudonyms
Pau te Hau	29	School 1 = T1 – T22 School 2 = T23 – T29 School 1 = Rōpū 1 – 4 School 2 = n/a ³¹	3	Kaea Jasmine Sara

Wānanga – Te Matau-a-Māui

Two wānanga were conducted with a total of 29 tamariki in Te Matau-a-Māui across two schools. The first wānanga, with School 1, was attended by 22 tamariki and was facilitated with the support of Chelsea Cunningham, who served as my research assistant. Chelsea, who resided locally, was pursuing her PhD at the time, focusing on reconnecting whānau to their ancestral landscapes through the sharing of pūrākau and engagement in physical activity. Her kaupapa aims to reaffirm identity, whakapapa, and enhance wellbeing. This collaboration was not only intuitive but also aligned, given that both she and I have whakapapa ties to the rohe. Furthermore, Chelsea's research focus aligned seamlessly with our shared objectives, making her involvement and additional expertise, a source of great enthusiasm for me. Her knowledge and skills were particularly valuable considering that this school had the largest group of tamariki involved. The high degree of interactivity, coupled with the need to capture data using diverse platforms such as audio, photo, video, and written records, underscored the essential nature of this collaboration.

The first wānanga with School 1 occurred in a classroom on the school premises and was held during regular school hours. The second wānanga with School 2 involved seven tamariki, and due to the smaller group size, I facilitated this session independently from usual class activities. This wānanga also took place during school hours on the school premises. Both wānanga followed a similar structure, comprising of two main activities. For a more detailed breakdown of the activities, please refer to the wānanga runsheet (see Appendix L). The first activity involved a Te Whare Tapa Whā Handout, prompting tamariki to document their understanding of hauora on paper. The second activity centred on the story of Hineahuone – Sculpting the First Woman out of Clay. This narrative brings into focus the genesis of the first woman and the significant connection between humans and the natural world from a te ao Māori perspective. It tells a story

³¹ Indicates that there were no rōpū at this school. The tamariki numbers were low enough to run activities as individuals.

of how, under the guidance of his parents, Tāne Mahuta (deity of the forest) sculpted a woman – Hineahuone – from uku (clay) gathered at Kurawaka (place where Hineahone was sculpted from clay), and breathed life into her to mark the origin of the first human being (see Appendix L for the full story). Following the recounting of this pūrākau, I invited the tamariki to sculpt an atua, tupuna (ancestor), or tangata (person) out of playdough, which illustrated someone they associated with representing hauora. Afterward, I encouraged them to share a story about their creation, explaining how the atua, tupuna, or tangata they sculpted represents someone who embodies happiness, good health, and wellbeing. Their responses were then audio recorded, and photos of their creations were captured. These recordings and images were subsequently used to extract significant themes that showcased their unique tamariki perspectives. Context-specific pūrākau were applied in various ways, such as in reference to the local awa which one of the schools were named after, and in one case, one whole discussion during the wānanga centred around a tupuna maunga from the area. Further detail around these interactions is elaborated on in Chapter 4.

Observations

Pau te Hau embraced an observer-as-participant role, a method where the researcher(s) maintain a certain level of detachment from the community, engaging only on specific occasions, such as interviews (Angrosino, 2007). At School 1 in Te Matau-a-Māui, Chelsea and I were warmly welcomed by participating in the morning karakia with a larger group of students before transitioning to the classroom of tamariki participants to begin our wānanga. While the tamariki knew what we were there for, we were new faces to them all. After some initial whanaungatanga (relationship building) at both schools, the tamariki proceeded to demonstrate Pau te Hau in action as a whole class, while Chelsea and I took notes and photos. Observation as a research method was particularly important for me as the principal researcher in these schools, given my lack of prior exposure to the implementation of Pau te Hau. Observing the programme as it was delivered in these schools naturally provided me with additional data points and aided in understanding the specific areas, I needed to investigate further using other research methods. For instance, questions emerged surrounding the decision to exclude music during periods of activity; the degree to which the pūrākau aspects of the programme were emphasised or prioritised; and tamariki responses to the inclusion of pūrākau. Moreover, I sought to understand the reasoning behind introducing a warm-up run around the school premises before commencing the activities. These observations guided me in formulating the necessary questions for delving into the impact

of the programme and uncovering meaningful context surrounding programme delivery. Again, this is an example of adopting the role of an observer-as-participant.

Interviews

The empathy interviews with kaiako adhered to a semi-structured format using an interview protocol (see Appendix J) and interview guide (see Appendix K), encouraging participants to share their experiences through storytelling. This approach was chosen to align with pūrākau as the central methodology for this research.

During the interviews, the kaiako were guided through a storytelling journey to recount the inception of the pūrākau-based physical activity programme being implemented at their school. Through the interview questions, they were encouraged to respond in narrative-driven ways by adopting a te ao Māori worldview. While there was no guarantee that the kaiako running Pau te Hau were of Māori descent, all interviewees were urged to address topics like mātauranga Māori, pūrākau, te reo Māori, knowledge transmission, and Māori identity to ensure they were centring their kōrero on matters of importance to Māori. For instance, kaiako were prompted to craft a narrative from the past to the present, detailing how they first became introduced to Pau te Hau, what drew them to it, what aspects they cherished and how they integrated it into their school environment. Kaiako were tasked with sharing stories of achievement, success, challenge and struggle, especially in relation to the hauora outcomes experienced among tamariki. They drew upon their own lived experiences to help shape the programme's development, ultimately aiming to enhance the wellbeing of the tamariki within their school. For example, one kaiako shared a story about a taniwha (water creature) known to the tamariki that resides in their local awa. While another spoke of her visits to Camp Tūtira, where the tamariki had an opportunity to learn the waiata, Tūtira Mai Ngā Iwi and understand its origins within context. This exercise was undertaken with the goal of crafting a narrative that maps the journey of the programme within these English-medium schools to provide recommendations on future development for Pau te Hau.

He Pī Ka Rere

Programme Overview

He Pī Ka Rere is a kaupapa Māori programme which fuses kori tinana, pūrākau, mātauranga Māori, and atua related movements to foster tamariki growth and development in early learning environments and schools.

Figure 14: He Pī Ka Rere Logo



Source: <https://tukaramatthews.com/project/he-pi-ka-rere-learning-fly/>

Hauora – He Pī Ka Rere aims to facilitate opportunities for realising a child's full potential and establish the foundations for proficient and skilled physical activity, which positively influences the child's hauora. He Pī Ka Rere is linked to Te Whāriki, a curriculum framework specifically designed for Kōhanga Reo, and is founded on Kaupapa Māori principles to provide a holistic approach to early childhood education (Ministry of Education, 2017). The programme has four primary goals as outlined in the He Pī Ka Rere – Facilitator Guidebook (Toi Tangata, 2022, pp. 8-9) including:

- Te Ihi, Te Wehi, Te Wana (The Joy of Movement) – Cultivating a lifelong foundation for the child to find joy and engagement in play and physical activity.
- Whakawhanaungatanga (Connectedness) – Nurturing healthy and meaningful relationships with people and the environment to enhance the child's capacity for learning.
- Te Whai Paranga (Attainment of Skills) – Developing fundamental movement skills and introducing children to various aspects of movement, providing them with a solid foundation in the realm of play and physical activity.
- Whakawhanaketanga (Child Development) – Strengthening neuro-cognitive functions of the brain through physical activity to support the development of decision-making skills, problem-solving abilities, behaviour management, and self-control.

It is important to note that He Pī Ka Rere also incorporates Royal's (1998) learning model to assess stages of learning and growth. This model encompasses three phases: mōhiotanga (awareness), mātauranga (knowledge), and māramatanga (understanding). These assessments

focus less on evaluating a child's ability and more on practices such as observing and learning new skills, as well as identifying areas where skills can be developed. Assessments also involve practicing and performing skills to enhance their quality and progressing towards mastery of skills with confidence and accuracy (Toi Tangata, 2022). These guidelines serve as a valuable resource for kaiako implementing physical activity assessments in their education settings.

Pūrākau – He Pī Ka Rere highlights the significance of movement and physical activity, rooted in the origins of the universe and the actions of ngā atua Māori. It primarily centres around a series of atua and their distinctive movements within their respective domains. Refer to Table 6 for an example of the way pūrākau is used within He Pī Ka Rere and how it relates to movement in game form:

Table 6: Exemplar He Pī Ka Rere, Mahere Ako – Lesson Plan

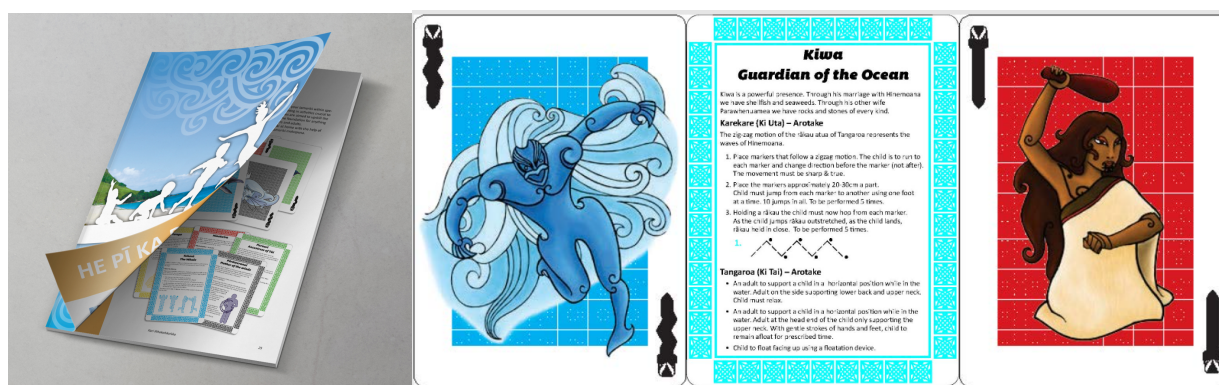
Te Pō – Te Ao Mārama		
Whāinga Ako Purpose of Activity	Ko te whāinga o tēnei kēmu, ko te whakapakari i ngā pūkenga whakarongo, kōrero hoki mā te pūrākau/horopaki o Te Pō, Te Ao Mārama. The purpose of this activity is to strengthen your listening and calling skills whilst learning of the legend Te Pō-Te Ao Mārama.	Atua: Te Katoa Ngā pūkenga/Skills: Tāne Pepeke: Thrusting legs (eg: tip toes/hopping) Tāne Tuturi: Squat/knee flexibility
Begin by sharing the pūrākau Te Pō-Te Ao Mārama The atua lived in the small space between their parents Rangī & Papa. <i>Te Pō (Darkness)</i> . They began to complain about living in such dark and cramped conditions and so they organised a gathering to discuss the problem. The gods debated amongst themselves. One atua suggested that they should kill their parents. Another said they should do nothing, however most agreed that their parents must be separated. Though many of the atua tried to separate their parents, none succeeded until it was Tāne who with his shoulders firmly fixed to the ground and with legs thrusting upwards he was able to separate his parents. <i>Giving Te Ao Mārama (Light)</i> .		
Mahi 1 Te Pō	<ol style="list-style-type: none"> 1. Karakia: He karakia rānei tā te takiwā nei? Is there a karakia you know of within your rohe/space? 2. Whakatakiruhia te rōpū – Group everyone in pairs 3. Me whakatau e te tokorua tētahi karanga motuhake ki a rāua anō Instruct pairs to come up with their own call 4. Whakawehea ngā takirua ki ngā wāhi rerekē o te whare Separate the pairs to two different location/lines on opposite sides of the whare 5. Whakahautia rātou kia katia ngā karu, takoto ki te papa (mā runga puku) Instruct everyone to close eyes and lie on the ground (stomach down) 6. Ko tā rātou he kimi i te takirua mā te whai i te karanga a te takirua Call “1...2...Haere!”. Pairs to crawl to find each other using calls 	Aronga Ako: -Think of safety as participants are blinded -Frustration of being blinded: Could even make space smaller, to cram everyone - to align more with the pūrākau Variations: -Instruct pairs to stand with closed eyes (Players must spin 5x after calling “1...2...Haere!”)
Mahi 2 Te Ao Mārama	<ol style="list-style-type: none"> 1. Pairs to begin at different locations as each other 2. One out of the pair to be a chaser, one to be a runner 3. In the same pairs, chasers must now catch the runner using binocular vision A) Round 1 all players must skip B) Round 2: all players must lunge 4. Once a runner is caught, they must perform an exercise (burpee, air lunge or 5 spins as a penalty) and now turn into the chaser. The exercise allows time for runners to get away 	Aronga Ako: -Binocular vision=Hard to see after Tāne separated Rangī & Papa Variations: -You can vary the type of movement through the game (ie. can only lunge or skip, or walk etc.) -Adapt the penalty exercise as needed
Reo/Kupu		
Time	20 min	

Source: Toi Tangata. (2022). He Pī Ka Rere: Facilitator Guidebook – Mahere Ako. ©

Māori Physical Activity – Participants of He Pī Ka Rere predominantly engage in physical activities tailored to younger target audiences, emphasising tākaro and korikori (movement). The movements are simple, playful, and foster a strong connection to te taiao. Additionally, these activities embed traditional mātauranga within the context of game play. The table above provides a comprehensive overview of the implementation of various kēmu (games) therefore, I believe this aspect is sufficiently covered. Instead, I wish to provide context around the professional development for the programme.

Toi Tangata follows a workforce development model, where kaiako are invited to participate in He Pī Ka Rere wānanga to learn about the philosophy, principles, and fundamentals of the kaupapa. The wānanga is practical in nature, where Toi Tangata kaimahi demonstrate an implementation model including a series of He Pī Ka Rere activities for participants to take back to their learning environments. The activities are adapted to accommodate tamariki of different ages and abilities, utilising the natural and local environments surrounding them. As these wānanga near conclusion, participants are invited to design their own He Pī Ka Rere activities that revolve around local pūrākau that hold personal relevance to them. These individual activities are then shared with the larger group, resulting in a diverse collection of new games that contribute to a puna (well, spring, fountain) of mātauranga for all involved. This collaborative process not only empowers participants to embrace their local expertise and creativity but also adds to the collective repository of mātauranga surrounding He Pī Ka Rere. Participants of the wānanga receive a comprehensive kit to take back to their learning environments, which includes a workbook, a set of atua activity cards, a set of kai cards (refer to Figure 15) and a range of equipment necessary for running the programme independently. This fosters a sense of autonomy among the participants, allowing them to choose how they integrate the programme within their specific learning environments. In fact, this localised approach is strongly encouraged to allow tamariki to establish connections with atua that are known and relevant to them within their specific rohe. Throughout this process, connections are formed among the participants and with Toi Tangata, creating a supportive community of practice where assistance and guidance is readily accessible. This collaborative network ensures collective sharing of experiences and knowledge among participants as a means of ongoing support.

Figure 15: He Pī Ka Rere Workbook and Resource Cards



Source: <https://toitangata.co.nz/our-mahi/he-pi-ka-rere/>

Recruitment

The recruitment process for He Pī Ka Rere occurred in collaboration with Toi Tangata who are the organisation responsible for developing, producing, implementing and safeguarding the programme. The central research team comprised Darrio Penetito-Hemara (Toi Tangata – CEO, Kaiwhakahaere Matua) and me. It is also important to note that given Toi Tangata is identified as a significant research partner in this study a participant information sheet (see Appendix E) and research partner agreement (see Appendix I) was signed and administered. Darrio played a central role as the main point of contact for He Pī Ka Rere. During this time, only one English-medium school across the country was leading He Pī Ka Rere, and they had been integrating the programme into their curriculum for approximately three years. This extended period allowed a strong relationship to develop between the school and Toi Tangata. As a result, Darrio organised an initial meeting with the two lead kaiako, and a natural relationship between us was instantly established. It's crucial to highlight that during this interaction, the kaiako mentioned that their trust in Darrio significantly influenced their decision to participate in the research, an example of reciprocity and 'me aroha ki te tangata.' Where possible, kanohi ki te kanohi was prioritised as a widely accepted form of communication throughout Māoridom, except for times where COVID-19 interrupted this. In fact, wānanga and kōrero ā-kanohi was the preferred forum and importance was placed on meeting participants face-to-face for sharing dialogue because of its noted strength in ensuring transparency and accountability among those present (Hudson, et al., 2010).

Following the initial contact, two lead kaiako engaged in discussions with their senior school management to ensure approval was granted for the research to be conducted within their school.

For He Pī Ka Rere, given the noho marae format which was proposed, an additional arrangement was established. Darrio agreed to facilitate a series of He Pī Ka Rere sessions with the tamariki, to enhance their competencies and contribute to their growing knowledge base. Subsequently, the dialogue with senior school management was met with enthusiasm, particularly at the opportunity to participate, learn, provide feedback, and potentially inform new opportunities surrounding He Pī Ka Rere. In this instance, both Darrio and I journeyed to Murihiku together, each assuming distinct roles. While Darrio's purpose was to enhance their He Pī Ka Rere toolkit, my role centred on research exploration.

Similar to the process employed for Pau te Hau, parental consent (see Appendix C), tamariki assent (see Appendix D), and kaiako consent (see Appendix B) were all sought to confirm their participation in the study. However, in Murihiku, the lead kaiako devised an efficient yet thorough consent process in their engagements with whānau and tamariki. They held an afternoon session with whānau, where the research opportunity was presented, questions were addressed, and whānau were provided the chance to participate and sign the necessary forms. It's worth noting that my research was a part of a larger noho marae experience for this school, so further discussions about the entire wānanga took place on this occasion. Importantly, consent for all research participants from this school were successfully obtained overnight, which significantly aided the preparations leading up to my arrival.

Catering was also provided during wānanga interactions with participants to ensure they remained nourished over the time I spent with them. While my postgraduate budget allowed for a contribution of kai, an even bigger contribution came from the whānau of the tamariki participants. Importantly, I would like to acknowledge that during my time in Murihiku, I was generously gifted a koha of kai to bring back to my whānau in Tāmaki Makaurau as well. This included a large crayfish, a punnet of bluff oysters, and blue cod – all of which are highly valued kaimoana (seafood) sourced from Murihiku. This thoughtful act of manaakitanga (hospitality, generosity, kindness) was greatly appreciated and is an example of me aroha ki te tangata. It left a lasting impact on me and my whānau, hence its inclusion in my thesis.

Participants

I exceeded the intended number of kaiako interviews for He Pī Ka Rere. This could be attributed to the longer duration of implementation of He Pī Ka Rere within the school, its deep integration into the curriculum, and the broader experience of kaiako who have led or been involved in its

delivery. The positive participation rates for He Pī Ka Rere were also influenced by the fact that my wānanga activities were integrated into a larger noho marae context, resulting in higher overall engagement. Table 7 below provides an overview of the research participants from He Pī Ka Rere:

Table 7: He Pī Ka Rere Research Participants

Programme	Tamariki (Total)	Kaiako (Total)	Kaiako (Māori)	Kaiako (non-Māori)
He Pī Ka Rere	23	6	3	3

There was a total of 23 tamariki participants and six kaiako participants for He Pī Ka Rere. The tamariki ranged in age between 8-13 years old. While the large majority were primary school age (Year 5-6), there were a few He Pī Ka Rere alumni who had moved on to intermediate school and were extended an invite to participate. Out of the 23 tamariki who participated, 12 were female and 11 were male. All six kaiako were female, with three identifying as Māori and three as non-Māori. Among the kaiako Māori, two were the lead kaiako who continue to play pivotal roles in the implementation of He Pī Ka Rere at the school. It's worth noting that I also interviewed one non-Māori community stakeholder (not visible in the table above) as she also played a pivotal role in introducing, He Pī Ka Rere to the region and school. Her insights, particularly in relation to mapping the journey of the programme from its inception within the region were invaluable, particularly when it came to journey mapping. She was also actively engaged throughout our visit, she took Darrio and I onsite visits around Murihiku, attended the noho marae periodically and had been pivotal in forming a significant partnership between Toi Tangata and the school.

Following the same format as Pau te Hau, the research participants in He Pī Ka Rere, have been assigned pseudonyms to protect their anonymity. These will be used throughout the analysis chapters which follow. Each kaiako interviewed has been assigned an alternate name, and each tamaiti has been given an identifiable number. In addition, where group activities were facilitated among tamariki they were assigned a rōpū number as presented in Table 8.

Table 8: He Pī Ka Rere Participant Pseudonyms

Programme	Tamariki (Total)	Tamariki Pseudonyms	Kaiako (Total)	Kaiako Pseudonyms
He Pī Ka Rere	23	T1 – T23 Rōpū 1-7	6	Whetū Rangi Jane Hazel Callie Amiria

Wānanga - Murihiku

The wānanga in Murihiku, was the first wānanga I ran and involved 23 tamariki. This wānanga was conducted in collaboration with a noho marae experience as part of the schools Ngā Taonga³², Māori cultural enrichment programme. Given the dynamic nature of the wānanga, I sought additional assistance from Darrio to comprehensively capture data across the activities for later analysis. This wānanga spanned two days, beginning at the school and transitioning to the local marae for the remaining portion of the first day and the entirety of the following day.

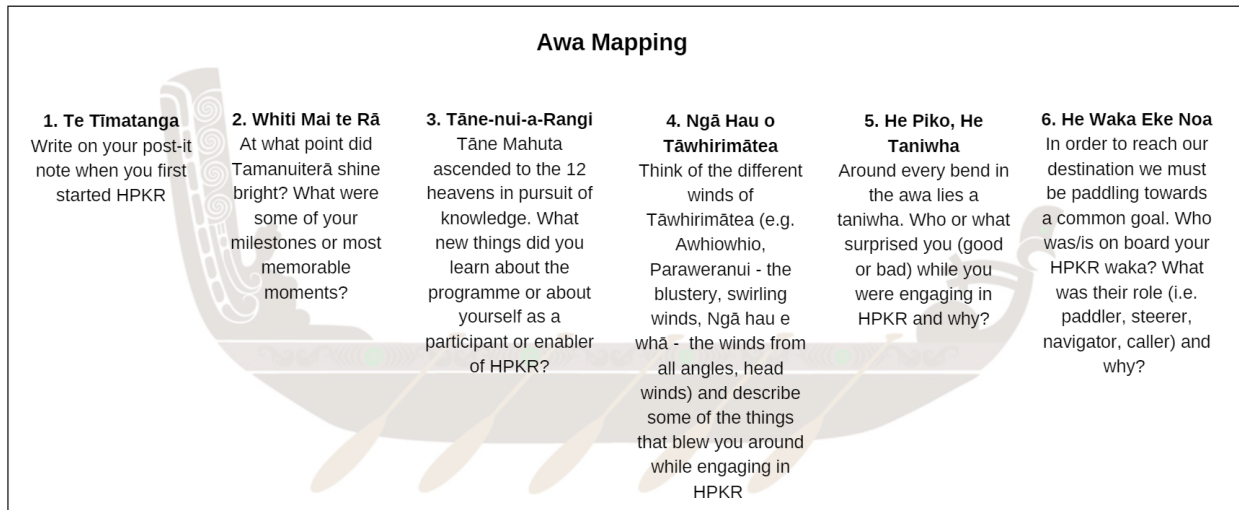
The wānanga comprised one main structured activity and a series of informal interactions throughout my time in Murihiku. Unlike Pau te Hau, where more of my time was spent facilitating activities, a significant portion of my wānanga time here was dedicated to interviewing and observing due to the number of kaiako who opted for interviews. Darrio and I had specific roles during this wānanga. My primary focus was on facilitating the main research activity and conducting six interviews with kaiako. Darrio, on the other hand, worked with the tamariki to enhance their understanding of He Pī Ka Rere, providing experiential learning through a series of new activities. He facilitated these sessions while I conducted kaiako interviews. The activity I facilitated centred on Awa Mapping – A Wayfinding Framework.

Instead of concentrating on particular hauora-related inquiries, my objective in using an Awa Mapping – Wayfinding Framework was to enhance my comprehension of their experiences in He Pī Ka Rere in more narrative driven ways. The aim was to use pūrākau and well-known atua to evoke more significant responses that align with a storytelling. Presented below in Figure 16 is

³² This Māori cultural enrichment programme explores different aspects of te ao Māori, including te reo Māori, pepeha, mihi, pōwhiri, whakatau, waiata, haka, karakia and focused learning on topics centred around te ao Māori.

an illustration of the framework, along with the prompt questions utilised to capture the perspectives of tamariki.

Figure 16: Awa Mapping Wayfinding Framework with Prompt Questions



Firstly, Te Timatanga provides insights into when the tamariki were initially introduced to the programme, shedding light on the duration of their involvement and experience. Whiti Mai te Rā invokes Tamanuiterā (the deity of the sun) to prompt reflections on and identification of any milestones or memorable experiences they've encountered. Tāne-nui-a-Rangi, the atua who ascended the heavens in pursuit of the three baskets of knowledge, is employed to stimulate insights into new opportunities for learning as perceived by the tamariki. Ngā Hau o Tāwhirimātea, the atua of the winds and weather, encourages tamariki to contemplate any challenges or barriers they faced, akin to the strong winds of Tāwhirimātea. He Piko, He Taniwha serves as a metaphor for the unexpected nature of taniwha and inspires tamariki to consider any surprising moments during their engagement with He Pī Ka Rere. Lastly, He Waka Eke Noa prompts tamariki to reflect on their support network, identifying all those who positively contribute to their experiences with He Pī Ka Rere. For a more detailed overview of the activities, please refer to the wānanga runsheet (see Appendix M) or the analysis in Chapter 6.

Observations

He Pī Ka Rere adopted the role of observer-as-participant whereby the researcher is somewhat detached from the community, interacting only on specific occasions, such as interviews, wānanga or site visits (Angrosino, 2007). Upon our visit to Murihiku, Darrio and I were warmly welcomed with a whole school whakatau (less formal cultural welcome) in the hall before we commenced our wānanga. Both of us were recognised by name at the school, and Darrio, having visited Murihiku on two occasions prior, was a familiar face. Following the whakatau, the tamariki were tasked with running their He Pī Ka Rere sessions, during which time, I observed and took field notes. Although I had witnessed He Pī Ka Rere in action in various Kōhanga Reo settings and within my own household, my initial observation was that the programme in Murihiku had evolved into a version tailored specifically for the school. For instance, both lead kaiako had structured the programme to align with their region, incorporating local pūrākau and introducing a Kaitiaki component involving tuākana (elder sibling) and tēina (younger sibling). In this dynamic, elder students facilitated He Pī Ka Rere sessions for the younger students in the school. I distinctly recall expressing curiosity about understanding the rationale behind incorporating the Kaitiaki structure within He Pī Ka Rere. While te reo Māori remained a core focus during the session, English took precedence during the delivery of activities which showcases the evolution of He Pī Ka Rere into English-medium environments. This was a distinct difference in comparison to how I've seen He Pī Ka Rere implemented in Kōhanga Reo and around our home (Te Karere, 2020). Directly observing the programme's implementation enabled a profound comprehension of its intrinsic value and its potential impact on the hauora outcomes of tamariki Māori. As such these observations were continuously recorded in a journal throughout. To reiterate, this research method illustrates the adoption of the role of an observer-as-participant.

Interviews

Interviews were conducted in the same way as Pau te Hau. Conducted in a semi-structured format, the empathy interviews with kaiako followed an interview protocol (see Appendix J) and interview guide (see Appendix K), fostering a narrative-based exploration of participants' experiences. This method was deliberately selected to align with pūrākau, serving as the core methodology for this research. Kaiako were guided through narrative-driven interviews, sharing stories of the initiation and development of He Pī Ka Rere in their school. Emphasising Māori perspectives, the interviews delved into topics like mātauranga Māori, pūrākau, te reo Māori, and

the impact on Māori identity. Kaiako narratives provided insights into the achievements of He Pī Ka Rere, the challenges, and the overall impact on tamariki wellbeing. Kōrero tuku iho included references to local kaimoana and the kaitiaki or guardians responsible for safeguarding them.

Tākaro ki te Taiao

Programme Overview

Takaro ki te Taiao is a whānau-led tākaro programme designed to leverage pūrākau, whakapapa kōrero, and mātauranga Māori to cultivate connection, creativity, imagination, and fun for tamariki in taiao settings.

Hauora – There are numerous hauora benefits associated with Tākaro ki te Taiao for the entire whānau which extend beyond mere physical pursuits. As a programme and whānau-led framework, Tākaro ki te Taiao represents a shift in perspective, emphasising tākaro as the focal point and providing opportunities for learning and development in fun and engaging ways. It operates on the belief that, while the programme is inherently physical, dedicated time spent in the taiao has been reported to contribute to positive impacts on mental wellbeing (Department of Conservation, 2023). Furthermore, Mules et al., (2022) highlights the importance of tākaro stating that:

The mana lies with the child. Play is their mahi, it's their every day. It's the way that they get to understand their ao. It's how they define it and describe it. And it's how they connect as well, through play. (38)

Parent-child relationships are among the strongest relationships tamariki will ever experience in life (Oranga Tamariki, 2020). Spending quality time where mātua are present with their tamariki and are genuinely interested in their world enhances social and emotional confidence and competence. Additionally, tākaro with and alongside mātua strengthens attachment (Tākai, 2023). In fact, “through play, children try out new skills, explore their imagination and creativity, and develop relationships with other people in their lives” (Tākai, 2023, para. 10). Importantly, participation in, and facilitation of a programme like this is open to everyone, as it is tailored to both the age and stage of development of the tamariki participants and the Māori knowledge and capability of the mātua. The fact that Tākaro ki te Taiao is facilitated by mātua who understand

their children's interests and motivations is a significant advantage. This ensures that experiences are specifically designed to cultivate a connection between mātua, tamariki, and the taiao.

Pūrākau – The core idea of Tākaro ki te Taiao, is grounded in providing insights into how whānau can utilise their local taiao, knowledge of pūrākau (in various forms), kōrero tuku iho, whakapapa kōrero (of their own), and te reo Māori (at different proficiency levels). This approach allows for the incorporation of ancient pūrākau, contemporary narratives, and local stories to create connection and relevance for tamariki using storytelling methods.

During my adventure with my son, I integrated narratives involving whakapapa kōrero about whānau who had passed, kōrero tuku iho about signs and symbols such as the significance of seeing kererū (native wood pigeon), pūrākau related to Tāne Mahuta, and whakawhiti kōrero (two way conversations) about whare tukutuku (spider web) which tied into my son's love of Spiderman. Essentially, Tākaro ki te Taiao is adaptable to the skills and interests of the mātua who are charged with supporting the learning process. Whether whānau are fishermen, divers, hunters, paddlers, hikers, runners, kaihaka, or experts in any field, the emphasis lies in identifying mātauranga that can be shared with tamariki as narratives while enjoying physical activity in the taiao. This approach serves as a means of connecting with the taiao to inquire about what tamariki know and sharing any knowledge whānau possess for the benefit of their tamariki, mokopuna and future generations.

Māori Physical Activity – Tākaro ki te Taiao, centres on play, which is the job of tamariki (Tākai, 2023) and poses a unique way for them to learn about the world. This sentiment is reinforced in the whakataukī, “Tā te tamariki tāna nei mahi wāwāhi tahā – It is the job of the children to smash the calabash” (Tākai, 2022, para. 11). The programme is anchored on the premise that anything can be turned into tākaro when you do things together that you enjoy. The focus here is not on the intensity of physical activity, but rather on movement in all its forms. Tākaro ki te Taiao places emphasis on the lessons, kōrero, and mātauranga shared during the experience, focusing less attention on the physical aspects of the activity. Mātua have the freedom to lead various activities for their tamariki, be it fishing, playing sports, a family day at the beach, or climbing a mountain to reach the summit. The intentionally unstructured nature of the programme allows activities to be influenced by the specific locality or setting. For example, Tākaro ki te Taiao might unfold in the backyard, at a local creek, by the sea, on a maunga, in the ngahere (forest), at a whānau urupā

(ancestral burial ground) or any natural environment conducive to learning through play or physical activity.

In my adventure with my son, a local maunga which holds significance to our whānau was the primary setting. In terms of the activity type, hiking the maunga initially involved moments demanding endurance, intense physical strength, and determination for my son, with occasions where he certainly broke a sweat. However, there were several chances to pause, rest, and recover as well, and we utilised those moments as opportunities for tākaro. My son determined the pace, intensity and focus of the tākaro experiences, essentially, he led the process. For instance, at the base of the maunga, before our return to the car, our interactions at the wairere were less strenuous and more playful. In these experiences, priority was given to various aspects of learning, development, and wellbeing, including problem-solving, sensory development, and the fostering of imagination and creativity. These aspects took precedence, albeit they occurred within the context of a physical pursuit.

Recruitment

There was no formal recruitment process for Tākaro ki te Taiao. As previously mentioned, this programme reflects an experience whereby, I applied a pūrākau-based physical activity approach to a day of interactions with my son in the taiao. The inclusion of Tākaro ki te Taiao in this research, came as a result of a lack of whānau voice and insights into pūrākau-based physical activity outside school settings.

Participants

There are only two research participants in Tākaro ki te Taiao, my son, Koianake, and myself. Given I have already introduced myself in Chapter 1 of this thesis, I will now provide further context about my son as a participant in this study. Koianake George Hilo Penetito-Hemara was three years old at the time of the wānanga. Te reo Māori is his first language, but he also speaks English. He attends Kōhanga Reo five days a week and is a lively and active young boy who enjoys outdoor activities such as riding bikes, skating, and playing basketball. He has a keen interest in superheroes including Spiderman, Hulk, and Batman which you'll read about in Chapter 6. On the day we embarked on our adventure, he had recovered from the flu and was eager to get outside and play.

Table 9: *Tākaro ki te Taiao – Research Participants*

Programme	Tamaiti	Matua Total	Matua (Māori)	Total participants
Tākaro ki te Taiao	1	1	1 ³³	2

Both participants involved in Tākaro ki te Tāiao are identified by name, title and image in this thesis. As Koianake’s parent I provide consent for him to be identified in this study. My rationale for this is to capture the lived experiences, and photos from our time together, serving as a written snapshot of this moment in our lives. My aspiration is that, as an adult, Koianake will be able to look back at this thesis and reflect on the journey we embarked on together. In this manner, I aspire to further contribute to the production of pūrākau for my own whānau.

Observations

For Tākaro ki te Taiao I took on the role of complete participant whereby the researcher is fully immersed in the community without disclosing their research agenda (Angrosino, 2007). I was entirely engaged in the experience alongside my son, and there was no obvious research agenda. In fact, this experience only became a subject of this research upon discovering from a journal entry that what we had engaged in on the day was pūrākau-based physical activity. Moreover, the experience was an unconscious opportunity to learn and play in the taiao with my boy.

Observation and inquiry formed pivotal tools in shaping the manner through which I orchestrated discussions and fostered learning experiences for my son. Gaining insight into his levels of energy and enthusiasm, interaction with the taiao, and the pivotal insights gathered from his engagement in, on and through the environment were all instrumental in guiding the learning journey I facilitated. These observations not only informed the nature of the conversations initiated, but also shaped the nature of the activities we collectively engaged in.

³³ This participant can be identified as me. In this context I am more accurately characterised as a Māori matua or parent.

Wānanga – Kaupapa Māori Theory in Praxis

Kaupapa Māori Theory in Praxis is a dynamic process that actively engages with and integrates Māori knowledge and perspectives into real-world contexts (G. H. Smith, 1997; L. T. Smith, 1999). This wānanga with my son serves as a great example of incorporating Māori ways of knowing, being, and doing into various aspects of daily life, demonstrating how 'normal' the experience was for both of us. In essence, highlighting how natural it is to weave a pūrākau-based physical activity approach into our daily interactions. The wānanga was whānau-led, sometimes even tamaiti-led, and it consistently reflected Māori values, culture, traditions, and language as a regular and integral practice.

Simply put, Tākaro ki te Taiao involved a journey with my son to our local maunga. Te Wairoa, Clevedon was our primary location, although we made a brief stop at our whānau urupā before embarking on our hīkoi (walk) up the mountain. As a summary, the taiao, specifically the maunga we explored, served as the catalyst for knowledge generation and transmission. During our adventure, I used a diverse array of artefacts, living creatures, and natural phenomena, both animate and inanimate, to spark learning conversations and an exchange of perspectives. Being situated on a maunga and spending most of our time under the forest canopy, I found context-specific pūrākau to centre on Tāne Mahuta and the many creatures found within his realm continued to surface opportunities for learning. The physical activity component to the adventure consisted of a hike through the ngahere and up the maunga, including a series of stops to play and engage with the taiao. This involved activities such as collecting taiao-based resources like uku, rākau (sticks, branches, tree), aka (creeper vine) and wai, along with reciting karakia, singing songs and engaging in wānanga. In addition, we also engaged in discussions surrounding various other whakapapa kōrero, including the significance of the kererū we encountered. This organic and intuitive approach continued to thread its way through each of the data gathering activities and across each research setting during the process.

Data was collected through observations, whakawhiti kōrero, journalling and wānanga within the taiao as was previously mentioned. Much of the conversation was in te reo Māori and was initiated either by me or by my son's enthusiasm about his discoveries, observations, or interests. The programme followed an intuitive, taiao-centred approach, adapting activities to what we were seeing, as well as the age and interests of my son. I also employed an inquiry-led tākaro approach, a term I created, involving a series of questions and the creation of experiences based on the taiao surroundings. Thus, the questions and inquiries often anchored on his energy levels at the time and his enthusiasm and engagement with the taiao. We would stop at key points during

our journey to wānanga through various concepts and ideas. This process involved impromptu discussions about pūrākau and whakapapa kōrero that arose naturally based on what we were witnessing, hearing, and feeling and aimed to provide culturally relevant learning experiences for him. It demonstrates that as a research method, this approach demands an intimate understanding of the participant being engaged, which, given the focus of this programme was on whānau, it seemed to be well-aligned. Throughout the journey, I captured photographs and videos, and I journalled the experience, my observations, conversations, expressions, and shared feelings in narrative form upon returning home. These materials formed the foundation of the dataset gathered for the purpose of this research.

Although a detailed account of this experience will be provided in Chapter 6, this section aimed to provide a brief summary of the wānanga experience as an example of Kaupapa Māori Theory in Praxis. Next, I will outline the data analysis methods beginning with the analysis process used in this study.

Data Analysis Process

Analysis is merely an interpretation of the biography of the data.

(H. Hakopa, personal communication, March 9, 2023).

The data analysis methods varied across the three pūrākau-based physical activity programmes. Analysis methods included journey mapping, deductive analysis and the identification and application of kura huna. Here is a step-by-step guide on how the data was analysed:

Step 1: Collate, Transcribe, and Store the Data – Following the collection of raw data, it underwent transcription and was subsequently imported into NVivo, a software programme specifically designed for qualitative and mixed-methods research (Kannemeyer, 2017). NVivo was recommended for its notable efficacy, serving not only as a centralised repository for unstructured data presented in diverse formats but also for the analysis functions it offered. The data I gathered came in a variety of formats such as text, audio, video and images. In this regard, NVivo functioned effectively as a single hub for storing all my data. It is important to note, however, that I refrained from utilising any analytical functions available within the software because they significantly slowed down my computer. Therefore, I chose to use NVivo exclusively for data storage.

Step 2: Data Categorisation and Affinity Mapping – The data was categorised under three separate headings for each programme, with subcategories for each facilitated activity. After structuring all the data within NVivo for ease of navigation, I proceeded to code and categorise the data into themes. With a substantial volume of unstructured data to decipher, I implemented a process of transcribing specific key quotes, concepts, and data points onto post-it notes. I then manually organised these notes based on their natural affinities or relationships with each other. This created a visual representation of the data structure and is likened to a process often referred to as affinity mapping (Dam & Siang, 2023). Similar to thematic analysis which involves analysing data sets such as transcripts or interviews to establish common themes, topics, ideas, and patterns of meaning (Bryman & Bell, 2011), affinity mapping is a technique used to categorise ideas or information based on their relationships (Dam & Siang, 2023).

During this process, I soon identified that maintaining the distinctiveness of the three programmes was crucial to the analysis process. This was due to their fundamental differences, necessitating separate analyses. Equally significant was the endeavour to preserve individual voices, ensuring that the perspective of tamariki remained distinct from that of the kaiako and matua. This process is reflected in the structure of this thesis, with each programme having a dedicated analytical chapter.

Step 3: Journey mapping – Journey mapping is a visual storytelling technique that illustrates the complex relationship between a consumer and a service (Ly et al., 2021). A journey map can also serve as a visualisation of a process that a person or organisations undergo to accomplish their goals. Starting with a compilation of actions on a timeline, this method incorporates user thoughts and emotions to craft a narrative of the journey (Department of the Prime Minister and Cabinet, 2023). In listening to the interviews with kaiako, I constructed an initial timeline detailing the events leading up to the introduction and implementation of the three focal programmes. For this research, there are multiple stakeholders involved, acting as consumers of a service. These stakeholders or consumers include system connectors, Māori experts, community champions, teachers, and students, with the programme itself being the service offered. Journey mapping as a process allows for the exploration of a spectrum of experiences, encompassing both positive and negative moments, as well as challenges and opportunities (Murray et al., 2021). The journey maps included in this thesis capture the dynamic interactions and

experiences of these diverse stakeholders with the programme. These offer valuable insights into its introduction and ongoing implementation within the community, which in this case includes schools or whānau environments.

Given the scarce nature of pūrākau-based physical activity programmes on offer in English-medium schools, the use of journey maps in this research represents an innovative approach to understanding the context surrounding their inclusion. Moreover, they provide insight into what the programme is (i.e. what is pūrākau-based physical activity), how the programme was introduced, what the various pivotal points in the journey were, and how the programme has been implemented within each setting and region.

Step 4: Deductive Analysis – Deductive data analysis in qualitative research involves systematically analysing and aligning data with predetermined themes or codes based on existing theories or knowledge (Clifford, 2023). Deductive techniques of analysis were preferred because hauora, as both a concept and framework, is central to this research study. Using this framework provided a structured approach to understanding pūrākau in all forms, whether they are ancestral pūrākau that recognise whakapapa (Hakopa, 2019), contemporary pūrākau that share the lived experiences of participants in storytelling form (Mita, 2000), or context-specific pūrākau that reference narratives related to atua, tupuna, and local sites of significance relevant to the kaupapa (Raureti, 2023). This alignment allowed me, as the primary researcher, to systematically explore themes and patterns relevant to the overall research agenda, focus on specific aspects of the pūrākau such as the various kura huna, and enrich the interpretation of the narratives by applying a theoretical lens to the pūrākau.

In this study, I used various pūrākau and frameworks to analyse the data set and test its validity. Kaiako perspectives were first analysed deductively whereby key themes were applied under each of the four dimensions within Te Whare Tapa Whā. These insights are captured within the first primary category titled Hauora. While tamariki perspectives were also analysed deductively, relative to the wānanga activities I ran with them for example in He Pī Ka Rere, I used an 'Awa Mapping' activity to further produce insights into hauora outcomes, which contribute to the overall findings of the research. Deductive analysis methods are identified throughout the analytical chapters using the following structure:

- Chapter 4 – Pau te Hau
 - Kaiako Perspectives – Te Whare Tapa Whā / Kura Huna
 - Tamariki Perspectives – Te Whare Tapa Whā Handout & Hineahuone
- Chapter 5 – He Pī Ka Rere
 - Kaiako Perspectives – Te Whare Tapa Whā / Kura Huna
 - Tamariki Perspectives – Awa Mapping – A Wayfinding Framework
- Chapter 6 – Tākaro ki te Taiao
 - Matua Perspective – Te Wao Tapu Nui a Tāne / Hauora / Kura Huna

Step 5: The Application of Kura Huna – Analysing pūrākau involves delving into the concept of kura huna, which pertains to the hidden or underlying messages woven within these narratives (Hakopa, 2019). One notable advantage of pūrākau is that, when you critically analyse the stories to uncover their hidden messages, they become open to interpretation. Once the deductive analysis was complete, whereby a series of key themes were identified, I then proceeded to identify three ancestral pūrākau (one for each pūrākau-based physical activity programme) that vividly brought these key themes and dimensions to life. This provided a narrative overlay that served to reinforce the knowledge acquired. Employing this additional deductive approach seeks to illustrate how the pūrākau aligns with the data to further deepen connection and understanding from a te ao Māori perspective. Kura huna³⁴ are therefore explored throughout the analytical chapters using the following structure:

- Chapter 4 – Pau te Hau – Te Whaiwhai i te Aroha o Muriwhenua
 - Taha Tinana: Kura huna – Kua Pau te Hau
 - Taha Hinengaro: Kura Huna – Te Tawhiti a Pāoa
 - Taha Whānau: Kura Huna – Te Ringa o Muriwhenua
 - Taha Wairua: Kura Huna – Ngā Tapuwae o Rongokako
- Chapter 5 – He Pī Ka Rere – Te Ara a Kiwa
 - Taha Tinana: Kura Huna – Te Puka a Māui
 - Taha Hinengaro: Kura Huna – Ngā Whakararu o Hinemoana
 - Taha Whānau: Kura Huna – Ngā Uri o Hinemoana me Kiwa
 - Taha Wairua: Kura Huna – Te Niho o Kewa

³⁴ English translations for these kura huna are provided throughout the analytical chapters.

- Chapter 6 – Tākaro ki te Taiao – Te Wao Tapu Nui a Tāne
 - Explores mātua perspectives as aligned to a series of ten kura huna which represent hauora and the diverse phases of growth pertinent to the creation of the universe.

Step 6: Te Whetū Rehua Assessment – To assess the impact of each programme Te Whetū Rehua (mentioned previously in Chapter 2) will be used as a core framework for assessing ‘as Māori’ participation against the impact that it has on hauora. As an assessment tool each of the five dimensions will be given a score from 1-3 depending on its strength of connection to te ao Māori. A score of three indicates strong, two moderate and one weak, the higher the score out of a total of 15, the more affirming and impactful the programme is to participate ‘as Māori’. For more detail regarding the core principles which were used to determine the scores, please see Figure 17 below:

Figure 17: Te Whetū Rehua Concepts and Principles

Dimension	Description
WITH Te Reo Māori me ōna Tikanga (Māori language and custom).	Māori language and culture are central to the survival and expression of unique Māori identity. The centrality of Te Reo Māori me ōna Tikanga was consistently expressed by all participants as fundamental to the revitalisation and reproduction of what it means to live as Māori in the contemporary world.
BY - Governed, Managed and Delivered by Māori.	This element refers to the degree to which activities are governed, managed and/or delivered by Māori at organisational level. This element supports the principles of rangatiratanga, e.g. it reflects the strong desire by Māori to be self-determining, having meaningful control of their lives and cultural wellbeing (Pihama, Cram, & Walker, 2002).
FOR Whānau - The concept of whānau is highly valued in te ao Māori.	Participating as Māori in modern times links to both traditional whakapapa (genealogical) whānau (whānau, hapū, iwi, waka) and more recent Kaupapa Māori whānau collectives (e.g. kōhanga reo, Aotea Māori netball). The principle of whanaungatanga is affirmed through this element.
THROUGH - Doing activities/sports/games that have whakapapa to Māori origins, e.g. ki-o-rahi, mau rakau etc.	HOP places an emphasis on the revitalisation of traditional sports and games; however, it is also inclusive of contemporary sport and recreation activities.
IN/ON places with culturally significant histories or connection to Māori, e.g. awa, maunga, marae, whenua.	Places and/or venues of whakapapa significance are associated with as Māori participation for culturally centred reasons. They provide access to possibilities of enhancing cultural identity.

Source: <https://sportnz.org.nz/media/3428/hop-what-we-have-learned-lr.pdf>

Step 7: The Development of Pukapuka – Upon analysis of the key themes and their application to relevant kura huna, I then made the decision to use an accumulation of all the insights to form the pukapuka series of three pūrākau. Therefore, each chapter ends with a pūrākau (intended to be published as a pukapuka) which is specific to the programme of focus and embeds a snippet of the ancestral pūrākau used within the chapter. The intent is to showcase the overall impact of these programmes on hauora outcomes for tamariki, while also leaning into the strength of pūrākau by using it as a compelling medium for sharing tamariki perspectives (Lee, 2009). These pukapuka are

presented as précis at the conclusion of each analytical chapter using the following structure: Précis – Pukapuka 1: Pau te Hau ki Te Matau-a-Māui; Précis – Pukapuka 2: He Pī Ka Rere ki Murihiku and; Précis – Pukapuka 3: Tākaro ki te Taiao.

Now that I've given a brief summary of the analysis process, I will proceed to outline the two distinct ways in which I employed pūrākau as an analytical tool.

Pūrākau as an Analytical Tool

Importantly, through the deductive application of theory and the analysis of kura huna, the subsequent phase involves the formulation of new theory. The theory I have developed is titled He Pukenga Pūrākau, illustrating the prevalent use of pūrākau in shaping the research findings. This involved two distinct approaches: the integration of ancestral pūrākau and the creation of a series of pukapuka.

Ancestral Pūrākau

Ancestral pūrākau were used to acknowledge people and places of significance in this research. These pūrākau not only recognise whakapapa, but they also establish connections to the specific type of physical activity that was integral to the programme. A series of kura huna were extracted from these ancestral pūrākau, to further deepen the analysis and bring key themes to life (as mentioned in step 5 previously). The three ancestral pūrākau I utilised during the data analysis phase included:

1. Te Whaiwhai i te Aroha o Muriwhenua – The Pursuit of Muriwhenua's Love
2. Te Ara a Kiwa – The Path of Kiwa
3. Te Wao Tapu Nui a Tāne – The Great Sacred Forest of Tāne

Full versions of these ancestral pūrākau are included within the analytical chapters that follow and are used to deepen understanding and provide context for the findings.

Pukapuka Series

The pukapuka series of three pūrākau, embodies an engaging and playful approach, to not only make sense of the data, but to share the insights in an accessible manner, particularly for tamariki

and kaiako. The journey of crafting these pukapuka began with journalling. Throughout the course of the research, my journal entries became repositories for observations, expressions, experiences, learnings, and conversations which were had during my site visits to supplement any data gathered. Interestingly, the inspiration for the pukapuka series dawned on me one morning as I shared with my mum the adventures I had with Koianake that day. As I read the journal entry to her, she could vividly imagine the scenes I described, and later suggested I use it to write a children's book for Koianake. She urged me to consider ways that I could document the story for our whānau, as a legacy for my tamariki, their descendants, and future generations.

Parallel to this, during my quest to capture data using various creative forms, I started to use any footage of my interactions with tamariki, to curate video reels from each wānanga. Video reels are brief, typically up to 90 seconds in length, and are designed to showcase your interests, reflect your personality, or capture moments of significance. They provide features that allow you to edit the length of individual clips, add sound, and apply various effects and you can share these reels on different social media platforms (Instagram, n.d). The reels I created provided an immersive preview into the wānanga experiences in each rohe. While the voices were all muted by a te reo Māori song playing in the background, the videos captured the activities we engaged in, the children's expressions, and notable cultural sites of significance. Although they were not made for public viewing, the videos offered contextual insights into the learning journey and evoked a sense of revisiting key moments throughout my time in the three locations.

It was at this point that I decided to combine a desire to capture my data in pūrākau format and the pukapuka series became a focus of this research. I began to create three storyboards which compiled a series of photos, quotes and key themes as inspiration. Then to structure each pukapuka, I opted for an introductory section that situated the reader within a specific rohe giving context to what I saw and felt during my site visits. Following this, I identified several key points of interaction which I called scenes. These selections were drawn from journal entries and video footage, highlighting key themes and learning moments throughout. Soon after I moved to developing a criteria for the pukapuka series, which first involved researching a variety of children's books we had at home and testing what my own children liked and did not like. The criteria encompassed elements such as:

- Rotarota to facilitate interactive reading with tamariki;
- Brief incorporation of relevant ancestral pūrākau;
- Bilingual content in te reo Māori and English;
- Inclusion of direct quotes to amplify the voices of tamariki;

- Profiling of at least two main characters from each wānanga, breathing life into their personalities and characteristics, as I observed them;
- Playful illustrations and/or animations to bring the people and places to life;
- Tākaro to encourage playful interaction and participation from the reader and/or audience. (E.g. A 'Where's Wally' approach, prompting readers to search for specific items within the illustrations to reinforce key themes);
- Background notes such as a message from the author or notes to guide kaiako or whānau on how to use the pukapuka as a resource, either at home or incorporating curriculum learning.

When the time came to put pen to paper, I started with a focus on creating four-line stanzas for each key theme, utilising rotarota to convey the messages. According to Moorfield (2011) rotarota are a type of verse or phrasing that is appealing to young children. It may contain literary devices such as rhyme, assonance, and alliteration. I mirrored this approach across all the remaining themes. At the conclusion of Tākaro ki te Taiao, I even played around with a series of questions to gauge levels of comprehension and engagement.

Although limited time and funding restraints hindered the publishing of the pukapuka in a finished format, I've managed to include each pūrākau in written form as précis at the conclusion of each analytical chapter. Post-submission of my thesis, my intention is to secure funding for an illustrator and professional editor, who will be able to bring my creative vision for the pukapuka series to life. My aspiration thereafter is to present them as a koha to the schools that so generously shared their mātauranga with me.

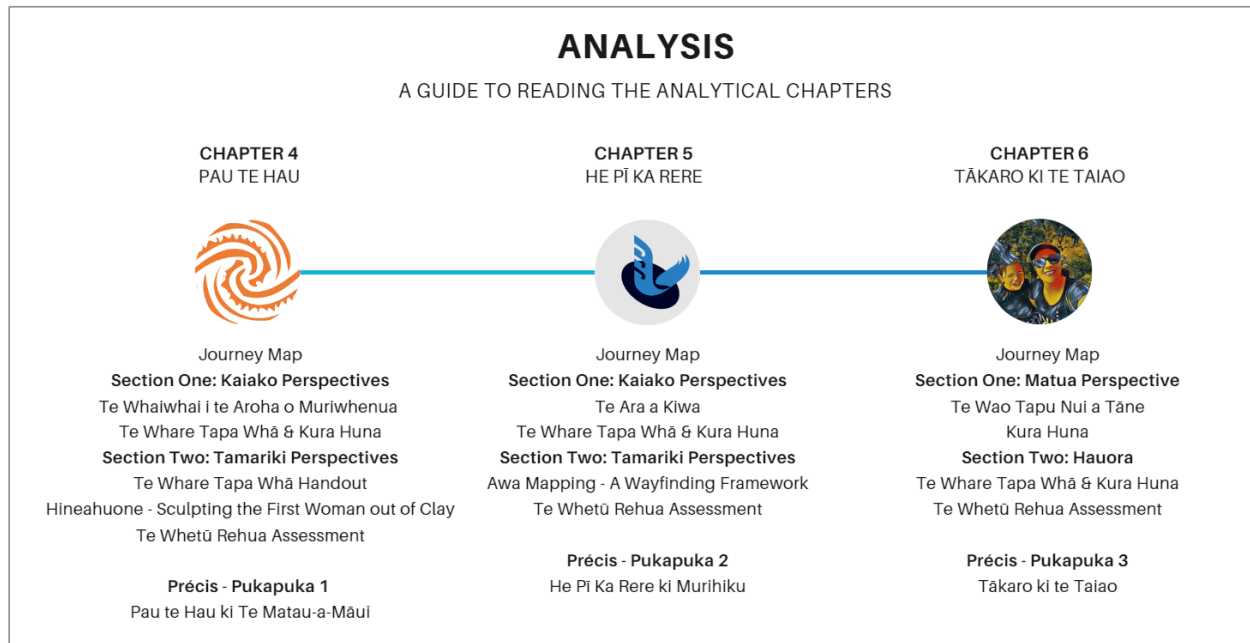
Next, I offer a structure for the following three analytical chapters to guide the reader.

Analytical Chapter Structure

The analytical chapters (i.e., Chapters 4-6) encompass a blend of literature, data, and analysis. Each chapter is dedicated to one of the three pūrākau-based physical activity programmes which are a focus of this research.

Figure 18 below, aims to provide a visual guide as to how to read the next three chapters and what you can expect to find within them.

Figure 18: A Guide to Reading the Analytical Chapters



Conclusion

This chapter outlined my transition from a wayfinding methodological approach to the adoption of pūrākau as a primary methodology, clarifying the reasons for this shift. I illustrated the integration of a whakapapa approach throughout my research journey, emphasising its role in defining my purpose and structuring the research design. Additionally, I affirmed that the ontological and epistemological foundations of this study align with the nature of te ao Māori and are firmly rooted in Kaupapa Māori Theory and Methodology.

The chapter then delved into the research methods employed throughout the data collection and analysis phases of my PhD. I provided context around my personal ethics, which guide my research practice, as well as insight into how pūrākau was used as a method aligning with pūrākau as a methodological approach. The primary methods included wānanga with tamariki, interviews with kaiako, observations of the programmes in their natural environments, and Kaupapa Māori Theory in Praxis. Deductive methods were employed to analyse the key themes surrounding hauora. I provided context around the way ancestral pūrākau were embedded to help extract kura huna and deepen levels of comprehension around the feedback from kaiako and matua. Additionally, I discussed how pūrākau was used as an analytical tool, contributing to the formation of a series of three pukapuka which conclude each analytical chapter. An important focus of this

chapter was to provide enough detail and insight into how I applied these various methods in practice so that researchers could replicate this research if they wish to do so. The ultimate aim, however, was to set the scene for the analytical chapters that follow.

Chapter 4 – Pau te Hau



Introduction

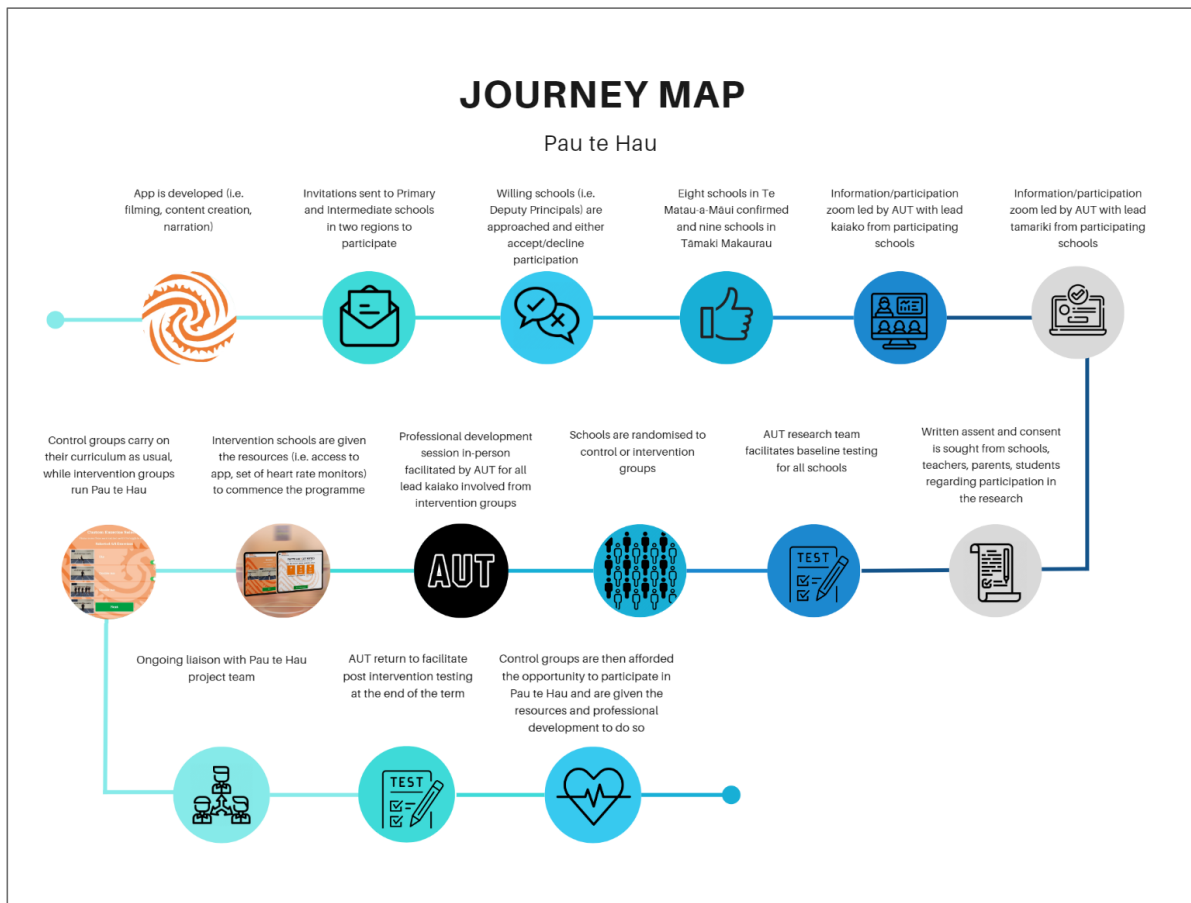
This analytical chapter focuses on both kaiako and tamariki perspectives regarding their experiences with Pau te Hau in Te Matau-a-Māui. The chapter commences with a journey map that illustrates how Pau te Hau was introduced into the region of Te Matau-a-Māui including who and what the key influencers were in its development over time. The chapter is then divided into two main sections. Section One delves into the impact of pūrākau-based physical activity on hauora from the perspectives of kaiako. This section is organised using the four dimensions of Te Whare Tapa Whā, with key themes and kura huna elaborated under each dimension. Section Two explores the impact of pūrākau-based physical activity on hauora, from the perspectives of tamariki. The two focus areas centre on two wānanga activities: Te Whare Tapa Whā Handout and Hineahuone – Sculpting the First Woman Out of Clay. Insights within this section shed light on how tamariki perceive Pau te Hau has influenced their hauora. Following is an assessment of the programme using Te Whetū Rehua which provides an overall score indicating the opportunities Pau te Hau offers for Māori to participate ‘as Māori’.

Journey Map

Journey mapping allows us to step into the shoes of those involved with Pau te Hau, helping to clarify the various components of their journey and the kind of experiences encountered. This method enables us to explore a variety of experiences, including challenges and potential opportunities that may arise (Murray et al., 2021). This journey map presented in

Figure 19 reflects insights shared by kaiako and my personal experiences with Pau te Hau, both behind the scenes and during implementation. I aim to visually narrate the relationship between the consumers, comprising kaiako and tamariki, and the service provided, which is Pau te Hau. Within this journey map, multiple stakeholders are also evident, including the broader Pau te Hau research team, Māori experts, technology specialists (app developers), talent (filming for video production), content development (pūrākau/kōrero tuku iho), HIIT specialists (work: rest ratios), audio and sound (pūrākau narration/voiceover), and the school community (school leadership, kaiako and tamariki participants).

Figure 19: Journey Map – An Introduction of Pau te Hau in Te Matau-a-Māui



The inclusion of this journey map serves to craft a visual narrative outlining the initiation, execution, and potential sustainability of the programme.

Section One: Kaiako Perspectives

Te Whare Tapa Whā, as explored in Chapter 2, is anchored in the principles that constitute the core of te ao Māori and provides a comprehensive framework for understanding holistic health and wellbeing (Durie, 1985). Insights from kaiako regarding the impact on achieving hauora outcomes through participation in Pau te Hau have proven invaluable. These perspectives offer a distinctive lens through which to assess and improve tamariki learning and growth within pūrākau-based physical activity programmes. These kaiako have been deeply rooted in the classroom experience alongside tamariki and therefore offer a wealth of feedback, observations, and recommendations that can inform the development and refinement of educational practices in the future. As outlined in Chapter 3, these kaiako perspectives have been analysed using deductive methods of data analysis, including the application of kura huna to deepen understanding and maintain a focus on pūrākau. The structure and key themes relevant to hauora outcomes are presented in Table 10 below:

Table 10: Categorisation of Key Hauora Themes for Pau te Hau

HAUORA	<p>TAHA TINANA - PHYSICAL <i>Kura Huna 'Kua Pau te Hau'</i></p> <ul style="list-style-type: none"> Physical Benefits and Holistic Impact of Pau te Hau Promoting Inclusivity and Rethinking Success 'Stealth Fitness' and its Impact on Physical Well-being 	<p>TAHA WHĀNAU - SOCIAL & FAMILY <i>Kura Huna 'Te Ringa o Muriwhenua'</i></p> <ul style="list-style-type: none"> Diverse Views on Social Connection and Well-being Impact Whānau Engagement: An Extension Beyond the Classroom 	DEDUCTIVE ANALYSIS
	<p>TAHA HINENGARO - MENTAL & EMOTIONAL <i>Kura Huna 'Te Tawhiti-a-Pāoa'</i></p> <ul style="list-style-type: none"> Refocusing Energy for Improved Mental and Emotional Well-being Addressing Tamariki Attitudes and Participation Challenges Fostering Goal Setting and Meaningful Engagement 	<p>TAHA WAIRUA - SPIRITUAL <i>Kura Huna 'Ngā Tapuwae o Rongokako'</i></p> <ul style="list-style-type: none"> Enhancing the Spiritual Dimension of Pau te Hau Strengthening Cultural Relevance and Connections to Atua Honouring Whakapapa and Spiritual Connection Through Local Pūrākau 	

The subsequent section seeks to enhance understanding of each dimension of Te Whare Tapa Whā highlighting key themes which have been deductively established from the data gathered. In addition, the ancestral pūrākau which follows, Te Whaiwhai i te Aroha o Muriwhenua, serves to contextualise and establish parallels between the data gathered and the kura huna identified within the narrative.

This particular pūrākau was chosen as it relates to the region of Te Matau-a-Māui and tells a story of one of the tupuna who was spoken of during my visit. Secondly, this pūrākau was told to me

growing up. It narrates a love story involving arch-rivals Rongokako and Pāoa in their pursuit of the maiden Muriwhenua. This ancient pūrākau, handed down through generations, not only presents a captivating narrative, but also imparts a valuable set of insights and life lessons that continue to hold relevance in our modern world today.

Figure 20: Te Whaiwhai i te Aroha o Muriwhenua – The Pursuit of Muriwhenua’s love

Te Whaiwhai i te Aroha o Muriwhenua – The Pursuit of Muriwhenua’s Love

This pūrākau recounts the tale of Rongokako and Pāoa as they vie for the affection of Muriwhenua, an enchanting figure residing in Hauraki. Famed for her beauty and charm, Muriwhenua attracted numerous admirers eager to win her hand in marriage. Rongokako, hailing from Ngāti Kahungunu was an esteemed tohunga, and graduate of Te Whare Wānanga, a revered school of sacred knowledge. He was renowned for his remarkable feat of taking giant strides, reminiscent of taking flight. Among his many rivals, Rongokako's most formidable contender for Muriwhenua's love was Pāoa. Pāoa, the eponymous ancestor of Ngāti Pāoa, was celebrated as a skilled waka navigator.

In their pursuit of Muriwhenua, these two tūpuna caught wind of her whereabouts and eagerly decided to race towards her, hoping to win her affection. Initially, Pāoa seemed to possess an advantage due to his proven skills in waka navigation. So, he extended an offer to Rongokako to accompany him in his waka as they journeyed up the coast toward Hauraki. Rongokako declined, choosing instead to travel by land.

Deliberately delaying his departure to provide Pāoa with a head start, Rongokako employed his unique ability to take colossal strides, arriving just ahead of Pāoa at crucial locations along the coast. This pattern persisted as they proceeded northward, Rongokako consistently managing to outpace his rival.

Upon reaching Whāngārā beyond Gisborne, Rongokako's edge began to provoke Pāoa, who perceived him as mocking his efforts. Determined to secure Muriwhenua's affection, Pāoa strategised to put a stop to Rongokako's giant strides. He advanced to Tokomaru Bay and crafted a trap called Te Tawhiti a Pāoa, designed to hinder his opponent. However, upon arrival Rongokako eluded capture by defying gravity yet again with an even grander stride, soaring above the trap and continuing his journey toward Hauraki.

Arriving first at Muriwhenua's home, Rongokako successfully won her heart and later secured her hand in marriage. To this day, Rongokako's footprints are visible along the East coast and are now known as Ngā Tapuwae o Rongokako.

Source: Adapted from *The History of Rongo-Kako* (Mitchell, 2017, pp. 53-55).

Analysing *Te Whaiwhai i te Aroha o Muriwhenua* in conjunction with kaiako feedback offers a distinctive viewpoint on how they perceive *Pau te Hau* impacts the wellbeing outcomes of tamariki Māori. To assist comprehension of the key insights within this chapter, I recommend the reader become familiar with this pūrākau first, as it will serve as a recurring reference point throughout this section on *Te Whare Tapa Whā*.

Taha Tinana: Kura Huna – Kua Pau te Hau

Te taha tinana emphasises the importance of physical health as an essential component of overall wellbeing (Durie, 1999). There were three key themes associated with this dimension: 1) physical benefits and holistic impact of Pau te Hau, 2) promoting inclusivity and rethinking success, and 3) stealth fitness and its impact on physical wellbeing.

The fundamental essence of Pau te Hau is inherently encapsulated within its name. Kua Pau te Hau means to run out of energy or become exhausted (Moorfield, 2011). Therefore, the title of this section acknowledges the central role of physical exertion in both Pau te Hau and Te Whaiwhai i te Aroha o Muriwhenua. Considering that high-intensity interval training is a crucial component of Pau te Hau, the title also recognises the inherent intensity of the physical activities involved. In contrast, within the pūrākau the vigorous physical pursuit undertaken by Rongokako and Pāoa in their race to Muriwhenua also serves as a compelling metaphor. Both references lend themselves well to an exploration of te taha tinana, or physical wellbeing for tamariki participating in Pau te Hau.

For example, kaiako mentioned that a significant advantage of the programme is its ability to level the playing field concerning physical abilities.

Those who are really good at sport find it challenging to have success. So, there's even more success for those who are less able. (Kaea)

It gives the ones who don't really like physical activity, a bit more chance of success. (Sara)

These insights draw another parallel to the pūrākau. In the story, Pāoa, portrayed as the skilled navigator, appeared to possess a notable physical advantage over Rongokako. However, Rongokako's less apparent and tangible advantage remained relatively concealed from his rival, leading to underestimation, and ultimately equalising the competition. According to Sport NZ's 'Balance is Better' philosophy, all tamariki should have the opportunity to engage in physical activity and sport regardless of their ability or motivations (Sport NZ, 2024). Physical activity plays a huge part in helping to develop physical, mental and life skills. This inclusivity proves to be a particularly transformative characteristic of the programme, challenging conventional notions of success and physical prowess. Pau te Hau, in this manner, establishes an environment where students of all fitness levels engage on equal footing, emphasising that success is not solely dependent on one's athleticism. Much like Pāoa, even highly athletic students discover the

programme to be challenging, offering an opportunity for those with other skills, such as Rongokako, to excel.

Physical Benefits and Holistic Impact of Pau te Hau

In terms of physical wellbeing, Pau te Hau appears to have achieved some success. Kaiako reported that their students engaged in vigorous physical activity that left them sweaty and puffed, a clear sign of the programme's effectiveness in promoting fitness. This is reflected in the following comments from kaiako:

They definitely get puffed, they get sweaty, they achieve the physical side of it. (Kaea)

I think their fitness has improved. We have been talking about it. One of my kids was saying you know, 'I can't get into the red', and I said well it means that your fitness is actually improving. And you're getting fitter, better at it. (Sara)

It definitely does improve their fitness. And I like it when they see that fitness is fun rather than you gotta go and burn your guts out and you're all bright red and sweating and you don't want to go and do anything for the next three hours. It's a fun and engaging thing as well. (Jasmine)

We did it at the same time as cross country and I think it probably helped them with their progress in cross country. (Jasmine)

Two reviews have highlighted the positive impact of High-Intensity Interval Training (HIIT) on physical wellbeing in adolescents. Specifically, they found that HIIT can improve cardiorespiratory fitness, reduce body fat, and lower cardiometabolic risk (Costigan et al., 2015; Logan et al., 2014). However, these kaiako comments suggest that the benefits of Pau te Hau extend beyond getting students moving, rather it fosters a deep understanding of physical improvement. Tamariki began to recognise their progress as they strived to achieve higher effort levels, which instilled a sense of accomplishment and determination. Moreover, Pau te Hau's influence doesn't end within the programme itself. Kaiako witnessed those tamariki participating in other physical activities like cross country and rugby who found themselves better prepared due to the increased fitness levels acquired through their involvement in Pau te Hau. This theme finds further support and illustration throughout the broader research project. Harris et al., (2021) reported that many Pau te Hau students and teachers emphasised the links to sport and physical education, with several commenting that they experienced or witnessed improved fitness within sport settings. This aspect of the programme directly addresses te taha tinana and indicates that positive hauora outcomes are being achieved.

Promoting Inclusivity and Rethinking Success

Pau te Hau creates an environment where students of all fitness levels participate on an equal footing, emphasising that success is not solely contingent upon one's athleticism. This integration not only makes physical activity more enjoyable but also encourages increased participation among students who might not typically engage in active pursuits, promoting inclusivity in fitness. Kaiako reported significant levels of support for providing an opportunity for those who may be less athletically inclined to thrive. The following comments from kaiako further underscore this sentiment:

It equalises the playing field of ability. There is so much room for growth, like the misunderstanding of who is successful and why you are and why you're not. It's not because you suck, we know you're good, but it is quite frustrating for those who are really fit, to not be able to achieve in something that they really always achieve in. It's actually nice, one of my students is an excellent sports person and is sort of brought down a notch having to compete like everyone else. (Kaea)

My favourite part of the programme is the short sharp series of movements that are actually achievable for all. You know, even non-fit people can do star jumps. They're showing the kids that it's not necessary to go to the gym and having all this fancy gear that's getting them fit, it's just moving, moving their bodies in different ways. (Sara)

This commitment to inclusivity and diversity aligns with the vision set forth by industry leaders as supported by several key sources. For example, Sport NZ, in both their Disability Action Plan (2019c) and Women and Girls Action Plan (2023c), underscore the importance of promoting diversity, equity, and inclusivity within the play, active recreation and sport sector. In fact, their (2021c) Preferred Future Report, titled *Mana Taurite – A Just Society*, explicitly emphasises that their focus through to 2040 is on providing equal opportunities, ensuring that no one misses out, and focusing on the safety and wellbeing of every child and young person. This vision also extends to making physical activity spaces and programmes accessible to a diverse range of people, no matter their age, race, gender, ability, or disability. The belief is that every person feels accepted, respected, and included (Sport NZ, 2019c). The approach taken by Pau te Hau aligns perfectly with this overarching goal, as it fosters equity and nurtures a more comprehensive understanding of success that transcends conventional athletic accomplishments. This underlines the programme's remarkable impact on outcomes related to physical wellbeing. Through this alignment with various strategies set forth by sector leaders, Pau te Hau not only supports individual growth but also contributes to the broader mission of creating an inclusive and just society in the world of physical activity.

Stealth Fitness and its Impact on Physical Wellbeing

Another noteworthy benefit connected to this theme, as highlighted by kaiako, is the concept of stealth fitness. The term stealth approach refers to a strategy whereby tamariki who may not consider themselves fit or capable are subtly and effectively engaged in physical activity, resulting in a sense of accomplishment and success. Pau te Hau effectively engages individuals in physical activity, fitness, and exercise, often without them realising it. In some cases, even individuals who do not typically consider themselves fitness enthusiasts find themselves achieving success through this unique and engaging approach. This once again aligns with the pūrākau where the primary focus isn't on physical activity, though there is a heightened awareness of the necessity for physical effort to achieve it. Instead, the central focus lies on the pursuit of love. This parallel is also noticeable in the case of Pau te Hau, where it is presented as an opportunity to get moving, yet it can be deceptive in terms of the actual energy expended and its impact on physical fitness. This is further reiterated in the following comment:

The programme definitely tricks the unfit into experiencing success. (Kaea)

Kaiako value this stealth approach, recognising Pau te Hau as an invaluable addition to any fitness programme. Swinburn (2008) aligns with this perspective, advocating for stealth interventions as part of a global obesity prevention strategy. The use of the words "tricks the unfit" by kaiako suggests that Pau te Hau, through its design or approach, manages to overcome potential barriers or hesitations that tamariki, who might perceive themselves as unfit, could have towards participating in physical activities. In summary, the consensus among kaiako is that Pau te Hau exerts a positive influence on te taha tinana, the physical wellbeing of tamariki Māori. Next, we turn our attention to te taha hinengaro or the impact of Pau te Hau on mental and emotional wellbeing.

Taha Hinengaro: Kura Huna – Te Tawhiti-a-Pāoa

Te taha hinengaro encompasses one's mental and emotional wellbeing (Durie, 1999). Three key themes were identified from the kaiako responses about te taha hinengaro: 1) refocusing energy for improved mental and emotional wellbeing, 2) addressing tamariki attitudes and participation challenges and 3) fostering goal setting and meaningful engagement.

Te Whaiwhai i te Aroha o Muriwhenua talks of Pāoa's declining mental stamina and resilience as he raced up the East Coast, continuously falling behind his rival opponent. In light of this, I have

titled this section Te Tawhiti-a-Pāoa, inspired by the name of the great trap Pāoa devised to outsmart Rongokako (Mitchell, 2017, p. 53). Te Tawhiti-a-Pāoa acknowledges Pāoa's mental fortitude as he grappled with his frustration, recognising the need for a new strategy to secure victory in the race for Muriwhenua's affections. This kura huna, therefore, serves as a powerful symbol and metaphor for understanding the impact of Pau te Hau on the mental and emotional wellbeing outcomes for tamariki as a result of their participation in the programme. The following sections outline how kaiako believe we can address these challenges.

Refocusing Energy for Improved Mental and Emotional Wellbeing

In terms of mental and emotional wellbeing, kaiako held varying perspectives on the effects of Pau te Hau. Kaiako illustrated that Pau te Hau served as a valuable tool for providing students with a “mental break” from their academic work. Just as Pāoa needed time to reset and devise a new strategy to overcome challenges, students sometimes face mental hurdles in their academic pursuits. Pau te Hau therefore offers a refreshing alternative to traditional methods of redirecting energy and refocusing tamariki during curriculum time. This point is emphasised below:

It's a really good mental break from all the mahi. Usually, I would do something really boring like run a lap around the field, or go and touch the goal post, or 'Go noodle' stuff in order to shift their energy and give them a bit of oxygen intake. Now we do Pau te Hau. (Kaea)

This comment highlights the engaging and dynamic nature of Pau te Hau, emphasising its effectiveness not only in revitalising students' bodies but also their minds. Trudeau and Shephard (2008) support this notion in their research on the connections between academic performance, physical activities, and their determinants. They found that physical activity positively influences concentration, memory, and classroom behaviour. Essentially, the findings highlight a favourable correlation between physical activity and intellectual performance (Trudeau & Shephard, 2008). Lee (2009) also advocates for characterising pūrākau as a pertinent pedagogical tool that engages people in unique ways to uphold cultural and educational significance in contemporary contexts. Pūrākau used alongside physical activity presents a novel and engaging manner to offer a “mental break” amidst the pressures of classroom learning. This aspect directly benefits te taha hinengaro, as it provides students with an opportunity to transform their mental state through physical exercise, ultimately enhancing their focus and cognitive performance.

Addressing Tamariki Attitudes and Participation Challenges

Kaiako also reported that tamariki often displayed negative attitudes towards their willingness to participate in Pau te Hau. This sentiment is further emphasised in comments like:

I wish the kids would see more value in it than some of them do. They still see Pau te Hau as not a fun thing and feel like it's almost more like a task that they have to do. (Sara)

They actually moan through it, but they actually enjoy it, and they probably don't see the benefits to themselves and their health, as much as we do. (Jasmine)

I think sometimes the kids do not want to take it seriously, and it's those ones that you know need to get moving, the ones that really are unhealthy in terms of lack of sleep from technology use and food. And if this is your exercise for the week you just want them to give it a good go. Building habits is important. (Jasmine)

They think it's a bit of a chore. I think they think that because sometimes for fitness we'll play a game which means there's lots of running around. It's still fitness but because it's got that word 'game' in front of it they think it's more fun. Whereas they think Pau te Hau is kind of a bit like boot camp sometimes. (Sara)

These comments underscore a strong link between the attitudes and behaviours of tamariki, highlighting how negative attitudes can impact their mental resilience and overall motivation to participate. Kaiako further illuminate that tamariki often perceive Pau te Hau as more of a “chore”, “task” or in one case it was likened to a “boot camp” experience rather than an enjoyable activity. Having fun is an essential component of engaging in physical activity (Sport NZ, 2020a). The attitudes and behaviours among tamariki toward their engagement in Pau te Hau as outlined above can be likened to Te Whaiwhai i te Aroha o Muriwhenua. Similar to Pāoa who pushed himself to his physical limits and faced setbacks in his race against Rongokako, the mental resilience of these tamariki is also put to the test. Pāoa's pivotal lesson lay in his decision to pause, take a breath, and strategise, marking a notable shift in his attitude and behaviour. Kaiako reported that tamariki view activities involving “games” more positively, finding them fun. Therefore, programme designers and kaiako alike need to take the time to address this negative perception and offer a solution to make the programme more engaging and appealing to tamariki. Instead, tamariki Māori need to be part of the design of such programmes. Their voices and lived experiences should inform future development and throughout the process they will better understand the significance and benefits.

Fostering Goal Setting and Meaningful Engagement

Kaiako also expressed that they wished the tamariki would recognise the value of Pau te Hau for their health and wellbeing, albeit some students may never fully appreciate its benefits. They voiced their aspirations to facilitate opportunities for goal setting, tracking and monitoring their progress, and ensuring that tamariki fully comprehend the programme's purpose and long-term advantages to positively influence their taha hinengaro. These perspectives are evident in the following quotes:

You do sort of have to set those goals for them I find. If I just stood at the back and let them go for it, they wouldn't do it. (Sara)

I'm very big on the kids knowing where they are academically, what levels they are at and what they need to do to move to the next level. When we did the testing some of the kids didn't remember where they were. I feel like there was an opportunity missed for them to see the long-term success of the programme on their fitness. We did the pre-test with the team, but the kids don't have that information. There was no goal setting for them or anything like that. There are so many more things you could put in if they had that information and had some goals for next time. Something to work towards and that's the meaning of doing this. Then post-tests. Like math, you want to track your success and revisit your goals and steps. It's almost like what is the point of it Pau te Hau for us, other than being research participants? What is the goal of Pau te Hau? Is it to improve fitness? If it is, how are you measuring that for the kids? Perhaps splitting it up into achievable sections. (Kaea)

These comments stress the significance of establishing clear goals because without them, students lack both motivation and direction. Drawing from Te Whaiwhai i te Aroha o Muriwhenua, the sole goal was explicit – to secure Muriwhenua's love and affection. Success markers were meticulously tracked at key points along the Coast, allowing Pāoa and Rongokako to compare their achievements and strategise for further success. They possessed a clear sense of purpose and meaning in their pursuit, and fully comprehended the objectives of the task. Considering these lessons, both the kaiako and tamariki participating in Pau te Hau must prioritise the establishment of well-defined goals from the outset, track their progress against these goals and adapt their plan as necessary. Spiller et al., (2015) reinforce this perspective emphasising that we must consider that very rarely in reality do we ever travel in a linear path. Furthermore, they suggest that when we rely too heavily on static plans to navigate uncharted waters, we forget to look around and assess what is really going on (Spiller et al., 2015). Tamariki must grasp the programme's long-term advantages, acknowledge the purpose of their involvement and adapt to the change they experience along the way. In this regard, kaiako also have a role to play, as they can explore opportunities for cross-curricular learning, serving as another avenue for reinforcement a sentiment which is supported by Sport NZ's Healthy Active Learning initiative mentioned

previously (Sport NZ, 2020f). Establishing success measures will help tamariki gauge their current standing and identify the steps needed to progress and enhance their hauora. Therefore, incorporating these principles into Pau te Hau will have a positive impact on te taha hinengaro, fostering motivation, direction, a sense of purpose and ultimately enhancing their mental and emotional wellbeing. In summary, these comments highlight the challenge of engaging some students mentally and emotionally in Pau te Hau, despite its potential benefits for their wellbeing.

Taha Whānau: Kura Huna – Te Ringa o Muriwhenua

Te taha whānau relates to the social connections with others, whether those connections are with whānau or friends, reflecting the importance of interpersonal relationships in one's social wellbeing (Durie, 1999). There were two dominant themes that emerged as a result of the analysis of kaiako voices. These themes were: 1) diverse views on social connection and wellbeing and 2) whānau engagement: an exploration beyond the classroom.

The title of this section, Te Ringa o Muriwhenua, refers to the hand of Muriwhenua and places a spotlight on the goal of securing Muriwhenua's hand in marriage. It also positions her as a central character in the pūrākau, for without her, this love story would not exist. The reference to 'ringa' also holds hidden wisdom outside of this context, as it signifies the hand Pāoa extended to Rongokako, to accompany him in his waka journey up the East Coast. While Rongokako declined this opportunity and chose to travel by land, the story emphasises that, for the most part, both journeys were individual pursuits, which echoes kaiako experiences of the tamariki participating in Pau te Hau.

Diverse Views on Social Connection and Wellbeing Impact

Kaiako highlighted mixed views on whether Pau te Hau in its current form demonstrates a positive impact on social wellbeing. Some kaiako expressed that while it does focus on individual fitness, it also fosters a sense of connection and community among participants. While other kaiako recommended that the programme design should encourage more collaboration and social interaction. These conflicting views are reflected in the following comments from kaiako:

For one of my students, it's more of a social interaction thing because he quite often gets bullied in the wider school community, which is very frustrating. But here he is the most successful in Pau te Hau and he loves it. When I ask who usually scores the highest, they all mention his name. (Kaea)

Pau te Hau is very individual. They don't really interact with each other. There's no chance to grab someone's arm and swing around in a circle you know. (Jasmine)

They love doing Pau te Hau because they can do it with their friends, get active but have that time to kind of act silly too. They feel safe to just do it because that is what happens, and everyone is doing it. And I think it's back to healthy competition. They do encourage each other which has been good. (Sara)

Kaiako hold diverse perspectives on whether Pau te Hau has a positive impact on social wellbeing and whether it offers sufficient opportunities for social connection. Social connectedness is crucial for Māori and is linked to fundamental motivations for people participating in physical activity. According to Mules et.al., (2022), play and physical activity is a means to develop the necessary social skills required to navigate the different stages and phases of life. Positive experiences within Pau te Hau include a student finding success and acceptance in the programme despite facing bullying in the wider school community, suggesting that it offers a safe and supportive environment where tamariki can thrive and be acknowledged for their achievements. While other kaiako recommend programme adjustments to encourage more collaboration and social interaction among participants. They suggest activities that promote partnership, interaction, and even friendly competition as a means to enhance social engagement. The collaborative and competitive elements in the programme, although limited, were recognised favourably for fostering healthy competition, mutual encouragement, and camaraderie among peers. This reinforced a sense of belonging and support within the group.

Whānau Engagement: An Extension Beyond the Classroom

Interestingly, kaiako also recognised the missed opportunity to involve whānau and explore ways to engage family members in the activities. This is reflected in the following comment:

Also, you have to look at their whānau. We're very much trying to get our whānau involved. How could we include our whānau in this programme? Is there an option for the kids to take the gear home and do it at home? Or is there a reflection part they could do with their whānau? (Kaea)

Whakapapa and connection to whānau, hapū, iwi, and whenua are all pivotal aspects within a te ao Māori framework of wellbeing (Durie, 1985); hence, whānau participation is not just encouraged but essential. In Te Whaiwhai i te Aroha o Muriwhenua, Pāoa initially invited Rongokako to join him on his journey up the Coast, but Rongokako declined, choosing instead to embark on an individual expedition. The kura huna in this pūrākau relates to Pāoa's initial intention to playfully assert his mana as a waka navigator through the invitation, which ultimately backfired

on him. As the situation developed, he could have potentially benefited from seeking additional support or collaborating with others to achieve his goal, particularly after realising he was not in a winning position. While whānau involvement is not currently a focus of Pau te Hau, this kaiako encourages an opportunity to extend the learning and teaching beyond the school boundaries. She encourages opportunities for tamariki to take their newfound skills and enthusiasm home, to spark an interest among their families too. These social benefits of Pau te Hau directly contribute to te taha whānau, bringing tamariki, friends, and whānau together in a shared pursuit of hauora, holistic wellbeing.

Taha Wairua: Kura Huna – Ngā Tapuwae o Rongokako

Te taha wairua embraces one's spiritual state (Durie, 1985), and there were three key themes identified within this dimension: 1) enhancing the spiritual dimension of Pau te Hau, 2) strengthening cultural relevance and connections to atua and 3) honouring whakapapa and spiritual connection through local pūrākau.

Te Whaiwhai i te Aroha o Muriwhenua speaks of Rongokako's remarkable ability to transcend all human limitations and take strides that seemed to emulate flight. It is for this reason that I have titled this section Ngā Tapuwae o Rongokako paying homage to Rongokako's profound connection to the metaphysical realm as imparted on him by ancient teachings of the Whare Wānanga. This metaphor aligns with te taha wairua, and emphasises Rongokako's profound spiritual abilities, which played a crucial role in his journey and ultimately led him to triumph in the end.

Enhancing the Spiritual Dimension of Pau te Hau

In terms of spiritual wellbeing Pau te Hau shows potential for further development. While it currently integrates some te ao Māori references to atua, kaiako feedback reinforced that these references lack the depth required to resonate with students in a meaningful way. This is asserted in the following comments:

How does Pau te Hau relate to spirituality? I can't see that connection yet. The Māori kōrero we just heard [in the app] about the lungs, I guess that would make sense to them if it was explained in more detail. It's not enough to do anything with, and so it's almost pointless having it there if it's not done properly. It would be interesting to see how they could add more of a spiritual lens into this. Even if you had Monday, Wednesday with the usual Pau te Hau, whereas Friday will be more mauri tau - meditation, yoga or listening with your eyes closed. It could even be an interactive pūrākau, doing the breathing together. (Kaea)

It needs to have a more holistic focus than it currently is ... from a Whare Tapa Whā perspective it really is leaning towards physical. I don't think my students see a connection to more than the physical or maybe social parts of hauora, with this programme. When they were talking about the meditation side of it with the stretching and the breathing, I was proud that they picked up that it forms an important part of their hauora. And that it is missing from the programme and there's an opportunity for it to be included easily. (Kaea)

As previously discussed, the nation's shift towards embracing Western healthcare approaches, diverging from traditional Māori practices, had a notably adverse effect on the spiritual dimensions of health and wellbeing (Reid & Robson, 2007). Definitions of healthcare prioritising the treatment of states of ill health took precedence, neglecting a focus on broader cultural factors such as whakapapa, whenua, wairua, and whānau (Cram et al., 2019). Consequently, the remnants of this colonial impact still exist. One kaiako prompts questions about how Pau te Hau incorporates te taha wairua or spirituality, revealing that the connection is not immediately evident. Comments such as, there is “not enough detail to do anything with” and “it’s almost pointless” also reinforce the current effectiveness of incomplete or superficial cultural content in fostering cultural understanding. However, she also indicates a desire to explore and strengthen this connection with more comprehensive explanations to help tamariki grasp the cultural and spiritual dimensions of the pūrākau shared. Moreover, the quotes suggest potential ways to enhance and deepen tamariki understanding of te taha wairua, including references to “mauri tau”, “meditation”, “yoga”, “breathing exercises”, and guided listening. This perspective is further supported by other kaiako who shared the following:

If there was a build on, I'd bring in a meditation or mindfulness session. You know, even if you could have it as a five day a week, but you exercise three days and the other two days are low intensity. If it's following the cycles of the moon, you know that there's going to be a rest time. You've got the yoga, so it's mixing it up for the kids to see. And yoga is fitness and it's important because you are stretching. So many of the kids cannot touch their toes. (Jasmine)

These comments indicate that kaiako envision a more deliberate approach that incorporates spiritual practices in future iterations of the programme. If I revisit Te Whaiwhai i te Aroha o Muriwhenua, spiritual teachings played a significant role for Rongokakao who was a student of

the Whare Wānanga. This educational institution provided celestial knowledge that greatly benefited Rongokako in his race against Pāoa. Rongokako's extraordinary ability to fly was attributed to metaphysical influences, and without it, his victory would almost certainly have been an unsuccessful endeavour. Similarly, when it comes to the potential for impact, spirituality has a place in Pau te Hau. While kaiako acknowledge the physical benefits of the programme, they suggest dedicating specific days or sessions to the integration of spiritual practices and less intense activities. They propose that Pau te Hau can offer students moments of reflection, mindfulness, and spiritual growth. As a practical solution, kaiako recommend introducing interactive pūrākau or shared storytelling alongside synchronised breathing exercises, to create a sense of unity and connectedness among participants which nurtures their spiritual wellbeing alongside their physical fitness. This holistic approach to wellbeing within Pau te Hau empowers students to explore and strengthen their spiritual selves alongside their physical health, thus fostering a more comprehensive and balanced hauora.

Strengthening Cultural Relevance and Connections to Atua

Additionally, kaiako expressed several concerns around the use of atua within the programme, their relevance, and opportunities for tamariki to establish connections between the exercises and the atua within the pūrākau. This sentiment is echoed in these comments from kaiako:

I just don't think it is relevant. I don't think it was properly connected to or was at the level of the kids' knowledge. If I took this to a non-Te Kōkiri class it would go over their heads, they would not understand it and would not make that connection. I feel like if you are talking about atua and if this programme were for all, it would need a lot more information on who the atua are so we can connect our learning with that. I feel like it was just kind of thrown in the beginning and there wasn't a strong connection. They [tamariki] just choose not to listen to the beginning part. I can see why they [programme designers] have put it there, but I don't think the kids can understand that and I don't think they connect the activity to the atua. (Kaea)

I almost feel like although this is about atua, I feel it's more like a picture book, quite tokenistic. I don't think non-Māori would understand anything about the atua, but I also don't think it's described and connected enough for Māori to understand either. (Kaea)

They aren't able to make the connections between the message in Māori and their exercises sometimes. So, we often talk "so why do you think this relates to the separation of Rangī and Papa" and they were like because we were doing the exercises like pushing and we need to be strong. (Sara)

While there is no explicit mention of spirituality in the comments above, I have chosen to align these perspectives from kaiako with te taha wairua because they are fundamentally linked to atua

and to whakapapa. Kaiako consistently voiced concerns about the programme's relevance and connection, particularly in relation to te ao Māori elements. They noted that these components were “quite tokenistic” and sometimes felt forced or lacked a strong connection between atua, the physical exercises and the cultural elements of the programme. In our creation narratives, atua Māori play pivotal roles in shaping our world, underpinning our belief systems, and influencing our cultural practices. They represent various domains within the natural environment, bridging both the physical and metaphysical realms (Marsden, 2003). Our whakapapa traces back to and from these deities. Hence, kaiako emphasised the importance of reinforcing these connections and facilitating methods to explicitly convey these teachings. Similarly, as facilitators of learning, kaiako need to play a role in reinforcing this learning across the curriculum, especially if they have the necessary resources to support it.

The literature review discussed the colonial history in Aotearoa shaped an education system primarily designed to benefit Pākēhā, with little consideration for Māori knowledge (Walker 2016). Consequently, whānau Māori and communities were forced to conform to a non-Māori system (Hippolite & Bruce, 2013). The prevalence of mission and church boarding schools in the 1970s ensured that religious teaching prioritised Anglican, Methodist and Catholic belief systems, excluding Māori knowledge from the curriculum (Jones & Jenkins, 2011). Therefore, it is unsurprising that kaiako expressed challenges in strengthening a connection to atua, both within the programme design and as kaiako leading the initiative in the school.

The dominant influence of non-Māori views of spirituality are disconnected to those beliefs held by Māori. Hence, it is not only a reference to atua that needs strengthening in this context, but also the teaching pedagogy and resources accompanying it, especially in situations where a lack of knowledge exists. Ideally, Pau te Hau would better reflect Māori worldviews, not just in its name but in the way pūrākau-based physical activity occurs naturally for Māori. This will be discussed further in Chapter 6.

Honouring Whakapapa and Spiritual Connection Through Local Pūrākau

Local context was also an important factor to kaiako, as they recognised the profound influence it could have on the programme's relevance and effectiveness. They expressed that Pau te Hau, like any educational initiative, should be deeply rooted in the specific cultural, historical, and geographical elements of their local environment. One kaiako shared the following about their locality:

I know this could be difficult, but if there is something that is localised that would be really neat. Because we talked when we went to the training last year about, the two taniwha at the back of Waipukurau (town in Te Matau-a-Māui) and how they had a fight over a boy and one of their tails is etched through the mountains. It'd be really cool if somehow, we could get the kids to design a session to a local myth from your area and just somehow build that in. I reckon that will be really cool. Like Tūtira, because we all go up to camp at Tūtira every second year and everyone sings Tūtira mai, but having something that you all know and can kind of recognise and sort of relate to would be really neat. (Jasmine)

Kaiako recommended that programme developers seek to include localised content and pūrākau from specific regions to enrich the programme's relatability and engagement for tamariki as a potential solution. To acknowledge the importance of whakapapa concerning spiritual wellbeing, I have intentionally selected Te Whaiwhai i te Aroha o Muriwhenua because it emerged spontaneously during my wānanga with the tamariki. This aligns with Heke's (2021) philosophy within the Atua Matua framework where he argues that:

Whakapapa is something you do, not something you list. Whakapapa is something you live, something you strengthen and something you stretch every time you connect to the taiao (3:53).

Te Whaiwhai i te Aroha o Muriwhenua has whakapapa connections to both people and place, highlighting its significance to those residing in Te Matau-a-Māui. Rongokako is also known as the maunga, Te Mata Peak, a prominent feature for most who live in Te Matau-a-Māui. Its inclusion in this thesis therefore honours the whakapapa of this region, acknowledges the importance of te taha wairua, and pays tribute to the meaningful conversations that transpired during our wānanga. The approach I've employed here, to nurture connection, relevance, and significance should serve as a model for future programme design. This approach also aligns with the Education and Training Act (2000) which supports a curriculum that reflects local tikanga, mātauranga Māori and te ao Māori (Ministry of Education, 2021b)

Section Two: Tamariki Perspectives

Tamariki engaged in several data-gathering exercises two of which are discussed in this section. First, they completed a handout defining hauora and its relationship to Pau te Hau. Next, I shared a pūrākau about Hineahuone (see Appendix L) and instructed the tamariki to create a sculpture which symbolised hauora. The written notes and transcribed voice recordings have been used for analysis in this chapter. The insights from these two activities will be discussed separately under each activity heading, starting with Te Whare Tapa Whā which explores each dimension similar

Te Taha Tinana

The tamariki data revealed a striking emphasis on the positive impact of Pau te Hau on their taha tinana or physical wellbeing, with an overwhelming 70% of responses supporting this claim. A few of these comments are provided below:

It improves my hauora by getting me to move around and do exercise. (T21)

Gets me moving my body, keeping me fit and staying healthy. (T3)

Learning new fitness things to do when you are bored at home. (T5)

It improves my fitness, my body, my health, sleeping and eating. (T27)

It improves my taha tinana by helping me to get fit. (T24)

Learning different types of fitness exercises like HIIT. (T16)

These tamariki perspectives support the kaiako feedback from Section One which highlighted the positive impact of HIIT on the physical wellbeing in tamariki. More specifically, the comments above emphasise that participation in Pau te Hau encouraged physical activity and exercise, which in turn improved their fitness, overall health (Costigan et al., 2015; Logan et al., 2014), sleep, and positive dietary habits. However, one reason for concern is the fact that no comments from tamariki alluded to any Māori aspects of the programme that aim to enhance their physical wellbeing, such as the integration of Māori movements and their correlation with kōrero tuku iho. This suggests that perhaps this area of the programme was overlooked or that more targeted questions related to the Māori aspects of the programme required further investigation. Regardless, tamariki expressed enthusiasm for staying active and learning new fitness activities to use when they were bored at home.

The mention of extending learning into the home environment was a particularly positive indicator, especially considering that the programme primarily focuses on in-curriculum time. Thus, hearing about the programme's reach beyond the school premises was encouraging. Essentially, these responses indicate that Pau te Hau is highly effective in instilling a sense of personal responsibility for overall wellbeing, highlighting the programme's effectiveness in promoting physical wellness among tamariki.

Te Taha Hinengaro

In contrast, the data suggested less of a focus on the programme's impact on taha hinengaro, or mental and emotional wellbeing, with only 16% of responses addressing this aspect. Here are some direct quotes from tamariki:

When we do exercise it makes you feel alive and ready for the day. (T17)

Laughing, it was challenging but I did it better than I thought. (T1)

The exercises make me happy, and it gives me enjoyment, new talents, and challenges. (T29)

The comments from this group of tamariki emphasise the positive effects of exercise on their mental state, describing how exercise made them “feel alive, happy, and ready for the day”. They also found joy and a sense of accomplishment in overcoming challenges. While this constitutes a significantly smaller percentage of responses, it would be remiss of me not to mention that there were no negative responses received. This tamariki feedback aligns with both the literature and kaiako comments, emphasising the positive correlation observed between engagement in Pau te Hau and intellectual performance in the classroom (Trudeau & Shephard, 2008). However, these comments do not indicate a connection with the noted negative attitude towards Pau te Hau as outlined by kaiako. Overall, tamariki perceive that Pau te Hau contributes positively to some mental and emotional aspects of their wellbeing, albeit to a lesser degree than physical wellbeing.

Te Taha Whānau

The data suggested even less of a focus on taha whānau, the family and social dimension of wellbeing, which was mentioned by 12% of the tamariki. Comments included:

It makes me share. (T4)

I have more fun when I'm in a group with friends. (T8)

Friends, laughter, entertainment and joy. (T16)

Having fun doing it with my hoa. (T28)

These tamariki pointed out that Pau te Hau encouraged sharing and provided opportunities to have fun with their “hoa” (friends). The sense of camaraderie and enjoyment in group activities was evident in their comments also. Kaiako views varied regarding the impact of Pau te Hau on whānau wellbeing. While some praised Pau te Hau for providing ample opportunities for social

connection, others suggested the programme should incorporate more. Furthermore, no references were made by tamariki to social connections involving whānau as a result of their participation, albeit this was mentioned by kaiako. Overall, these perspectives largely align with the observation that tamariki felt that engaging in Pau te Hau facilitated human interactions and experiences with their friends which were beneficial to their overall wellbeing (Mules et al., 2022). While this aspect receives less attention than physical wellbeing, it proves that Pau te Hau does contribute positively to social connections, although it is not a main focus for tamariki. Moving forward however, there is room for improvement in this area, particularly when it comes to the programmes capacity to extend beyond the classroom and involve whānau.

Te Taha Wairua

Finally, the spiritual aspect of wellbeing, taha wairua, was referenced by only one tamaiti, representing a mere 0.02% of the responses. This student mentioned:

Pau te Hau teaches me about Māori gods and teaches me some te reo Māori. (T28)

This comment raises an important point regarding the potential role of Pau te Hau as a pūrākau-based physical activity programme when it comes to cultural and spiritual wellbeing, though it suggests that the programme is not fully realising this potential at present. Again, the significant lack of responses from tamariki relative to te taha wairua, links to comments from kaiako about the lack of depth, the lack of a deliberate, explicit approach to spiritual wellbeing and one that lacks relevance and meaning. Similarly, the recognition of this untapped aspect of the programme's impact underpins an opportunity for improvement and expansion in its offerings. In reference to ira tākaro Brown and Brown (2022) asserts that, “our ancestors were amazing, highly intellectual people who developed incredible spiritually based mechanisms for tribal resilience and social cohesion” (p.7). This quote highlights the profound potential of Pau te Hau as a pūrākau-based physical activity programme if indeed a deliberate effort to embed te ao wairua (spiritual world) learning and teaching is built into the design from the outset.

Hineahuone – Sculpting the First Woman out of Clay

As an extension of our exploration into hauora, tamariki were encouraged to participate in a creative exercise to render even more depth into their perspectives on hauora. After listening to a pūrākau about Hineahuone (the first woman who was sculpted out of clay by Tāne Mahuta),

they were tasked with sculpting a figure, be it an atua, tupuna, or tangata that, in their eyes, symbolised hauora. Subsequently, they shared their kōrero with the group, explaining the significance of their chosen figure and how it embodied the concept of hauora. A curated selection of these sculptures is provided below, to offer a glimpse into the diverse interpretations and representations of hauora as envisioned by the tamariki. The tamariki sculptures representing atua, tupuna, or tangata are illustrated in Figure 22 below:

Figure 22: Tamariki Sculptures Representing Atua, Tupuna, or Tangata



Source: Personal collection.

As evident from the array of sculptures created by the tamariki, there was notable diversity in their choice of figures and an obvious shift in their frame of mind to employing a te ao Māori lens. Interestingly out of the 13 sculptures crafted across the two schools in Te Matau-a-Māui, 49% of the tamariki opted to sculpt an atua, another 49% chose to sculpt a tupuna and only one student, representing 0.07% of the participants, chose to sculpt a tangata. This data signifies several important insights. Firstly, it reflects the profound connection that these tamariki Māori maintain with their ancestral and spiritual figures. Additionally, it sheds light on their preference to explore their cultural heritage, indicating a deep-seated respect and reverence for the figures of the past.

Atua

It was evident that the pūrākau about Hineahuone and Tāne Mahuta played a pivotal role in inspiring 49% of the tamariki to select an atua to sculpt, often opting to name their sculpture either Tāne or Hineahuone. However, this choice also aligned with their perception of these figures as symbols of hauora and clearly resonated with the themes presented in the pūrākau. Comments about their sculptures included:

This is Tāne. He has abs, which makes him look healthy and fit. We tried to make the eyes and the smile big too. We think he would do awesome in Pau te Hau and would definitely make it in the 'red.' (Rōpū 4)

This is Hineahuone. She has an hourglass body and pūkana eyes. What makes it special is we put a lot of kaha and love into it. We detailed it with korowai and taonga because she deserved that mana and it makes her the queen. She is beautiful. (Rōpū 1)

These comments provide a deeper understanding of their thought processes. For instance, one student chose to recreate Tāne, highlighting his muscular physique as a sign of health and fitness suggesting Tāne's suitability for participation in Pau te Hau. Similarly, another student sculpted Hineahuone, emphasising her hourglass body and pūkana (dilated eyes to emphasise words and add excitement) eyes. They expressed the importance of infusing the sculpture with "kaha" (strength) and love. They adorned her with a korowai (feathered cloak) and taonga (pounamu necklace), to symbolise her elevated status and her inherent beauty. These comments from tamariki illustrate the power of pūrākau as a pertinent pedagogical tool (Lee, 2009) and further underscore the vital role of Māori storytelling in fostering creativity, imagination, and play.

Additionally, there was a particular moment during our discussions that compelled me to inquire further after learning about one of the creations. A small group of tamariki shared the following about the sculpture they created:

She has a big smile, and she is pretty. He ātaahua koe. She has leg powers. She has very strong long legs which means she can jump really high and run really fast. (Rōpū 3)

Upon hearing this description, it immediately reminded me of a tupuna from my own whakapapa ties to Te Matau-a-Māui, which reflected parallels with how these tamariki portrayed their atua. A summary of my kōrero with Rōpū 3 is captured below:

[Nikki] Do we know of any atua or tupuna from this rohe who is known for taking very long strides. He is from here and there are many pūrākau about him. I've actually seen his name and a painting of him in your school.

[Tamaiti] Is it Rongokako? He bit the apple aye and choked?

[Nikki] Āe (yes). And do we know what Rongokako was known for in the ancient Whare Wānanga?

[Tamaiti] Stealing the kai?

[Nikki] Well there were many tests connected with the learning that happened in the Whare Wānanga. Rongokako, although he was known to slack off from time to time, he surprised everyone and achieved the greatest feat of them all. Upon reciting karakia Rongokako was able to possess the powers to take large giant strides which mimicked flying.... In fact, there is a trail on the East Coast of the North Island called Ngā Tapuwae o Rongokako which are the footprints of Rongokako and they show just how large his strides were.

[Nikki] Does anyone know Te Mata Peak?

[Tamaiti] That's the Sleeping Giant!

[Nikki] Some recognise that maunga as the ancestor Rongokako. One of your whare here are named after him, and that big orange mural by the courts is of Rongokako. Cool aye!

Embracing the story of Rongokako, the tamariki eagerly began sharing other aspects they were familiar with. They recounted their knowledge of Rongokako, mentioning "he bit the apple and choked", and provided another name by which the mountain is known, 'the sleeping giant.' This deep connection visibly ignited the children's enthusiasm, sparking a lively discussion as they listened to the narrative. Not only did this activity and subsequent discussions contribute to the transmission of mātauranga Māori (Mahuika & Mahuika, 2020), but this pūrākau about Rongokako also created a forum for maintaining cultural education within the classroom (Lee, 2009). This interaction provided evidence of the remarkable power of localised pūrākau, when tamariki can place themselves within the narrative, making it more engaging, meaningful and keeping alive the values and beliefs that are essential within te ao Māori (Lee-Morgan & Hutchings, 2016).

Tūpuna

Additionally, an equal proportion of tamariki, 49%, opted to craft sculptures of their tūpuna, which they perceived as symbols of hauora. What stood out to me was that the tūpuna chosen by these

tamariki were individuals they all had a personal connection with. It was evident that these ancestors had left a deep and enduring impression on them, especially in relation to their perspectives on hauora. These comments provide further insight into this:

This is my pop he passed away from a heart attack in 2014. He just had that energy that made everyone happy, and the family is kinda sad without him. He liked riding motorbikes and stuff. This represents his spirit with his heart and his wings (T26).

This is based on my grandad he died of a heart attack in 2020. He really liked hunting with his family in his own time. He never smoked but he had diabetes. He was happy because of me and my family. (T27)

This is Marama, he died like 2 or 3 years ago. He really liked food and going to the dairy every day. And he was always a snitch on us. He was just really nice and everyone liked having him around. It was his spirit, and he was good in school. (T29)

These heartfelt comments shed light on a significant observation, revealing a substantial discrepancy between what healthcare professionals might conventionally categorise as hauora and the very personal, spiritual and emotional experiences articulated by these tamariki. This reflects literature by Durie (1985) mentioned earlier around the discrepancies between Western views of healthcare post-European arrival and Māori perspectives of hauora and Te Whare Tapa Whā. While discussing chronic diseases such as “heart attacks” and “diabetes,” these tamariki are expressing that these tupuna have invoked a profound sense of hauora within them. This perspective significantly diverges from their earlier perspectives regarding the importance placed on Pau te Hau's emphasis on physical wellbeing. These tamariki perspectives reiterate that, despite the revitalisation efforts within the New Zealand health system as outlined in Chapter 2, remnants of colonial impact persist (Reid & Robson, 2007; Lee-Morgan & Hutchings, 2016). For these tamariki, the legacy of their tūpuna, who are often associated with memories of joy, warmth, and cherished moments, substantially contributed to their overall sense of wellbeing. While the earlier definition of 'hauora,' with 'hau' signifying breath and 'ora' denoting wellbeing (Jackson et. al., 2018), might lead one to assume they would predominantly choose figures from the present, this instance revealed their drive to find sources of hauora in those who have passed, yet hold significance in their lives. It showcases the dynamic and multifaceted nature of hauora for these tamariki, influenced by a blend of cultural values, personal relationships, and individual experiences.

In essence, these comments emphasise the importance of cultural, emotional, and spiritual dimensions in achieving a holistic understanding of hauora, going beyond just physical wellbeing for tamariki. These aspects are deeply rooted in their personal connections, traditions, and the

enduring influence of tūpuna on the lives of these tamariki. It also highlights the potential of cultural and familial influences in shaping individual perceptions of health and wellbeing, which may not always align with conventional health paradigms.

Tangata

Lastly, a single tamaiti, accounting for a mere 0.07% of participants, opted to sculpt a tangata – a living individual they knew personally and associated with hauora. The sculpture depicted their one-year-old little brother, and the description they provided is as follows:

I did my little brother. He is a one year old and he's young and little so he brings joy to everyone. He really likes milkshakes, I dunno why, he likes any milkshakes, he can't go to bed without one. (T26)

It is evident that this tamaiti has presented a story about a young person whose dietary preferences, notably the fondness for “milkshakes”, might not align with the recommendations of health professionals. Much like the sculptures of tūpuna, this highlights the distinct difference in the nature of tamariki perceptions of hauora, which extend beyond clinical definitions to encompass their own experiences and connections (Durie, 1985). These perspectives highlight the connection these tamariki maintain, not only with individuals from the past but also with living people in the present.

Te Whetū Rehua Assessment

To evaluate the effectiveness of Pau te Hau as a pūrākau-based physical activity approach with a focus on impacting Māori hauora, this section employs Te Whetū Rehua to derive an overall assessment score. As detailed in Chapter 3, the scoring process assigns a score between one and three to each of the five dimensions in blue. A score of three indicates strength, while one indicates a lack thereof. The higher the total score is out of 15, the more likely the programme is to prioritise 'as Māori' participation, serving as an indicator of hauora. This score should be regarded as a measure of the programme's strength in promoting 'as Māori' participation.

Table 11: Pau te Hau – Te Whetū Rehua Assessment

PAU TE HAU	
A curriculum-based, teacher-led, high intensity interval training programme which draws from pūrākau, kōrero tuku iho, and traditional Māori movements to promote vigorous exercise for tamariki in schools.	
WITH Te reo me ngā tikanga - elements central to identity and survival of unique Māori identity. Considered a 'normal' and/or expected part of the activity.	1 Limited reo, limited kōrero tuku iho, no tikanga, delivered predominantly in English
FOR Māori - groups of whānau, hapū, iwi, Māori. Emphasis on whanaungatanga of whakapapa whānau or kaupapa Māori whanau.	1 Māori and non-Māori tamariki in English-medium
IN/ON Places, venues, and facilities. Ranges from venues of whakapapa significance through to contemporary facilities in the wider community.	1 Inside school classroom
THROUGH Activity types. He Oranga Poutama focus is on traditional sports and games. Broader focus is contemporary sport and recreation activities.	1 HIIT, contemporary exercise, some Māori movements
BY Māori - governed, managed and/or delivered by Māori.	1 Māori or non-Māori teacher-led, technology enhanced, supported by Māori in the design
TOTAL	5/15

This assessment score of five out of a total of 15 highlights that Pau te Hau lacks strength in promoting 'as Māori' participation. This score aligns with kaiako comments around the relevance or extend to which te ao Māori aspects of the programme are embedded. In contrast to this score, Pau te Hau aligns with the working definition for pūrākau-based physical activity, as discussed in Chapter 1, and covers each pou including, hauora, pūrākau, and Māori physical activity. However, the strength of the focus on te ao Māori suggests a reflection of Pākehā aspirations more than Māori aspirations. This indicates room for improvement if Pau te Hau aims to provide heightened hauora impact for its participants.

I end this section with some words of inspiration from Jay Ruka (2017) that Pau te Hau programme designers may find valuable:

We can't expect that creating initiatives from within Western worldviews (whether that's for the government, education, economics, or church), will cause our wonderful indigenous identity to flourish. The only way that our worldview can be transformed is by learning a different perspective from someone else, not by re-arranging the ingredients of our own thinking. We consider the ways of being that are particular to New Zealand and learn to restructure language and function from our divinely wrought indigenous uniqueness. If we choose this humble path and learn from one another, then our kids will grow up possessing the free flow of bicultural worldviews. Not just educated with tedious bicultural information but immersed in bicultural experiences (p.131).

This quote highlights the potential of a bicultural pūrākau-based physical activity programme, presuming that is the aspiration of Pau te Hau. The investigation reveals an imbalance in power and decision-making in programme design, with te ao Māori elements appearing retrofitted within a non-Māori vision of exercise and fitness. Collaboration between Māori and non-Māori as equal partners is crucial. Ruka's quote emphasises the necessity of "learning from one another" to create a programme that draws from both knowledge realms, and genuinely reflects a bicultural approach for tamariki Māori in English medium settings. Only then can the holistic impact of Pau te Hau be truly realised by all.

Conclusion

For kaiako Pau te Hau proves to have a positive impact on some but not all dimensions of hauora. Currently, the programme excels in promoting physical wellbeing, contributing to enhanced physical health and fitness among tamariki. However, opinions varied regarding its impact on other dimensions of wellbeing, including social, mental, and emotional aspects. While some kaiako argued that the programme's collaborative and competitive elements fostered healthy social connections, others believed there was room for improvement in this regard. In terms of te taha hinengaro, interpretations of the programme's effects were also diverse. Some kaiako reported experiences that nurtured mental resilience and emotional wellbeing, while others found certain aspects challenging, impacting tamariki attitudes, behaviours, and emotional states differently. Additionally, kaiako identified an opportunity for growth and development in the realm of spiritual wellbeing for tamariki. Despite the programme's current emphasis on physical aspects, there is potential to incorporate elements that promote a deeper spiritual connection, aligning with a holistic Māori worldview. Enhancing te taha wairua outcomes would foster a more comprehensive sense of wellbeing that aligns with the holistic framework of Te Whare Tapa Whā.

For tamariki, the data showed that Pau te Hau overwhelmingly influenced tamariki taha tinana outcomes, and to a lesser extent taha hinengaro and te taha whānau. While te taha wairua aspects appeared to have a minimal presence being acknowledged by only one participant. These findings align with the kaiako feedback and emphasise that Western education is more likely to concentrate of the physical side of health than dimensions of wellbeing among tamariki. Furthermore, tamariki responses lacked any reference to te ao Māori, except for mentions of te reo Māori and one reference to atua. It wasn't until the Hineahuone activity, which was framed by pūrākau, led by Māori, and encouraged tamariki to engage in a creative endeavour about the pūrākau, that the tamariki could shift their mindsets and fully engage from a te ao Māori lens. The results from the Hineahuone activity served as a reminder that hauora is a deeply personalised, holistic and it transcends clinical definitions or Western notions of health for tamariki Māori.

In summary, although Pau te Hau aligns with the working definition of pūrākau-based physical activity, the limited opportunities for tamariki to participate 'as Māori' constrain the overall impact on hauora outcomes for them. The précis that follows brings together an accumulation of the tamariki and kaiako insights into a single pukapuka which formulates the aspiration I have for Pau te Hau as a result of this research.

Précis – Pukapuka 1

The following précis consolidates the central themes discussed in Chapter 4, culminating in a pukapuka, the first in a series of three. This pukapuka incorporates the lived experiences and recommendations shared by both kaiako and tamariki, along with my own reflections, to formulate an aspirational vision for Pau te Hau as a sustainable pūrākau-based physical activity programme with the potential for promoting ‘as Māori’ participation.

This précis employs a deductive approach to provide a comprehensive perspective on Pau te Hau using key themes. These themes were then interwoven into a narrative using rotarota, resulting in the creation of the pūrākau, titled Pau te Hau ki Te Matau-a-Māui. This pūrākau is subsequently deconstructed into stanzas, each dedicated to elaborating on the insights and voices of tamariki.

It is important to note that while this section predominantly focuses on tamariki and kaiako perspectives, it is influenced by two additional lenses. One lens encompasses my personal observations of the programme, collected during my visit to the schools. The other lens reflects an aspirational viewpoint of the programme, shaped by all the data gathered, which forms my overall analysis. These lenses are further enriched by the invaluable insights of tamariki and kaiako who have been actively engaged in the programme. As readers, you are encouraged to immerse yourselves in the experiences of these tamariki. This approach is designed to offer a comprehensive and nuanced insight into the programme's impact both current and potential.

In crafting this pūrākau, I developed a storyboard to use as a visual aid. Creating this storyboard helped me to identify the central themes I intended to convey, then I plotted various scenes, and drafted a visual plan. The storyboard also facilitated the establishment of a timeline for the events within the pūrākau, revealing any gaps or missing elements in the narrative. This visual tool played a crucial role in keeping the participants at the forefront of my writing, acting as a continual reminder of the interactions I experienced during my visit with them. It aided in constructing the various characters in the pūrākau using real people, ultimately bringing them to life.

I have chosen to omit the image I have of the storyboard I used for Pau te Hau to ensure anonymity of the participants involved in my research. After submitting my PhD, my vision is to publish this series of pūrākau as pukapuka, and gift them as resources to the schools.

Pau te Hau ki Te Matau-a-Māui

Figure 23: Pukapuka 1 - Pau te Hau ki Te Matau-a-Māui

Pau te Hau ki Te Matau-a-Māui	
Te Matau-a-Māui on a stunning spring morning, The sun shone bright and without warning, Tamariki raced to kura, brimming with glee, Playing kēmu galore, with all kinds of energy.	Excitement filled the room, and Kingi yelled with glee, "I know Rongokako! The maunga with a single tree" The children drew connections, engaging with the tale, Of pūrākau Māori, and the treasures they unveil.
On the courts basketballs bounced and flew, In the hall poi spun and haka voices grew, On the fields a game of pūkana could be heard, Lively and powerful, with mana in every word.	The atmosphere shifted, eyes glued to the screen, The video tells the story and the warmup sets the scene, Functional movements appear like Rongokako's strides, Mimicking flying, leading him to his soon-to-be bride.
As the school bell rang, kids vanished in a flash, Off to their classrooms, with a bounce and a dash, The kids knew Pau te Hau was first up for the day, So they pushed aside the desks without any delay.	Their aim is to move with lightning pace, Pushing their limits, we're in a race, Elevating heart rates as they charge ahead, The ultimate goal, is to stay in the red.
Whaea Kelly asks, "Who remembered their PE gear?" The tamariki respond "Āe", with a very loud cheer! The buzz was contagious, and the excitement grew too, After two weeks, the tamariki knew just what to do.	As the workout ended, the kids were full of zest, Chatting excitedly about their quest, Their buzz and energy caught Whaea Kelly's eye, Who led them through mindfulness exercises to try.
Whaea uses her iPad to prepare the music just right, Mixing local beats with waiata, a playlist sure to excite, Heart rate monitors are fitted, the class was set, "Kua reri?" Whaea asks? Are you ready yet?	Closing their eyes, the kids imagined the tale, Of Rongokako and Pāoa, their spirits prevail, They envisioned the places their tūpuna roamed, And felt more connected to the place they call home.
Whaea uses the app to choose exercises for the day, "You're going to love these" she says, pressing play, With excitement in the air, everyone turns to the TV, Anticipating further instruction, oh so eagerly.	Hauora is the focus of Pau te Hau, it's true, But more than that, an experience to grow and renew, A reminder of our stories, past, present, and future, Kori tinana and pūrākau, practices we must nurture.
Suddenly, a female narrator begins to speak, A tale of two tūpuna and their will to compete, Rongokako and Pāoa, love rivals they were, Competing for Muriwhenua's heart and all that endures.	They forget about the trophy, for those who impress, A pursuit of mātauranga Māori leads to their success. A truly special moment, hearts and minds were touched, Forging Te Ao Māori connections, they loved it so much.

Source: Written by Nicole Penetito-Hemara, June 2023.

*Te Matau-a-Māui on a stunning spring morning,
The sun shone bright and without warning,
Tamariki raced to kura, brimming with glee,
Playing kēmu galore, with all kinds of energy.*

This stanza establishes the context for the programme. In both school settings, there was a palpable excitement around play and sport. The idea of physical activity was not foreign to these

tamariki, and the general atmosphere suggested that it was a cherished and enjoyable aspect of their school day. It was evident to me that, for 90% of the tamariki, having an opportunity to engage in physical activity from the moment they arrived at school was a valuable experience. There were also cultural references throughout both schools which demonstrated a level of cultural awareness.

*On the courts basketballs bounced and flew,
In the hall poi spun and haka voices grew,
On the fields a game of pūkana could be heard,
Lively and powerful, with mana in every word.*

During my wānanga with tamariki, there were instances where the children needed to re-energise and refocus to prepare for upcoming classroom activities. This provided an excellent opportunity to teach them a Māori game. At School 2, with a smaller student population, we played a game of pūkana on the field outside the classroom where we were working. As I had only recently met these tamariki, I recognised the need to establish a rapport with them to elicit deeper insights. I took them outside and taught them how to play pūkana, which quickly became a whanaungatanga experience for us. The tamariki eagerly embraced any chance to demonstrate their Māori identity with me. Not only did they play the game according to the rules, but they also asked to lead the chant and did so with mana. They shouted their kupu (words) with pride, and all participated in demonstrating their best pūkana, even if it felt a tad silly. This highlighted their desire to see themselves represented in the people of authority who work with them, as well as in their daily curriculum learning. Furthermore, one tamaiti stated, "I like learning Māori games and stuff because it helps me to remember who I am and where I come from" (personal communication, June 3, 2022). This quote highlights the importance of incorporating cultural activities, such as playing Māori games, into the curriculum for tamariki Māori. Through engaging in cultural practices, tamariki can better connect with their cultural identity and enhance their overall wellbeing.

*As the school bell rang, kids vanished in a flash,
Off to their classrooms, with a bounce and a dash,
The kids knew Pau te Hau was first up for the day,
So they pushed aside the desks without any delay.*

The tamariki demonstrated a remarkable level of enthusiasm and eagerness to participate in Pau te Hau. They appeared to be thrilled at the prospect of starting their day with physical activity. Without any prompting, they instinctively rearranged the classroom to prepare for the session. It was evident that they were familiar with the routine and had become accustomed to having the

chance to engage in physical activity throughout the week. This stanza highlights the overall atmosphere as one of excitement and positive energy. I would estimate that this was reflective of approximately 80-90% of the participants. For those who were not as enthused, there was usually a reason, such as nursing an injury or ailment.

*Whaea Kelly asks, "Who remembered their PE gear?"
The tamariki respond "Āe", with a very loud cheer!
The buzz was contagious, and the excitement grew too,
After two weeks, the tamariki knew just what to do.*

This stanza introduces the first character Whaea Kelly, who is of Māori descent and is the kaiako for the class. She plays a crucial role in facilitating the opportunity for tamariki to participate in Pau te Hau. The prototype nature of the programme and its association with a larger research project meant that only a few classes across both schools were given the chance to participate. As a result, the sustainability of the programme often depended on the teacher's enthusiasm, willingness, and consistency in integrating it into the curriculum. This stanza touches on some of the logistics involved in running Pau te Hau, such as ensuring that the children are changed into their PE gear. Although this may seem like a minor task, it can be challenging for kaiako, particularly when managing a class of 30 or more students within a short period. Across both schools, it was apparent that the programme was fully integrated into their daily routine, as the tamariki required minimal guidance. Thus, the above stanza highlights the kaiako's critical role in the programme's success.

*Whaea uses her iPad to prepare the music just right,
Mixing local beats with waiata, a playlist sure to excite,
Heart rate monitors are fitted, the class was set,
"Kua reri?" (Ready?) Whaea asks? Are you ready yet?*

In this stanza, several key discussion points emerge. Firstly, it highlights an introduction to the technological components of the programme. It was obvious that the tamariki were familiar with iPads and mobile classroom TVs, and they found the heart rate monitors to be novel, especially when used during class as part of physical activity. Some students reported to me that they initially had difficulty fitting their heart rate monitors, but this issue had been resolved by the time I visited the schools, so I have chosen to position these positively in the stanza above.

Secondly, the tamariki expressed a desire to incorporate music into the Pau te Hau programming. It is important to note that the current functionality does not allow for music to be played directly through the app. At the first school I visited, there was no music accompanying the workout, and

the tamariki expressed a strong desire for it to be included. They reported experiencing increased motivation levels when the addition of music was trialled alongside the programme. In one instance the kaiako in charge of the class in question mentioned that the music distracted the tamariki from listening to the pūrākau at the beginning of the session and given that she deemed this component of the programme as essential to their learning she chose to prioritise this over the inclusion of music. I have instead chosen to favour the use of music in this stanza as it was a unanimous theme expressed loudly among the tamariki across both schools.

At the second school I visited, a series of songs from YouTube were played alongside the workout. However, the tamariki from this school expressed that the current music choices made by the kaiako were not always appropriate for the intensity of the activity and sometimes became distracting. Across both schools, the students requested music that was composed locally, including waiata Māori or songs with te reo Māori embedded throughout. They also expressed a desire for more te reo Māori to be integrated into the programming and spoken throughout the delivery of Pau te Hau to reinforce the learning.

Overall, this stanza highlights the importance of incorporating tamariki feedback in the design, development, and delivery of physical activity programmes like Pau te Hau. It also highlights the potential benefits of integrating technology and physical activity while addressing the need for culturally responsive programming within education settings.

*Whaea uses the app to choose exercises for the day,
"You're going to love these" she says, pressing play,
With excitement in the air, everyone turns to the TV,
Anticipating further instruction, oh so eagerly.*

This stanza focuses on the ease and functionality of the app, while some kaiako mentioned minor difficulty the feedback overall was positive. The discussions with kaiako revolved around how the app provides automatic programming and sometimes fails to give the kaiako flexibility to choose exercises suitable for each session. Some tamariki expressed their enjoyment of functional movements such as squats, lunges, and the series of Māori exercises, while others found the repetition of these exercises boring and lacking fun. Additionally, the Māori exercises were reported to be more challenging than the familiar ones such as star jumps and jogging on the spot.

Tamariki demonstrated varying physical abilities, including differences in skill, coordination, balance, and other fundamental movements. Their intensity levels during the exercises also varied across the cohort. Notably, certain groups of tamariki had preferences for specific exercises

over others. Overall, 80-90% of the tamariki, began their Pau te Hau workouts with excitement and enthusiasm.

*Suddenly, a female narrator begins to speak,
A tale of two tūpuna and their will to compete,
Rongokako and Pāoa, love rivals they were,
Competing for Muriwhenua's heart and all that endures.*

This stanza introduces the concept of pūrākau being integrated into the app right at the beginning of the workout. The pūrākau at current, typically lasts for 30 seconds and provides a brief overview of a story, allowing the tamariki to connect their movements to the narrative. However, my observation was that the pūrākau is introduced when the energy levels are high, and their focus is varied. It was also so brief in length that it is often overlooked. While some tamariki remain attentive, others were distracted by their technology or were eager to engage in physical activity. Interestingly, even tamariki of Māori descent sometimes dismissed this aspect of the programming, indicating a need for improvement to ensure its significance and relevance is prioritised.

In my observations and in conversations with kaiako, the pūrākau in its current format, unfortunately lacks depth and substance, making it difficult for tamariki to truly connect their movements to the cultural narrative. Additionally, the tamariki had limited time to listen to and process the pūrākau, as it was narrated at a time where approximately half of the class were still processing their movements. Consequently, they missed out on valuable insights from the beginning. While the example above also only offers brief insight into the pūrākau, the intention is that this pūrākau would remain a focus for sessions across a 1-2 week period. Extensions to this pūrākau would be embedded in the app also to give enough time for tamariki and kaiako alike to really harness the learning within it.

Kaiako discussed the possibility of integrating the pūrākau into other subjects throughout the week, aligning it with the wider curriculum. However, during my interviews, no kaiako reported implementing this approach in practice. There was a desire to scaffold the learning in this manner, but many kaiako facilitating Pau te Hau were also unfamiliar with the pūrākau themselves, indicating a need for additional resources to support their implementation.

*Excitement filled the room, and Kingi yelled with glee,
“I know Rongokako! The maunga with a single tree”
The children drew connections, engaging with the tale,
Of pūrākau Māori, and the treasures they unveil.*

This stanza highlights an aspirational view of Pau te Hau in action. It emphasises the importance of establishing a connection between the pūrākau and the lived realities of the tamariki participating in the programme. This stanza also introduces the second character, Kingi, who is a confident young man, with proud whakapapa Māori. We've already established that pūrākau have the power to connect people, place and culture. While the pūrākau currently embedded in the programme touch on these aspects, it was clear that given the tamariki receive a new pūrākau each week and sometimes each session, they have difficulty fully digesting these cultural narratives, resulting in a lack of connection.

Furthermore, both the tamariki and kaiako expressed a strong desire to hear familiar stories and local pūrākau that deepen their understanding of their rohe, whakapapa, or school. Many of the pūrākau included in the programme were more generalised and unfamiliar to them, posing a challenge in establishing a meaningful connection between the story and the subsequent movements. To illustrate the importance of incorporating a familiar pūrākau, an example is provided in the stanza above. As previously mentioned, at the first school I visited I observed a large mural of Rongokako and even one of the house groupings was named after this renown tupuna of the area. This observation served as inspiration for including this ancestor in the pūrākau above. Kingi connects to the name Rongokako and can instantly locate this esteemed ancestor represented as a maunga within their rohe. This showcases the power and magic of pūrākau when tamariki can make a personal connection, especially with cultural spaces of significance like Te Mata Peak (also known as Rongokako). It becomes evident that incorporating these local elements into the pūrākau would have significantly fostered a stronger connection for the tamariki. However, it is important to consider the implications of integrating local rohe-specific elements into programmes that have a national target audience and aim to scale up with a reach which spans the country. Finding a way to build this into the design is a recommendation for future development.

*The atmosphere shifted, eyes glued to the screen,
The video tells the story, and the warmup sets the scene,
Functional movements appear like Rongokako's strides,
Mimicking flying, leading him to his soon-to-be bride.*

The stanza above highlights the increased levels of engagement in Pau te Hau as a result of the students' connection with the pūrākau. It also alludes to the introduction of the warm-up that precedes the pūrākau.

The stanza above essentially presents an aspirational view of the programme, emphasising how a concentrated effort on authentically embedding these narratives that accompany the movements can help tamariki establish connections between the pūrākau and their physical activities. For instance, an exercise that requires tamariki to extend their legs as far as they can while running on the spot at a fast pace can mimic the movement that Rongokako, was renowned for.

Furthermore, there is potential for kaiako to further add dialogue during the students' engagement in the activities. For example, they can include additional kōrero, such as reminding the tamariki that Rongokako's footprints, known as Ngā Tapuwae o Rongokako, can be found up and down the East Coast of the North Island. Kaiako can then locate this on the classroom map of Aotearoa with the tamariki and discuss any whakapapa connections tamariki have with those places of significance. This highlights the potential benefit of developing a book of additional resource notes to help kaiako facilitate a more holistic and connected curriculum learning experience.

Additionally, it is worth mentioning that one of the schools implemented a practice where their tamariki would engage in a light jog around the fields as a warm-up before commencing Pau te Hau. Another noteworthy insight around the desire for a balance of both high and low intensity physical activities.

*Their aim is to move with lightning pace,
Pushing their limits, we're in a race,
Elevating heart rates as they charge ahead,
The ultimate goal, is to stay in the red.*

The stanza above captures the essence of the programme as it unfolds during the session. It highlights the key elements of engaging in high-intensity exercises, monitoring heart rate data, and utilising the TV screen to visualise any progress. This core part of the programme is where the tamariki actively participate and strive to elevate their heart rates through intense physical activity. The majority of the hauora feedback from the tamariki revolved around this aspect of the

programme, with a strong emphasis on te taha tinana, the physical aspects of the programme such as the energy required to sustain vigorous movement in the "red zone."

For context, after completing the warm-up, the students are tasked with participating in a 10-15 minute session of high-intensity exercises to raise their heart rate. Heart rate monitors are used to capture their heart rate data, which can be reviewed on the classroom TV screen. Each tamaiti has a designated number that corresponds to their heart rate monitor, allowing them to identify their own progress on the screen. A colour-coded system is employed to represent their achievements in elevating their heart rate through vigorous completion of the exercises. The colours indicate the level of intensity they have reached during the workout, providing a visual representation of their effort.

The primary goal of this high-intensity interval training in Pau te Hau is for the tamariki to reach and sustain activity in the 'red zone' - the highest intensity level - during their workout. The tamariki also mentioned significant milestones, such as reaching the 'red zone' for the first time, coming close to it, reaching it quickly and maintaining it for a sustained period. These milestones held great significance for them and were a prominent focus during their participation in Pau te Hau.

*As the workout ended, the kids were full of zest,
Chatting excitedly about their quest,
Their buzz and energy caught Whaea Kelly's eye,
Who led them through mindfulness exercises to try.*

Throughout the core part of the programme, as highlighted in the stanza above, the energy levels are consistently high and eventually reach a peak. Notably, I witnessed a prevailing sense of accomplishment and fulfilment among the tamariki in both schools upon successful completion of the programme.

The final line in the above stanza, reflects an aspirational perspective of the programme, targeted toward the final phase of the workout. It became apparent to me that there was a distinct need to facilitate an opportunity for tamariki to reset their energy levels following the completion of the workout. Kaiako expressed that the cool down phase was crucial, and some even suggested the inclusion of mindfulness activities, yoga, or meditation as potential solutions to address this need. An alternative option to further embed mātauranga Māori, could be the inclusion of ritualised practices to begin or end the sessions.

*Closing their eyes, the kids imagined the tale,
Of Rongokako and Pāoa, their spirits prevail,
They envisioned the places their tūpuna roamed,
And felt more connected to the place they call home.*

The inclusion of cool down activities, such as breathing exercises which focus on settling the energy in the room after high-intensity activity presents an opportunity to revisit the pūrākau. The stanza above serves as an example of how this can be achieved. By intertwining the story with the recent experiences tamariki have in Pau te Hau, they can establish a connection between the physical activity and the movements performed. Additionally, revisiting the pūrākau allows for a deeper connection to the past, present, and future. It connects the tamariki to their ancestors who have paved the way for their success. Given the pūrākau presented is rohe-specific it also reinforces their bond with their unique sense of place, including their whenua, school environment, cultural places of significance, and the place they call home. Furthermore, this creates an opportunity to spark their imagination about their own future aspirations, whether within the context of their next Pau te Hau session or more broadly in their lives.

*Hauora is the focus of Pau te Hau, it's true,
But more than that, an experience to grow and renew,
A reminder of our stories, past, present, and future,
Kori tinana and pūrākau, practices we must nurture.*

The stanza above encapsulates a holistic perspective on the positive impacts of Pau te Hau for tamariki Māori. It highlights the opportunities for growth, the remembrance of whakapapa, and the exploration of cultural identity. It emphasises the importance of renewal, which aligns with the larger goal of reclaiming, restoring, and reindigenising cultural ways of knowing, being, and doing. There is an underlying message in this stanza that speaks to a decolonising agenda in physical activity programming, allowing tamariki Māori to see themselves reflected in the learning curriculum, which brings forth numerous benefits.

*They forget about the trophy, for those who impress,
A pursuit of mātauranga Māori leads to their success.
A truly special moment, hearts and minds were touched,
Forging te ao Māori connections, they loved it so much.*

In this final stanza, I preference a pursuit of mātauranga as an implicit incentive while engaging in Pau te Hau, emphasising the programme's intrinsic value which extends beyond material rewards. The focus shifts to the pursuit of "mātauranga Māori", highlighting the significance of

cultural knowledge and understanding within the programme. This suggests that the cultivation of a deeper connection with te ao Māori is a vital aspect of success in Pau te Hau.

The stanza proceeds to describe the experience as a "truly special moment," underscoring the emotional and transformative impact of Pau te Hau on tamariki as participants. The use of "hearts and minds were touched" indicates that the programme impacts participants on both a profound emotional and intellectual level, creating a holistic impact. Lastly, the stanza mentions the forging of "te ao Māori connections," emphasising the programme's role in fostering cultural connections and appreciation among tamariki. The phrase "they loved it so much" portrays the genuine enthusiasm and appreciation of the tamariki for their experiences within Pau te Hau.

Overall, this stanza highlights the programme's effectiveness in creating meaningful, culturally rich experiences, and fostering genuine connections among the participants, which goes beyond mere achievements and trophies. It emphasises the value of Pau te Hau in cultivating a deeper understanding of te ao Māori and promoting holistic wellbeing.

Chapter 5 – He Pī Ka Rere



Introduction

This analytical chapter focuses on both kaiako and tamariki perspectives of He Pī Ka Rere in Murihiku and follows a structure similar to Chapter 4. It begins with a journey map illustrating the introduction of He Pī Ka Rere into the Murihiku region, highlighting key relationships with those involved in its development. The chapter is then divided into two main sections. Section One explores the impact of pūrākau-based physical activity on hauora from the perspectives of kaiako. This section is divided into four dimensions using Te Whare Tapa Whā alongside a series of kura huna to enhance the depth of the analysis. Section Two delves into tamariki perspectives on the impact of pūrākau-based physical activity on their hauora. This section focuses on the wānanga activity called, Awa Mapping – A Wayfinding Framework. This activity prompted tamariki to reflect on their journey with He Pī Ka Rere using a series of pūrākau references and relevant prompts to render an understanding around the hauora outcomes achieved as a result. The chapter concludes with an assessment of the programme using Te Whetū Rehua.

Journey Map

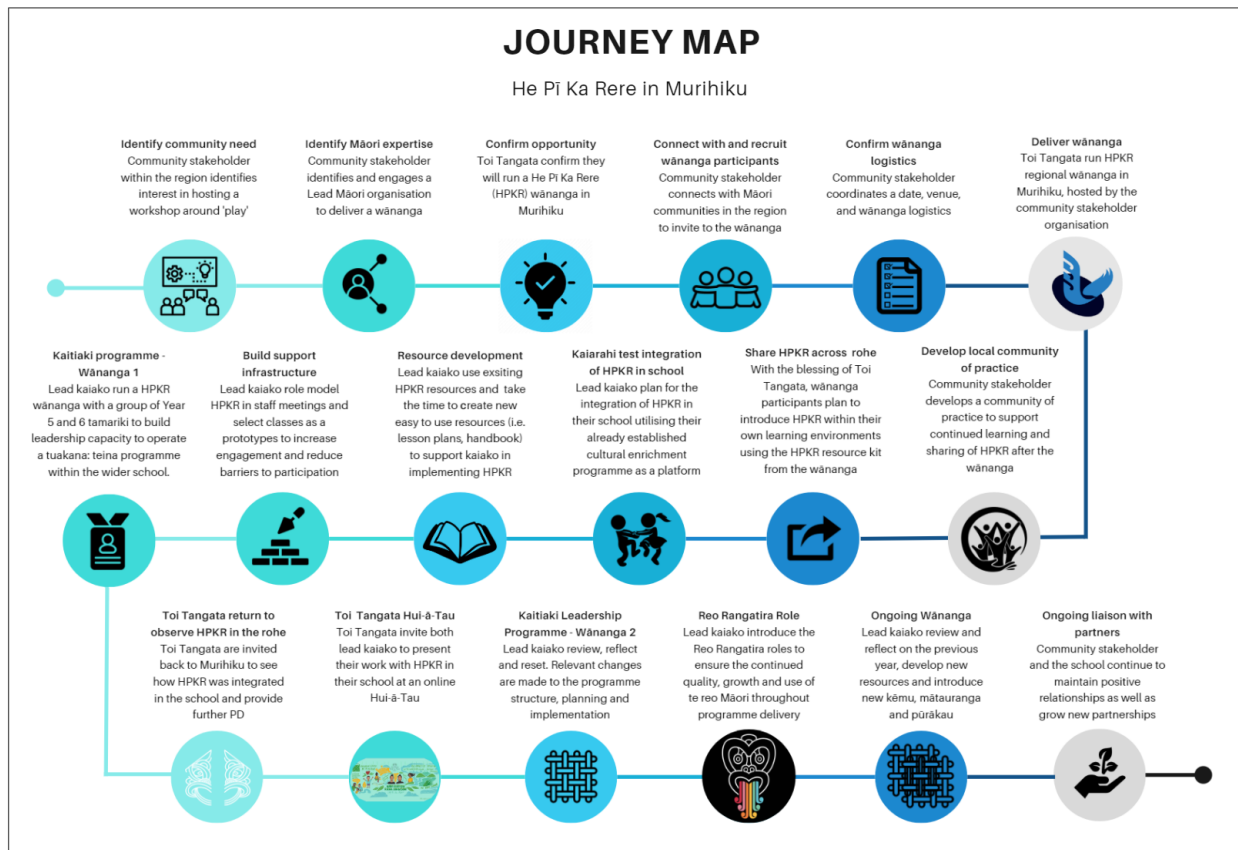
Journey mapping has already been introduced in both Chapters 3 and 4. The journey map illustrated in

Figure 24 encapsulates the insights shared by kaiako and my own experiences with He Pī Ka Rere, both the findings from this research project and my accumulated knowledge of the programme over a span of ten years. It visually narrates the interactions among key stakeholders

including tamariki, kaiako, community stakeholders, Māori experts, Toi Tangata, and the broader school community. In this case, the primary users are tamariki, kaiako and Toi Tangata, while the service on offer is He Pī Ka Rere.

This journey map outlines key interaction points from the introduction of He Pī Ka Rere to the region, its adoption by the school, and subsequent implementation within the classroom for the benefit of tamariki. Although He Pī Ka Rere has operated for several years, with prior exploration of expansion to various regions, particularly within Kōhanga Reo nationwide, this represents the first prototype of the programme within an English-medium school setting. It is worth noting that in contrast to Pau te Hau, He Pī Ka Rere is deeply engrained in the fabric of the school which is the subject of this research. Together with the journey map, the insights from this chapter should provide valuable information about the hauora outcomes as a result of participation in the programme.

Figure 24: Journey Map – An Introduction to He Pī Ka Rere in Murihiku



The section that follows explores kaiako perspectives on the programme's impact on hauora outcomes for tamariki. The insights from this chapter encompass a diverse range of kaiako voices and lived experiences, involving kaiako across both the senior and junior school, Māori leads, senior leaders/managers, and one community stakeholder. Thus, these perspectives offer a unique lens to assess and enhance tamariki learning, providing a wealth of knowledge and recommendations that can shape the future development and improvement of educational practices.

Section One: Kaiako Perspectives

Since we have extensively covered the notion of hauora and Te Whare Tapa Whā in previous chapters, this section aims to get straight to the analysis. Table 12 presents the key themes analysed deductively against the four dimensions of Te Whare Tapa Whā. Similar to Chapter 4, a locally sourced, ancestral pūrākau is used to frame this section, with kura huna from the pūrākau applied throughout the analysis to enhance understanding and keep the central focus of this kaupapa, pūrākau, in focus.

Table 12: Categorisation of Key Hauora Themes for He Pī Ka Rere

HAUORA	<p>TAHA TINANA - PHYSICAL <i>Kura Huna 'Te Puka a Māui'</i></p> <ul style="list-style-type: none"> • A Fusion of Mātauranga Māori and Fundamental Motor Skills 	<p>TAHA WHĀNAU - SOCIAL & FAMILY <i>Kura Huna 'Ngā Uri o Hinemoana me Kiwa'</i></p> <ul style="list-style-type: none"> • Growing Authentic Leaders Through He Pī Ka Rere • Nurturing Strong Tuakana-Teina Relationships • Relationship Dynamics Between Kaiako and Kaitiaki • Strengthening the Whānau-School Connection 	DEDUCTIVE ANALYSIS
	<p>TAHA HINENGARO - MENTAL & EMOTIONAL <i>Kura Huna 'Ngā Whakararuru o Hinemoana'</i></p> <ul style="list-style-type: none"> • Promoting Inclusivity and Progression • Learner Engagement, Attitudes and Behaviours • Interdisciplinary Learning Using Te Ao Māori as a Foundation 	<p>TAHA WAIRUA - SPIRITUAL <i>Kura Huna 'Te Niho o Kewa'</i></p> <ul style="list-style-type: none"> • Honouring Whakapapa and Cultural Identity • Navigating the Authentic Integration of Atua Māori Within the School • Promoting Cultural Practices: Te Reo Me Ōnā Tikanga 	

Before discussing each dimension of Te Whare Tapa Whā, I wish to commence this section by acknowledging that it was not surprising that kaiako chose to discuss hauora concepts as an interconnected whole rather than separate elements of overall wellbeing. He Pī Ka Rere utilises a combination of movement and mātauranga Māori to foster a child's holistic wellbeing (Toi

Tangata, 2023). Therefore, the choice to reflect on all dimensions demonstrates how He Pī Ka Rere promotes holistic wellbeing. This viewpoint is reinforced in the following quotes:

He Pī Ka Rere is fitness, strength, hauora, wellbeing, it's all of that, it's so connected. In our Māori class we've brought in hauora, Te Whare Tapa Whā, looking at hinengaro, looking at our wairua, looking at our body, so this is all part of it too. We've looked at that and the connections to us, and what areas we need to strengthen for our wellbeing. Actually, just starting this week, we are starting a statistics strand and maths. So, I'm looking at health and wellbeing, fitness and movement and we are going to be analysing that. So, we've got some graphs and things like that that we will be looking at. But again, it connects into this, our whole wellbeing - hauora. You just can't separate it because it is so interconnected now. (Hazel)

He Pī Ka Rere covers all parts because the kids go out there and there is always laughter, they enjoy themselves, they're moving their bodies, they're taking a new skill or new body movements away with them. They walk away with that feeling like yay I just learnt this, or yay I know how to do that, or yes, I caught the tītī (mutton bird) today. They experience success. They've just slowly learnt that if they hit and don't catch it, it doesn't matter. They've lost the mentality to 'throw your toys out of the cot', because it's all just so team based. So, they feel like it's ok that my buddy can come and help us out next time. (Jane)

Kaiako report in the comments above that tamariki participating in He Pī Ka Rere experience joy, physical activity, skill development, and a sense of achievement, which are in alignment with the goals of the programme (Toi Tangata, 2022). They note the presence of cross-curricula learning, with "health and wellbeing, fitness, and movement" serving as the foundation for learning "statistics" and "mathematics." Kaiako emphasise that the programme is "interconnected", and "covers all parts," highlighting the dynamic benefits for tamariki participants which is a noted focus of the updated Education and Training Act, 2020 (New Zealand Legislation, 2020; Ministry of Education, 2021b). This suggests that He Pī Ka Rere significantly contributes to overall wellbeing, encompassing all dimensions of Te Whare Tapa Whā. In addition, the programme successfully achieves the learning outcomes as outlined in Te Whāriki a te Kōhanga Reo³⁵ (Ministry of Education, 2017).

The comprehensive and interconnected nature of the programme will be explored further in the next section which is organised around the four dimensions of Te Whare Tapa Whā. Within each dimension, I use the ancestral pūrākau below, to extract a series of kura huna or concealed teachings that align seamlessly with the feedback shared by kaiako. This method not only

³⁵ The curriculum for mokopuna attending Kōhanga Reo (Ministry of Education, 2017).

recognises pūrākau as a methodological framework, but it also highlights its integral role within He Pī Ka Rere and this research.

Figure 25: *Te Ara a Kiwa – The Path of Kiwa*

Te Ara a Kiwa – The Path of Kiwa	
<p>This pūrākau tells a story of Hinemoana and Kiwa, a devoted couple who embraced their role as kaitiaki of the realm of Takaroa. Their legacy lives on through their offspring who are the renowned kaimoana thriving in the cold waters of Murihiku.</p>	<p>In need of help, Hinemoana turned to Kiwa, who possessed the power to shapeshift and command the creatures of the sea. Taking on the form of a massive whale known as Kewa, Kiwa surged toward the anchor rope and took a giant bite. This act shaped the rope into small islands and rocks. In the process, Kiwa lost two teeth which are represented by rocks. The largest rock is known as Te Noho o Kewa, the big whale's tooth, while the crumbs that fell as he bit through the rope also became a series of small islands. Hinemoana, recognising Kiwa's role, named the area Te Ara a Kewa or Te Ara a Kiwa, celebrating his dual identity as both Kiwa and Kewa.</p>
<p>The stretch of water between Murihiku and Rakiura holds a familiar place for those who fish and dive in Te Waipounamu. However, unbeknownst to many, is the narrative that once united these islands together.</p>	<p>As part of this transformation, Te Puka ā Māui, the anchor itself, assumed a new form too and is known today as Rakiura. In their legacy, Hinemoana and Kiwa asked their descendants to stay and look after the land, hence the abundance of kaimoana in the region, including the prized Toheroa and Tio. These taoka play a vital role in sustaining the people of Te Waipounamu.</p>
<p>When Māui hauled a colossal fish from the depths of the sea he stabilised his waka with an anchor. This anchor, Te Puka a Māui, subsequently transformed into solid land in the South Island. While this area proved accommodating for people, Hinemoana found this new land mass frustrating. Her favourite passage to swim was between Murihiku and Rakiura, but the anchor rope hindered her journey to get there. She hated having to swim around the anchor, it left her fatigued and cold from traversing such icy waters.</p>	

Source: Adapted from *Te Ara a Kiwa – A Traditional Legend Retold for Tamariki/Mokopuna* (Stevens, Thompson & Tamati-Elliffe, 2023).

This pūrākau, which was recommended for inclusion by the two He Pī Ka Rere lead kaiako Māori in Murihiku, narrates a story which is centred on Hinemoana (female deity of the sea) and Kiwa. I wish to acknowledge that I do not have whakapapa connections to this rohe and therefore, much of my comprehension of the pūrākau is derived from a teaching resource developed by Te Rūnanga o Ngāi Tahu³⁶ (2022), intended to accompany the book titled *Te Ara a Kiwa – A Traditional Legend Retold for Tamariki/Mokopuna* (Stevens et al., 2023). This pūrākau not only incorporates local references to Murihiku but it also integrates discussions about toheroa (large

³⁶ I wish to acknowledge Te Rūnanga o Ngāi Tahu for their public sharing of mātauranga pertaining to Te Ara a Kiwa as it has significantly helped support this study.

shellfish), tio (oyster), and other local kaimoana that were topics of conversation throughout the wānanga. It also weaves a compelling narrative while delivering valuable insights and life lessons that continue to be pertinent today.

For this research study, Te Ara a Kiwa is utilised in conjunction with the feedback gathered from kaiako to offer a unique perspective on how they perceive the programme's influence on hauora outcomes for tamariki Māori. To aid comprehension, I suggest readers familiarise themselves with this narrative initially, as it will serve as a recurrent reference throughout the subsequent section on Te Whare Tapa Whā.

Te Taha: Tinana Kura Huna – Te Puka a Māui

Kaiako feedback only highlighted one key theme for te taha tinana which is centred on a fusion of mātuaranga Māori and fundamental motor skills. In reference to Te Ara a Kiwa, the title Te Puka a Māui represents the anchor and rope Māui used to stabilise his waka after pulling up Te Ika-a-Māui. Given the nature of He Pī Ka Rere as a Māori movement and physical activity programme, the title of this section acknowledges the kura huna which is the physical energy and force required to achieve such a challenging feat. Te Puka a Māui is also integral to the pūrākau, serving as a central focus for Kiwa in his physical endeavours to create a safe and clear passage for Hinemoana to swim. Therefore, it is a fitting name for this section and the subsequent exploration into te taha tinana. In examining the kaiako responses, there was one dominant theme associated with te taha tinana. While one might assume that the kaiako insights would predominantly address the physical dimension of Te Whare Tapa Whā as was the case with Pau te Hau, it quickly became evident that this was not the case. Instead, kaiako voices only revealed one dominant theme relevant to te taha tinana which surrounded a fusion of mātauranga Maori and fundamental movement skills. Reasons for this will be explained in the next section.

A Fusion of Mātauranga Māori and Fundamental Motor Skills

In terms of physical wellbeing, it is evident that while He Pī Ka Rere is indeed a physical activity programme with a focus on movement and skill development, it goes beyond the mere physical aspect. Although kaiako undoubtedly recognised the value of teaching fundamental movement skills through physical activities such as play and games, He Pī Ka Rere also demonstrated how to seamlessly integrate mātauranga Māori into this mix. This is reiterated in the following quotes:

Taha tinana is obvious, physical activity, fitness, movement, fundamental motor skill learning. Doing it in a way that encourages whole body movement but learning at the same time. (Whetū)

He Pī Ka Rere has ignited a spark and shown us an example of the mātauranga with the movement, the motor skills and the fun element as well. In schools, in general, in my opinion, fundamental motor skills are so so needed and even more so as society progresses. It's the simple things that kids don't do. Nothing is a 'give in' anymore. So, the skills acquired are really important, especially now. Even though the programme is pitched at Kōhanga Reo I knew straight away that those skills are still needed up in primary school, so that is where the new learning and my knowledge of kids, kind of connected. (Rangi)

You can still use all these stories [pūrākau] and learn those foundation skills along the way like throwing and catching and landing safely... they do all of that. But it just means more, and they take more away. It's that connection. (Jane)

What is distinct about He Pī Ka Rere as highlighted by kaiako is that while the programme centres on physical activity, it also successfully targets the acquisition of fundamental motor skills through the integration of Māori knowledge. The above quotes emphasise the connections between He Pī Ka Rere and “learning at the same time”, “mātauranga with movement” and “motor skills” and using “stories” to learn “foundational skills”. This fusion is regarded by kaiako as both valuable and innovative, enhancing the overall experience for tamariki. This approach to wellbeing reveals the programmes value and that it transcends beyond a physical activity programme focusing on movement, mātauranga Māori and its contribution to the development of the whole child (Ministry of Education, 2015). These kaiako quotes also serve as evidence supporting the New Zealand Health and Physical Education curriculum, which emphasises the benefits of learning in, through, and about movement as students actively participate in play, recreation, sports, exercise, and games (Ministry of Education, 2007).

Furthermore, these kaiako insights reflect the significance of teaching fundamental motor skills through physical activity, play, and games. Kaiako indicate that these skills hold relevance not only within “Kōhanga Reo” but this learning also extends to “primary school” age children, highlighting the importance of this continuance across their educational pathway. Mules et al., (2022) reinforce this idea stating that tākaro encourages exploration into the “developmental stages and phases of life” (p. 34), suggesting that the skills tamariki learn in He Pī Ka Rere are not only essential for physical wellbeing but also play a critical role in their overall development within contemporary society. It is a reminder that the acquisition of fundamental movement skills should not be underestimated, as they maintain their enduring importance and relevance for tamariki throughout their growth.

The kaiako quotes also emphasise the power of using pūrākau to teach “foundational skills” while creating deeper and more meaningful connections between the tamariki and their culture. It underpins the idea that education can be enriched when it intertwines cultural elements with the development of physical skills, providing a more holistic and culturally relevant learning experience.

Interestingly, it became evident during the kaiako interviews that te taha tinana aspects of the programme, although visibly apparent, were not considered the most valuable feature when it came to implementing, He Pī Ka Rere within their school setting. It appeared that while physical activity initially served as the hook, the way it was integrated within the school context shifted the primary focus away from physical wellbeing benefits, to make it more of a by-product of the broader learning that occurred. This mirrors Te Ara a Kiwa, where the physical exertion needed to bite through Te Puka a Māui and create a safe passage for Hinemoana was not the sole driver of the endeavour. To emphasise this perspective, Heke (n.d.) expresses that the objective of Atua Matua differs to “a primary focus on Māori environmental knowledge with an important, albeit incidental focus on health and physical activity” (p. 2). This reinforces that while physical activity provided the foundation and the initial platform for engagement, the true impact of the experiences for tamariki in He Pī Ka Rere lay in the other aspects connected to the activity, all contributing to a holistic approach.

Taha Hinengaro: Kura Huna – Ngā Whakararu o Hinemoana

Kaiako feedback pinpointed three key themes associated with te taha hinengaro: 1) promoting inclusivity and progression, 2) learner engagement, attitudes and behaviours and 3) interdisciplinary learning using te ao Māori as a foundation.

This section is titled Ngā Whakararu o Hinemoana, or Hinemoana’s frustrations. This title recognises Hinemoana’s feelings and emotions as she becomes fatigued from swimming around Te Puka a Māui to reach her favourite place to rest. However, these feelings of frustration, anger, and fatigue don’t deter her, as she seeks the support of Kiwa to transform into a whale to clear the way. Given that te taha hinengaro encompasses effective communication of thoughts, feelings, self-confidence, stress management, the cultivation of positive self-esteem and healthy relationships with others, there seemed to be a natural alignment with the mental and emotional sentiments expressed by Hinemoana in the face of challenge.

Promoting Inclusivity and Progression

Kaiako insights into the educational approach within the context of te ao Māori and He Pī Ka Rere centred on promoting inclusivity and progressions in learning. This is reflected in the following quotes:

For te taha hinengaro, we think of the development of te ao Māori knowledge, we think of the development of progressions in learning, so be it a skill. I feel like they understand the progression now. I can't just go 'yes, this is the skill', but they understand that when you are teaching something it needs to be progressive. So regardless of what the skill is, that is something that our kids know, and they will talk to that. For example, I need to slow it down or I need to change it for the tēina. They are very aware of different ability levels. Even for children with differing capabilities whether it be taringa turi (hearing impaired) or one arm, two arms, no arms, no leg. They've really gotta think. I suppose that's differentiation. If you think of hinengaro and building that capacity within their brain to even process that as a child. (Rangi)

There was something for all abilities. I've got few neurodiverse kids and they've all got a pretty good attitude towards grasping the pūrākau and He Pī Ka Rere as a whole. There's still something for them to do. They don't stand out as being the one that can't throw and catch a ball. It's not that sort of skills base. (Callie)

The kaiako quotes above shed light on He Pī Ka Rere as an educational approach that effectively integrates cultural knowledge, inclusivity, interdisciplinary learning, and a strong foundational focus on te ao Māori. Kaiako mention skills such as the "development of progressions in learning" which underscores the dynamic role tuākana play in understanding the varying stages of development among their tēina participants. This adaptability is crucial for enhancing the learning experience within He Pī Ka Rere activities. Additionally, kaiako note that these tamariki are "very aware of different ability levels" including "different capabilities" evidencing their capacity to modify their sessions as required. Observing tamariki do this naturally throughout their sessions demonstrated to me an advanced level of facilitation/coaching skills. In fact, there are resources dedicated to upskilling kaiako in this area, such as Brown's (2008; 2016) ngā taonga tākaro books which provide kaiako with guidance on adapting activities to different learning levels, environments, and equipment choices. The evident proficiency of these tamariki in adapting, changing, and modifying their activities highlights their capacity to foster progressive learning opportunities for all participants.

Kaiako also emphasised the intrinsic value of He Pī Ka Rere, characterising it as a deliberate and structured teaching method which promotes inclusivity. They specifically address the inclusion of "neurodiverse kids" and tamariki who identify as "taringa turi" emphasising that He Pī Ka Rere guarantees there is "still something for them to do." This aligns with the principles outlined in

Chapter 2, reflecting Sport NZ's Disability Action Plan (2019c), which advocates for equal opportunity and ensuring that no one is excluded from participation. These kaiako quotes provide evidence to support He Pī Ka Rere as a programme and approach which fosters critical thinking and encourages tamariki to consider those with diverse physical capabilities, ultimately promoting empathy and inclusivity.

Learner Engagement, Attitudes and Behaviours

Kaiako also emphasised that learner engagement played a crucial role in the programme's success within their school. One kaiako described the introduction of another initiative in the school and provided reasoning for their preference for He Pī Ka Rere:

We've also had another initiative this year called 'Play is the Way' and so there were a whole raft of games which came with that too, but we pretty quickly shelved them actually because the He Pī Ka Rere games were just so much more interesting, and the kids enjoyed them and they were student-led. There was a lot for them to choose from and the games can be challenging. They loved the idea that the games weren't rigid in that they could change the rules or change up the roles or bring their own little things into it as well. They were meaningful, that's the word. Everything about them was just so much better than what we had been doing. (Callie)

I think it's the storytelling and that the students are taking it. Not having to listen to the teacher up the front. Students have just as much valuable information as teachers. They're pretty hooked from the get-go. And that's even with my own children with behavioural needs that I've had over the years. They're all pretty hooked. It's really cool. (Jane)

I tell you, the learning in this for my tamariki and our tēina is phenomenal. And I'm talking about for me too. So, because of He Pī Ka Rere, because of my Kaitiaki and Reo Rangatira, the language and the tikanga has now become almost like it's pulsing in my room, and it's never been like that before. This has made me feel like a learner this year in reo. (Hazel)

In the comments above, one kaiako draws a comparison between He Pī Ka Rere and "Play is the Way," underscoring how the meaningful learning, flexibility, and student-led aspects of He Pī Ka Rere significantly contributed to positive learner engagement. This kaiako reported that the tamariki found He Pī Ka Rere activities to be "more interesting" noting that the tamariki "loved the idea that the games weren't rigid". This highlights that He Pī Ka Rere activities are purposeful, relevant, and fulfilling because tamariki had the freedom to change the rules, roles, or introduce their own elements, adding layers of flexibility and challenge. This feature of He Pī Ka Rere promotes the cultivation of emotional intelligence. According to Mules et al. (2022), high emotional

intelligence is associated with an enhanced ability to pay attention, increased engagement in learning, fostering of positive attitudes and behaviours, the development of empathy, and overall heightened levels of enjoyment.

Another significant aspect of appeal for tamariki was the student-led nature of He Pī Ka Rere. Tuākana actively participated in determining the direction, purpose, rules, and objectives of the activities they conducted for their tēina, enhancing their engagement, and fostering a sense of ownership in the activities. Drawing parallels back to Te Ara a Kiwa, this sense of agency encouraged Hinemoana not to dwell but instead take action. She adopted a strategic attitude, thinking of a way to problem-solve through the challenge she faced. She chose to leverage Kiwa's unique skills to adapt to the situation, ultimately succeeding in her attempt to achieve her goal. Essentially, these quotes highlight that He Pī Ka Rere offers a dynamic and engaging learning experience for tamariki, where they enjoy a degree of autonomy, creativity, and adaptability that makes the activities more enjoyable and meaningful.

The last kaiako quote above also shifts the perspective, portraying the kaiako as the learner and tamariki as the teachers. This kaiako states that “the language and the tikanga has now become almost like it’s pulsing in my room,” indicating the dedication and positive attitudes demonstrated by tamariki toward their learning. These remarks underscore the profound impact of learner engagement in He Pī Ka Rere, influencing not only tamariki but also kaiako.

Interdisciplinary Learning Using Te Ao Māori as a Foundation

Kaiako also discussed utilising He Pī Ka Rere as a basis for expanding learning experiences that encompass diverse skills and their application within a te ao Māori context. Kaiako expressed:

We've been making up our own pūrākau in class about maramataka and Matariki (Māori New Year), because I struggle to find them. So, I had an idea and said to the kids okay, you three are going to plan our story and everyone else will do the technology side of it. And they went home and studied so much and came up with their story plan. It was amazing, it was just beautiful. They're so connected. Then I thought they can also make up a He Pī Ka Rere game around their story. I feel we just need to keep building on this foundation. (Amiria)

Separate from anything else it has been an easy way for the classroom to integrate mātauranga Māori learning throughout because they're picking up on the pūrākau and that can filter on to other areas of learning. (Whetū)

The things that the kids were teaching our babies, I'd take straight back into the classroom. So, if it was a story we'd always refer back to that story if we were doing something in class. But same with the kids. I just love that it moves from not only a movement game base, but it actually comes back into the classroom for learning as well. (Jane)

The first kaiako quote acknowledges the practice of creating new pūrākau, which not only deepens tamariki connections to cultural traditions but also actively encourages them to learn and share their cultural heritage. This approach highlights the flexibility of teaching methods to align with distinct cultural and educational goals, concurrently fostering agency and interdisciplinary learning. Brown and Brown (2022) emphasise the significance of students and teachers demonstrating agency within educational settings, emphasising that:

The ira takaro tenets of creativity, innovation and critical thinking are all now highly valued because education in schools has moved away from its roots in conformity and regimented factory settings. Personalisation and student agency are back in vogue, as they were in pre-European Ao-tea education. (p. 64).

Within this framework, tamariki actively participate in crafting new narratives, utilising technology to weave stories and create He Pī Ka Rere games that apply their learning. In contrast to endorsing agency in the development of new pūrākau, Mules et al. (2022) propose that:

Tākaro should be understood, explored, developed and implemented within the entirety of the cultural context in which it was formed and thus exists. (p. 42).

This quote advocates for those involved in developing or adapting this approach to ensure that throughout the process, kaiako actively reclaim cultural foundations that promote authenticity and integrity. I witnessed measure that were put in place by the lead kaiako Māori to ensure any new game development maintained a focus on te reo Māori, ngā atua and pūrākau. When executed effectively, He Pī Ka Rere embodies a holistic educational methodology, allowing students to draw upon a diverse range of skills and knowledge areas for a comprehensive and enriching learning experience.

Furthermore, the idea of continuously building on this foundation of te ao Māori is prevalent, reflecting a commitment to ongoing learning and development. Kaiako refer to the pūrākau within He Pī Ka Rere as “an easy way for the classroom to integrate mātauranga Māori learning throughout.” They also note that the learning “moves from not only a movement game base, but it actually comes back into the classroom for learning as well.” This emphasises the notion of interdisciplinary learning, discussed previously, where the mātauranga Māori within He Pī Ka Rere

is integrated into the classroom, using te ao Māori as a foundation for relevance across the curriculum.

Taha Whānau: Kura Huna – Ngā Uri o Hinemoana me Kiwa

Kaiako feedback identified four key themes associated with te taha whānau, the social connections that impact one's wellbeing, including relationships with peers, teachers, whānau and the wider community (Durie, 1985). These themes were: 1) growing authentic leaders through He Pī ka Rere, 2) nurturing strong tuākana-tēina relationships, 3) relationship dynamics between kaiako and kaitiaki and 4) strengthening the whānau-school connection.

The section's title, Ngā Uri o Hinemoana me Kiwa, translates to mean the descendants of Hinemoana and Kiwa, shining a light on their offspring and their children. Te Ara a Kiwa as a locality, is renowned for providing abundant kaimoana to those who care for them as taoka,³⁷ aligning with the theme of te taha whānau. When it comes to fostering strong tuākana-tēina relationships, there is once again alignment with Te Ara a Kiwa. To care for and protect both the people and the land, Hinemoana and Kiwa asked their descendants to stay. This selfless act results in an abundance of kaimoana readily available to sustain the local community. However, along with this generosity comes an obligation that those who benefit from this sustenance also appreciate and value this abundance as taoka. If respected, this mutually beneficial relationship will ensure the ongoing care and sustenance of the people and the land. This sentiment resonates with a whakataukī, outlined in Te Papa Atawhai's (The Department of Conservation) strategy called Papatūānuku Thrives (n.d.). The whakataukī states, "Toitū te marae a Tāne, Toitū te marae a Tangaroa, Toitū te iwi" which translates to mean if the land is well and the sea is well, the people will thrive, It outlines the purpose of the organisation as they strive to be respectable kaitiaki of our land and sea.

Within the context of this English-medium school, He Pī Ka Rere had a deliberate emphasis on fostering social connections. Therefore, throughout this section, you will encounter terms like kaiako, tamaiti/tamariki, tuākana, tēina, Kaitiaki, Reo Rangatira, and whānau, illustrating the programme's interconnectedness across year levels, friend groups, teacher-student relationships, and relationships which extend into the home. These relationships offer a lens to examine te taha whānau.

³⁷ Ngāi Tahu dialect, also referred to as taonga or treasure.

Growing Authentic Leaders through He Pī Ka Rere

An overwhelming volume of data and insights centred on leadership, which encompasses social skills and is applied within social contexts. Leadership serves as a catalyst for positive wellbeing, fostering a sense of purpose, belonging, fulfilment, and connectedness among individuals within a community. While He Pī Ka Rere has facilitated numerous leadership opportunities for tamariki, it becomes evident in the following section that these opportunities are intricately connected with Ngā Taonga, an established platform for te ao Māori learning within the school that predates the introduction of He Pī Ka Rere. The forthcoming quotes shed light on leadership in action, including the leadership potential of He Pī Ka Rere within this school context.

There's so much in just the fact that they get to lead. We always talk about our front of the house kids that are the ones who do most of the kōrero. But also for the other kids that are helping correct techniques or even just sort out gear. It's really inclusive to everyone in the class. (Whetū)

The fact that it's student-led, I mean, how often do they get to lead their peers and take turns at doing that, and all the skills that come with that is huge. It's huge, they love it and they want to do it. (Callie)

With the new ones learning it, they're very shy in class. [Tamaiti name], she's very shy. One day I was like, right you're in this rōpū, we're going to do He Pī Ka Rere and I need you to take the booklet home, have a read through it. The next day she ran out and taught the group and the teacher from that class, was like where did this girl come from so confident, extremely confident. She took control and led the whole thing on her own. I was so proud of her. This quiet girl in class. She was just so proud. But yeah, for a quiet Māori girl I don't think she's had these opportunities in her previous school. She just seemed really confident and had a spark in her. Just seeing the excitement they have leading other classes is cool. (Amiria)

It's really creating leaders. I'm talking about 'real' leaders. Leaders have been established here in He Pī Ka Rere, and now they are coming into my classroom and taking on leadership roles in other areas of the class too. There's just such a real difference. I've been teaching a real long time. I guess this is the first time, I've really felt that they have been empowered enough to come forward as leaders in my room. I feel like I've always empowered kids, I've always done that. But for some reason this year it looks very different, and I truly believe it's because the whole class were trained in He Pī Ka Rere at the beginning of the year. (Hazel)

Seeing especially the older students. Knowing the students I've got now, that were babies, I had them when they were juniors and seeing them now in this leadership role, they're so proud and they're so passionate. That's it. You can see it in their face and even in speaking, like cutting out less English and bringing in more reo. (Jane)

These kaiako perspectives revolve around the role of He Pī Ka Rere in nurturing leadership skills, promoting inclusivity, empowering students, cultivating authentic leadership qualities, and

fostering passion and connection among participants. The kaiako emphasised the value of He Pī Ka Rere as a platform for students to develop, practice, refine, and grow their leadership skills. According to Spiller et al., (2015) the wayfinder leader:

Must recognise and cultivate the potential of the people in the waka, so that the group will not only thrive on the journey to the destination but survive should anything happen to the leader. (p. 17).

Kaiako in the quotes above commented that He Pī Ka Rere transcends the mere assignment of leadership roles; rather, it actively creates genuine leaders. As one kaiako described, "It's really creating leaders. I'm talking about 'real' leaders. Leaders have been established here in He Pī Ka Rere." This demonstrates how the programme cultivates leadership potential in these tamariki, irrespective of their background and confidence levels.

Furthermore, diverse leadership roles are acknowledged, with "front of the house kids" taking the lead in discussions and "other kids" assisting in correcting techniques or managing equipment. This sentiment is reflected in the whakataukī, "Ko te amorangi ki mua, ko te hāpai ō ki muri", which translates to mean, the leader at the front and the workers behind the scenes (Whiria, 2020; Mead & Grove, 2001). This whakataukī frequently draws upon marae protocol, likening it to a scenario where speakers are positioned at the front of the meeting house while workers diligently operate at the back, ensuring all preparations are in order and guests are well cared for. It's crucial to recognise the equal significance of both roles, as the absence of either would lead to failure overall. In addition, these kaiako exemplify the outcomes of nurturing authentic leadership qualities, citing instances where even "shy" kids are empowered to take charge and lead sessions independently. These kaiako comments reflect the diverse leadership opportunities accessible to all participating tamariki, emphasising the significance of every role, regardless of its size or scope.

Furthermore, kaiako also stress the significant advantages of the programme being student-led, highlighting the unique opportunity for tamariki to "lead their peers" and acknowledging the importance of acquiring "all the skills that come with that." A palpable sense of pride among tamariki resonates from the kaiako feedback above and was both observed and felt during my wānanga with tamariki. As one kaiako expressed, "I had them when they were juniors, and seeing them now in this leadership role, they're so proud and they're so passionate." This enthusiasm and connection play a pivotal role in the programme's overall success and its profound impact on tamariki development and hauora. However, in empowering the development and growth of such

leaders, kaiako also reported facing challenges with the presence of dominant leaders as well. One kaiako quotes:

Sometimes we have too many dominant ones. The ones that don't know how to step back. But you've got those ones that really want to, that still actually really need the dominant ones for that support. They just want to have a go but can't because the other ones take over. And it's because they're so passionate and so confident in it. I understand that and I get it. But it's about finding the balance. I think about my boy for example, he's a very quiet man, but if he was in the group we are working with now, I feel like he would be the one that would be like 'ohhhhh I really want to, but I don't know if I should say anything'. Or he may take five more seconds to make that decision, but the decision has already been made in two secs. Yeah, and I'd be like son, put your hand up, you know what you're doing, you're good, you love it, this is you. It's just finding that balance for our leaders. (Jane)

This quote illustrates the dynamics and challenges associated with dominant leadership within student-led initiatives, as was the case with He Pī Ka Rere in Murihiku. It emphasised that while both passionate and sometimes dominant tamariki bring value to the group, there's a recognition of the need for balance. Allowing quieter or less assertive individuals, who are equally enthusiastic and capable, to take on leadership roles when appropriate is as important. The notion of balance and duality in tākaro was explored in connection with te taha tāne and te taha wāhine in the insights report by Penetito-Hemara et al. (2023) discussed earlier. In this report, my good friend Chrissy Hiraani-Hilton shares her experiences leading up to achieving pou waru, the highest accolade within Te Whare Tū Taua. She states that:

We must work together in balance – Te taha tāne me te taha wāhine. For me, finding the feminine energy in fighting was difficult, because I had been operating in my masculine energy when I fought. It's a predominant male kaupapa, I was taught by males, so everything I knew was my taha tāne. My inner-healing was about balancing my taha tāne and taha wāhine, so I did more wānanga than physical prep. One thing I realised in my wānanga on the kaupapa of mau rākau... I think our tāne don't see strength in vulnerability. When it comes to being vulnerable, creating space for tākaro helps ease that tension. With vulnerability there is also a subtlety that wāhine bring. My feminine fighting energy is staying calm, not showing frustration and staying composed. Men like to do the big stuff, big whakāturanga, whereas females don't have to do as much – 'Iti te kupu, nui te kōrero.' I realised I needed to get out of my ego state. And tāne require the same balance as wāhine. It's uara, duality, taurite, mauri, whakarite. (p. 28)

This sentiment expressed by Chrissy conveys the significance of establishing balance within the dynamics of leadership in He Pī Ka Rere. While her example relates to feminine and masculine energies, there is correlation with dominant and submissive roles in leadership as expressed by kaiako. Chrissy's kōrero highlights strength in the subtle, vulnerable leadership styles complementary to the dominant, loud leadership styles. She reiterates the importance of balance

in creating an inclusive environment where all leadership styles can coexist harmoniously, not just the dominant ones. Ensuring that everyone has an opportunity to make valuable contributions based on their unique strengths is imperative when it comes to supporting the holistic development and wellbeing of all participants in He Pī Ka Rere.

Nurturing Strong Tuākana-Tēina Relationships

For context, the tuākana are the Year 5 and Year 6 tamariki who undergo training at the beginning of the year to become He Pī Ka Rere Kaitiaki. Their primary responsibility is to lead He Pī Ka Rere sessions up to three times a week for their tēina. The tēina, on the other hand, consist of Year 1 and 2 tamariki who actively participate in He Pī Ka Rere sessions as a crucial part of their weekly learning activities. This section highlights the social dynamics between these tamariki, shedding light on how these relationships significantly contribute to their overall wellbeing.

The tuākana deliver to the year 1/2 children who are our tēina. All of my class have a tēina that they are responsible for looking after. They are buddied up. There is such a great connection and they've only been doing it for two terms. But the tuākana and tēina connections are strong. Some days we are unable to do it, which is not very often and seriously the tēina are so disappointed. Because they love it, and they love being with our tuākana. (Hazel)

They find it a challenge with kids behaviours and then they're reminding us that it's so hard some days and we say well that's you kids too. When I leave the room, that's how you behave. This is what your peers are doing with you. You've got to find a way through that. I see them out there sort of copying our teacher tricks and things. It's quite funny to watch. (Callie)

So, I've got a couple of kids that went to Kōhanga and just even then taking what they pick up out of this and bringing it into the classroom. I know for a fact that in five years' time they're going to be those leaders because they've had it [He Pī Ka Rere] from the get-go. And it's just going to follow them all the way through. (Jane)

These kaiako perspectives highlight the multifaceted nature of tuākana-tēina relationships within He Pī Ka Rere. It's evident that these relationships are highly valued and serve as a learning experience for all tamariki. The primary role of the tuākana in delivering He Pī Ka Rere sessions is emphasised above, highlighting the importance of building, and maintaining “strong connections” with their tēina. Kaiako also emphasise that the tēina greatly appreciate and enjoy their interactions with their tuākana, making these connections meaningful and valuable. The “disappointment” expressed by the tēina on days when they cannot engage in these activities reflects the positive impact these relationships have on their wellbeing.

However, these kaiako also recognise that the tuākana face behaviour challenges from their tēina, which aligns with their role as role models. This dynamic not only teaches the tuākana how to address group management related issues, but also fosters a sense of empathy, resilience and understanding for the behaviour they exhibit in the presence of their kaiako. This is encapsulated in the whakataukī, “Mā te tuakana ka tōtika te teina, mā te teina ka tōtika te tuakana” (Brougham et al., 2012, p. 131). Translated, it means, “it is through the older sibling that the younger one learns the right way to do things, and it is through the younger sibling that the older one learns to be tolerant” (Brougham et al., 2012, p. 131). Therefore, it is unsurprising that tuākana tolerance towards their tēina is often tested, ultimately highlighting the positive reciprocal learning that occurs through their interactions.

Lastly, these kaiako perspectives highlight the long-term effects of He Pī Ka Rere on the development of leadership skills. Tēina who have been involved in He Pī Ka Rere from a young age are likely to become future kaitiaki leaders due to the foundation and skills acquired through the programme. This combined analysis demonstrates that He Pī Ka Rere has influence which extends beyond the short term and has a lasting impact on the wellbeing and development of tamariki across various year levels, especially when mutually beneficial relationships are strengthened and nurtured.

Relationship Dynamics Between Kaiako and Kaitiaki

Kaiako revealed that one of the significant challenges that the tuākana face in the delivery of He Pī Ka Rere is managing challenging tēina behaviour. While there is some basic training that occurs around this at the beginning of the year, it seems that with the introduction of the Kaitiaki Programme (the student-led component to He Pī Ka Rere), the role of the kaiako has become somewhat blurred. My wānanga with the tamariki highlighted that there was a need for kaiako and tamariki to co-design and redefine their roles to better adapt to the way the programme has evolved within the school. Kaiako perspectives included:

Actually that was our next step, we have to sit with the teachers because after the reflections from the tamariki, where they were all just about behaviour. We were like actually this is not their job, it is not. They are the Kaitiaki of the programme, they are not the teacher, they shouldn't be having to tell the children to be quiet. Sometimes in my head I would think, I will step in and help/tautoko them, but I know the teachers need their expectations clarified. Because some don't wanna stand on their mana and are all about 'whakanui (celebrate) the kid'. But then others are like, oh no it's their responsibility. So we need to find that balance to give them permission, but also to kōrero about how to do that without taking away their mana as the Kaitiaki. (Rangi)

Our first session was about respecting and treating others as you would like to be treated. So, it's part of that whole, you have to respect them [tēina] because when it's your turn you are going to want the same in response. So it brings in all those other values as well. I love everything about it. It's great. (Callie)

I love the idea of co-designing with the teachers as well. What is their role, what are the values and what are the key things for the kids to think about. Like what are the qualities, the values they are developing from the programme, because we can generally see it, but actually we haven't focused on it. It is leadership but there are so many elements of leadership. (Rangi)

These kaiako perspectives offer constructive insights into the challenges associated with the evolving nature of He Pī Ka Rere. It's crucial to acknowledge that the introduction of the student-led Kaitiaki programme is a relatively recent addition to the traditional delivery of He Pī Ka Rere, which is predominantly kaiako-led outside of this region. This change in the programme's structure represents an effort to foster additional skills within the tamariki, enhance sustainability of the programme, and expand its reach across the school. This evolution reflects the programme's growth over time, as it transitions from its primary setting in Kōhanga Reo to other educational environments.

The kaiako perspectives above also highlight a specific challenge related to behaviour management within this new structure. The kaiako emphasise the need to clarify roles and expectations, distinguishing the roles of the tamariki as kaitiaki, from that of the kaiako. This clarification is crucial to maintain the autonomy and mana of the tamariki while empowering them in their leadership roles. These kaiako quotes imply that a key challenge is to implement the notion that tamariki are "the kaitiaki of the programme, not the teacher." Kaiako also offer potential solutions around this issue by suggesting a collaborative co-design approach in which kaiako and tamariki work together to clarify their roles, identify values and adapt to the changes in the programme. Balancing kaiako expectations with tamariki capabilities is vital, and finding the balance between empowering students as Kaitiaki and providing effective guidance and mentorship from the kaiako is a significant goal moving forward.

These kaiako perspectives shed light on the evolving nature of He Pī Ka Rere, with an emphasis on behaviour management, role clarification, and the broader values and qualities associated with student leadership. The need for collaborative co-design and a balance between kaiako and tamariki roles is highlighted as a crucial aspect of the programme's ongoing development.

Strengthening the Whānau-School Connection

Bridging the gap between the learning that occurs at school and the learning that occurs at home is paramount in order to really strengthen the connection between whānau, kaiako, tamariki and the application of their learning outside the school. Kaiako again had an overwhelming amount to say about the whānau-school connection. Several key themes emerged, illustrating the impact and significance of He Pī Ka Rere on whānau engagement, collaboration, and the broader school community. These kaiako expressed:

It [He Pī Ka Rere] has brought our whānau back in and I suppose throughout my entire time at the kura and engaging our Māori whānau that has been on my mind. That we don't have a Māori measuring stick. We take you as you are, it is not your fault if you don't know. But that's also how I unite people around 'he toa takitini,' (it is the strength of many) so you may not have the reo, but you have this, and we can work together. You may have had 'this' in your schooling or your upbringing and that's awesome tell us about it and if you didn't, what do you want to learn? I always say, what we can unite on is our tamariki and what we want for them! So whether your experience has been negative or positive if we put our whakaaro (thoughts, opinions) and moemoeā (dreams, vision) together then we can push that out for our kids. We've got mean marae whanau. Because even if there is whakamā (ashamed, shy) around Māori identity, they re-engage for their kids. We know that our mahi has a ripple effect and that is secretly part of the tino kaupapa (important topic). We know that when we get the kids, we get their whānau. (Rangi)

Without He Pī Ka Rere I would struggle to connect with my whānau. Sending them messages, giving them phone calls. I think they're just shy as well, they pull away. (Amiria)

You would get massive whānau and community support behind He Pī Ka Rere if they knew everything about it. I don't know how much Rangi and Whetū have built that part. But I think we have a pretty good following. But it would be our Māori whānau who would be the ones that carry it. (Jane)

As stated in Chapter 2, as of July 1, 2023, 76% of tamariki who identify as Māori, are enrolled in English-medium schools (Ministry of Education, 2023). Which warrants discussion surrounding aspirations whānau have for their tamariki, including the strength of their relationship with the school. Emeritus Professor Wally Penetito (2011) reinforces that:

Māori parents were adamant their children should be exposed to the ‘best of *all* worlds.’ Most were not interested in restricting their children’s education to any single world, Māori or Pākehā, sacred or secular, individualistic or communal, practical or academic. In classical postmodernist terms they wanted their children to inherit a rich spiritual, cultural and materialist world. (p. 260)

The first kaiako quote above reiterates He Pī Ka Rere’s role in “bringing whānau back in” and “engaging our Māori whānau”, illustrating that He Pī Ka Rere serves as a bridge to engage Māori whānau in their children's education. Moreover, Penetito (2011) posits that, “It is difficult to hear or read anything about Māori education that does not in some fundamental way link back to issues about identity” (p. 265). These kaiako quotes provide evidence that He Pī Ka Rere promotes an inclusive approach, welcoming individuals regardless of their prior knowledge of their Māori culture, language or identity. Rather, the kaiako's philosophy is to accept whānau as they are, reducing feelings of inadequacy or guilt and empowering them to support the kaupapa as best they can.

Furthermore, He Pī Ka Rere unites the school community, bringing together both Māori and non-Māori, with a shared objective of supporting their tamariki. The common goal of providing the best educational experience for the children helps transcend differences and fosters a sense of community. Kaiako also expressed that through their participation in He Pī Ka Rere, whānau gain opportunities to support their children's learning and growth. The survival of numerous facets of Māori culture has relied on the intergenerational transmission of knowledge, therefore maintaining a positive discourse of Māori as strategic agents of change provides a more balanced insight into the rationale for whānau to connect with learning environments such as schools (Hoskins, Tocker & Jones, 2020). Therefore, this level of involvement empowers whānau, providing them with a sense of purpose, levels of whānau agency and opportunities to play an active role in their children's education. This was evident during my experience at the noho marae, where many whānau took on an active supporting role in running the kitchen while their tamariki participated in the wānanga activities.

The purpose of interweaving Te Ara a Kiwa into this analysis was to enable tamariki, kaiako and whānau to find resonance in the whakapapa, stories and cultural landscapes of significance to them. By providing examples of how they can inquire with their tamariki and physically visit local sites of significance within the pūrākau, this invites whānau to be involved in their learning journey and for tamariki to share their learning in He Pī Ka Rere.

Furthermore, another significant theme that kaiako emphasised during their interviews is the importance of effective communication with whānau. They said:

We post, we are prolific at showing what we've been doing for mahi on Facebook, so they see. Last year we put up a video and my whanaunga, her son is autistic and he's way bigger than most his age. [Tamaiti name] is his tuākana and there's this beautiful photo of [Tamaiti name] holding his hand running and doing an activity with him and encouraging him. He does the kick board and he catches the tīī and it was just beautiful and natural and we did not give them any cues to do that and I caught it on camera. And his whānau were online and saw the post, and all of them were messaging me privately in tears saying 'look at our boy, he's doing skills, and he's happy'. So, that side of things they see even if they're physically not there. (Rangi)

From what I observe there's a pretty dedicated whānau who were keen for any opportunity to learn about anything Māori for their tamariki. It's the communication. We're always posting photos or videos of sessions that we run and then I like to always see kids everywhere and parents are just like you're famous in our household. They've got something to kōrero with their tamariki about. It's almost like letting them into your classroom. (Whetū)

These kaiako expressed the power of social media, in creating a connection between the whānau and the school, reiterating the importance of technology. Sharing photos, videos, and updates promotes transparency and provides insight into what happens in the classroom. This practice allows whānau members to stay informed and feel connected to their children's educational experiences.

However, one area for further development is facilitating ways for parents to replicate and reinforce He Pī Ka Rere learning at home. One kaiako shared that:

It's the little things and we know that, where we hear that the kids get up and haka at their grandfather's 70th birthday, just because they know that it's the right thing to do. It's those little things where they take what they've learnt or built up inside them to be confident and they take that out to their own world. They take their Māoridom out to spaces. Which is something that their whānau haven't had but very much appreciate. (Rangi)

While this kaiako reported that parents discuss their tamariki's growing confidence in te ao Māori, which they witness at home, there are more opportunities where this learning could extend beyond the classroom. For instance, as a result of their experiences in kapa haka within Ngā Taonga, one parent reported that they were so proud that their child spontaneously performed a "haka at their grandfather's 70th birthday." These organic and very natural expressions of their cultural identity demonstrate that the tamariki can apply the mātauranga and tikanga learned at school in various settings throughout their whānau life. In this context, further development around ways to integrate the teachings of He Pī Ka Rere into the home environment should be prioritised too. For example, making knowledge about various atua, kaitiaki, and pūrākau a natural part of whānau conversations at home will ensure even more reach and encourage even stronger

relationships between whānau, tamariki, and the school community. The strength of these relationships contributes to positive outcomes for tamariki and create a supportive environment for their educational journey.

Taha Wairua: Kura Huna – Te Niho o Kewa

Te taha wairua encompasses the spiritual beliefs, values, and connections that are essential for holistic wellbeing (Durie, 1985). Three key themes from kaiako responses were identified in association with te taha wairua: 1) honouring whakapapa and cultural identity, 2) navigating the authentic integration of atua Māori within the school and 3) promoting cultural practices: te reo me ōna tikanga.

Te Ara a Kiwa speaks of Kiwa's remarkable ability to shapeshift into any sea creature. As a result, Kiwa uses his supernatural powers to transform into Kewa, a giant whale. It is for this reason that the title of this section is, Te Niho o Kewa, symbolising the teeth Kewa lost in his pursuit to bite through Te Puka a Māui (the anchor rope). In successfully doing so he loses two teeth which became rocks. The largest of them is named Te Niho o Kewa – The Big Whale's Tooth. This metaphor aligns with te taha wairua because He Pī Ka Rere centres its activities on atua, naturally shifting the focus from the physical realm to the metaphysical realm.

It's a way to acknowledge our tamariki and their culture. And respect it and include it. It gives those kids a chance to really shine and really be proud that they get to be in that role. Some of our tamariki actually get to go to the Tītī Islands (Muttonbird Islands) and get to come up and give their kōrero. So, it really values their culture and their experiences. I just love that it gives our tamariki Māori a chance to shine unapologetically. They know and they can feel it. (Whetū)

Kaiako affirm that their tamariki wholeheartedly embrace and “respect” these cultural experiences, reinforcing a deep sense of pride in their cultural identity. Drawing parallels between this theme and Te Ara a Kiwa, Hinemoana faced a challenge in deciding the name for the area Kiwa carved out. Interestingly, two names are associated with this land mass – Te Ara a Kiwa and Te Ara a Kewa (Te Rūnanga o Ngāi Tahu, 2022). These names acknowledge Kiwa's dual identity as both a tupuna and a whale. Understanding this dual identity is crucial as it honours the whakapapa ties to this place. Reflecting on Te Niho o Kewa, many non-Māori know this island as Solander's Rock. The preference to call this section Te Niho o Kewa actively seeks to decolonise the language used and prioritise Māori cultural narratives. This commitment to prioritising te reo Māori over English is also evident at this school, where Māori words take precedence over their English counterparts.

Honouring Whakapapa and Cultural Identity

It was evident that He Pī Ka Rere played a significant role in empowering tamariki Māori to enhance their cultural identity, and foster a strong sense of pride in their whakapapa. This is reflected in the following quotes from kaiako:

Specifically for our Māori tamariki, many (not all) are reasonably disconnected from their whakapapa. Whether it be via distance from their tūrangawaewae or being Ngāi Tahu (Southern tribal group) (so historical or distance), they are the ones that are actually reclaiming their mana Māori for their whānau. So, these kids who have grown through, whether they are five-year-olds who are participating in He Pī Ka Rere or the Year 6's running it, they just have that little spark that says this is mine. They just inherently know that, and I must say, that is a message that we//all of us nail into them. A message that this is yours and you should be proud to be Māori and have Māori whakapapa. It doesn't matter what you've had or what your whānau haven't had, you're Māori. (Rangi)

Those core students [original Kaitiaki leads] just took everything Māori on board. Those girls and boys were just into anything Māori. And so, they just ate that up and they loved it. They loved being a part of it. (Callie)

The kaiako quotes above mention that tamariki Māori associate He Pī Ka Rere as being “mine,” reinforcing that they “inherently know that”. This attachment to mātauranga learned and shared in He Pī Ka Rere illustrates the enthusiasm and engagement among tamariki who wholeheartedly embrace and cherish all things Māori. Moreover, this demonstrates ways in which tamariki aim to reclaim Māori knowledge and teaching as theirs. These kaiako also expressed that He Pī Ka Rere provides a valuable opportunity for tamariki to actively participate in cultural activities, honouring a connection to their whakapapa. This, in turn, helps them build confidence and a strong sense of identity, establishing who they are and where they come from. Highfield and Webber (2021) reinforce this idea by stating that “when Māori students feel confident and competent in both their own culture and in the culture of the school, they know that learning can occur without forsaking their Māori identity to attain an academic one” (p. 158). This enthusiasm highlights the significant and positive influence of He Pī Ka Rere in fostering a deep sense of pride and appreciation for their Māori identity and culture. For many tamariki Māori, kaiako expressed that the programme also serves as a means of re-establishing connections with their whānau and whakapapa. It bridges the gap between their current experiences and their cultural roots, providing a sense of belonging and connection – a sentiment echoed in the context of the whānau-school connection discussed in the previous section. These kaiako quotes suggest that He Pī Ka Rere fosters a robust sense of pride in being Māori, providing tamariki with the opportunity to engage with and apply cultural knowledge, language, and traditions, therefore participating ‘as Māori’. It also offers

a pathway for reconnection with their ancestral ties and the reclamation of their mana Māori, leading to a profound impact on taha wairua outcomes for tamariki.

Navigating the Authentic Integration of Atua Māori Within the School

Several key discussions emerged around the focus of atua Māori within He Pī Ka Rere, including discussion around the benefits, challenges, normalisation, and demystification of Māori cultural and spiritual elements within educational settings. I explicitly inquired with kaiako about their perspective on how tamariki responded to the introduction of atua Māori within the programme, and they shared the following insights:

I really connected to the atua component. Because in little old Murihiku, that is actually something that our ECEs, Kōhanga and Kura can actually attach to. It's something that doesn't necessarily (and I don't mean this in a bad way) have to come from mana whenua. It's te ao Māori, it's accessible and because there's the taiao element, the personification of the elements is something that the kids really engage with. In terms of the mātauranga, just going in more depth with each atua and seeing the diversity of connections that you can make to the taiao, to movement and to mātauranga is amazing. (Rangi)

If we're looking at inquiry, Māori atua, myth, legends and stories, we take those games and I just end up putting it into our plan and it ends up being part of our whole inquiry. So, it actually comes in as a whole He Pī Ka Rere game. If it was about Tāwhirimātea (deity of the wind) or Tangaroa (deity of the ocean) the actual games are put straight into the plan. So if you're passionate about it, you'll definitely see it in the class. (Jane)

I haven't got anyone who worried about the atua aspects of the programme. I know there can be tension, but it's a part of our school, we've always talked about these things. It's painted all over our school, it's part of the culture and if you come to our school, you accept that is what our school is about. It's everywhere, so it's normalised. (Callie)

In relation to atua, some kids have said they're not a god? I don't call them gods, I call them atua! Then they're like, isn't that God? I say to them that we're coming back to the beginning, our creation. We also associate atua with human-like characteristics so we can understand them better and we talk about them as kaitiaki, protectors. We're still getting there with this. There are so many multiple beliefs that are held within that space. When you enrol your tamariki, into Kōhanga Reo, you get the gist that they're going to learn about all our ngā atua Māori. But over here, not necessarily so. And actually, in the education space, people tend to steer away from anything spiritual, religious, or anything that has to do with any faith. So yeah, that's cool to know. Even with karakia in the class. We say our morning karakia, but we are not praying to God. I say to the kids that we're just wanting to have a good day and we're just going to ask whatever is out there to help us have this good day. Now they're doing it and it's becoming normal. I think it's not very normalised elsewhere. So, I'm normalising it in my classroom. (Amiria)

According to Brown (2008) “games connected Māori directly and powerfully to their spiritual beliefs and their wairua. All games had strong links to numerous atua, which Māori believed were the guardians of the realms of the world” (p. 9). The kaiako above express both the benefits and challenges of integrating culture, particularly surrounding the inclusion of atua Māori, within their school setting. They acknowledge the importance of introducing cultural and spiritual elements in a way that is accessible and meaningful to students. Benefits include a sense of connection to te ao Māori and the engagement of students, especially through the "taiao" element, which involves the personification of natural elements. However, kaiako also acknowledge that there can be challenges and varying beliefs among students, especially those from different spiritual backgrounds.

Kaiako noted the prevailing tendency to avoid topics related to faith or spirituality in educational settings, reflecting a broader societal context. Warbrick, Makiha, Heke, Hikuroa, Awatere and Smith (2023) provide a perspective on ways in which Indigenous peoples view their spiritual connection to the environment in the following quote:

For Indigenous peoples, the mountains, forests, wetlands, rivers, estuaries, and oceans, as well as astronomical features, are often personified and referred to as having familial and genealogical links to humankind. (p. 1)

This viewpoint supports the way both the school and kaiako integrate and choose to normalise atua Māori and other cultural practices, such as karakia, which is described as being foundational to their school culture. For example, to make atua more understandable and relatable, kaiako reported that they choose to refer to them as "kaitiaki" with “human-like characteristics” and a connection to creation, rather than equating them to Western concepts of gods.

This approach can also be applied to Te Ara a Kiwa. While Kiwa’s magical powers to transform may not align with Western scientific explanations for how islands are formed, presenting a pūrākau in alignment with Māori spiritual belief systems enables tamariki to accept and engage with these cultural elements more readily. It underlines the crucial role kaiako play in familiarising tamariki with cultural rituals and practices, even if these practices differ from those in other educational contexts. These kaikao perspectives highlight the importance of demystifying spiritual concepts to help tamariki with diverse belief systems better connect with the valuable learning opportunities they offer.

Promoting Cultural Practices: Te Reo me ōna Tikanga

Te taha wairua not only encompasses spiritual belief systems and practices but also cultural customs and traditions that revolve around the authentic expression of one's identity, beliefs, and whakapapa. Kaiako reflected on the impact of their tamariki participating in He Pī Ka Rere and their use of te reo Māori and tikanga. They shared the following insights:

We introduced the roles of Reo Rangatira this year because we just wanted to extend their reo. So, we had lanyards made with some reo that they could be using as part of their sessions. Kupu that we didn't think they were using enough or that they were just forgetting to use. By putting somebody in that role that kept their accountability when we weren't there to supervise. In some classrooms, that accountability has skyrocketed. I have students giving me tips on the reo I use. And why not keep us all accountable because the more reo, the better. (Whetū)

It's a fun way to introduce so many commands and reo. (Jane)

Then the tikanga too... So, when they were doing the rākau games, it was a wet day so we had to come inside. So, the tikanga to do with rākau activities teaching the little ones, things like you can't step over them, and all that goes with how we hold the rākau and how we use the rākau. The learning in it for the wee ones is really big. At the end of every session, we do a warm down. We do 'hā ki roto, hā ki waho' (breathe in, breathe out) and we go through all the gods and so we do this beautiful warm down at the end of every session, it's so calming. Meanwhile the little kids are learning all the names of the atua and who they are. The other beautiful thing that is happening is just the respect and the mana too. So, at the end of every session the kaitiaki (I've not done any of this) they'll stand up there and they will acknowledge their tēina for participating and the way that they have demonstrated their skills (they'll give them a positive comment). Then they do the same for their tuākana. So, they give out these words of positivity raising the mana of the kids in the classroom. (Hazel)

The kaiako above shed light on the evolution of He Pī Ka Rere within their school environment, particularly through the introduction of Reo Rangatira roles. These roles aim to expand students' te reo Māori vocabulary and use, and they have played a significant role in promoting and maintaining the use of te reo Māori both inside and outside of the classroom. This in effect shifts tamariki from being passive recipients of te reo Māori to active ones (Higgins & Rewi, 2014). Kaiako express that the Reo Rangatira roles have instilled a sense of accountability among both tamariki and kaiako, enhancing the overall learning experience for all. While they also emphasised that those tamariki who take on such leadership roles, sometimes surpass their teachers and become the "kaiako for everyone," which is a key benefit of the programme.

Kaiako also reflect on the incorporation of tikanga into the activities and the practice of acknowledging participation with respect. This highlights the significance of teaching cultural practices and protocols in school settings, which is in alignment with the objectives outlined in the

Education and Training Act 2020 (Ministry of Education, 2021b). Providing positive feedback to their peers and practicing mutual respect in te ao Māori is a way to acknowledge and uplift each others' mana. In effect such practices help to foster positive relationships and a supportive learning environment for tamariki. Penetito (2011) asserts that Māori aspire to be 'treated equally' as a fundamental right, but also to be 'treated as equals.' However, he adds:

That has still to be achieved and, paradoxically, is dependent on non-Māori New Zealanders choosing to know more and more about what it means to be tangata New Zealander, one who belongs to the land instead of merely wanting to own it. (p. 270)

I include this quote here because these insights from kaiako not only indicate a commitment and enthusiasm among them to authentically and meaningfully integrate te reo Māori and tikanga within their school, but all kaiako (both Māori and non-Māori) conveyed a genuine desire to learn and experience more for the benefit their tamariki. learning. This collective approach supports outcomes related to te taha wairua and nurtures positive learning experiences for tamariki. This concludes this section on kaiako perspectives. Section Two now moves on to tamariki perspectives of He Pī Ka Rere.

Section Two: Tamariki Perspectives

Capturing and analysing the voices of tamariki is crucial for understanding the impact of pūrākau-based physical activity on their hauora. During my visit to Murihiku, particularly during the noho marae, the Awa Mapping – A Wayfinding Framework activity I conducted with tamariki was a rich source of data and insights. In collaboration with Darrio, we also facilitated additional He Pī Ka Rere activities for tamariki to add to their toolkit. However, as discussed in Chapter 3, the nature of the noho marae format, where my research kaupapa was one part of a larger gathering, meant that dedicated time with tamariki was limited and sometimes consumed by other tikanga-related activities associated with the noho for example, pōwhiri (welcome ceremony on a marae), whakawhanungatanga (relationship building), mana whenua kōrero (ancestral speech from those of that area), pō whakangahau (concert at night) and kai preparations. Consequently, my time in Murihiku involved less direct facilitation of activities with the tamariki and more of a focus on conducting six kanohi ki te kanohi interviews with kaiako. Instead, informal observations and discussions with tamariki, alongside debriefs with Darrio, who concurrently ran activities, played a crucial role. This approach offered a more holistic understanding of the impact, allowing me to absorb how He Pī Ka Rere influences hauora outcomes rather than relying solely on direct

questioning. These collective experiences shaped the wānanga and significantly influenced the subsequent raw data collected and analysed in this chapter.

It is essential to acknowledge the diverse layers of tamariki participants in He Pī Ka Rere. As previously mentioned, these included Year 5 and 6 tuākana/Kaitiaki who were responsible for leading sessions, as well as Year 1 and 2 tēina who participated in the activities. The tuākana also performed various roles such as Kaitiaki and Reo Rangatira roles. Additionally, a few He Pī Ka Rere graduates chose to participate and share their experiences with me. While the primary focus of this chapter centres on my wānanga with Year 5 and 6 tamariki, the perspectives shared in this section benefit from the programme's longevity, as many tamariki had experienced He Pī Ka Rere as tēina as well.

The word cloud depicted in Figure 26 below was derived from the transcribed responses provided by tamariki from the post-it notes they used capturing their responses to the prompts they were given during the activity. The subsequent section will examine their responses to these prompts, offering a more comprehensive understanding of how tamariki perceive and experience the effects of He Pī Ka Rere on their overall hauora.

Figure 26: Tamariki Perspectives on He Pī Ka Rere's Influence on Their Hauora



Awa Mapping – A Wayfinding Framework

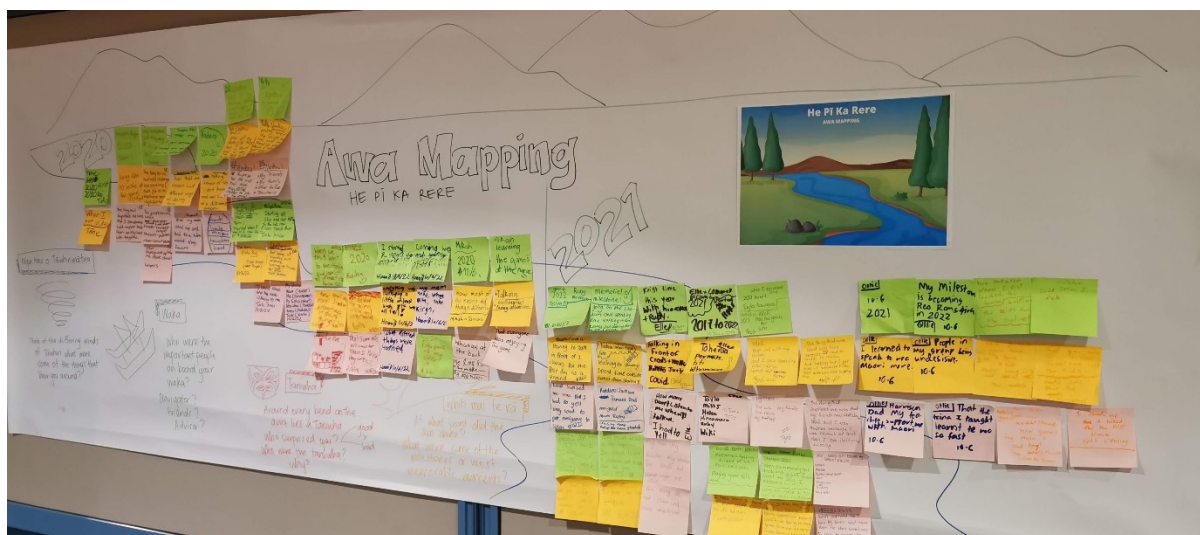
To capture insights from tamariki and amplify their lived experiences, I deemed it essential to employ creative, enjoyable, and meaningful data gathering activities that reflected the nature of play. An explanation of the Awa Mapping – A Wayfinding Framework activity is detailed in Chapter 3, along with an example of the activity framework and prompts which are illustrated in Figure 16. This activity incorporated various atua references to guide tamariki in mapping their experiences with He Pī Ka Rere. The purpose was to explore their journey as participants and/or enablers, using a wayfinding frame of reference. Instead of specific hauora-related questions, the focus was on understanding their entire journey, utilising pūrākau references and familiar atua to elicit more meaningful, narrative-driven responses. After writing their reflections on post-it notes, tamariki posted them onto a large hand-drawn awa displayed on the wall using butcher paper. See Figure 27 for an example of tamariki engaging in this activity, and Figure 28 for a representation of the insights captured during the wānanga.

Figure 27: He Pī Ka Rere Wānanga – Tamariki Participating in Awa Mapping Activity



Source: Personal collection.

Figure 28: Awa Mapping Insights From Tamariki Participants of He Pī Ka Rere



Source: Personal collection.

This upcoming section is structured under six distinct headings, each corresponding to specific prompts. These prompts were designed to elicit insights from the tamariki regarding their experiences and the impact of He Pī Ka Rere on their journey. This section provides insight into each prompt including an array of tamariki responses. These are then analysed in relation to the dimensions of Te Whare Tapa Whā, exploring any correlations with the kaiako responses and integrating relevant literature.

Te Tīmatanga

Te Tīmatanga means to commence, start or begin therefore this prompt provided insights into when the tamariki were initially introduced to He Pī Ka Rere, shedding light on the duration of their involvement and experience. The tamariki who took part in this activity exhibited a diverse range of experience levels. Among the 23 tamariki participants, four had progressed to intermediate school, while others began their He Pī Ka Rere journey as tēina and are now tuākana leaders within the school. This evolution is reflected in various roles, including graduates/alumni, Kaitiaki and Reo Rangatira. Refer to Table 13 below for an overview of the distribution of tamariki based on the year they commenced He Pī Ka Rere at school:

Table 13: Distribution of Tamariki Participation in He Pī Ka Rere Across Years

Year	Number of Tamariki
2017	3
2018	1
2020	5
2021	3
2022	9
Total	23

This table highlights that 52% of the tamariki perspectives within this section reflect those that were new (2021-2022) to the programme, while 48% had been various levels of involvement spanning from 2017-2020.

Whiti Mai te Rā

Whiti Mai te Rā as a prompt revolves around Tamanuiterā, the central atua symbolising the sun. Much like the sun's journey of rising and setting, casting light throughout the day, tamariki were prompted to reflect on their He Pī Ka Rere journey and record any significant moments, milestones, and memorable experiences that have left a lasting impact on them. The dominant theme associated with Whiti Mai i te Rā surrounds leadership, with 74% of the tamariki participants sharing milestones related to the significance of assuming roles such as Kaitiaki, Reo Rangatira, or leading sessions with their tēina. Below are some of their insights regarding leadership:

My milestone was stepping up to be a Kaitiaki. (T2)

I remember when I got someone involved who didn't want to get involved. (T1)

My milestone was the first time leading He Pī Ka Rere with voice. (T19)

Getting picked to be a Kaitiaki 2021. Playing a game with Tāne where somebody got stuck and didn't know what to say and I stepped in. Being the first one to get a goal in the group. (T14)

Starting off shy and not talking to the kids, now I can teach them. (T4)

I'm proud to be a Reo Rangatira, to be a tuākana and to look after the tēina. (T9)

The second prevalent theme, though less prominent, recognised by 26% of the tamariki, revolved around the learning, socialising, and joy experienced through their participation in He Pī Ka Rere. They recalled moments which included:

My nanny and grandad got to come and watch me. (T20)

Going to the stadium and spending time learning Māori kēmu and learning from my Year 6 friends. (T6)

It was the first time this year I got to do HPKR with [tamaiti name] and [tamaiti name] (T11)

In taking on these roles within He Pī Ka Rere, tamariki reported feeling a sense of pride and mana, contributing to increased levels of confidence and self-esteem. Tamariki also referred to “stepping in” and “stepping up” highlighting growing levels of confidence to assume leadership roles within He Pī Ka Rere.

Some tamariki expressed joy and accomplishment in successfully leading others, especially those tēina who were hesitant to participate or needed extra support. While one tamaiti mentioned that teaching did not come naturally initially, but they grew in confidence throughout the journey, illustrating personal growth and a sense of responsibility. These moments of growth are indicated in comments such as “starting off shy and not talking to the kids,” showing progression toward being confident leaders and teachers. Furthermore, this highlights the reciprocal nature of learning within He Pī Ka Rere, where tamariki evolve from learners to teachers. These sentiments align with kaiako feedback on the theme of Growing Authentic Leaders Through He Pī Ka Rere, emphasising its profound impact on taha whānau and taha hinengaro outcomes for tamariki. In regard to Te Whare Tapa Whā, the mental, emotional, and social skills nurtured through He Pī Ka Rere, as evident in these comments, reflect the concept of wayfinding leadership. According to Spiller et al. (2015) wayfinder leaders continuously refresh their thinking and embrace a growth mindset by shedding rigid mental models. Hence, the demonstrated growth, development, leadership, and increased levels of confidence collectively indicate the positive impact experienced by tamariki through their participation in He Pī Ka Rere.

Expressions like "my nanny and grandad got to come watch me" and other reflections on learning alongside their friends further reinforces the social benefits stemming from their involvement in He Pī Ka Rere. This aligns with a primary goal of the programme being, Whakawhanaungatanga – Connectedness (Toi Tangata, 2022). Toi Tangata (2022) propose that “through healthy trusted

relationships a child is better able to learn” (p. 9). Therefore, the role of physical activity, play and games as a vehicle to strengthen te taha tinana throughout He Pī Ka Rere is affirmed.

Tāne-nui-a-Rangi

This prompt centres on Tāne-nui-a-Rangi, an atua who ascended the twelve heavens in pursuit of knowledge. He acquired three baskets of knowledge: te kete-tuatea (basket of darkness), te kete-tuauri (basket of light), and te kete-aronui (basket of pursuit) (Royal, 1998b). Mirroring Tāne's journey, the tamariki were encouraged to contemplate three new things they learned, whether about the programme itself or about themselves as participants in He Pī Ka Rere.

Tamariki identified three prominent themes encapsulated in their journey with He Pī Ka Rere. The dominant theme reported by 65% of the tamariki surrounded the acquisition of new mātauranga, including understanding about various atua, pūrākau and engaging in games rooted in pūrākau and the taiao. This is reflected in the following quotes:

I learnt Kupe was the first person to come to Aotearoa and that only certain families can gather tīti. (T23)

I have learnt all the atua. (T16)

I loved learning the first story of Te Wheke. (T2)

I learnt more Māori and that Papatūānuku and Ranginui were stuck together. (T22)

Another theme reflecting 22% of the tamariki, centred around the enhancement of reo Māori proficiency. Their comments are reflected below:

He Pī Ka Rere helps me with my Māori, and I love learning new stories and kēmu. (T11)

I learned to speak te reo Māori more. (T12)

I learnt that Māori is my thing and learning the games. (T18)

While the final theme was the importance of adaptive leadership skills, including their ability to modify their leadership style in response to their environment. This was identified by 13% of tamariki and the theme finds resonance in the remarks below:

I learnt that you have to be a real leader and help the kids. Make sure the rules are clear. (T13)

Being able to make the game our own. (T4)

I learnt to always spend time outside rather than staring at the screen all day. (T9)

These themes align with similar themes identified by their kaiako, in Section One of this chapter under Promoting Cultural Practices: Te Reo me ōna Tikanga, and Honouring Whakapapa and Cultural Identity. Tamariki expressed an affinity for knowledge that mirrors their whakapapa, a keen interest in acquiring te reo Māori, and a growing sense of self-awareness as leaders within He Pī Ka Rere. This aligns with He Pī Ka Rere goals surrounding Whakawhanaketanga – Child Development and Te Whai Paranga – Attainment of Skills (Toi Tangata, 2022). He Pī Ka Rere provides these tamariki with a valuable opportunity to tap into a crucial developmental window, exposing them to various aspects of movement, te reo, mātauranga Māori and leadership. This foundation enhances the likelihood of sustained engagement not only in physical activity but activity that reflects who they are as Māori. Comments like “I learnt that Māori is my thing” and “He Pī Ka Rere helps me with my Māori, I love learning new stories and kēmu” affirms the deep impact that the programme has on their cultural identity.

Furthermore, these tamariki are honing their abilities as leaders and facilitators of Māori physical activity, which is well beyond their years. This skill development positions them as composers of games, programmes, and experiences that blend mātauranga, pūrākau, and movement, ultimately contributing to multiple hauora outcomes being achieved, not only for themselves but those they engage with. Toi Tangata (2022) reinforce this notion stating that, “these principles align seamlessly to traditional Māori practices of child raising” (p. 9). The testimonials from these tamariki highlight the programme's success in not only imparting knowledge about cultural narratives and games, but also in fostering a deeper connection to Māori identity and language.

Ngā Hau o Tāwhirimātea

This prompt focuses on Tāwhirimātea, an atua associated with the weather, including the various winds and storms. Tāwhirimātea is often depicted as a powerful force symbolising the dynamic and ever-changing nature of the weather in the natural world. Drawing inspiration from the realm of Tāwhirimātea, the tamariki were prompted to reflect on the winds that influenced their own He Pī Ka Rere journey. The prompt encouraged them to identify challenges or barriers they faced and record the strategies they used to overcome them.

Tamariki identified four themes associated with challenges or barriers arising from their participation in He Pī Ka Rere. The primary theme, cited by 40% of the tamariki, revolved around issues related to group management and behaviour. During the wānanga, tamariki explicitly expressed their struggles, as reflected in the following quotes:

Kids not listening, being clueless, not knowing what to do. (T14)

Trying to get tēina to listen. (T1)

New games were hard to teach to kids, people being silly and talking over leaders. (T8)

To keep the tēina listening and entertained. (T16)

The second prominent theme, representing 26% of the tamariki, focused on communication challenges they encountered as facilitators of He Pī Ka Rere. Their comments are outlined below:

Having to talk in front of two classes for the first day as a beginner. (T3)

Probably one of the things that was hard was stepping up and being a talker and explaining everything. (T21)

A less pronounced theme, identified by 17% of the tamariki, pertained to adapting to unexpected changes, aligning with the adaptive leadership skills theme mentioned in the previous section. Their comments were as follows:

Having to change games fast and not being ready. Being in the wrong place. Group not being here so having to do the kēmu alone. (T7)

Changing games too quickly and not being ready. (T19)

The weather on some days. (T5)

The final theme, reported by another 17% of the tamariki, highlighted time constraints as a challenge. This theme is echoed in the remarks provided below:

Sometimes I didn't get to do He Pī Ka Rere because we didn't have time. (T2)

The thing that was hard was 'time' because they [tēina] had so much to learn. And 'talking' but I got over it because I knew that my whānau was there to help me. (T11)

Definitely the time limit. (T23)

These insights shared by tamariki highlight various challenges, including maintaining tēina engagement and addressing disruptive behaviour, which are subjects acknowledged by their kaiako under the overarching theme of Nurturing Strong Tuākana-Tēina Relationships.

Furthermore, the need for skills in clear communication in front of large groups was also identified with one tamaiti expressing difficulty in “stepping up and being a talker and explaining everything.” There appears to be a correlation between these observations and the previously mentioned theme of developing adaptive leadership skills through their participation in He Pī Ka Rere. I view these challenges as constructive, providing opportunities for tamariki to overcome obstacles and acquire skills as 'real leaders.' Toi Tangata (2022) suggests that He Pī Ka Rere "requires children to listen, to leave their comfort zone, and also requires them to trust" (p. 8). Though challenging in the moment, these experiences contribute to valuable lessons that influence taha hinengaro, taha wairua, and taha whānau.

External environmental factors, such as adverse weather conditions like wind and rain, also played a role in influencing group dynamics. In addition, time constraints emerged as a notable challenge, hindering the full engagement of tamariki in He Pī Ka Rere activities. Covering all aspects of He Pī Ka Rere during their sessions proved challenging, as expressed by one tamaiti who noted that time was a limiting factor because “they had so much to learn.” Kaiako confirmed the substantial learning and tasks associated with He Pī Ka Rere, underscoring the importance of this theme and its impact on both tamariki and kaiako.

He Piko, He Taniwha

This prompt draws inspiration from the whakataukī, "Waikato taniwha rau – He piko he taniwha" which translates to mean Waikato of a hundred taniwha, on every bend a taniwha (Royal, 2017, para. 3). Taniwha are supernatural beings which are perceived by some as guardians, chiefs and protectors, while others see them as potentially dangerous. Metaphorically, this prompt was employed to encourage reflection on any surprises, whether positive or challenging, that the tamariki encountered during their engagement with He Pī Ka Rere. A range of their views are captured below:

The thing that surprised me was that I sometimes held myself back from being creative with the game. (T2)

How many don't listen to me when I talked. I had to yell. (T10)

I could speak Māori and they were listening to me. (T4)

How my tēina new more than me. (T14)

I was surprised because I was nervous at first then I loved it. It was amazing. (T11)

That some kids are smarter than I think they are. (T5)

A surprise for me was how much everyone wanted to play all the games. (T3)

Tamariki shared a spectrum of surprises with me and as a result there were no clear themes identified. Surprises ranged from positive experiences like tēina enthusiasm and quick learning, personal growth, and peer support, to challenges in communication and attentiveness. Positive surprises included the eagerness and swift comprehension of their tēina as expressed in the quote “some kids are smarter than they think they are,” showcasing their knowledge levels and how engaged they were in the activities. There were also surprises in relation to personal growth acknowledged in the comment “I sometimes held myself back from being creative with the game.” This tamariki discovered a newfound confidence in speaking te reo Māori and unlocking their creative potential through modifications and the creation of new He Pī Ka Rere activities. This mirrors the assertion by Brown and Brown (2017) regarding the capacity of hupara to stimulate imagination and creativity. They express that:

The exciting future prospect is that modern-day innovations will create a new wealth of hupara designs and applications. Such a social revolution lies in the clever hands and creative, committed minds, of our new generations of movers and shakers. (p. 16)

Furthermore, these tamariki were also surprised by varying levels of engagement, listening, and respect within the group, revealing both positive and challenging aspects, which we covered in the previous section. He Piko, He Taniwha has illuminated the perpetual nature of learning, emphasising that when you stop learning, you stop growing. While these tamariki have shed light on both favourable and unfavourable surprises throughout this section, both ultimately contribute to the development and wellbeing of the whole child. Recognising schools as key learning environments for tamariki, this theme highlights the pivotal role that He Pī Ka Rere plays in providing a holistic learning experience.

He Waka Eke Noa

Given the emphasis on wayfinding within this activity, this prompt takes inspiration from the whakataukī, “He waka eke noa” which translates to mean we are all in this waka together (McCaffery, 2018, para. 18). In any journey towards a destination, those on board the waka must paddle together and contribute to a shared goal (Spiller et al., 2015). This metaphorical waka reference was employed to inquire about who these tamariki perceive as their fellow voyagers in

their journey with He Pī Ka Rere. It sought to understand the roles those individuals play, whether as navigators, steerers, callers, or paddlers. Knowledge of their support network within He Pī Ka Rere is deemed crucial for understanding the overall impact of the programme on their hauora both inside and outside of the school environment.

The tamariki identified four main categories within their He Pī Ka Rere support network, representing the individuals onboard their waka. These included whānau, friends/peers, kaiako, and community stakeholders. The most frequently mentioned category was friends/peers, closely followed by kaiako, then whānau. A smaller portion of tamariki mentioned other community stakeholders such as Toi Tangata, Darrio and Active Southland. To respect the anonymity of the individuals mentioned, I have opted not to include specific names in this summary. However, it became evident during my time in Murihiku that the social connections afforded to these tamariki because of He Pī Ka Rere contributed significantly to their hauora.

Admittedly, my original intention behind this prompt was to gain further insight into whether whānau were considered important stakeholders, given my interest in the provision of pūrākau-based physical activity at home as well. While there was observational evidence that the majority of these tamariki could apply their skills outside of He Pī Ka Rere at school, I was particularly interested in whether whānau support was a contributing factor to their success. Given that the prompt primarily resulted in a list of names from tamariki, I have chosen to supplement this section with one of my journal entries. This journal entry, written the morning after my first day in Murihiku, I believe alludes to the existence of a strong whānau-school connection:

Journal entry, Korekore te piri ki Tangaroa, 11/06/2022

At the waharoa of [name] marae, a group of whānau gathered to be called on – kids, their parents, kaiako, and a few randoms like us. It was an honour to be asked to assume the role as kaikaranga (female ceremonial caller) for our rōpū, so I turned to the rōpū. We had a quick chat about a waiata to sing, but the kids were already on to it and knew exactly what song. The marae, nestled in the city, had a religious vibe about it, but it felt warming.

When we entered the wharenuī, we were greeted with some new and familiar faces, some who we had met prior at [school name]. After Darrio's whaikōrero, the kids got up to sing with confidence. They knew their words and actions and stood with pride. When I glanced over at the faces of their whānau though, I'm not sure I could tell who felt more proud—the kids or their parents.

After the formalities, we headed to the wharekai for a snack. During this time, whānau, both Māori and non-Māori, had nipped back to their cars to grab their plates of kai. When they returned, the tables were flooded with food from the deep south. My fav was the pāua fettucine. We sat down to eat, and man, I just got a sense that these whānau were well connected. Teachers were talking with kids, kids with parents, parents with teachers. I got the feeling that everyone knew why we were there. After kai, everyone got straight to mahi in the kitchen. Everyone was familiar with the tikanga, and the parents in particular, had an overall glow about them.

I went over to have a yarn with one of the parents. I said, “you fullas are on aye?!” and one of the māmā in the kitchen smiled. I then said, “you guys seem to be buzzing,” and one of the parents responded, “very rarely do we have opportunities like this down here, so we lap them up.” She persisted to say, “we just love seeing our kids being Māori.”

I just remember thinking I’ve never felt so appreciated for the mātauranga I have to share. These whānau were hungry for it!

I've included this here because, to me, He Waka Eke Noa zooms out to focus on the whole village surrounding a single tamaiti. This journal entry highlights, both in words “we love seeing our kids being Māori” and in actions such as the hāpai ō ki muri mahi (the work that goes on behind the scenes) the strength of connection that existed among the whānau, tamariki, kaiako, school, and wider community. It reinforces that "authentic relationships between school and whānau, focused on student learning, are a crucial lever enabling Māori student success" (Highfield & Webber, 2021, p. 159). Whānau Māori were actively involved in their children's education and the relationship between the whānau-school, whānau-kaiako and whānau-whānau had clearly been established over a period time. Whānau not only supported the mātauranga shared as a result of He Pī Ka Rere, they “were hungry” for more. The strength of these connections is a true testament to the taha whānau outcomes being achieved for the whole whānau.

While this section focused on hauora, one of the significant absences in tamariki responses, lay in a lack of comments surrounding te taha tinana. In fact, aside from comments such as “I like playing the games” there was almost no reference to physical activity or movement. I must reiterate that I observed physical activity, movement, play and games occurring for the entire duration of my visit to Murihiku, so it's not that it was absent. This insight aligns with the scarcity of responses from kaiako surrounding aspects related to te taha tinana and again leans toward Heke's discourse that “we are incidental benefactors of environmental knowledge transmitted through games” (as cited in Brown and Brown, 2017, p.71). The subsequent section explores the extent to which He Pī Ka Rere promotes ‘as Māori’ participation.

Te Whetū Rehua Assessment

To evaluate the efficacy of He Pī Ka Rere as a pūrākau-based physical activity approach this section employs the same format as the preceding chapter, utilising Te Whetū Rehua as an assessment tool. While the scoring process has been explained in earlier chapters, essentially, the higher the total score, the more likely the programme is to prioritise 'as Māori' participation, serving as an indicator of hauora. This score should be considered a measure of the programme's strength in promoting te ao Māori, te reo Māori and relevant cultural indicators.

Table 14: He Pī Ka Rere – Te Whetū Rehua Assessment

HE PĪ KA RERE	
A kaupapa Māori programme which fuses kori tinana, pūrākau, mātauranga Māori, and atua related movements to foster tamariki growth and development in early learning environments and schools.	
WITH Te reo me ngā tikanga - elements central to identity and survival of unique Māori identity. Considered a 'normal' and/or expected part of the activity.	2 Bilingual, bicultural, te reo, tikanga and pūrākau are prioritised, strategies in place to maintain quality of reo
FOR Māori - groups of whānau, hapū, iwi, Māori. Emphasis on whanaungatanga of whakapapa whānau or kaupapa Māori whanau.	2 Māori and non-Māori tamariki in English-medium
IN/ON Places, venues, and facilities. Ranges from venues of whakapapa significance through to contemporary facilities in the wider community.	1.5 Inside/outside class, school hall, courts, fields, marae noho
THROUGH Activity types. He Oranga Poutama focus is on traditional sports and games. Broader focus is contemporary sport and recreation activities.	3 Atua-based or kaitiaki-based activities, kēmu Māori
BY Māori - governed, managed and/or delivered by Māori.	2 Lea by two kaiako Māori, supported by Māori and non-Māori senior managers and kaiako, supported by Ngā Taonga and Toi Tangata
TOTAL	10

This assessment score of 10 out of a total of 15 reflects that He Pī Ka Rere is operating successfully as a bicultural programme promoting various opportunities for 'as Māori' participation. He Pī Ka Rere also aligns with the working definition and three pou (hauora, pūrākau, and Māori physical activity) as outlined in Chapters 1 and 2. Remembering that in contrast to Pau te Hau, He Pī Ka Rere was developed, by Māori for Māori. It is important to acknowledge that He Pī Ka Rere delivery within this English-medium primary school setting would likely differ to the primary setting in which He Pī Ka Rere is usually delivered, that being Kōhanga

Reo. While this Te Whetū Rehua score suggests room for improvement, it emphasises the programme's strong bicultural foundations within the school. Inspiration to further strengthen these foundations aligns with Penetito's (2010) argument that "the future of education in Aotearoa involves the intersection of Māori and mainstream education" (p. 270). Given the substantial Māori presence (76%) in English-medium schooling, there exists a considerable potential for transformative change. This presents a distinct opportunity to reshape educational practices, fostering a more inclusive and culturally responsive learning environment that contributes to positive hauora outcomes.

Conclusion

For kaiako while te taha tinana served as the foundational platform for tamariki engagement in He Pī Ka Rere, the true impact of the programme lay in its holistic approach to programme delivery. Kaiako reported that He Pī Ka Rere has a profound impact on te taha hinengaro, through fostering cultural connection, active learning, critical thinking, and adaptability among tamariki. Its flexibility and interdisciplinary focus empowered students, making learning more meaningful and, ultimately leading to personal growth. Moreover, He Pī Ka Rere had a remarkable impact on te taha whānau, strengthening social connections within the school and extending relationships beyond the classroom into homes. The potential for widespread community support, especially among Māori whānau, highlighted the programme's positive influence, promoting broader community engagement. Kaiako reported that He Pī Ka Rere significantly empowered tamariki to be proud of their cultural identity and even helped some re-establish whakapapa connections. Furthermore, the programme provided valuable opportunities for active participation in cultural activities and leadership roles, promoting te reo Māori and applying tikanga Māori both inside and outside the classroom. While the integration of spiritual practices presented challenges for some kaiako, the school's commitment to normalising and demystifying te taha wairua by interweaving learning throughout the foundation of the school, was commendable.

For tamariki, te taha hinengaro and te taha whānau outcomes were nurtured because of their participation in He Pī Ka Rere. As a result, these tamariki were able to showcase a range of adaptive skills and capabilities they possessed as young leaders. These skills included clear communication, adaptive leadership and the unique composition of games, programmes and experiences that merge pūrākau with movement. Through their experiences in He Pī Ka Rere they were able to build healthy and trusted relationships with both their peers and tēina, and they

were enthused at opportunities to acquire new mātauranga Māori and build their levels of proficiency in te reo. At times, they commented that both internal and external environmental factors challenged them as lead facilitators. Particularly when it came to managing group behaviour, building confidence to communicate in front of large groups and adapt to unexpected changes. However, these tamariki were often surprised at their growing potential as leaders. While the perpetual nature of learning was illuminated by tamariki, they expressed several opportunities for this learning to extend its impact into the home. Whānau were certainly active contributors to their experiences with He Pī Ka Rere and expressed pride and joy in seeing their tamariki live and breathe being Māori. Fostering a te taha wairua connections to te ao Māori, through references to ngā atua Māori was also a noted benefit. They also expressed a hunger for more educational experiences that reflect their Māori cultural identity. Interestingly, te taha tinana, which is often considered the hook when it comes to engagement among tamariki, was void of any commentary. This reiterated that physical activity is not the driver of their participation, but rather an incidental outcome.

The précis that follows consolidates the collective perspectives of both tamariki and kaiako into a single pukapuka, outlining the aspirations that have emerged for He Pī Ka Rere as a product of this research.

Précis – Pukapuka 2

The central themes explored in this précis are synthesised, culminating in the presentation of a pūrākau, the second in a series of three. This narrative integrates the lived experiences and suggestions shared by both kaiako and tamariki, alongside my own reflections and aspirations for He Pī Ka Rere. To provide a comprehensive perspective, a deductive approach was employed in the creation of this pūrākau. Initially, key emergent themes were identified and were then interwoven into a narrative using rotarota, resulting in the formation of the pūrākau titled He Pī Ka Rere ki Murihiku. The pūrākau is subsequently deconstructed into stanzas, each dedicated to elaborating further on the insights and voices of the tamariki and kaiako.

It is essential to recognise that although this précis primarily explores the viewpoints of tamariki and kaiako, it is influenced by two additional lenses. One lens encompasses my personal observations of the programme, gathered during my visit to the school and through participation in the noho marae. The other lens represents an aspirational view of the programme, shaped by the data, thereby contributing to the overarching analysis.

To craft this pūrākau, I used a storyboard as a visual tool. This helped in the planning stages to shape each scene, enhance the narrative structure, and map out the key themes. This storyboard served as a constant reminder of my site visit and kept the tamariki and kaiako voices at the centre. Similar to the previous précis, an image of the storyboard has been omitted to maintain participant anonymity. The completed pukapuka will be published and gifted to the schools as a resource for them to use moving forward.

He Pī Ka Rere ki Murihiku

Figure 29: Pukapuka 2 – He Pī Ka Rere ki Murihiku

He Pī Ka Rere ki Murihiku	
<p>On a brisk and chilly, Murihiku day, A group of tamariki gathered to play, They waited eagerly at the waharoa of the marae, Excitement brewing, their spirits were high.</p>	<p>An experience for tamariki, kaiako, and whānau alike, Learning He Pī Ka Rere has been such a delight! Koha is exchanged in a ceremony all together, As they leave the noho, their excitement is like no other.</p>
<p>Then came the sound of the karanga so clear, Beckoning the rōpū to gather near, An opportunity to showcase their knowledge and skill, Ngā Taonga lessons, the tamariki, draw on at will.</p>	<p>Monday morning back at kura, they're ready to begin, Planning for He Pī Ka Rere, new pūrākau to weave in, Hoani went diving yesterday, so brought toheroa to school, Inspired by Te Ara a Kiwa, the taiao became his fuel.</p>
<p>Hineamaru stands tall leading the waiata with pride, Her kura join in singing with a sweet-sounding tide, The pōwhiri ends, and to whakanoa they go, Kai is plentiful, made with aroha from their whānau.</p>	<p>The bell rings, so the tamariki rush to grab their gear, Tuākana find a space and await their tēina's cheer, Wearing kaitiaki lanyards, a sign for all to see, Reo Rangatira, like Mahae, help with te reo Māori.</p>
<p>Chatter from the tamariki grows louder by the minute, Tāne tells his mates, "I can't wait to get stuck in it!" It's been a while since he did, He Pī Ka Rere last, But the doors are always open to tuakana from the past.</p>	<p>"We have a new kēmu to try", says Hoani with pride, "It's about Hinemoana and her children of the tide," The tēina are enthused, ready to learn and play, Uncovering atua wāhine stories is the focus of the day.</p>
<p>"Kei te hiahia koutou ki te ako i ētahi kēmu hou?" Whaea Raiha signals that knowledge is about to grow, This wānanga is a chance for tamariki to enrich, Their kete of mātauranga Māori, new pūrākau to teach.</p>	<p>The first game was a breeze, "Tino ngāwari tēnā!" Mahae whispers to Hoani, "let's make the challenge harder," While the tamariki play, they thought of a new rule, Then quickly pivot to make it harder, but equally as cool!</p>
<p>As the sun begins to set, a kaumātua begins to tell, A tale of Te Ara a Kiwa, a waterway paved so well, By Kewa the mighty whale, a path for waka to explore, From Murihiku to Rakiura, a bounty to adore.</p>	<p>Kaiako are there to support, the management of the group, Ensuring all the energy is channelled into a positive pursuit, They take a step back, watching their tamariki in the zone, And pause to reflect on how much these kids have grown.</p>
<p>Whaea Wiki's eyes light up, with an idea in mind, A treasure hunt, a game, of a special kind, With toheroa and tio, kaimoana waiting to be found, A tribute to atua, tūpuna, and their tamariki all around.</p>	<p>He Pī Ka Rere is an enabler of hauora for all involved, Pūrākau and movement provide opportunities to evolve, A powerful vehicle for tamariki, to engage in Te Ao Māori, Enriching their understanding of both culture and identity.</p>

Source: Written by Nicole Penetito-Hemara, May 2023

*On a brisk and chilly, Murihiku day,
A group of tamariki gathered to play,
They waited eagerly at the waharoa of the marae,
Excitement brewing, their spirits were high.*

This stanza provides context for the wānanga that marked the beginning of my time with the school. The tamariki participants, including their whānau, kaiako, my research team, and I, gathered at a local marae approximately ten minutes from the school. It is worth noting the weather, as the climate in the South Island differs significantly to that of the North Island in Aotearoa, and this is important when considering the provision of physical activity. For example, on the second day of the wānanga, it unexpectedly snowed. Despite this change in weather, some tamariki who had prior commitments for their Saturday sports games willingly braved the elements. Dressed in thermals, they showed their resilience and carried on with their activities amidst the adverse conditions. This experience revealed to me that difficult weather conditions, did not discourage them from participating in physical activity. It was a true testament to their unwavering commitment and the value they placed on engaging in physical activities. It also became clearer why the tamariki mentioned disruptive weather as a challenge during the wānanga. Additionally, both the tamariki and kaiako emphasised a need for more He Pī Ka Rere activities suitable for smaller indoor spaces, considering the challenging weather conditions in the South.

*Then came the sound of the karanga so clear,
Beckoning the rōpū to gather near,
An opportunity to showcase their knowledge and skill,
Ngā Taonga lessons, the tamariki, draw on at will.*

This stanza recognises the tamariki participants' familiarity with tikanga Māori, as evidenced by their engagement during the pōwhiri we participated in. It was apparent that they had been involved in various noho marae experiences before and were well-versed in the customs and protocols at marae.

With a high number of Māori students, 45% of the total school population, kaiako reported that nearly 80% of the school actively participate in kapa haka on Friday afternoons. During our visit, we observed visible evidence of the cultural activities and teachings from Ngā Taonga within the school grounds. This context holds significance in understanding the prominent connection to te ao Māori, because of the regular inclusion of Māori experiential activities within the school curriculum. Throughout the wānanga, it became apparent that these tamariki had acquired a deep

understanding of various aspects of te ao Māori. Their ability to apply their learning to inform their responses to questions was notably more profound when compared to the tamariki responses in Pau te Hau. This disparity in understanding also highlighted the significant differences between the two programmes themselves.

*Hineamaru stands tall leading the waiata with pride,
Her kura join in singing with a sweet-sounding tide,
The pōwhiri ends, and to whakanoa (remove tapu, cleanse) they go,
Kai is plentiful, made with aroha from their whānau.*

This stanza highlights the immense pride displayed by the hau kāinga (local people of the marae) and the wider kura whānau in witnessing the tamariki's abilities to uphold tikanga Māori. The influence of their kapa haka and Ngā Taonga lessons was evident as they confidently stood to sing their waiata tautoko (song in support), showcasing a great sense of pride in this moment.

In this stanza, we are also introduced to the first character, Hineamaru, who emerged as a natural leader. Over the course of the wānanga she demonstrated leadership skills by facilitating He Pī Ka Rere activities and she took the initiative to share with me her experiences in her role as a Reo Rangatira. She eagerly responded to questions, readily offered assistance, and seemed to truly thrive in environments that reflected te ao Māori. Hineamaru showed proficiency in pronouncing te reo Māori words, many of which were familiar to her, so there were no surprises that she also held the role as kaiwaiata (singer, support vocalist) during the pōwhiri.

Additionally, this stanza acknowledges the role of the whānau. During the wānanga whānau and parents gathered in the whare kai to prepare meals for everyone. The spread of kai presented at this pōwhiri reflected the values of manaakitanga and pride in what they brought to share. The deep sense of appreciation was evident among whānau, as they witnessed many opportunities for their tamariki to explore whakapapa connections and wholeheartedly embrace their Māori identity throughout the wānanga. It became evident that these parents themselves yearned for similar opportunities to be immersed in distinct Māori spaces, and they truly embraced the chance to get amongst the activities in support of He Pī Ka Rere.

*Chatter from the tamariki grows louder by the minute,
Tāne tells his mates, "I can't wait to get stuck in it!"
It's been a while since he did, He Pī Ka Rere last,
But the doors are always open to tuākana from the past.*

This stanza captures the growing excitement as the kai tahi concluded and the wānanga activities commenced. Not a single tamaiti appeared disinterested or unwilling to participate. Also

highlighted in this stanza an introduction to the second character, Tāne, a former student who had since moved on to a local intermediate school. Within the philosophy of Ngā Taonga, the sense of whānau is everlasting, a concept familiar within te ao Māori. Tāne, who was informed through the wider Ngā Taonga network, expressed his desire to return and attend the wānanga, a request warmly welcomed by all. In fact, Tāne was not the only tuākana alumni to return; we had four tuākana attending the wānanga, eagerly anticipating the chance to learn new He Pī Ka Rere games. This sentiment was strongly evident throughout this chapter, highlighting that positive hauora outcomes from He Pī Ka Rere were deeply tied to social connections with peers, whānau, and kaiako.

A prominent theme that emerged from the data was a decrease in opportunities to participate in te ao Māori activities, apart from kapa haka, which was expressed by former students who had transitioned to other schools. These alumni clearly expressed a longing for the chance to enhance their knowledge with new Māori experiences and insights to add to their kete (basket) of mātauranga.

*“Kei te hiahia koutou ki te ako i ētahi kēmu hou?”
(you want to learn some new games?)
Whaea Raiha signals that knowledge is about to grow,
This wānanga is a chance for tamariki to enrich,
Their kete of mātauranga Māori, new pūrākau to teach.*

This stanza reflects that in fact, all the tamariki (including alumni) were enthusiastic and eager to enrich their knowledge of te ao Māori with ancestral wisdom and stories, as mentioned previously. Furthermore, the third character, Whaea Raiha is introduced in the above stanza. To provide context to this character, Raiha has a playful nature but can also be firm and fair when necessary. She possesses a deep passion for teaching and finding ways to connect tamariki to te ao Māori, and she has been doing so at this school for a significant period. The tamariki and their whānau share a close relationship with her and hold great respect for the knowledge she imparts. Other teachers also acknowledge the essential role Raiha plays at the school and the significance of her work. Even non-Māori teaching staff reported feeling confident in facilitating He Pī Ka Rere sessions as part of their classroom curriculum, which is a testament to her influence. We witnessed this first-hand during the wānanga and our visit to the school, where we had the opportunity to observe the implementation of He Pī Ka Rere.

*As the sun begins to set, a kaumātua (elderly man or woman) begins to tell,
A tale of Te Ara a Kiwa, a waterway paved so well,
By Kewa the mighty whale, a path for waka to explore,
From Murihiku to Rakiura, a bounty to adore.*

The stanza above draws inspiration from a pūrākau within the rohe, Te Ara a Kiwa. Given that the tamariki expressed their desire to learn more local pūrākau that they could personally connect with, not only because of their Māori heritage but also because of their connection to the place they call home, its inclusion within this pūrākau (albeit brief) is warranted. It is also worth mentioning that the kaiako who guide the implementation of He Pī Ka Rere, have already taken significant steps in incorporating various local pūrākau into the programme too. While they are not exclusively centred around atua, they've evolved the focus to various other kaitiaki within their rohe. An example of this is the popular activity focused on diving for pāua. Ruku pāua as a game involving diving for pāua. It holds special significance for these tamariki who reside in an area abundant with water bodies and kaimoana. Therefore, this stanza represents one way that kaiako could embed local pūrākau of particular relevance to their rohe within He Pī Ka Rere.

*Whaea Wiki's eyes light up, with an idea in mind,
A treasure hunt, a game, of a special kind,
With toheroa and tio, kaimoana waiting to be found,
A tribute to Atua, tūpuna, and their tamariki all around.*

Continuing on from Te Ara a Kiwa, we introduce another character, Whaea Wiki. Wiki, is the other kaiako Māori responsible for leading He Pī Ka Rere at the school. Like Raiha, Wiki shares the same playful, haututū nature. Together, they make a formidable team. Wiki possesses a deep passion for pūrākau and is currently collaborating with the Rūnaka to preserve and document local narratives. She has a hands-on approach and can often be found teaching new games in innovative, enjoyable, and physically engaging ways. This is exemplified in the stanza above. This stanza illustrates Wiki's embodiment of the He Pī Ka Rere philosophy. Her inner child shines through, allowing her to perceive games within stories. Tamariki, whānau, and other teaching staff are naturally drawn to Wiki, recognising her ability to skilfully interweave pūrākau into kēmu Māori.

You will also notice in the stanza above, the inclusion of local kaimoana, namely toheroa and tio. I used these as additional references to emphasise the importance of localised connections. In fact, while I was there, one kaiako shared a story about a whānau who were connected to one of the students. This kaiako highlighted that toheroa holds special significance within the rohe and is reserved for specific individuals and collected during specific times of the year. This kaiako found great value in incorporating this knowledge into a He Pī Ka Rere activity during the

wānanga. In our discussions we explored the idea of using physical shells to further reinforce this learning. Moreover, feedback from kaiako recognised the importance of providing opportunities for tamariki to engage with the natural environment, going beyond the use of sports equipment within the school and instead fostering a connection to the taiao.

*An experience for tamariki, kaiako, and whānau alike,
Learning He Pī Ka Rere has been such a delight!
Koha is exchanged in a ceremony all together,
As they leave the noho, their excitement is like no other.*

This stanza illuminates the holistic experience for tamariki, kaiako, and whānau, emphasising the transformative outcomes of the wānanga observed throughout our time there. In many ways, it provided a unique opportunity to recreate elements of hapū/village life, where shared roles, responsibilities, expectations, and learning naturally emerged for everyone involved. The tamariki embraced the wānanga content with excitement, which solidified new ideas for facilitating He Pī Ka Rere activities within their school environment. Their enthusiasm was evident, as they were eager to instantly put their new knowledge into practice. The kaiako, inspired by the feedback from tamariki, gained a deeper understanding of how to create a supportive and positive learning environment for their students to thrive in. As a result, they were able to solidify their commitment to enabling the growth and development of their tamariki. Whānau, too, became more closely connected to the kaupapa of He Pī Ka Rere, gaining a tangible understanding of its relevance within the broader context of their children's education. Whānau now had a more profound understanding of the programme's value, allowing for meaningful conversations and support for their children's continued engagement. The partnership between the school and whānau was deepened, fostering a sense of shared responsibility and commitment to the ongoing success of He Pī Ka Rere both at school and at home. Essentially, the wānanga served as a catalyst for building stronger relationships and a shared sense of purpose among all involved.

This stanza also highlights the memorable koha ceremony (mentioned previously) which concluded the wānanga and was a symbol of reciprocal gratitude. I integrated this moment into the pūrākau to emphasise the significance of the moment. This exchange allowed tamariki to practice cultural customs such as hongi (to press noses in greeting), waiata, and haka tautoko (chant in support), emphasising the relevance of tikanga Māori in appropriate contexts. The closing of the wānanga in this very cultural way created a profound sense of unity, connection, and excitement among all the participants. It solidified the relationships which were nurtured throughout the wānanga and was a meaningful way to honour the learning.

*Monday morning back at kura, they're ready to begin,
Planning for He Pī Ka Rere, new pūrākau to weave in,
Hoani went diving yesterday, so brought toheroa to school,
Inspired by Te Ara a Kiwa, the taiao became his fuel.*

This stanza transitions us from the marae setting back to the school environment, providing a glimpse into the future as the tamariki put into practice all the learnings from the wānanga. It is important to note that the tamariki we worked with hold the responsibility of planning and facilitating three He Pī Ka Rere sessions within their class time each week. The ratio for each session is typically 2-3 tuākana per group of 10 tēina, and the sessions generally span the length of a class period. In this context, it is important to note that the sessions are facilitated by the tamariki themselves. Kaiako are also present to offer mentoring support and manage student behaviour. The stanza showcases how the tamariki engage in the planning process for their three sessions. They have access to templates that guide them through this process, with a particular emphasis on incorporating pūrākau, atua, tupuna, kaitiaki and te reo Māori into their games. Additionally, each tamaiti has a small He Pī Ka Rere handbook, that the kaiako made which is full of activities that serve as a reference for ideas and inspiration. During the wānanga, we observed the tamariki's expertise in planning first-hand. I witnessed the tamariki seamlessly integrate their thinking into their game designs, highlighting their familiarity and confidence in planning new He Pī Ka Rere activities.

To my knowledge, this approach of having tamariki as the primary deliverers of He Pī Ka Rere activities within the school setting is unique to this particular school. In Kōhanga Reo, the responsibility of delivering the activities typically rests with the kaiako. The emphasis on empowering tamariki to take on this role and actively contribute to their own learning through He Pī Ka Rere is a distinguishing characteristic of this programme at this school. I believe this innovative approach promotes a sense of ownership, leadership, and autonomy among the tamariki. It fosters their confidence and nurtures their skills in designing and delivering culturally meaningful activities. It also exemplifies their ability to apply their knowledge and showcases the effectiveness of the programme in empowering them to become active contributors in their own education.

Additionally, this stanza introduces Hoani, a new character who had been out diving with his whānau the day before. Inspired by the wānanga, Hoani is determined to strengthen the connection between the taiao and the activities he leads within He Pī Ka Rere. To inspire this fusion, he brings some toheroa and tio shells to school. The stanza then establishes a further link

back to *Te Ara a Kiwa* and illustrates Hoani's attempt at creating a game that intertwines the pūrākau, the taiao and the inherent mātauranga within him. While this part of the story is fictional, it stresses a key point mentioned by both kaiako and tamariki which is the desire to create depth and layers of cultural learning through localised connections to the taiao. This also reinforces opportunities to connect learning at home (i.e., diving) with learning at school (i.e., He Pī Ka Rere).

*The bell rings, so the tamariki rush to grab their gear,
Tuākana find a space and await their tēina's cheer,
Wearing kaitiaki lanyards, a sign for all to see,
Reo Rangatira, like Mahae, help with te reo Māori.*

This stanza aims to paint a picture of He Pī Ka Rere in action. When we visited the school to observe the implementation of He Pī Ka Rere, we noticed several distinct features. The school had a dedicated space within the school grounds which was equipped with specific gear solely for He Pī Ka Rere activities. The gear was neatly arranged in labelled buckets, making it easy for students to choose their game and grab the necessary equipment. The tamariki were familiar with their designated areas for their sessions, and in case of rainy weather, the school hall was made available as an alternative location. Additionally, the Kaitiaki who facilitated the activities were easily identifiable by wearing Kaitiaki lanyards, which included prompt phrases in te reo Māori for them to use. The Reo Rangatira also had a distinct lanyard too.

In the stanza above, we introduce the final character, Mahae, who fulfils the roles of both Kaitiaki and Reo Rangatira. When asked about the significance of the Reo Rangatira role, the tamariki mentioned that sometimes the tuākana could easily get caught up in playing the game and might forget about the importance of the pūrākau and using te reo Māori. It is the role of the Reo Rangatira to encourage the use of te reo Māori and reinforce the connection to the pūrākau throughout the session. The tamariki themselves choose to take on the leadership role of Reo Rangatira and, on occasion, the kaiako spoke about having to prompt them to share the role with others who were eager to grow their leadership skills in that area.

*"We have a new kēmu to try," says Hoani with pride,
"It's about Hinemoana and her children of the tide,"
The tēina are enthused, ready to learn and play,
Uncovering atua wāhine stories is the focus of the day.*

This stanza provides insight into the implementation of Hoani's new kēmu, which not only weaves a new pūrākau but also centres on an atua wahine. This was a key area of focus area that emerged from the wānanga too. Tamariki expressed their desire to develop more activities

centred around atua wāhine (female deities), as many of the activities explored thus far have been primarily focused on atua tāne. This feedback, particularly from female participants, reflects their aspiration to see themselves reflected in the activities they lead.

Furthermore, a unanimous theme among the tamariki highlighted the challenges they face in managing group behaviour among the tēina. I chose instead to flip this narrative, therefore, the stanza above reflects the preferred environment for tamariki in order to facilitate their He Pī Ka Rere activities, where the tēina are enthused, and ready to participate.

*The first game was a breeze, “Tino ngāwari tēnā!”
Mahae whispers to Hoani, “let’s make the challenge harder,”
While the tamariki play, they thought of a new rule,
Then quickly pivot to make it harder, but equally as cool!*

This stanza recognises the importance of tuākana being flexible and adaptable to change. During the wānanga, tamariki practiced modifying their activities to align better with their pūrākau or adjust to the age and stage of their tēina's learning. They demonstrated a good understanding of how to make games more inclusive, challenging, and appropriate for different learning phases. However, an area for improvement was making clear links back to the mātauranga Māori surrounding their activities. This could include connecting the game to the environments where their atua/tupuna/kaitiaki reside, incorporating symbolism representing key characters from their pūrākau, or tying the aim of the activity back to the lessons embedded within their chosen pūrākau. This is where the role of the kaiako becomes important in supporting tuākana by using questions and prompts to reinforce the holistic learning experience and help the tuākana make those fundamental connections. In this regard, kaiako are providing guidance and support to ensure that the links to mātauranga Māori are clear and purposeful.

This stanza also illustrates how these tuākana can effectively recognise a need in the delivery of their activities and make relevant modifications swiftly, without disrupting the flow of their session. In addition, it provides an example of the Reo Rangatira role in action and while this scene is fictional, these tuākana demonstrated all the capability to recreate moments like this in the future.

*Kaiako are there to support, the management of the group,
Ensuring all the energy is channelled into a positive pursuit,
They take a step back, watching their tamariki in the zone,
And pause to reflect on how much these kids have grown.*

This stanza emphasises the crucial role of the kaiako in providing support and guidance to the tuākana, ensuring they have a positive and fulfilling experience. The kaiako's presence and assistance is instrumental in addressing challenges and facilitating the growth of the tuākana during their journey with He Pī Ka Rere.

Throughout the interviews with the kaiako, a profound sense of pride was evident as they witnessed their tamariki being challenged, yet embracing opportunities for growth, and ultimately achieving success as a direct result of their experiences with He Pī Ka Rere. This pride stems from seeing their tamariki develop important skills, such as leadership, communication, problem-solving, and cultural understanding, as they take ownership of their learning and contribute to the overall success of the programme. The kaiako's commitment to supporting and nurturing their tamariki's development is a testament to their dedication as educators.

*He Pī Ka Rere is an enabler of hauora for all involved,
Pūrākau and movement provide opportunities to evolve,
A powerful vehicle for tamariki, to engage in te ao Māori,
Enriching their understanding of both culture and identity.*

This stanza showcases the profound benefits that pūrākau-based physical activity programmes bring forth. By connecting physical activity, mātauranga Māori, and education, He Pī Ka Rere enables a holistic approach to fostering the health and wellbeing of tamariki in English-medium school settings. Through their participation in He Pī Ka Rere and other immersive experiences like regular Ngā Taonga sessions, wānanga, and noho marae, these tamariki are consistently provided with opportunities to deepen their knowledge, expand their awareness, and nurture their understanding of culture and identity.

The impact of these experiences extends beyond these individual tamariki, resonating with their whānau, kaiako, and the wider school community. As tamariki engage in pūrākau-based physical activities, they not only enhance their own personal growth but they also foster stronger connections with their whānau, who witness and celebrate their achievements with pride.

Chapter 6 – Tākaro ki te Taiao



Journal entry, Rākaumatohi, 9/3/2023

I was fortunate enough to travel to Ōtaki last week to attend a PhD Oral Defence for my good friend Terina Raureti. I was truly inspired by how Terina and her whānau live on their whenua and it left me with a deep appreciation for returning to papa kāinga living as ahi kā (family who keep the home fires burning). This experience also motivated me to want to create opportunities for my own whānau to connect with the taiao and with whānau, hapū, and iwi living, especially given we reside in an urban environment. It was a transformative experience for me and served as an important reminder of the value of hononga (connection, relationship) in this way.

Upon my return to Tāmaki, I felt a karanga calling me to the ngahere. It felt like the powerful voice of my tūpuna drawing me closer to them. Last night it lingered deep into the night. As I went to sleep my thoughts were consumed with where I might venture to, and I awoke in the early hours of the morning having landed on the perfect place. I felt so compelled to make it happen that some might attribute this calling to the energy of Rākaumatohi.

Introduction

At this point, we have established that physical activity programmes which incorporate pūrākau and other elements of te ao Māori within schools provide a valuable avenue for promoting positive wellbeing outcomes for tamariki Māori. However, it is crucial not to place the sole responsibility for achieving those outcomes on educational institutions, such as schools.

Tākaro ki te Taiao is the third and final pūrākau-based physical activity programme and serves as the primary focus for this chapter. The journal entry which commences this chapter formed the initial spark for the design of Tākaro ki te Taiao and set the scene for the activities which followed. Tākaro ki te Taiao represents both my inspiration and subsequent actions as a result of a wānanga

I had with my son in the taiao. It is an example of Kaupapa Māori Theory in Praxis and sheds light on the tangible experiences and impact of pūrākau-based physical activity in my life. By delving into this personal narrative, I believe this chapter provides the necessary triangulation of data. While the preceding chapters have analysed the viewpoints of both kaiako and tamariki, this chapter, focuses on mātua, and aims to provide a comprehensive understanding of the impact. Moreover, it explores the broader impact on whānau when knowledge is shared and the capacity to support their learning outside the school environment is developed.

Following the format of the preceding chapters, this chapter commences with a journey map, revealing how Tākaro ki te Taiao serves as an illustration of Kaupapa Māori Theory in Praxis. It focuses on my personal experiences and provides insight into the sources of knowledge that have led to the development of the programme. You will notice that this chapter uses first person tense as a way of bringing to life my own unique experiences as both a participant and researcher. My intention is to shed light on where I acquired the skills that empowered me to facilitate pūrākau-based physical activity at home. It is my hope that this explanation not only illuminates the path taken to reach this juncture, but also offers valuable insights for other mātua seeking to engage in and support the provision of pūrākau-based physical activity with their own tamariki.

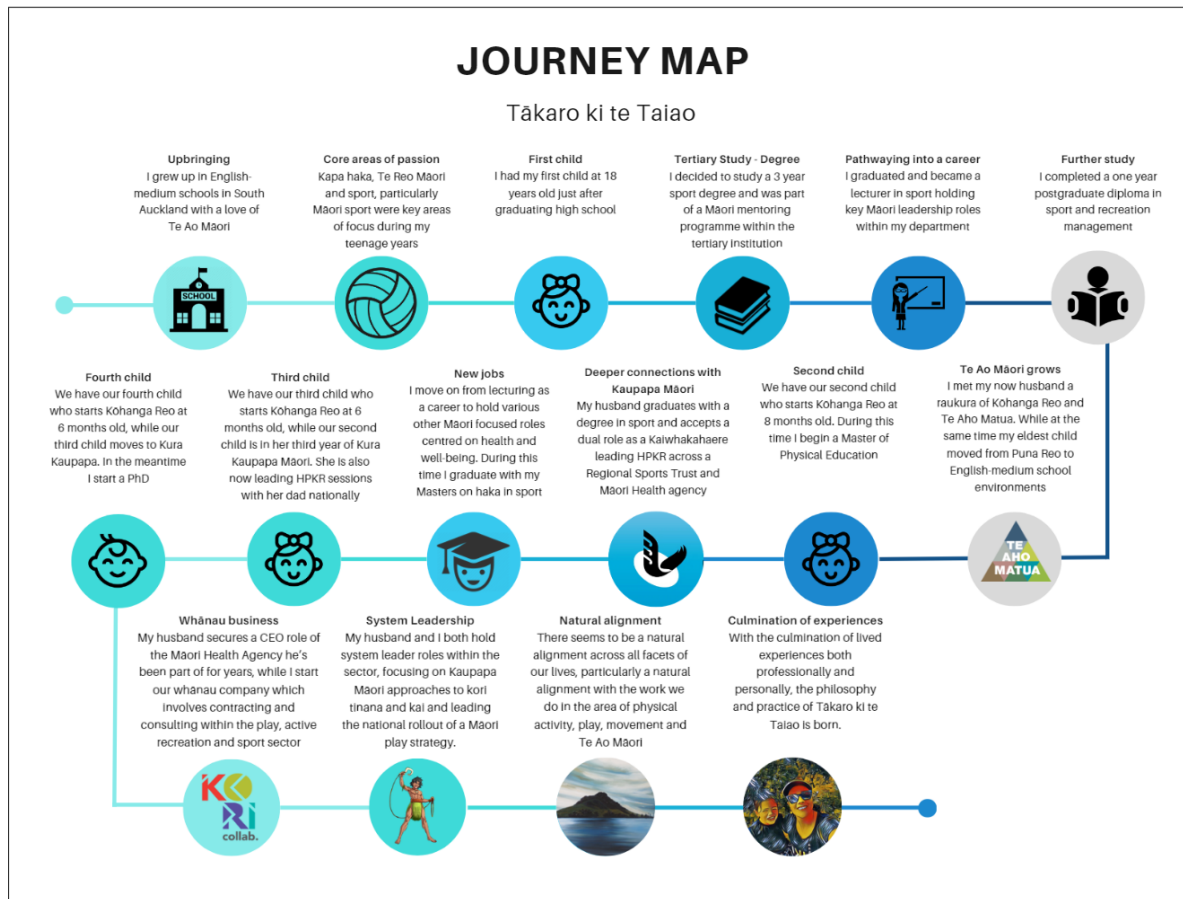
This chapter then embarks on an exploration of key themes from a matua perspective, adopting a distinctive format due to the organic and observation-based nature of the data gathered. Unlike previous chapters, Chapter 6 primarily centres on hauora. The format of this chapter combines the approach I took with writing précis 1 and 2, intertwined with the ancestral pūrākau – Te Wao Tapu Nui a Tāne and recounts ten scenes during the wānanga. This particular pūrākau is a creation story recounting the origins of life, the whakapapa of the world, and the processes of growth and enlightenment. Marsden (2003) refers to a noted strength of creation stories, that when “imprinted upon the mind, acted as pegs to which the finer details could be attached in progressive order to reconstruct the component features of that body of knowledge” (p. 63). Thus, the approach to this chapter involves an extraction of a series of kura huna from the pūrākau which serve as analytical references throughout the ten scenes. Literature is woven alongside both my son’s and my voices to explore the impact of the Tākaro ki te Taiao on hauora outcomes. Next, I present a journey map which illustrates some of my own lived experiences, skills, and capabilities to paint a picture of the journey I have undertaken to become a facilitator of pūrākau-based physical activity.

Journey Map

We have already established the benefits of journey mapping in previous chapters (Ly, Runacres & Poon, 2021; Murray, Al-Khatib & Witry, 2021). The pūrākau I created for this chapter which will be examined later, exemplifies how, as a researcher within this kaupapa, māmā to children in Kōhanga, Kura, and secondary school, Kaiārahi (guide, leader, mentor) Māori in the realm of physical activity, and as a wife to a husband leading a national Māori health agency, my approach is deeply influenced by the roles I hold. These activities which are integral to our whānau daily life, interweave with the spaces where we choose to live, learn, work, and play.

Figure 30 below is a journey map which illustrates how my experiences have shaped my journey and how my educational background and work in health and physical activity highlight my capacity to support pūrākau-based physical activity at home with my tamariki. The purpose of this journey map is to highlight the knowledge, skills and capability I hold which makes pūrākau-based physical activity experiences a natural part of whānau life. The natural alignment between my research topic and my mahi will be visible to the reader. However, this journey map serves another purpose also. Throughout this chapter I want the reader to consider how your own journey, given all the roles you hold, all the hats you wear, and lived experiences you've had over the course of your life, might contribute to you using a pūrākau-based physical activity approach with and alongside your own whānau.

Figure 30: Journey Map – Tākaro ki te Taiao



Firstly, I'm acutely aware of the privilege I possess, given my profession, to have the skills, knowledge, capability, and access to environments surrounding Māori physical activity. Secondly, I realise the huge benefit it is that our tamariki are products of the Kura Kaupapa Māori movement and live a te ao Māori worldview as an inherent part of their daily lives. What my husband and I do for mahi is familiar to them, they have points of reference to draw from and experiences to relate to. While I remain cognisant that not all whānau have the same advantages when it comes to supporting their tamariki with pūrākau-based physical activity experiences, in the same way we do, I don't want this to deter whānau.

The purpose of the next section is to offer insights into how 'normal' and 'natural' pūrākau-based physical activity can be highlighting that anyone can give it a go. Mātua are encouraged to reflect on their own journeys and experiences to identify ways they can engage with their tamariki to spend quality time, have fun, share mātauranga Māori (big or small), and witness their children's

imaginations come alive through physical activity. The next section is framed by an ancestral pūrākau and aims to provide a platform for mātua to take away some practical tips that they can use immediately in their local taiao.

Section One: Matua Perspective

Figure 31: *Te Wao Tapu Nui a Tāne – The Great Sacred Forest of Tāne*

Te Wao Tapu Nui a Tāne – The Great Sacred Forest of Tāne	
Ko te Pū	Origin, root, shoot
Ko te More	Taproot
Ko te Weu	Rootlets
Ko te Aka	Creeper, vine
Ko te Rea	Growth
Ko te Waonui	Great wood
Ko te Kune	Conception, form
Ko te Whē	Sound, consciousness
Ko te Kore	Void, nothing
Ko te Pō	Darkness
Ko Papatūānuku rāua ko Ranginui	From the Earth mother and Sky father
Te whakapapa o Tāne Māhuta e	Comes light and the lineage of the forest and his offspring
Tīhei Mauri Ora	Let there be life!

Source: Art. XV. – Māori Forest Lore: being some Account of Native Forest Lore and Woodcraft, as also of many Myths, Rites, Customs, and Superstitions connected with the Flora and Fauna of the Tuhoe or Ure-wera District. – Part I. (Best, 1907).

Te Wao Tapu Nui a Tāne is commonly recognised as a karakia or waiata, and my introduction to it occurred through recitation by my one-year-old daughter at the time.³⁸ Kimiora had learnt it as a karakia at Kōhanga Reo and it has since organically become an integral part of any wānanga we have in the taiao. There are accompanying hand actions that provide reference to the words and the sequence of progressions. Often, we commence our journeys in the taiao with this karakia, and we recite it as an expression of gratitude for anything we collect. As a pūrākau, this creation narrative is intertwined with the beginning of te ao Māori, representing a fundamental

³⁸ Kimiora is now 11 years old.

Māori origin narrative. It is an extension to the pūrākau outlined in Chapter 3 surrounding the voyage of the Takitimu waka to Aotearoa (Mitchell, 2017). This version centres on Tāne Mahuta and outlines a genealogical sequence of natural processes depicting the development of various phenomena (Best, 1907). It emphasises the germination of seeds and aligns seamlessly with the ngahere setting for the wānanga, where growth was inherently foundational. While other versions of this pūrākau often end with the creation of the natural world, this specific iteration places emphasis on the realm and significance of Tāne Mahuta – a focus which appropriately aligns with the taiao setting where our wānanga occurred.

This section explores the key themes presented in the third and final pukapuka by grouping stanzas that revolve around specific settings or events that unfolded during my wānanga with Koianake. By examining these themes in greater detail, the intent is to provide a deeper understanding of pūrākau-based physical activity in practice, and the impact of Tākaro ki te Taiao on hauora outcomes for tamariki Māori, particularly when the programme is led by whānau, for whānau.

Scene 1: Ko te Pū – Tāku Whare

*It was a typical morning in our whare,
Whānau getting ready for kura and mahi,
But Koianake aged three, was too maremare (sick from coughing) for Kōhanga...
...so he stayed home with me for more awahi (hugs) and aroha.*

*After many days in indoors, eager to explore,
Koianake's adventurous spirit began to soar,
I packed a backpack with clothes and snacks galore,
To the ngahere we ventured, curiosity at our core.*

Scene 1 unfolds at home, establishing the context for the day ahead. Recognising that it had been several days of dealing with illness and that Koianake would require another day at home with me, a choice presented itself. I had to decide whether to continue with my work obligations as usual, despite having a sick child at home, or prioritise quality time with my son. The kura huna, Ko te Pū refers to the origin and the upper part of the root or shoot of a tree (Best, 1907). In this context, it symbolises the initial instance when I recognised a desire or need to take action. Reflecting on my recent trip to Ōtaki (Journal entry, March 9, 2023), the karanga from the night prior, and pondering my unsettled feelings, I had a strong wairua urge to head to the ngahere. This, for me, signifies Te Pū – the origin of a thought or feeling.

Several key themes emerge from this initial scene. Firstly, there's a notable emphasis on tuning in to the *tohu* (sign, symbol) both within *te ao kōkōkiko* (the physical world) and *te ao wairua* (the spiritual world). According to Marsden (2003) *tohu* are referred to as signs, symbols or a manifestation. Being a spiritual people, Māori naturally navigate these spaces, but it requires us to be attentive and present to recognise these *tohu*. Additionally, as *mātua*, we inherently sense when our *tamariki* are in need of quality time with us, and this moment was undoubtedly one of those times. While I recognise that we face conflicting priorities daily and that for many this is a struggle, what I didn't realise was how important this time was for me just as much as it was for my son. And finally, I also realised that I couldn't approach this half-heartedly; it demanded my complete commitment. There was no room for work on this day, and honestly, the opportunity to engage in quality time with my son was a welcome relief.

In essence, Scene 1 conveys the significance of recognising and acting upon spiritual and physical cues, highlighting the value of prioritising *whānau* wellbeing over other obligations when necessary. *Ko te Pū* as a reference introduces a cultural and spiritual dimension to the decision-making process, highlighting the significance of tapping into the initial spark—the root of an idea, thought, or feeling. This emphasis also sheds light on the importance of using cultural metaphors like this to guide our actions as *mātua*.

The facets of *te taha whānau*, *te taha hinengaro*, and *te taha wairua* become fundamental pillars in navigating this decision-making process, particularly as one transitions between *te ao kōkōkiko* and *te ao wairua*. In this dance between the tangible and the spiritual, these dimensions play a central role in shaping thoughtful and holistic choices. This sentiment is supported by Marsden (2003) who states that “Māori avoids the disjunction between the secular and spiritual, the compartmentalisation and isolation of one institution from another, and the piecemeal approach to problem and conflict resolution” (p. 33). Recognition of the family obligations, the mental and emotional needs and the spiritual essence collectively formed a robust foundation for decision-making in this context. This culturally informed approach acknowledges the interconnectedness of various aspects of life, highlighting the importance of navigating the complexities of balancing work commitments with prioritising *whānau* wellbeing.

I recognise that taking time off work may not always be a feasible option for all *mātua*. Nevertheless, it is crucial to encourage a heightened awareness of the benefits, not only for the *tamaiti/tamariki* but also for *mātua*. Additionally, incorporating *pūrākau*-based physical activity into weekends or planned times throughout the month, even in an unstructured manner, holds promise for fostering *hauora* outcomes for the entire *whānau*. This adaptive approach allows for the

integration of meaningful cultural practices into daily life without imposing unrealistic demands on whānau schedules.

Scene 2: Ko te More – Te Urupā

*Our first stop, the urupā, our journeys are aligned,
Koianake, our Rangatira (leader), has the path etched in his mind,
He guides me to the kauri seat, a symbol we all embrace,
It's where our whānau lay to rest, and their legacy is traced.*

*In this special place, a sense of home we find,
Kōrero, laughter, and memories intertwined,
A quick tidy, a mihi, as we blow kisses goodbye,
Instantly feeling grounded, connecting with whakapapa nearby.*

*Off we go to whakanoa and spiritually cleanse our heart,
Releasing tapu (sacredness) brings forth a fresh and vibrant start,
Then off to the nearby maunga, our spirits are set free,
Koianake's excitement, is like a dancing melody.*

Scene 2 takes place at our whānau urupā in a rural town named Te Wairoa, Clevedon. The kura huna, Ko te More is likened to the taproot (Moorfield, 2011), an essential, central, and dominating root from which other rootlets extend. They are typically, straight, thick, and growing in a downward direction. The significance of this downward growth is pivotal in this scene. The narrative describes the visit as an experience of instantly feeling grounded and connecting with whakapapa nearby. I metaphorically interpret the taproot as representative of those resting in the earth, no longer present with us but having established the foundations for our existence on Earth.

This scene emphasises the uncommon yet profound practice of stopping at urupā, highlighting its importance for Māori. Engaging with whanaunga (relatives) who have passed away is not only customary but also an integral part of life. For our whānau, it's a rare occurrence to pass by an urupā where our family members are buried without stopping to pay our respects and spend quality time. This practice echoes the sentiments expressed by the tamariki in Pau te Hau.

The above scene also emphasises a sense of familiarity with this urupā, which is reflected not only from my perspective, but also from Koianake's recognition and understanding. At age three, he knew where we were, and he knew that we don't pass by that location without stopping. In fact, when we arrived, he could even lead me to where his whānau lay to rest inside the urupā demonstrating a healthy relationship with this sacred place. With reference to Te More his ability

to lead in this space further exemplifies the strength of the taproot and its growing dominance and significance in shaping his identity. This sentiment is reflected by Brown and Brown (2022) where they describe their Nanny Mamaeroa Hanuera's philosophy on aro-tākaro, they state:

To her, the games gave us sustenance like the kai stored in pataka (their 'playhouses'), and the buried aro-takaro had seeds, tubers or small plants imbedded in them that given the right conditions and enough aroha would grow into a remembrance marker! (pp. 17-18)

Another theme explored in the above scene relates to play within the urupā. It is worth noting that while many may not consider urupā as playgrounds, for my tamariki, there is much to explore and engage with in this sacred space. Where our whānau lay, there is a substantial pā harakeke (flax plantation) that provides a natural play area. In this pā harakeke, a large kauri seat made by our whānau offers a place to pause, reflect and spend time together. This becomes Koianake's first play space during our adventure. According to Mules, et al., (2022),

Creating safe (e.g., physically, socially, and culturally) tākaro spaces is pivotal for tākaro to be expressed, shared and developed... Tākaro, in this sense, is far more than promoting "play" but the enhancement of both tangible and intangible spaces of safety that allow it to exist, develop and thrive. (p .25)

Although not captured in the pūrākau above, Koianake also enjoyed picking daisies from the ground and gifting them to each grave, whether they were whānau or not. Our family members who lay in this urupā grew up on a dairy farm nearby and so on a previous visit we brought farm animals and toy tractors, which have become cherished taonga to play with during our visits too. Digging is another favourite activity, as Koianake especially finds joy in exploring the soil and creating imaginative games. These activities may not seem suitable or even valuable to some, and the idea of tamariki getting dirty may be off-putting, but as mentioned in the previous stanza, for Māori, this spiritual connection grounds us with our past, present, and future. It is a way to transmit whakapapa to my tamariki and strengthen our ties to places of spiritual and cultural significance. We engage in conversations with our whānau who have passed away, we sing to them, and we ensure the space is tidy before we leave. We feel a deep sense of connection with them during our visits, ultimately having a positive impact on our hauora overall.

Safety is at the heart of our interactions at the urupā. Cultural safety in spaces of sacred importance is typically governed by tikanga. The scene above also explores two foundational concepts in te ao Māori – tapu and noa. Tapu denotes a state of sacredness. Objects, places, or individuals can carry tapu, and during this state the object is sacred, and a profound level of respect and care is extended. On the other hand, noa represents a state of commonness,

whereby the object is neutralised, and where we return to a state with fewer restrictions (Marsden, 2003). The scene above references a cultural protocol known as whakanoa, a cleansing ritual that involves water being sprinkled over our heads. Whakanoa is a practice employed to transition from a state of tapu back to noa, it will often involve water or the consumption of food (Marsden, 2003). This ritual holds cultural significance, marking the shift from a heightened state of sacredness to normalcy, allowing for a return to everyday activities with a renewed sense of balance and cultural alignment. This practice is a regular occurrence for our tamariki as they participate in Māori-medium learning every day. From a young age, they comprehend the significance of spiritually cleansing with water upon leaving sacred spaces, such as urupā. These rituals are deeply ingrained in te ao Māori (Marsden, 2003) and for our whānau they are consistently honoured. As mātua, our intention is to normalise these cultural practices, ensuring their continuity as enduring traditions. Therefore, this moment provides an opportunity to deepen Koianake's connection to the te ao wairua. It is also an opportunity to engage in whakapapa kōrero about his identity and the esteemed ancestors from whom he descends.

It's also crucial to acknowledge the important role mātua play in guiding these hauora practices with and alongside tamariki. For mātua, it's an opportunity to ask questions to gain an understanding of what our children know about their whakapapa, identify any gaps in their knowledge, explore their interests, and gauge their comprehension of tikanga. Significantly, within the domain of tākaro, Penetito-Hemara, et al., (2023) assert that, "Wāhine carry profound significance in nurturing growth, empowerment, and hauora. These endeavours fuel self-expression, creativity, and skill development, fostering holistic health for both wāhine and those touched by their influence" (p. 6). As Koianake's māmā, it is essential that I prepare my son to eventually uphold these cultural practices and roles as a future adult. Allowing him to actively participate in cultural traditions that he can pass on to his own children, contributes to the preservation of our culture and acknowledges important connections to people and places – past, present, and future.

Scene 3: Ko te Weu – Te Maunga

*At the base of the maunga, our car we parked,
A quick inu wai (drink of water), before we embarked,
I ask, “Me kōrero Māori anake, mō te rā katoa, son?”
(Shall we only speak Māori today son?)
“Āe Māmā,” he said, “that’ll be heaps of fun.”*

*Koianake points out all the things, he knows along the way,
Harakeke, manu, and flowing water, a sign of a good day,
Determined to be the rangatira, he led the way with pride,
So, I followed his lead willingly, I’m in for the ride.*

Scene 3 sets the stage for our exploration into the ngahere. The kura huna, Ko te Weu refers to the rootlets (Moorfield, 2011), which remain underground and are an extension of Te Pū and Te More. These rootlets typically help anchor the ground, and in this scene, one such anchor for the entire experience is a commitment from my son and I, to speak te reo Māori on our adventure into the ngahere.

Although speaking te reo Māori is a familiar practice for Koianake who attends Kōhanga Reo each day, for me it is quite the challenge. If I use Higgins and Rewi’s (2014) ZePA model, which explores attitudinal and psychological positions of an individual in regard to te reo Māori, I would identify myself under the category of Awatea – Active. According to Higgins and Rewi (2014) this category is defined as:

The Active (A) component refers to operationalisation of the language. Individuals in this cohort actively strive to advance the Māori language in all arenas. It may also include those who persevere with speaking Māori to their children, colleagues or friends as a matter of choice as opposed to operation as part of their vocational core business. The Actives are proactive in their support for the Māori language – they seek to have Māori language resources and services available. They view the Māori language as a component that has a place in their lives or in their workspace. They may range from those who use the Māori language with subtlety to those extreme passionaries who have an insatiable conviction and commitment to the language. (p.23)

For context, I choose to “operationalise” the language in our home at a guess probably around 60-70% of the time, much of the work that I do seeks to “advance the Māori language,” “Māori language resources,” are readily available to my whānau and I am committed to ensuring that te reo Māori “has a “place” in my life. However, if I’m honest, I invest more time into my tamariki learning te reo Māori than I do myself. As a matua, I’m guilty of becoming complacent at home with my reo, which is an example of a Left-shift using the ZePa Model (Higgins & Rewi, 2014).

This dedicated space allowed us both time to practice, play and explore the meaning of the words we use beyond mere communication. Given Koianake had missed several days of Kōhanga Reo a return to normality, speaking te reo Māori, was a welcomed change for him too. Te reo Māori, for me, holds a profound depth of meaning and when I reflect on the power of pūrākau and the diverse lessons and insights that underlie a simple story, conversing only in te reo Māori seemed befitting of the occasion. This commitment is an example of a Right-shift (Higgins & Rewi, 2014) and it happened organically on the day.

Conversing in te reo Māori with my three-year-old was also a wonderful, non-threatening way to make mistakes, without fear of judgment, and still maintain communication channels. Throughout our wānanga there were times when we didn't have the vocabulary to communicate clearly what we were trying to say, but that turned into a bit of a game too. We ended up using associated words to extract meaning which added to the fun of it all. For mātua with limited te reo Māori, it's about using what you have, while for those with more proficiency, it's an opportunity to add further layers to your existing knowledge. Interestingly, upon our return home later that day, te reo Māori flowed freely from our mouths as we recounted our adventure to the rest of our whānau. This serves as another manifestation of Te Weu as the rootlets, having absorbed the sustenance required, we were now demonstrating growth within our wider whānau dynamic.

The scene above also showcases a healthy balance of familiarity and adventure in the taiao. It's clear that Koianake approached the surroundings with excitement, confidence, and wonder. As we delved into the physical activity component of our journey, he expressed his desire to be the rangatira. This prompted a shift in roles from parent – son, to leader – follower, a transition I whole heartedly welcomed. Koianake asserted his mana as the rangatira, while I acknowledged my role which was to follow his lead. Furthermore, this philosophy aligns with the relationship dynamic exhibited in Chapter 5, whereby the tamariki were lead facilitators of He Pī Ka Rere and the kaiako played a more supportive role. According to Spiller et al., (2015) “the word ‘rangatira’ is made up of *raranga*, meaning to weave, and *tira*, meaning group. Rangatira therefore means to weave a group together” (p. 65). I was intrigued to see how this dynamic played out, holding deep respect for the skills Koianake brought to the space. I also used the moment as an opportunity to gain insight into what this little rangatira of mine had learned both at Kōhanga Reo and over his life, so I continued to ask questions to gain an understanding.

It's essential to note here that I had blocked out the entire workday for this adventure. While I recognise that not all mātua are afforded such extended periods of time for taiao expeditions like this, importantly, Tākaro ki te Taiao can be as long or as short as you wish, especially if time is

limited. For example, I entered this adventure prepared for the possibility of not reaching the summit mainly due to fatigue on the part of my son, but I was committed to going as far as he could, pushing him both physically and mentally outside his comfort zone. I came equipped with food, water, and distractions to ensure a journey that would challenge him, while also create lasting memories.

Scene 4: Ko te Aka – Ngā Rākau

*Koianake eagerly spotted, a path of stairs to ascend,
Racing ahead, his climb began to transcend,
But soon tired of running, a rākau caught his eye,
“Titiro Māmā, tēnei taku pū,” (look mum, this is my gun)
a koha he did find.*

*Facing a daunting flight of stairs, Koianake’s surprise grew,
Promising rest at the top, I encouraged him to push through,
We stop to find a quiet spot, and I fetch my pruning saw,
To trim the rākau ready for play, Koianake was in awe.*

*With determination, son wields the saw, transforming his rākau into a pū,
It makes me giggle because five minutes later, it transformed into a tokotoko (walking stick) too,
Together we envision the endless possibilities, oh, what his rākau could be,
From one creation to another, our imaginations run wild and free.*

Scene 4 unfolds at the start of our ascent up the maunga, marking the commencement of our physical pursuit. The kura huna, Ko te Aka is a term representing the creeper vine and is also identified as kareao, pirita, or the supplejack (Te Māra Reo, n.d.). Te Aka encompasses the diverse climbing plants that are widespread in the ngahere and is found in several traditional narratives which are reflected in chants and poetry. For example, Te Aka Matua³⁹ symbolises the parental vine, and plays a pivotal role in various birthing rituals. The following example is a section of an oriori (lullaby) and links the birth of a child to the creation of the universe:

³⁹ Aka matua is also the term used to describe the central thesis of this research.

Haramai, e tama! Puritia ki te aka matua,
Kia whitirere ake koe ko te kauwae runga, ko te kauwae raro
Kia tāwhia, ki tāmaua, kia ita i roto...
(A. T. Ngata and Te Hurinui 1980, Song 201: 44-46).

Welcome, O son! Hold fast to the parental vine,
And awaken the celestial and terrestrial knowledge,
Then take hold, hold fast, firmly enclose them...

(Te Reo Rangatira Trust 1998: 15).

According to King (2007) “the phrases puritia, kia tāwhia, kia tāmaua and kia ita are similar in meaning to the phrase kia mau with the child being exhorted to hold on to various types of knowledge handed down from the beginning of creation” (p. 63). Similarly, this parental vine, ‘Te Aka Matua,’ also finds significance in the tale of Tāwhaki,⁴⁰ who ascended to the heavens using this vine to gather the three baskets of knowledge (Te Rau Ora, 2022). Therefore, in this scene Ko te Aka refers to our first ascent on our hīkoi through the bush, with the main focus on the first taonga we discovered – a rākau. However, simultaneously, this scene also symbolises my encouragement to my son – not merely conveyed through words but manifested in my actions, whereby, I guide him to grasp the teachings within te ao Māori particularly concerning rākau, which can hold a wealth of knowledge.

Koianake has a great affinity for objects he can wield at home, such as swords, guns, taiaha (long wooden weapon), patu (club, weapon), shields, and shovels, but he especially enjoys rākau. His imagination runs wild when given the freedom to envision the multiple purposes of a rākau. A simple stick can magically transform into anything he can think of. So, knowing where we were headed, I came prepared with my pruning saw to cut any loose rākau for him to play with. Both he and I collected a couple of pieces on our way up the stairs and we even engaged in a playful battle at the top of the first set of stairs, while we waited to catch our breath. To my delight, his rākau indeed transformed during our hikoi. It shifted from a rākau pū (wooden gun) to a sword, then to a taiaha, and just as we returned to the path to restart our journey, it transformed into a tokotoko. At this moment, I recall saying to Koianake, "he maha ngā koha o te ngahere, nē, son?" implying that this forest offers us many gifts, particularly in terms of play. This prompted us to think about all the different momo (uses, types) for his new rākau taonga.

This scene also refers to the physical activity component of our trip. Approaching the maunga, Koianake had his first glimpse of the task ahead of him. Initially, he began running up the stairs until he became breathless and needed to slow down. By the time we reached the top of a flight

⁴⁰ Other versions of the story refer to Tāne.

of 50-80 consecutive stairs, his little heart was racing. Although physically tired, he was incredibly excited to play with his rākau. Understanding his capabilities, age and stage of development, and the importance of maintaining a healthy balance between pushing through the physiological challenge and managing his energy levels, I incorporated opportunities for both rest and play along the way. This type of physical activity could be likened to high-intensity interval training (Harris, et al., 2021; Harris, et al., 2022). Our ascent up the maunga included several minutes of vigorous activity, balanced with short periods of rest where we either stopped for a quick drink, slowed down to catch our breath, or took a break to play.

We took a rest at the top of the next flight of stairs and during this time Koianake became completely engrossed in exploring what he could do with his rākau. This made the prospect of continuing up the maunga seem less daunting. Again, it's important to note that we had no time constraints for the day, and I held no unrealistic expectations of my boy. If we couldn't make it to the top, that was perfectly fine and if Koianake was determined to continue, we had the luxury of taking our time to explore. This was key to really enjoying the experience together. According to Mules et al., (2022) "Tākaro in the environment builds resilience and capabilities beyond any other form of tākaro" (p. 27). Koianake seemed determined to carry on despite panting and sweating up a storm. Being in relation with the maunga, awa, moana and ngahere helped to build resilience, perspective, reverence and other key skills and lessons which I believe are important over the course of his life.

Scene 5: Ko te Rea – Ngā Wharetukutuku

*At a hollowed log, a whare tukutuku we found,
Koianake, a Spiderman fan, crouched on the ground,
Observing the pūngāwerewere, he emulated with glee,
How Spiderman moves through the bush, inspired by what he could see.*

*In his focus and determination, he managed to slow his pace,
Affording me a chance, to catch up in the race,
But then he asserted his role as rangatira, clear and bold,
"Ki muri Māmā," (to the back māmā) he proclaimed, his leadership to uphold.*

The kura huna, Ko te Rea refers to offshoots and growth, while Rea represents the act of springing up, growing, and multiplying (Moorfield, 2011). Scene 5 occurs during our second stop as we continue ascending the maunga. It describes an interaction where we stumble upon a hollow log adorned with whare tukutuku. This encounter provided the perfect opportunity to delve into the

realm of pūngāwerewere (spiders) and symbolises Koianake's growing curiosity about everything he was starting to discover and observe in the ngahere.

At this junction, Koianake directed my attention to the spiders, as he crouched down for a better view. With enthusiasm, he climbed the railings of the stairs to get higher than me and pretended to shoot spiderwebs from his fingers, making all kinds of sounds. He crawled, climbed, jumped, and ran around the area for about 10 minutes, showcasing his physical prowess, coordination, and his genuine love for Spiderman. During this time, I recalled the Atua Matua resources we had created (see Figure 6, Chapter 1) in particular, the activities that we centred around pūngāwerewere (Integrated Hauora Initiatives & Kori Collaborative, 2020). Without prompting him, he was essentially demonstrating the activity as outlined in the kaitiaki kāri, which involved Ngā Nekehanga Pūngāwerewere (movements of spiders) (Integrated Hauora Initiatives & Kori Collaborative, 2020). It served as a reminder of the value of those resources and how effortless physical activity flows when one is genuinely engaged and connected to what they are doing. Our conversations unfolded organically, exploring topics such as how spiders move, what they like to eat, and we even pondered how long it might take them to weave their intricate webs. Once again, his imagination soared, one conversation led to another, which led to another just like the offshoots of a tree – Te Rea. The key here lay in fostering inquiry. I asked lots of questions to gain an initial understanding of his knowledge and then prompted further learning by sharing my own. Our natural environment became a key facilitator of the tākaro experience, whereby engaging with the taiao impacted positively on levels of enjoyment, adventure, creativity, connection and imagination (Mules et al., 2022).

As our hīkoi progressed, I decided to test Koianake's memory of being the self-proclaimed rangatira. Numerous people passed us along the journey, and several adults cheered him on. However, whenever I attempted to overtake him, he was quick to remind me that I was to follow his lead. This playful dynamic persisted throughout our journey, injecting a sense of competition, particularly during the more challenging or repetitive moments of the walk. Mules et al. (2022) emphasise the significance of empowering tamariki to take charge of their experiences, with one community participant asserting that:

My mum's philosophy was, 'let the experience be the child, put your hands in your pocket' and only if invited and when asked to help you can facilitate and tautoko the outcome that that child wants and desires. But apart from that kei te tamaiti te tikanga, kei te tamaiti te mana. Karawhiua! (p. 38).

In this context, Ko Te Rea highlights the growing confidence and mana Koianake exhibited within the ngahere, showcasing his emerging leadership and autonomy.

Scene 6: Ko te Waonui – Ngā Kererū

*Amidst the treetops a mighty “whoosh” echoed through the air,
A kererū takes flight above us, oh so very clear,
“Ko wai tērā Māmā?” Nake searches for a clue,
“Ko Uncle Keith, e tama” with tears I respond, “it’s true.”*

*Here we know that kererū, grace our every visit,
Revealing their presence as kaitiaki, a very cherished spirit,
Koianake’s wonder grows, as more kererū appear,
Putting on a captivating show and making our hearts cheer.*

Scene 6 centres on our third pause amidst the maunga, which revolves around the enchanting presence of kererū frolicking in the canopy above us. The kura huna, Ko te Waonui refers to the saying Te Wao Tapu Nui a Tāne which translates to mean the great sacred forest of Tāne (Mead & Grove, 2001), the name I've given to the pūrākau associated with this chapter. Ko Te Waonui symbolises the expansive forest, and represents the substantial size achieved in the growth of the tree, in contrast to the shoots and rootlets discussed previously. This metaphor aligns with the profound significance of this interaction with the kererū whereby all aspects of hauora were being ignited at the same time. The connection forged during this moment transformed from being something that was physically challenging, mentally stimulating, and a bit of fun with his māmā in the taiao, to something profoundly spiritual. The experience demonstrated an evolution from what he was both learning and doing and transcended into a deeper, more spiritual realm of knowledge and awareness.

On any given day, Koianake exhibits a love for manu (birds) such as pīwaiwaka (fantail), tūī (parson bird), and karoro (seagull), who are regular visitors to our home and the surrounding neighbourhood. However, he was unfamiliar with this particular bird playing in the trees above us. Even before hearing or seeing the kererū, both of us sensed its powerful presence in flight. Secretly, I had anticipated the appearance of kererū during our hīkoi. In the days leading up to my uncle’s passing (the uncle whom we had visited at the urupā earlier that day), a giant kererū had perched itself outside his lounge window where we had gathered as a whānau. Ever since, our whānau have recognised kererū as his kaitiaki. In fact, I have very fond memories walking this same maunga with my uncle as a child and I return often to feel a closer connection to him.

Unlike other play spaces, this place holds more significance to us as a whānau, a sentiment which is reinforced by Mules et al., (2022) in the following quote:

Many modern play spaces, such as playgrounds, were observed as not a connecting place. The connecting thing is when you're together with your whānau. Creating spaces that promote tākarō (and not just "play") as a cultural way of being and knowing must firstly be built on the deep connection Māori hold with place (i.e., an interpretative play space in cultural landscape from our own cultural perspectives. (p. 27)

This scene solidifies the bond between people and place, and between the physical and metaphysical realms. Each time we return to this place, kererū make their presence known to us. So, when Koianake inquired about the kererū, "Ko wai tērā māmā?" noticing that he asked "who" and not "what," it represents, I responded with certainty "Ko Uncle Keith e tama." This interaction highlights the deep connection and interdependence Māori have with the environment, emphasising that we don't see ourselves as separate from it (Durie, 1985). This concept is crucial within te ao Māori, and I wanted to unpack it with my son in a way that he could grasp, especially the interconnectedness of those past, present and future. Therefore, it was essential to reinforce this perspective during our conversation at that moment. We spoke about kaitiaki and tohu and how they help us make sense of what's going on. It was about planting seeds in his mind as expressed in the whakataukī, "Kotahi karihi nāna ko te wao tapu nui a Tāne" which translates to mean the creation of the forests of Tāne comes from one kernel (Elder, 2020, p. 97). I continued to remind Koianake that he had celebrated his first birthday at Uncle Keith's house, not far from the maunga, surrounded by all his whānau who had gathered to spend quality time with him during his final days. As I spoke, three more kererū appeared and began playing in the canopy above us. Koianake was captivated, eagerly following their flight paths as they disappeared and reappeared. He was overwhelmed by the mesmerising sound of their take-off. Therein lies the magic of Te Waonui.

Scene 7: Ko te Kune – Te Tihi o te Maunga

*Nearing the summit an exhausted Koianake begins to ask,
“Āhea ka tae ki runga Māmā?” (how far/long to the top) a sign of a massive task,
Suddenly, he see the sun piercing through the canopy above,
“Tamanuiterā!” he shouts, dashing toward the peak with unwavering love.*

*At the summit, success and joy filled my son’s heart,
A 360-degree view, a masterpiece of art,
Side by side, we eat, soaking up the moment,
Sharing kai and capturing memories, we’re definitely in our element.*

*We take a selfie for Pāpā (father), to document our time,
Koianake with a cheesy grin, oh how he did shine,
Filled with elation, we begin our descent,
But soon we encounter another captivating event.*

Scene 7 centres on our approach to the summit of the maunga and the moments we cherished at the lookout while we basked in our achievements. The kura huna, Ko te Kune symbolises the shape and form achieved in the growth of the tree (Best, 1907). There was undoubtedly a sense of triumph on my son's face for what he had accomplished. Ascending this maunga at age three, was certainly no easy feat. The growth in his knowledge, awareness, and understanding of this special place was certainly beginning to take shape after the myriad of experiences he had encountered so far.

During this scene it became evident as we reached 850 stairs Koianake was physically exhausted. Despite the amazing stops we had along the way, he was eager for the upward climb to come to an end. He asked how much longer it would be until we reached the top. However, before I could answer, he noticed the sun peeking through the canopy above. He has a fondness for Tamanuiterā (deity of the sun), as it happens to be his nickname. During his infant years, when he was a chunky boy, our whānau affectionately called him Tama-nui (big boy). Over time, this nickname extended to Tamanuiterā, which which als' shares synergies with his other nickname, son. Realising that he was only a short distance away from reaching the summit of the maunga, he suddenly switched from being exhausted, back to full of energy. He found a burst of newfound strength and sprinted his way up the final steps.

I waited patiently for him to reach this stage of physical exhaustion from the hīkoi because up to this point, he had managed his emotions well. I was curious to observe how he'd chose to navigate his emotions, whether they be happiness, frustration, challenge, joy, or a sense of

accomplishment and in turn, I'd learn how to best support him. Mules et al., (2022) talk about tākaro as a means of building emotional intelligence in the following quote:

Empathy is caught, not taught. Building emotional intelligence is a critical aspect of becoming confident and capable as an adult. Developing emotional intelligence through tākaro enables us to manage emotions effectively and avoid being agitated or easily emotionally escalated. Tamariki with higher emotional intelligence are better able to pay attention, are more engaged in learning, have more positive relationships, and are often more empathic. (p. 34)

Ultimately, I was impressed with how my son was able to transition from exhaustion to being full of energy again, effectively managing his emotions. This was a sign of his growing maturity and an example of Te Kune where his character and resilience began to take shape. Importantly, it wasn't my influence that contributed to this shift either, instead, it was the taiao. My role as his māmā was to create an opportunity for him to experience these emotions and learn how to navigate them, rather than formally instructing him on how to manage them. This relates to a statement made in the previous section “kei te tamaiti te tikanga, kei te tamaiti te mana” (Mules et al., 2022, p. 38).

Upon reaching the lookout, we were greeted with breath-taking 360-degree views of Tāmaki Makaurau. I pointed out significant landmarks to Koianake, such as Uncle Keith's house, the location of our whānau farm, Nani Dianne's old school, the direction towards our own house, the Pourewateitei (Sky Tower), and Maraetai beach. Koianake enjoyed mapping out all the places he knew, especially the Pourewateitei which he could see in the distance. We then took a moment to sit down, enjoy a kai, and have a drink. During this time, many people who had witnessed the effort of his little legs to conquer the maunga, praised him for his determination. This was something he was super happy about. It was clear that they were impressed by his fortitude and perseverance. I, too, was pleasantly surprised that he had made it all the way up the maunga and felt proud of his will to push through. Physically, it was a sign to me that he was capable of much more than I would often give him credit for, especially given that just six months prior, he had been carried up the same maunga in a backpack on pāpā's back. We ended our time at te tihi o te maunga with a compulsory selfie to send to his pāpā as evidence of his successful journey to the top. Koianake, not one for serious photos on a good day, proudly struck a 'chur bro' gesture which was a clear indication that he was living his best life in that moment.

Scene 8: Ko te Whē – Ngā Aka

*This time, a cluster of aka, twisted around the trees,
Koianake's eyes sparkle as he recognises these,
I recite a karakia, a sacred connection made,
Acknowledging Tāne Mahuta, the kaitiaki of this glade.*

*It's permission we seek, with gratitude and care,
To harvest the aka, a treasure to share,
As I weave the aka, it's energy comes alive,
So does Koianake's imagination, a spark begins to thrive.*

*"Vrrmmm vrrmmm," echoes through the bush like a new song,
A thrilling car adventure begins, as he races along,
I shout from afar, "Ko wai koe e tama?" (who are you son?)
He soon replies, "He kaitaraiwa ahau Māmā!" (I'm a racing car driver)*

*A giggle escapes me, as memories flood my mind,
Of how his three older sisters, would play with the same aka vine,
Hula hoops, princess crowns, and frisbees were their choice,
But for son, a noisy steering wheel, echoed through his voice.*

Scene 8 refers to the beginning stages of our descent back down the maunga. On our way down it didn't take long before we encountered something that caught our attention once again. This time, it was a cluster of aka referred to previously in Scene 4. The kura huna, Ko te Whē, refers to the creaking sound of the trees heard when the wind blows in the forest a sign of growing consciousness (Marsden, 2003). Aka are a form of hupara according to Brown and Brown (2017) they define hupara as:

Predominantly rākau-based aroarotakaro (artefacts of play), that are permanently dug, stacked or hung in place. Tree logs (koporo), stumps (tumu), posts (pou) and vines (aka) are widely used to make these cultural icons. (p. 10)

Highlighted in this scene is Koianake's familiarity with aka as a natural resource. In fact, he has his own collection of aka amidst his taiao taonga at home. It had been a while since Koianake had seen it in its natural environment though, so I proceeded to cut a piece for him to play with. To express respect and gratitude, I performed a karakia with him, acknowledging and seeking permission to harvest some aka for us to play with. This was the first sound which rippled through the forest reflecting Te Whē, This process marked a significant moment of learning and teaching for Koianake where I guided him through the karakia in recognition of our relationship with the taiao. This presented an opportunity to impart cultural knowledge, instil respect for the environment, and nurture a sense of kaitiakitanga (guardianship, stewardship) in action. As a māmā, my hope is that these teachings cultivate a sense of responsibility and respect, where he

learns that our actions have consequences and that it is essential to approach the taiao with reverence, gratitude and reciprocity.

Shortly after this karakia, I constructed a circular structure for him to play with, similar to the ones he has at home which I use in my taonga tākaro mahi. While for some it may look like a simple toy, for us it symbolises our spiritual connection to the environment and our relationship with it. As Koianake embraces these lessons, I want him to begin to appreciate the beauty, significance, and spiritual connections embedded within the taiao. These experiences will not only shape his understanding of te ao Māori and the cultural practices we perform, but also empower him to carry these values forward into his future interactions with te taiao.

Similar to the rākau, the power of aka lies in its versatility. It can transform into anything the imagination desires. Brown and Brown (2017) reinforce the power to imagine in conjunction with the potential of hupara, as emphasised in the following excerpt:

Remember when that log in the bush was your pirate ship? With your brothers and sisters or friends you all created the stories and imagery of sailing the seas and having wild adventures! It could have doubled up as a horse or car, there was no limit. [...] The imagination, creativity, adrenalin pumping action, talk, passion, emotion, humour, jokes, songs, music, jingle-making, friendship gathering, story-making was as vivid to you then as now when you cast your memory back to the days that were indeed carefree. This is the key to utilising hupara to its fullest, most dynamic potential (pp. 14-15).

This excerpt rings truth when without hesitation, Koianake found a purpose for the aka and used it as a steering wheel, pretending to race down the maunga while making car sounds – Another example of Te Whē. According to Brown and Brown (2017) “to youngsters imagination is constant. The shame is that as we become teenagers that loses importance, it is regarded as ‘daydreaming’ and is seen as negative – not a productive use of time” (p. 15). Throughout this journey with Koianake I was reminded that as mātua, we must grant our tamariki the freedom to imagine and dream of the impossible. Then, I came to the realisation that as adults, it is important that we do this too, for our own hauora.

While his energy started to wane during the uphill climb, the downhill momentum revitalised his levels of physical intensity. By this point, he was too engrossed in play, to engage in conversation with me, so I instead took note of the different ways in which he and his sisters interacted with the aka vine. Watching him play and recounting the ways my daughters engaged with the aka, brought a smile to my face. During this time, I began to reflect on their distinct perspectives.

Notably, my son attributed a far greater masculine significance to the aka than his older sisters, signalling to me the differences in tākarō experiences for kōtiro in comparison to tama.

Scene 9: Ko te Kore – Ngā Kauri

*Near the bottom of the maunga, a brief pause we made,
Nake's gaze fixed on a cluster of Kauri, such a majestic parade,
Tall and proud they stood, a sight to behold,
"Ko wai te atua o te ngahere?" (who is the deity of the forest?) I asked, just to be bold.*

*"Aua?" (I don't know) Koianake answered, both curious and bright,
"Mōhio koe ki a Tāne Mahuta?" (do you know Tāne Mahuta?) I begin to shed some light,
"Āe," he responded, as I pointed to the trees in front,
"Kei korā a Tāne Mahuta," (there is Tāne Mahuta) affirming our connection in the hunt.*

*Koianake's little arms, embraced the Kauri tree so tall,
Tāne Mahuta became a superhero, we talked about it all,
We conversed about his power, size, strength and texture,
A dialogue between nature and a young adventurer.*

Scene 9 revolves around a magnificent cluster of kauri trees discovered in the ngahere, emphasising the power of inquiry, pūrākau, and learning. The kura huna, Ko te Kore, refers to the void, non-existence, and the nothingness before there was something (Royal, 1998b). In 'Te Kore' time is suspended, and within it lies unrealised potential. This metaphor aligns with the scene, where Koianake and I engaged in an open-ended conversation contemplating narratives about the celestial realm and the creation of the universe.

Nearing the bottom of the maunga, we made one final stop at Koianake's insistence, and I'm grateful we did. It provided an opportunity to reinforce some of the learning he had gained from Kōhanga that term. Koianake had been learning about Tāne Mahuta, so I engaged him in a conversation to assess his understanding. I asked, "Ko wai te atua o te ngahere?" However, he didn't seem to recall – an example of Te Kore. So instead, I asked, "Mōhio koe ki a Tāne Mahuta?" and he responds "Āe" recalling the name. So, I proceeded to explain that the majestic and towering kauri trees in front of us were in fact all representatives of Tāne Mahuta. The power of inquiry used in this regard facilitated a learning experience that was organic, age-appropriate, culturally relevant, and enjoyable. Brown and Brown (2022) reinforce this point stating that:

Hupara and aro-tākarō were the ultimate teaching tools in tandem with the environment, both built and natural, to complement personal schemas [...] Ira-takarō are our individualised atua given DNA programmed vortex through which our children learn and understand about the world. (pp. 10-11)

If we think of Tāne Mahuta and imagine the pronounced ira-takaro he possessed such as a strong core and powerful leg muscles used to push his parents apart, we are reminded of the characteristics and traits that can be mirrored through movement and play. After Koianake and I delved into the story of Tāne Mahuta and the role he played in the separation of Ranginui and Papatūānuku, we proceeded to bring this story to life physically. We laid on our backs and pushed our feet to the sky, mimicking the movement that led to te wehenga and the emergence of te ao marama. By portraying the narrative in a physical sense, Koianake gained a deeper understanding of Tāne Mahuta's significance. Heke (2019) advocates for a similar approach using the Atua Matua framework, stating that:

Ngā atua Māori embody a form of science that values the environment's role in continuing whakapapa and preserving important ancestral connections. For example, Atua Matua leads a return to mātauranga Māori (Māori knowledge), strengthening whakapapa relationships and resulting wisdom, moving beyond mere knowledge to enlightenment. (p. 2)

In this context, Heke (2019) promotes an approach that connects to the whakapapa of atua, kaitiaki, and tipua (super natural being) through the modality of movement, where positive health outcomes are a natural by-product. In this instance for my son, it certainly was. Engaging in mātauranga through the sharing of pūrākau, using movement and physical activity to reinforce and mimic the lessons he already knew, we recreated the story in physical form. Instead of telling Koianake about the crucial role Tāne played in the creation of the universe, he got to explore it first-hand for himself. As a result, hononga was strengthened with the kauri tree, and whakapapa was explored, all while having a bit of fun.

After simulating the movement that led to te wehenga, Koianake gazed up at the mighty rākau towering over him and began to draw connections between Tāne and other superheroes he knows, including Spiderman and Hulk smash. This encounter prompted him to want to touch and embrace the rākau, symbolising his recognition of its magnitude. His curiosity was immense, while he knew of Tāne Mahuta, he knew nothing of the kauri tree before today, an example of Te Kore. Now he wanted to know everything. He posed questions about its height, width, the texture of the kauri and its colour all in an avid quest for knowledge. As Koianake's māmā, this moment served as another reminder of our interconnectedness with nature especially when it comes to understanding and respecting our place within it. For Koianake it furthered his appreciation for the taiao as a source of knowledge and spiritual connection, deepening his understanding of our inherent relationship with the natural world.

Scene 10: Ko te Pō – Hoki ki te Kāinga

*Glancing at my watch, three hours have vanished in a blink,
To the nearby waterfall we go, for a quick dip and a drink,
Amidst the awe I overlook, the challenge it's been for my son,
I admire his resilience, conquering this mighty maunga was fun!*

*As we approached the carpark, stories filled the air,
Koianake's sense of accomplishment, a joy beyond compare,
Te reo Māori at the centre, as we share our cherished tales,
A day to remember, and a stronger bond prevails.*

Scene 10 serves as the final chapter to our adventure and centres on our time at the waterfall once we reached the bottom of the maunga. The kura huna, Ko te Pō, refers to a phase prior to Tāne forcing apart the Sky and Earth, where light was unknown, and darkness pervaded everywhere (Royal, 1998b). This scene mirrors how time seemed to slip away during our adventure, leaving us fully immersed in the moment. It also highlights the fact that my son and I were in our own world during our adventure, where nothing and no one else around us mattered. We essentially created our own Te Pō.

The waterfall is always the final destination before we depart from this special place. It's a short 5-minute detour toward the middle of the maunga where we can take our shoes off, cool down, and cleanse ourselves before heading home. We were the only ones there, (again a reflection of our Te Pō). It's a bit of a hidden gem, not very well signposted, so people don't visit the waterfall frequently, which we love. Overtime we've also introduced our own whānau tikanga, where we use it as a whakawātea, an exit protocol. While we were there, my son and I found uku and used it to colour various rocks and write our names. We splashed each other and drank from the waterfall before heading back to our car. On our way to the car, Koianake took the time to share all his stories from our adventures, and while he was talking, I reflected on how wonderful it was to be completely present with my son and spend quality time together all day.

Essentially, this final scene alludes to aspects we often overlook as mātua when we are immersed in a quality experience. We forget about things such as the value of time, my fear of knowing how to say what I want to say in te reo Māori and the remarkable challenge that climbing the mountain must have presented for my boy. This experience emphasised, for me as a māmā, the notion that when faced with a challenge that is cloaked in having fun, the perceived levels of difficulty are diminished. This was also reinforced by Whetū in relation to how tamariki experience He Pī Ka Rere. She said:

So, with kēmu that's how we love to engage our tamariki anyway, so they're learning without knowing they're learning. Everything's fun, you know they love everything they do when they come with us. Throw in any kori tinana and that's just that holistic approach to learning where its kori tinana, but also that mātauranga that goes with it. (Whetū)

This revelation holds significant benefits for individuals looking to engage in sustained physical activity, both in their daily lives and within educational settings. The sentiment conveyed in this scene resonates with the experience coming full circle, presenting invaluable opportunities for learning, personal growth, and achievement. As mātua, these are the moments we treasure most. Those that allow us to spend quality time with our tamariki while forging cherished memories along the way.

Section Two: Hauora

Although this entire chapter has alluded to the hauora outcomes which were a result of our wānanga in the taiao, this segment aims to leverage the concluding three lines of the pūrākau, and the title Te Wao Tapu Nui a Tāne, to construct an analysis of Tākaro ki te Taiao. We have already delved into the different phases and manifestations that unfold over time, which have been intricately tied to the experiences my son and I encountered in the taiao. Therefore, in this section, our focus shifts towards extracting key themes that highlight the programme's influence and impact on my son's hauora as a result.

The word cloud presented in Figure 32 is a visual representation of key words derived from the text associated with the ten scenes discussed earlier in this chapter. These words have been categorised to align with the four dimensions of Te Whare Tapa Whā, offering deeper insights into the impact of this experience. Following the pattern established in the preceding chapters, the next section will examine each dimension individually. Moreover, the words featured in the word cloud below will be seamlessly integrated and then aligned with the kura huna to further enrich the discussion.

That's the nature of play because it's real life, contained in these little pockets where you can get all the life lessons. You can learn about your environment, you can learn about what makes you tick, about how you function, about how well you know yourself. These are all natural parts of play. And then, of course, it should always lead toward developing you toward adulthood so that you have as many tools as you can conjure to cope with actual life; the realities of the real world. And I think it's [tākaro] is perfect for disseminating all those little things because if you can't lose well in a game, you can't lose well in life and then, of course, your reaction in the game is how you're going to react in life. (p. 34).

For my son, engaging in physical activity in, on, and through the taiao helped facilitate the development of life lessons and a profound connection to Tāne Mahuta. In this instance, Koianake had the opportunity to learn about his environment, establish connections between te ao wairua and te ao kikokiko (the world he's most familiar with), he discovered challenges that stimulated him, explored his limits, and ultimately, enhanced his own sense of self-awareness. These holistic outcomes are inherent aspects of play, showcasing the significant impact of pūrākau-based physical activity in the taiao on the physical wellbeing outcomes for tamariki.

Tākaro ki te Taiao, as emphasised in the quote above by Mules et al. (2022) highlights the significance of engaging in physical activities, adventures, and enjoyable experiences. I draw a parallel between this imperative and the formidable challenge of parting Rangi and Papa to usher light into the world. Amidst numerous attempts by their children, it was Tāne Mahuta who ultimately succeeded in this monumental task. Similarly, Koianake triumphed in his ascent of the maunga, highlighting the substantial benefits of participating in pūrākau-based physical activity in the taiao with and alongside your tamariki for both physical health and overall wellbeing.

As a māma, I, too, had the privilege of learning alongside him. This wānanga afforded opportunities for me to understand what makes him tick, see his characteristics and traits at play, impart knowledge, provide physical challenges, and support his physical endeavours. Collectively, these experiences have contributed to ways I wish to continue to guide my son as he grows into a young adult. I aspire for him to possess a diverse set of tools to navigate the realities of life and the real world. This sentiment was reiterated by W. Sarich (personal communication, July 11, 2021):

If you've got kids with hundreds of games in their minds, they also then have hundreds of ways to deal with any situation. Like one hundred ways to whanaunga with somebody else and therefore hundreds of ways to break ice, to whakatau a space, to bring yourself into a space, to bring that space into you. You've literally got all those types of tools with the more games that you have, because they all come with memories and with those memories you have the powerful lessons that are hidden within them. The ultimate kura huna of tākaro is helping you understand who you are and how you function. (p.29)

Tākaro, physical activity, and movement offer an ideal platform for experiential learning. This enthusiasm is heightened when it involves engaging in te reo Māori, delving into mātauranga Māori, and embodying authentic tikanga in practice. These elements play a vital role in nurturing my son's cultural identity.

Te Taha Hinengaro: Kura Huna – Te Whakapapa o Tāne Mahuta e

Te Whakapapa o Tāne Mahuta e translates to mean the lineage of the deity of the forest and refers to his offspring responsible for bringing life and light into the world (Best, 1907). The narratives associated with the ten scenes explored previously emphasised the importance of “mātauranga Māori”, mental “resilience” and the pursuit of “growth.”

Firstly, if I draw on this kura huna, an understanding of whakapapa becomes instrumental in understanding the nature and origin of phenomena (Royal, 1998a) and finding innovative ways to transmit that mātauranga to the next generation. The opportunities afforded to us during this experience, initiated Māori knowledge formation, exploration, transmission, and expression. For instance, in our discussions about Tāne Mahuta, I was able to link Koianake's kōhanga teachings to real-life experiences with phenomena like kauri. I could recount the pūrākau to him, and together, we replicated the movements associated with the narrative. These shared experiences contribute significantly toward fostering comprehension and empowering Koianake with a sense of belonging in relation to his surrounding world. Consequently, this process cultivates a growing confidence within him.

I also had the privilege of witnessing moments filled with "adventure," "creativity," and "imagination" unfolding. There was a noticeable growth in his capacity to understand the unfolding scenarios, envision possibilities, and actively create while engaging with his taiao surroundings. A vivid instance of this was when he gathered rākau, and together we contemplated the various roles it could play. While another example occurred when I fashioned a circular frame from the aka vine, prompting him to improvise a steering wheel and embark on an imaginative journey as

a racing car driver through the ngahere. According to Mules et al. (2022), the taiao is recognised as a "major facilitator of tākarō" (p. 25). They contend that spending substantial time immersed in the natural surroundings significantly impacts the levels of joy, adventure, creativity, connection, and imagination experienced by individuals or their tamariki. This held true for my son, and I, too, found it to be a compelling reminder of the transformative potential of tākarō, especially when it came to strengthening relationships between tamariki and mātua. Amidst the responsibilities of adulthood, we often overlook the importance of play, an essential component for engaging in activities that foster cognitive growth, exploration, and fun (Sport NZ, 2022a).

Moreover, there were several instances where my son faced physical challenges, subsequently putting his mental resilience to the test. This adventure became a valuable opportunity for me to observe Koianake regulating his emotions (Mules et al., 2022), navigating challenges, exhibiting discipline to overcome obstacles, and demonstrating unwavering determination to see the kaupapa through to completion. I was pleasantly surprised by how he handled the challenge, a moment of enlightenment that draws striking parallels to the narrative of 'Te Whakapapa o Tāne Mahuta.' While there were moments that necessitated a temporary pause or a subtle distraction from me, I was proud of his remarkable ability to push through his challenge zone and successfully complete the task.

However, it's crucial to acknowledge that not every whānau has easy access to such beautiful taiao surroundings. Mules et al. (2022) underscored the significance of tākarō in te taiao, emphasising that while it fosters resilience and capabilities, there's also a substantial sense of loss — "loss of connection, loss of sovereignty, and loss of skill" (p. 27). They elaborate on the challenges, noting that as more Māori migrate to urban centres for employment and education opportunities, there's a simultaneous disconnection from taiao. This disconnection, they argue, results in the diminished accessibility to the skills and knowledge that were traditionally imparted organically in taiao settings. This presents a real challenge, especially for whānau residing in urban settings, where access to taiao environments like the one detailed in this chapter can be challenging (Mules et al., 2022). Therefore, further research is imperative to explore ways of fostering connections with taiao in local settings, particularly in urban areas for Māori communities.

Te Taha Whānau: Kura Huna – Tīhei Mauri Ora

Tīhei Mauri Ora is a common expression in te reo Māori, symbolising the acknowledgment of the breath of life. Its roots delve into the Māori creation narrative discussed in Chapter 4, specifically when Hineahuone, the first woman, was fashioned from clay by Tāne (Mead & Grove, 2001). It is important to note that for Māori, Tīhei Mauri Ora transcends the concept of breathing as a mere physiological act. For instance, the hongi, or the pressing of noses as a greeting (Moorfield, 2011), serves as a symbol of the exchange of breath between atua and tangata. In this context, this exchange reflects the quality time my son and I shared as we journeyed through the ngahere together. It encapsulates the essence of our shared experiences, breathing life into the moments we created together and fostering a connection that goes beyond the physical to embrace the social, spiritual and cultural dimensions of our shared adventure.

Numerous kupu enriched the scenes as depicted in Figure 32 above such as "te aka matua", denoting the parental vine, "whānau", "māmā-son", and "rangatira". These kupu serve as linguistic bridges, weaving a narrative that not only describes our experiences but also emphasises the interconnectedness and significance of social bonds which contributed to holistic wellbeing. In addition, these kupu also signify the various social roles we assumed throughout the day, emphasising a distinct focus on the social dimension of hauora. Establishing layers of relationships (Roberts, 2013; D. Heke, 2021), and understanding cultural connections to people and land (Cunningham, 2016) were outcomes achieved in this wānanga. The roles we assumed and the relationships at play—between my son and I, between us and the taiao, and within our whānau spanning past, present, and future were emphasised. There was a sense of reciprocity, balance and shift especially when in Scenes 3, 4 and 5 there were interchangeable roles at play for example, Koianake as the rangatira saying "Ki muri Māmā". These are some critical social skills he is learning in the process, especially ones related to negotiation and compromise. Mules et al., (2022) reinforce this notion in their unpacking of the discourse of tatū, which is central to the game of Kī o Rahi. A community participant featured in the report states "tatū is a negotiation, and a negotiation requires both sides to compromise. No one side gets their way [...] both sides figure out ways to compromise for each other" (p. 34). Navigating this social space contributes to the development of emotional intelligence. Therefore, these dynamic and shifting social interactions serve as a demonstration of playful parenting, wherein dominant roles are tested, and healthy relationships are formed.

Te Taha Wairua: Kura Huna – Te Wao Tapu Nui a Tāne

Te Wao Tapu Nui a Tāne serves as the title of the pūrākau which sits at the heart of this chapter. I chose to use this title to conclude this section and frame the spiritual wellbeing insights because, whether consciously or unconsciously, I feel the spiritual dimension had the most profound impact throughout the day. This title encapsulates the essence of our journey, highlighting that the spiritual aspects had a lasting impact, not only on my son but also on myself. It symbolises the depth of our connection with the natural world and the spiritual threads woven into our shared experiences.

Navigating both the physical and metaphysical realms, was a recurring theme in Tākaro ki te Taiao. With references to "urupā", "tapu", "noa", "kaitiaki", and "kererū", these collectively helped shape our experiences which moved through a continuum of time – past, present, and future. Given our first stop outlined in Scene 2 was the urupā, it brought me great joy that this special place was familiar to him. It was a place which helped to ground us, connect us to our loved ones, set intention for the day, practice tikanga for safe passage and little to our knowledge it also served as a reference point to unpack kōrero about the significance of kererū as kaitiaki in Scene 6. The importance of the connection between tākaro and our cultural context are outlined by Mules et al. (2022) in the following:

The biggest limiting factor to tākaro moving forward would be limiting our understandings of it to a component of sport or structured play, and trying to define it as a translation of something that exists within (or from) another's cultural context (i.e., a Pākehā definition). Any development of tākaro must also seek to reclaim cultural foundations that encourages cultural authenticity and integrity. (p. 42)

This quote reinforces the importance of utilising tikanga, Māori cultural traditions and practices amidst game play. These processes seek to uphold the spiritual significance of tākaro and ensure the cultural foundations are solid when engaging in tākaro within the taiao.

In Scene 9 the exploration of creation narratives, with their profound spiritual roots, provided a unique opportunity to delve into the depth of our journey and sought to reinforce the significance of our experience within te ao Māori. We had the privilege of establishing connections with "rākau", engaging in meaningful interactions with the majestic "kauri", and enact the separation of Rangī and Papa through the physical enactment of "te wehenga". Each of these components significantly contributed to a heightened sense of spiritual connection, illustrating movement through the physical and metaphysical realms during our shared experiences.

Te Whetū Rehua Assessment

To assess the effectiveness of Tākaro ki te Taiao as a pūrākau-based physical activity approach, this section adopts the same format as the previous chapters. Te Whetū Rehua has been utilised as an assessment tool and the scoring methodology is consistent across the analytical chapters. As such, the total score presented in the table below indicates the programme's strength in promoting 'as Māori' participation.

Table 15: Tākaro ki te Taiao – Te Whetū Rehua Assessment

TĀKARO KI TE TAIAO	
A whānau-led tākaro programme designed to leverage pūrākau, whakapapa kōrero, and mātauranga Māori to cultivate connection, creativity, imagination, and fun for tamariki in taiao settings.	
WITH Te reo me ngā tikanga - elements central to identity and survival of unique Māori identity. Considered a 'normal' and/or expected part of the activity.	3 Total immersion Māori, tikanga is practiced, embeds kōrero tuku iho, pūrākau and whakapapa kōrero
FOR Māori - groups of whānau, hapū, iwi, Māori. Emphasis on whanaungatanga of whakapapa whānau or kaupapa Māori whanau.	3 Whānau Māori, tamariki and mātua
IN/ON Places, venues, and facilities. Ranges from venues of whakapapa significance through to contemporary facilities in the wider community.	3 Taiao, maunga, ngāhere, wairere, urupā
THROUGH Activity types. He Oranga Poutama focus is on traditional sports and games. Broader focus is contemporary sport and recreation activities.	3 Inquiry-led tākaro
BY Māori - governed, managed and/or delivered by Māori.	3 Whānau-led, Māori tākaro practitioner
TOTAL	15

This assessment score of 15 out of a total of 15 reflects that Tākaro ki te Taiao indeed covers all five criteria well and promotes 'as Māori' participation. However, this does not guarantee that anyone using this approach will score the same. Slight changes to any one of the five criteria could bring this score down further, for example, if there was a lack of te reo me ōna tikanga. What has become evident and is supported by this research, is the crucial role of educational experiences related to pūrākau-based physical activity for whānau at home. This is reinforced by the Department of the Prime Minister and Cabinet (2021), who suggest:

Some of the changes that the sector wants to see related to this upstream work is for people in government to build the necessary social and environmental supports around children, whānau and communities. These are things such as supportive physical and enriching play and learning environments. (p. 11)

While tamariki spend a substantial part of their week engaged in school activities, beyond that, they interact with whānau at home, within their neighbourhoods, and in their surrounding taiao. Consequently, there is merit in whānau-led approaches such as Tākaro ki te Taiao, or even programmes and resources that arm mātua with the tools to be able to provide these opportunities for their tamariki. Furthermore, in reflecting back on Te Whare Tapa Whā, a crucial element in achieving a holistic programme that aligns with the concept of hauora is a central focus on whānau. The enduring impact of Tākaro ki te Taiao becomes apparent when tamariki have opportunities to reinforce their learning with the significant others in their lives. This affirms the pivotal role of whānau in perpetuating the programme's impact long term.

Conclusion

This analytical chapter explored key themes surrounding Tākaro ki te Taiao, where insights were drawn and aligned with the ancestral pūrākau Te Wao Tapu Nui a Tāne. Emphasised by Tāne Mahuta and a sequence of natural processes symbolising growth, kura huna were extracted from the narrative to add depth to the analysis and meaning to the experience.

Ko te Pū symbolised the commencement of our journey, highlighting the importance of tuning into the origin of thoughts and feelings while navigating the interconnected dimensions of the tangible and spiritual realms to shape a holistic experience. 'Ko te More' or the taproot, symbolised those who had passed, providing a foundation for our existence on Earth. This section highlighted how the urupā as a setting, offered an opportunity for whakapapa kōrero about identity and our tūpuna to take place. Ko te Weu the rootlets, signified a commitment to speaking te reo Māori for the day, emphasising playful communication and a non-threatening approach to pūrākau-based physical activity. Ko te Aka the creeper vine, marked the first ascent up the maunga. This section ocused on the physiological challenges akin to HIIT, which fostered resilience, determination, and the development of vital life skills in my son. Ko te Rea the offshoots, centred on our interactions with a whare tukutuku. It shed light on opportunities to use inquiry to render imaginative ways my son could move like Spiderman. Ko te Waonui represented the great sacred forest of Tāne and highlighted the significance of kererū and opportunities for spiritual learning, tikanga, and whakapapa kōrero to be affirmed. It also emphasised the important connection and

interdependence Māori have with the environment. Ko te Kune symbolised the shape or form of a rākau. This section, set within atop the maunga summit, recognised the growth in knowledge, awareness, and understanding as my son's character and resilience began to take shape. Ko te Whē the sound of the trees, offered a chance to impart cultural knowledge and tikanga such as karakia to nurture a sense of kaitiakitanga and respect for the environment. Ko te Kore the nothingness, centred on our interactions with the kauri trees, where I utilised the power of inquiry to create an age-appropriate, culturally relevant, and enjoyable learning experience around Tāne Mahuta. Finally, Ko te Pō the darkness, signified the end of our adventure, reflecting the immersive nature of quality experiences as a result of Tākaro ki te Taiao. It alluded to aspects we often overlook as mātua when we are immersed in quality play experiences.

The final segment in this chapter centred on the concluding three lines of the pūrākau, and the title Te Wao Tapu Nui a Tāne, to construct an analysis of Tākaro ki te Taiao, using Te Whare Tapa Whā. This section symbolised a shift toward extracting themes relevant to the programme's influence and impact on achieving hauora outcomes. Ko Papatūānuku rāua ko Ranginui, focused on te taha tinana as a metaphor for the physical separation of Ranginui and Papatūānuku. It highlighted the many benefits of physical activity when conducted in the taiao, such as the development of life lessons and a profound connection to ngā atua, tupuna, whakapapa, and whānau. It also underscored the monumental physical task undertaken by my son during this experience, ultimately stressing the substantial benefits gained. Te Whakapapa o Tāne Mahuta e acknowledges the lineage of Tāne Mahuta as the source of light in the world and therefore focused on te taha hinengaro. Highlighted were the opportunities arising from Tākaro ki te Taiao, which initiated Māori knowledge formation, exploration, expression, and transmission. It emphasised that spending time immersed in the taiao had a significant impact on levels of joy, adventure, creativity, connection, and imagination. Tīhei Mauri Ora symbolises the exchange of breath between atua and tangata, and therefore this section centred on te taha whānau. It shed light on the moments we created together, fostering a connection that extended beyond the physical to embrace social dimensions too. This exchange established layers and shifts in relationship dynamics and deepened understanding of our cultural connections as Māori, to the land and to people. Finally, Te Wao Tapu Nui a Tāne, the important setting for the wānanga experience, helped conclude the chapter with a focus on te taha wairua. It symbolised the depth of our connection with the natural world and contributed to a heightened sense of spiritual connection.

In conclusion, this experience had a profound impact on me as Koianake's māmā, and I hope it did for him too. I learned so much about his characteristics, his personality, his strengths, weaknesses, and I was surprised at the determination and resilience I witnessed from him. This experience reminded me how 'normal' pūrākau-based physical activity is for our whānau anyway, and it reminded me of the significance of our role as mātua. More importantly, for māmā, we play an integral role in the lives of our tamariki, which is sentiment captured in the following whakataukī, "Ko te whaea te takere o te waka" translating to mean mothers are the hull of the waka (Elder, 2020, p. 141).

Précis – Pukapuka 3

Unlike the previous two précis, the analysis and breakdown of the pūrākau has been done throughout Chapter 6. This is the third and final pūrākau in the pukapuka series. In contrast to the earlier chapters, this précis reflects my perspective as a mātua interwoven with vignettes from my son. Notably, this pūrākau is not a work of fiction; rather, it is grounded in actual events that transpired on the day. Having captured videos and photos, I have initiated the process of actively designing this pukapuka for use as a valuable resource within my own whare. I aim to replicate this for the other two pukapuka. The primary goal of this pukapuka is to provide a means for my son to immerse himself in our shared journey, facilitating recollections of the places we visited, sparking discussions about the sights and activities, and documenting the overall joy of the experience for both of us.

Tākaro ki te Taiao

Figure 33: Pukapuka 3 – Tākaro ki te Taiao





It was a typical morning in our whare,

whānau getting ready for kura and mahi.

But Koianake aged three, was too maremare for Kohanga...

...so he stayed home with me for more awahi and aroha.

2

After many days indoors, eager to explore,

Koianake's adventurous spirit began to soar.

I packed a backpack with clothes and snacks galore,

To the ngāhere we ventured, curiosity at our core.



3

Our first stop, the urupā, our journeys are aligned,
Koianake, our rangatira, has the path etched in his mind,
He guides me to the kauri seat, a symbol we all embrace,
It's where our whānau lay to rest, and their legacy is traced.



In this special place, a sense of home we find,
Kerero, laughter, and memories intertwined,
A quick tidy, a mihi, as we blow kisses goodbye,
Instantly feeling grounded, connecting with whakapapa nearby.

4

Off we go to whakanoa and spiritually cleanse our heart,
Releasing tapu, brings forth a fresh and vibrant start,
Then off to the nearby maunga, our spirits are set free,
Koianake's excitement, is like a dancing melody.



5



At the base of the maunga, our car we parked,
 A quick inu wai, before we embarked,
 I ask "Me kerero Māori anake me te rā katoa son?"
 "Āe, Māmā", he said, "that'll be heaps of fun"

Koianake points out all the
 things he knows along the
 way,

Harakeke, manu, and flowing
 water, a sign of a good day,

Determined to be the
 rangatira,
 he led the way with pride,

So I followed his lead
 willingly, I'm in for the ride.

Koianake eagerly spotted a
 path of stairs to ascend,
 Racing ahead, his climb began
 to transcend,
 But soon tired of running,
 a rākau caught his eye,
 "Tītiro Māmā, tēnei taku pū",
 a koha he did find.



Facing a daunting flight of
 stairs, Koianake's surprise grew,
 Promising rest at the top, I
 encouraged him to push through.
 We stop to find a quiet spot,
 and I fetch my pruning saw,
 To trim the rākau ready for
 play, Koianake was in awe.

With determination, son
 wields the saw, transforming
 his rākau into a pū,

It makes me giggle because 5
 minutes later, it transformed
 into a tokotoko too,

Together we envision the
 endless possibilities, oh, what
 his rākau could be,

From one creation to
 another, our imaginations run
 wild and free.



At the hollowed log, a where tukutuku we found,
 Koianake, a Spiderman fan, crouched on the ground,
 Observing the pūngawerewere, he emulated with glee,
 How Spiderman moves through the bush, inspired by what he
 could see.



In his focus and determination, he managed to slow his pace,
 Affording me a chance to catch up in the race,
 But then he asserted his role as rangatira, clear and bold,
 "Ki muri Māmā," he proclaimed, his leadership to uphold.

10



Amidst the treetops, a mighty
 "whoosh" echoed through the air,
 A kererū takes flight above us, oh
 so very clear,
 "Ko wai te rā Māmā?" Nake
 searches for a clue,
 "Ko Uncle Keith, e tama" with
 tears I respond, "it's true".

Here we know that kererū, grace
 our every visit,
 Revealing their presence, as
 kaitiaki, a very cherished spirit,
 Koianake's wonder grows, as more
 kererū appear,
 Putting on a captivating show and
 making our hearts cheer.

11

Nearing the summit, an
 exhausted Koianake begins to ask

"Ahea ka tae ki runga Māmā?"
 a sign of a massive task

Suddenly, he sees the sun
 piercing through the canopy
 above

"Tamanuiterā!" he shouts,
 dashing toward the peak with
 unwavering love.



12

At the summit, success and joy filled my son's heart,
 A 360-degree view, a masterpiece of art,
 Side by side, we sat, soaking up the moment,
 Sharing kai and capturing memories, we're definitely
 in our element!



We take a selfie for Pāpā, to document our time,
 Koianake with a cheesy grin, oh how he did shine.

Filled with elation, we begin our descent,
 But soon we encounter a captivating event.

13



This time, a cluster of aka,
twisted around the trees,
Koianake's eyes sparkle as he
recognises these,
I recite a karakia,
a sacred connection made,
Acknowledging Tāne Mahuta, the
kaitiaki of this glade.

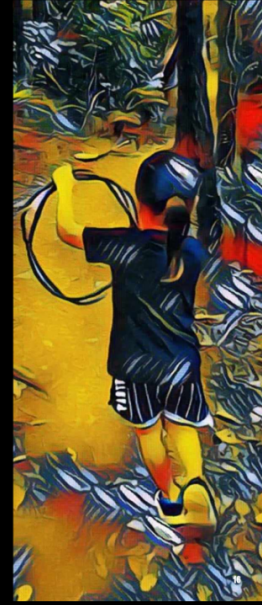
It's permission we seek,
with gratitude and care,
To harvest the aka,
a treasure to share.
As I weave the aka,
it's energy comes alive,
So does Koianake's imagination,
a spark begins to thrive.



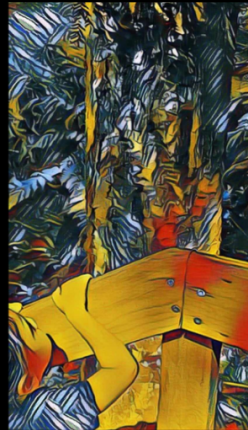
16

"Vrrrrmm vrrrrmm," echoes
through the bush like a new song.
A thrilling car adventure begins,
as he races along
I shout from afar,
"Ko wai koe, e tama?"
He soon replies,
"He kaitaraiwa ahau, Māmā!"

A giggle escapes me, as memories
flood my mind.
Of how his three older sisters
would play with the same aka vine.
Hula hoops, princess crowns, and
frisbees were their choice,
But for son, a noisy steering
wheel echoed through his voice.

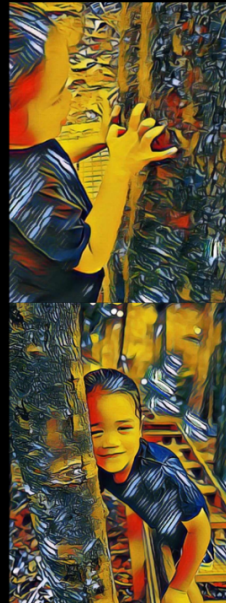


16



Nearing the bottom of the maunga, a brief pause we made,
Nake's gaze fixed on a cluster of Kauri, such a majestic parade.
Tall and proud they stood, a sight to behold,
"Ko wai te atua o te ngāhere?" I asked, just to be bold.

17



"Aua?" Koianake answered, both
curious and bright,
"Mehio koe a Tāne Māhuta?" I
begin to shed some light.
"Āe," he responded, as I pointed
to the trees in front,
"Kei kerā ā Tāne Māhuta"
affirming our connection in the
hunt.

Koianake's little arms embraced
the Kauri tree so tall,
Tāne Māhuta became a superhero,
we talked about it all.
We conversed about his power,
size, strength, and texture,
A dialogue between nature and a
young adventurer.

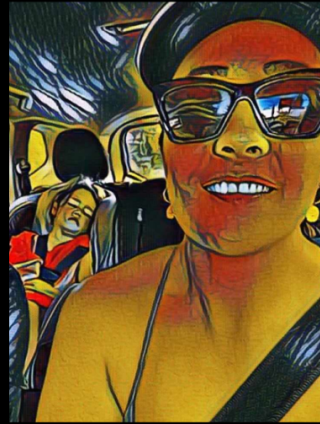
18

Glancing at my watch, three hours have vanished in a blink
 To the nearby waterfall we go, for a quick dip and a drink



Amidst the awe I overlook, the challenge it's been for my son,
 I admire his resilience, conquering this mighty maunga was fun!

19



As we approached the carpark, stories filled the air,

Koianake's sense of accomplishment, a joy beyond compare.

Te reo Māori at the centre, as we share our cherished tales,

A day to remember and a stronger bond prevails.

20

Tākaro with Koianake



Mātua/Kaiako

Read this pukapuka with your tamaiti/tamariki and ask the following questions:

What did Māmā make using the aka vine? _____

How many times is Kauri mentioned? _____

What do Kererū symbolise for our whānau? _____

What/who lives inside the Wharetukutuku? _____

Ko wai te Atua o te Ngāhere? _____

21



Te Whānau Penetito-Hemara
 Te Wairoa, Clevedon, March 2023

Chapter 7 – Conclusion

Introduction

The aka matua for this research asserts that pūrākau significantly enhances physical activity experiences for tamariki, enabling them to achieve hauora through facilitating authentic participation 'as Māori'. This concluding chapter encapsulates the essence of the entire research journey. In Section One, the key findings are presented, offering insights aligned with the three research questions which form the research agenda for this study. In Section Two, two significant implications are revealed highlighting the impact that this research makes as an original contribution of knowledge to this field. Throughout this chapter, the research limitations are acknowledged, ensuring transparency and a unique understanding of the study's scope. Recommendations are also interwoven and are articulated for diverse stakeholders, including system leaders, practitioners, programme designers, and whānau. The thesis concludes with my reflective insights, delivering a thoughtful and comprehensive end to the research journey.

Section One: Findings

This section provides a summary of the key findings of the study and reiterates key points that relate directly to the research questions. One of the challenges of Kaupapa Māori research is delineating out understandings that are very connected and holistic, therefore, the following research questions strive to navigate and capture the multifaceted aspects of a Māori worldview and experiences.

RQ1: What is pūrākau-based physical activity?

The impetus behind the research question "What is pūrākau-based physical activity?" arose from the absence of existing literature surrounding the term pūrākau-based physical activity. As highlighted in the introduction and literature review, there are many terms used to explain this area of work. However, to the best of my knowledge, the term pūrākau-based physical activity has not been widely adopted, if at all. Therefore, a set of working definitions were established and introduced early in this study (see Chapter 1) to provide the crucial context surrounding the concept.

One main finding of this research is the formulation of a comprehensive definition for pūrākau-based physical activity, inclusive of the three foundational pou. These definitions presented in Table 16 below, encapsulate the principal findings across the three pūrākau-based physical activity programmes examined in this study. Rigorous testing of the validity of these terms and their associated definitions remained a crucial aspect throughout the research. Consequently, this investigation affirms the reliability, accuracy, and utility of these definitions, acknowledging them as robust and accurate descriptions. They provide clarity and meaning, fostering a shared understanding of pūrākau-based physical activity. Furthermore, the definitions of the three pou significantly contribute to the foundational knowledge surrounding pūrākau-based physical activity within its specific context.

Table 16: Pūrākau-based Physical Activity Definition and Foundational Pou

Pūrākau-based Physical Activity		
Pūrākau-based physical activity involves the application and transmission of mātauranga Māori contained in pūrākau, expressed through both traditional and contemporary forms of physical activity to achieve hauora.		
Pou 1	Pou 2	Pou 3
Hauora is framed within a Māori worldview of health, highlighting the interconnected nature of physical, mental, emotional, social, and spiritual dimensions as integral elements contributing to overall wellbeing outcomes.	Pūrākau encompass both ancient and contemporary Māori narratives and techniques used to deepen understanding and the application of mātauranga Māori, te ao Māori, te reo Māori and Māori concepts, values, and practices both in innovative and creative ways.	Māori physical activity refers to any traditional or contemporary movement, play, sport, exercise, or recreation that incorporates elements or aspects of mātauranga Māori in order to exercise tino rangatiratanga.

Unlike pūrākau-based physical activity, the definition for ‘hauora’ aligns seamlessly with other works across the literature (Durie, 1985; 1997; 1999; Jackson et al., 2018). As such, the concept of hauora and Durie’s (1985) Te Whare Tapa Whā framework have contributed to broad implications across both the health and education systems. Durie’s work has contributed to knowledge generation, cultural education, increased funding for hauora-based initiatives, integration of te ao Māori views of health into policy, and the inclusion of Te Whare Tapa Whā within the national education curriculum. Similarly, the seminal works surrounding Kaupapa Māori Theory (G. H. Smith, 1997; L. T. Smith, 1997; Bishop, 1999; 2003; Nepe, 1991; Penetito, 2011) serves as another foundational frame of reference, especially within academia, where its reach

and value have facilitated many opportunities for Māori educational advancement (Lee-Morgan & Hutchings, 2016; Pihama, 2010; Penetito, 2011).

While variations of the term pūrākau-based physical activity exist, as evidenced in this study, it is apparent that, unlike Hauora and Kaupapa Māori Theory, there is no shared language surrounding it. In fact, there are more differences than similarities. The Futures Work by Sport NZ, clearly emphasised the need for definitions that reflect Māori perspectives, stating, "The play, active rec, and sport sector are unable to comprehend a te ao Māori perspective of kori tinana – it is missing the cultural layers" (Sport NZ, 2020d, p. 7). Moreover, the report highlighted a demand from Māori sector leaders urging Sport NZ to allow Māori to define physical activity for themselves, as expressed in the statement, "Sport NZ does not recognise a Māori construct of physical activity. They need to let Māori define physical activity for ourselves" (Sport NZ, 2020d, p. 6). While I acknowledge the need for culturally distinct frameworks, philosophies, and programmes related to Māori physical activity, especially in diverse contexts, it is evident that this field could benefit from a consistent language. While uncertain about the specific terminology, which may not even include terms like pūrākau-based physical activity, these statements from sector leaders reiterate a desire for a Māori-led approach. Importantly, in the absence of a shared common language, this research emphasises the urgent need to involve Māori system leaders, practitioners, and participants in developing a name, definition, or shared language that better reflects the experiences of all Māori, particularly those who benefit from it. This research has the potential to inform that work.

RQ2: How does pūrākau-based physical activity impact hauora for Māori?

This section focuses on Māori participating 'as Māori' and the impact that has on their hauora as a result. Referring again to Sport NZ's Futures work (Sport NZ, 2020c; Sport NZ, 2020d; Sport NZ, 2020e) as outlined in Chapter 2, paying particular attention to the primary challenges highlighted by the Te Tuarā working group (Sport NZ, 2020d), I want to remind the reader of the following statement, "The monocultural view of what constitutes play, active rec, and sport means Māori activities remain unrecognised and unsupported" (p. 6). These same sector leaders referred to the fact that, because of this "we participate as Pākehā" (Sport NZ, 2020d, p. 6). These statements reinforce the impact system leadership has on Māori participation and, consequently, hauora outcomes for Māori. To assess the validity of pūrākau-based physical activity achieving impact in the domain of hauora for Māori, this section pulls together each Te Whetū Rehua

assessment from the analytical chapters and the three respective programme descriptors and scores. Importantly, this evaluation seeks to critically assess the extent to which these pūrākau-based physical activity programmes are achieving hauora outcomes for Māori. According to Thompson (2021) “Te Whetū Rehua’s critical and unique purpose has been to guide what it means to deliver initiatives to an “as Māori” focus in a culturally appropriate way” (p. 4). Table 17 presents Te Whetū Rehua scores for each programme.

Table 17: Te Whetū Rehua Scores for Each Pūrākau-based Physical Activity Programme

PAU TE HAU	HE PĪ KA RERE	TĀKARO KI TE TAI AO
A curriculum-based, teacher-led, high intensity interval training programme which draws from pūrākau, kōrero tuku iho, and traditional Māori movements to promote vigorous exercise for tamariki in schools.	A kaupapa Māori programme which fuses kori tinana, pūrākau, mātauranga Māori, and atua related movements to foster tamariki growth and development in early learning environments and schools.	A whānau-led tākarō programme designed to leverage pūrākau, whakapapa kōrero, and mātauranga Māori to cultivate connection, creativity, imagination, and fun for tamariki in taiao settings.
WITH		
Te reo me ngā tikanga - elements central to identity and survival of unique Māori identity. Considered a 'normal' and/or expected part of the activity.		
1	2	3
Limited reo, limited kōrero tuku iho, no tikanga, delivered predominantly in English	Bilingual, bicultural, te reo, tikanga and pūrākau are prioritised, strategies in place to maintain quality of reo	Total immersion Māori, tikanga is practiced, embeds kōrero tuku iho, pūrākau and whakapapa kōrero
FOR		
Māori - groups of whānau, hapū, iwi, Māori. Emphasis on whanaungatanga of whakapapa whānau or kaupapa Māori whanau.		
1	2	3
Māori and non-Māori tamariki in English-medium	Māori and non-Māori tamariki in English-medium	Whānau Māori, tamariki and mātua
IN/ON		
Places, venues, and facilities. Ranges from venues of whakapapa significance through to contemporary facilities in the wider community.		
1	1.5	3
Inside school classroom	Inside/outside class, school hall, courts, fields, marae noho	Taiao, maunga, ngāhere, wairere, urupā
THROUGH		
Activity types. He Oranga Poutama focus is on traditional sports and games. Broader focus is contemporary sport and recreation activities.		
1	3	3
HIIT, contemporary exercise, some Māori movements	Atua-based or kaitiaki-based activities, kēmu Māori	Inquiry-led tākarō
BY		
Māori - governed, managed and/or delivered by Māori.		
1	2	3
Māori or non-Māori teacher-led, technology enhanced, supported by Māori in the design	Lead by two Māori kaiako, supported by Māori and non-Māori senior managers and kaiako, supported by Ngā Taonga and Toi Tangata	Whānau-led, Māori tākarō practitioner
TOTAL SCORE 'AS MĀORI'		
5/15	10/15	15/15

As discussed throughout the analytical chapters, Te Whetū Rehua, outlines a five-criteria continuum to help determine 'as Māori' participation. The closer the activity is to the centre, the more likely participation is deemed 'as Māori', while the dimensions of the outer star align better with participation by Māori in mainstream settings (Sport NZ, 2021d). The combined results outlined in the table above provide another main finding of this research, indicating a spread across the whētū. Tākaro ki te Taiao scoring a total of 15, indicates that participants, as a result of engagement in the programme, have the most opportunity to participate as Māori. While He Pī Ka Rere scores a total of 10, indicating that participation 'as Māori' is a priority and that there are strong bicultural foundations. Finally, Pau te Hau scores a total of 5, indicating that participation 'as Māori' is offered but is limited.

According to Thompson (2021):

Te Whetū Rehua is used to distinguish by Māori activities from as Māori activities. It does this by giving definition and measurement that assists programme management and He Oranga Poutama providers to distinguish by Māori activities from as Māori activities based on principles that are significant to Māori.” (pp. 4-5).

This emphasises a crucial aspect concerning the presence of numerous programmes led by Māori for the benefit of non-Māori. Te Whetū Rehua recognises that “a strong and secure cultural identity helps facilitate access to wider society, as well as being vital to wellbeing as indigenous New Zealanders” (Sport NZ, 2021d, para. 3). Therefore, 'as Māori' participation is key to achieving hauora outcomes and pūrākau-based physical activity can enable that to happen.

It is important to highlight that without making any changes to the programme designs, these scores have the potential to shift, and change based on each of the five criteria. For instance, if He Pī Ka Rere were delivered in te reo Māori at a Kōhanga Reo located at a marae, it would likely score 15. Likewise, if Tākaro ki te Taiao was facilitated in English by a non-Māori parent at a local park, its score would significantly decrease. Assessing 'as Māori' participation provides practitioners, kaiako, and mātua an opportunity to evaluate where they can improve in the design and delivery of pūrākau-based physical activity, while simultaneously tracking any progress they make in offering opportunities for 'as Māori' participation.

Furthermore, it is crucial to note that, on face value, each of the programme descriptions outlined in Table 17 above appear to share alignment with the working definition for pūrākau-based physical activity (outlined in the previous section). However, alignment with the definition does not determine the level of influence the programme has. To effectively assess the impact of such

programmes on hauora outcomes for Māori, Te Whetū Rehua can be a critical tool in identifying areas that need adapting to better cater to participation 'as Māori.'

RQ3: What are the hauora experiences for tamariki, kaiako and mātua in engaging in pūrākau-based physical activity programmes?

This section provides a series of concise paragraphs outlining the hauora experiences of tamariki, kaiako, and matua within each pūrākau-based physical activity programme. Each programme was analysed separately, presenting a summary corresponding to the four dimensions of Te Whare Tapa Whā. The main thematic findings from the analysis are also integrated throughout.

Pau te Hau

Te Taha Tinana: Key themes for te taha tinana surrounded the physical benefits and holistic impact of Pau te Hau, promoting inclusivity, rethinking success, and exploring the concept of 'stealth fitness' and its influence on wellbeing. Both kaiako and tamariki noted that Pau te Hau significantly enhanced te taha tinana outcomes overall. The emphasis on physical activity, exercise, fitness, and especially HIIT was both novel and inviting. The concept of reaching the 'red zone' added an engaging element too. Kaiako highlighted the benefits of participating in Pau te Hau as a means of achieving 'stealth fitness' and promoting inclusivity by equalising physical abilities. Tamariki also communicated to their kaiako that Pau te Hau contributed to increased fitness levels, positively influencing their performance in other sports.

Te Taha Hinengaro: Key themes for te taha hinengaro centred on refocussing energy for improved mental and emotional wellbeing, addressing tamariki attitudes and participation challenges and fostering goal setting and meaningful engagement. Some kaiako reported that the programme nurtured mental resilience and emotional wellbeing, noting advantages such as providing 'mental breaks' in balance to the academic demands of their learning. However, others found certain aspects challenging, impacting tamariki attitudes, behaviours, and emotional states differently. To shift attitudes and motivate participants, both kaiako and tamariki strongly advocated for the inclusion of music embedded within the programme's technology, with tamariki expressing a specific desire for culturally relevant music featuring te reo Māori.

Te Taha Whānau: Key themes for te taha whānau included diverse perspectives on the impact of social connection and wellbeing, as well as the extension of whānau engagement beyond the school. Some kaiako argued that the programme's limited collaborative and competitive elements fostered healthy social connections, while others believed there was room for improvement. Kaiako also encouraged more opportunities to extend the learning of Pau te Hau beyond the school to spark interest among whānau. While tamariki emphasised a desire for more group activities highlighting the importance of social interaction from a Māori worldview centred on whanaungatanga and promoting increased engagement.

Te Taha Wairua: Key themes for te taha wairua included enhancing the spiritual dimension of Pau te Hau, strengthening cultural relevance and connections to atua, and honouring whakapapa and spiritual connections through local pūrākau. Both kaiako and tamariki identified an opportunity for significant growth in the design of the programme to enrich spiritual wellbeing outcomes for tamariki. This included incorporating a mix of high and low-intensity activities with cultural relevance, such as the addition of mauri tau sessions or guided listening to relevant pūrākau. Tamariki also expressed a desire for the integration of te reo Māori throughout Pau te Hau, supporting cultural preservation and their sense of connection as Māori to the programme.

He Pī Ka Rere

Te Taha Tinana: Only one key theme was identified in relation to te taha tinana, which was a fusion of mātauranga Māori and fundamental motor skills. While He Pī Ka Rere centred on physical activity, it also successfully targeted the acquisition of fundamental motor skills through the integration of Māori knowledge. Kaiako emphasised the power of using pūrākau to teach foundational movement skills while creating deeper and more meaningful connections between tamariki and their culture. This approach emphasised that education can be enriched when it intertwines cultural elements with the development of physical skills, providing a more holistic and culturally relevant learning experience. A noteworthy finding from both kaiako and tamariki datasets was the absence of feedback regarding te taha tinana outcomes being achieved. This suggested that while physical activity served as the foundational platform for engagement in He Pī Ka Rere, the true impact lay in the holistic approach which encompassed a myriad of positive hauora outcomes, not just for tamariki but for kaiako and whānau too.

Te Taha Hinengaro: Key themes for te taha hinengaro centred on promoting inclusivity and progression, leader engagement, attitudes and behaviours, and interdisciplinary learning using te ao Māori as a foundation. Both kaiako and tamariki noted that He Pī Ka Rere significantly enhanced mental and emotional well-being outcomes, especially when it came to developing critical thinkers and adaptable leaders among tamariki. The programme's flexibility and interdisciplinary design rendered it more meaningful and culturally relevant for tamariki, empowering them to emerge as young leaders with a diverse set of skills. Of particular strength were skills related to game development infused with mātauranga, te reo, and experiences that integrate pūrākau with movement. In addition, tamariki were enthusiastic about the opportunities to acquire new mātauranga Māori and build their proficiency in te reo.

Te Taha Whānau: Key themes for te taha whānau included growing authentic leaders through He Pī Ka Rere, nurturing strong tuākana-tēina relationships, strengthening the whānau-school connection, and enhancing relationship dynamics between kaiako and Kaitiaki. He Pī Ka Rere demonstrated a remarkable impact on strengthening social connections within the school and extending relationships beyond the classroom into homes. The dynamics between tuākana and tēina were notably strong, with roles such as Kaitiaki and Reo Rangatira providing additional opportunities for leadership. Despite encountering challenges, particularly in building their confidence to communicate in front of large groups and adapting to unexpected changes, the tamariki were often surprised at their growing potential. Kaiako emphasised that their tamariki possessed growth mindsets in overcoming challenges as leaders, supported by Kaitiaki development days where tamariki could train and develop their skills further. Whānau were seen as active contributors to their experiences as well and expressed pride and joy in seeing their tamariki live and breathe being Māori. While the potential for widespread community support was highlighted, there are also opportunities for this learning to extend its impact into the home as well.

Te Taha Wairua: Key themes for te taha wairua centred on honouring whakapapa and cultural identity, navigating authentic integration of atua Māori within the school and promoting cultural practices including te reo me ōna tikanga. He Pī Ka Rere significantly empowered tamariki to be proud of their Māori cultural identity and in some cases, helped facilitate re-connections with whānau and whakapapa. The programme offered valuable opportunities for active participation in cultural activities and leadership roles which promoted te reo and the application of tikanga Māori. Both kaiako and whānau reported that these benefits, demonstrated impact both inside and outside the classroom. While the integration of spiritual practices presented challenges for

some kaiako, the school's commitment to normalising and demystifying te ao Māori, as woven throughout the foundation of the school, was instrumental. While He Pī Ka Rere played a crucial role in fostering cultural pride and spiritual connections, kaiako, tamariki and their whānau expressed an appetite for even more educational experiences that reflect Māori cultural identity.

Tākaro ki te Taiao

No comparison between matua and tamaiti voices in Tākaro ki te Taiao were reported in this study. Due to the age and developmental stage of the tamaiti participating in this programme, conducting interviews, activities, or direct questioning about the impact of Tākaro ki te Taiao on Koianake's hauora was deemed inappropriate. Instead, Koianake's voice was interwoven throughout the analysis of the programme in more narrative and experiential ways. However, this limitation should be acknowledged in this study, especially given the focus on tamariki as agents of change.

Te Taha Tinana: Tākaro ki te Taiao centred on the physiological challenge of ascending and descending a maunga, a significant feat for Koianake. Similar to HIIT, the experience provided opportunities for both vigorous activity and periods of rest. Along the hīkoi, there were additional opportunities to engage in playful activities simulating the movements of atua and kaitiaki within the taiao. These interactions fused pūrākau, te reo Māori, and whakapapa kōrero with physical activity, offering chances to play, create, and imagine. Moreover, they contributed to the development of valuable a profound connection to ngā atua, tupuna, whakapapa, and whānau.

Te Taha Hinengaro: Mental and emotional outcomes were exemplified through a variety of activities that initiated knowledge formation, exploration, expression, and transmission. Central to this was the use of inquiry-led tākaro, where asking questions invoked Koianake's imagination and encouraged him to acknowledge his feelings and emotions in a safe and inclusive manner. As a result, this approach facilitated growth in knowledge, awareness, and understanding. Additional notable benefits encompassed a commitment to speaking te reo Māori throughout the day, along with the intrinsic advantages of dedicating quality time to play and be present with my son.

Te Taha Whānau: Social wellbeing outcomes were realised through the moments we created together, fostering connections and layers of relationships. These included ties to ngā atua, tupuna, whānau, a bond between us as matua-tamaiti, and, of course, a connection to the taiao. The significance of deepening our understanding of cultural connections as Māori, to the land and

to people, was impactful also. Moreover, embracing Koianake's interests, such as his love of superheroes, and allowing him to lead the adventure as the rangatira for the day, had a significant impact on fostering a sense of joy, adventure, and connection for both of us.

Te Taha Wairua: Spiritual outcomes were highlighted through tuning into the thoughts and feelings across the physical and metaphysical realms. This was exemplified through an experience at the urupā and the opportunity that arose during our maunga ascent for whakapapa kōrero to be reaffirmed. Opportunities to role model and impart cultural knowledge and tikanga, such as karakia, to nurture a sense of kaitiakitanga and respect for the environment were also notable outcomes. As a result of Tākaro ki te Taiao, a deepened connection with the natural world contributed to a heightened sense of spiritual connection, marking another positive hauora outcome.

Section Two: Implications

This section focuses on two key implications: He Pukenga Pūrākau which centres on the transformative power of pūrākau across all aspects of the research journey and Ka Ora te Tamaiti a framework developed to amplify the voices of tamariki as change agents.

He Pukenga Pūrākau

He Pukenga Pūrākau derives from the aka matua and the overarching title for this research – He Pukenga Pūrākau, Ka Ora te Tamaiti. He Pukenga Pūrākau acknowledges the pivotal role pūrākau has played throughout this research journey and the transformative outcomes it has generated. As a subject, pūrākau-based physical activity emerges as a unique concept, symbolising a fusion of Indigenous storytelling and contemporary approaches to physical activity. Serving as the primary research methodology, pūrākau is foundational in shaping the entire research process from data collection to analysis. In praxis, pūrākau contributed to the development of Tākaro ki te Taiao, illustrating the enduring impact of whānau-led pūrākau-based physical activity. Additionally, pūrākau used as a platform, has also given rise to the creation of three new pūrākau presented in the pukapuka series. Therefore, He Pukenga Pūrākau serves as a reminder of the transformational potential of pūrākau across all aspects of the research journey. The subsequent sections provide a brief overview of the many transformative outcomes resulting from the use of pūrākau within this study.

The term pūrākau-based physical activity, introduced in this research, not only provides a unique perspective that prioritises pūrākau, hauora, and Māori physical activity but also draws on relevant literature and evidence to synthesise various facets of the research topic. To my knowledge there is no research surrounding this body of work, therefore this study stands as my significant contribution to the sector. While pūrākau-based physical activity as a term is not intended to replace existing terminology, He Pukenga Pūrākau acts as a call to Ngāi Māori (collective of Māori) and sector leaders to flood together to create a shared language surrounding the wider body of work. As previously established (Sport NZ, 2020a), there exists a desire among Māori to articulate the essence of engaging in Māori physical activity in Aotearoa. However, the importance of Māori taking the lead in defining this narrative is emphasised, particularly when the risk of non-Māori shaping this discourse continues to grow (Paewai, 2023). This research actively promotes the cultivation of a shared language rooted in te ao Māori and te reo Māori. The incorporation of pūrākau-based physical activity serves as a valuable conduit, bridging the realms of traditional and contemporary worldviews, contributing to transformative outcomes within the sector.

While wayfinding as a methodological framework served a purpose throughout the initial stages of this research journey, unsurprisingly, pūrākau emerged as the primary research methodology demonstrating its transformative potential to guide the research process. Not only that but it served as a dynamic method for data collection, analysis, and presentation. He Pukenga Pūrākau highlights the integral role of storytelling in sustaining knowledge within Indigenous communities, emphasising the relationship between methodology and practice. By employing pūrākau as a method, this research was approached through a culturally relevant and context-specific lens. This method aimed to foster critical thinking and creative expression among participants. Pūrākau also functioned as a profound data analysis tool, weaving ancestral narratives into the research fabric to acknowledge significant people and places. The kura huna that were extracted enriched the analysis, bringing key themes to life and providing a deeper understanding of the connections between whakapapa and physical activity. In addition, the development of the pukapuka series served as a creative and engaging approach, transforming data into a narrative form accessible to tamariki, kaiako and whānau. Inspired by personal interactions during my wānanga, this series captured the richness of the learning journey overall. He Pukenga Pūrākau therefore encapsulates the transformative potential of pūrākau in fostering understanding and engagement among tamariki and beyond. This phrase serves to reinforce the enduring impact of pūrākau on holistic wellbeing, transcending the research boundaries to contribute meaningfully to hauora outcomes for Māori.

Reflecting on the transformative potential of pūrākau and its role as a form of mātauranga Māori for the future, it is crucial to heed Royal's (2005) advice:

It is important to note that mātauranga Māori of the past century or so did not necessarily find expression in the world in the way that it's creative potential might suggest [...] It is good for us to be inspired by the wisdom of our ancestors, but at the same time it is also important to recognise that we live in a world that is vastly different to that experienced by our ancestors. (pp 2-3).

Royal (2005) stresses the importance of acknowledging the past yet adapting our practice to suit the contemporary world. He Pukenga Pūrākau reinforces the idea that pūrākau remain powerful and transformative, even in a vastly different modern context. While there is an emphasis on the significance of drawing inspiration from ancestral wisdom, this research promotes the evolving nature of mātauranga Māori in a changing world.

Ka Ora te Tamaiti

Ka Ora te Tamaiti also derives from the aka matua and the overarching title for this research – He Pukenga Pūrākau, Ka Ora te Tamaiti. Ka Ora te Tamaiti is a praxis that recognises the central importance of tamariki wellbeing in this study. It centres on empowering tamariki as agents of change and recognises the mana of tamariki as our most sacred taonga. It acknowledges their pūkenga (skills expertise), the role they play as keepers of knowledge and the responsibility they hold to pass that knowledge on. It also determines, as evidenced in this study, how tamariki wish to be seen, heard, and engaged with. This research urges us to recognise the power and authority that tamariki have in designing, defining, and facilitating meaningful experiences, which have a positive impact not only on them but also on all those around them.

Throughout this study I learnt that researchers seldom engage tamariki in their data-gathering practices and I wanted to understand why. Historically, children have been viewed as passive recipients of knowledge rather than active contributors (Gurdal & Sorbring, 2018). This attitude has led to a lack of consideration for unique perspectives and a failure to recognise the importance of their voices (Ministry of Social Development, n.d.). Despite challenges, there is a growing recognition of the importance of capturing tamariki voices in research (Ministry of Social Development, n.d.). Ka Ora te Tamaiti recognises the need to explore creative methods for engaging tamariki in the research process and involving them as active contributors in the design and implementation of programmes made for them. Capturing tamariki voices and lived experiences was essential in acknowledging and valuing their individuality and unique

contributions. By actively listening to tamariki and respecting their perspectives, we can develop physical activity programmes that are inclusive, culturally relevant, and value the voices and experiences of all participants. This approach can lead to the creation of physical activity programmes that not only value te ao Māori but also recognise and honour the experiences and perspectives of all participants. During my engagement with the tamariki participating in my research, I was struck by the unfiltered and authentic manner in which they expressed their ideas and viewpoints. For example, some tamariki shared stories of whānau who had passed and when given the chance to create a waiata or kēmu to express their unique views, this opportunity was welcomed with enthusiasm. The raw and very real examples these tamariki provided, fostered a wealth of distinct and valuable insights that may not have come to light through more scripted interactions, or indeed if their voices were not included at all. Furthermore, during my visit to Murihiku, the tamariki were actively taking the lead in the implementation and execution of He Pī Ka Rere. This role positioned them as essential leaders and facilitators of mātauranga Māori within their school environments. As a result, their input significantly influenced the trajectory of my research journey.

Ka Ora te Tamaiti emerged in response to the challenges I encountered in finding a suitable means to amplify the voices of tamariki within the confines of a traditional thesis structure. In my quest for an authentic representation of the insights shared by tamariki, I recognised that their expressions were too constrained within a conventional format. Finding a way to honour the creative, interactive, and culturally representative data using conventional academic language and structure was difficult to say the least. Given the data was gathered through innovative and playful means, it was imperative to analyse and present the findings in a format that acknowledged the essence of the interactions I had with tamariki. The insights gained essentially mirrored the rapport fostered with them. While there were evident recurring themes during data collection, I found it unacceptable to merely consolidate these themes using academic terminology, potentially stripping away the essence of their distinct viewpoints.

Consequently, I chose to decolonise my research approach, and diverge from the conventional path and as a result Ka Ora te Tamaiti emerged as a praxis. Ka Ora te Tamaiti manifests through the creation of a series of pukapuka containing three pūrākau. My decision to craft these pukapuka came from my desire to enhance the creative expression of tamariki perspectives and not only validate their voices and experiences but also empower them to see themselves reflected within the pages of a book. I believe that when tamariki see themselves celebrated in the world around them, it can have a profound impact on their sense of identity and hauora. Positive

representations of their culture and language can help foster a strong sense of pride and connection to their cultural heritage, providing a foundation for resilience and positive self-esteem (Durie, 1997; Durie, 1999; Jackson et al., 2018). Furthermore, feeling validated and affirmed in their cultural identity can help tamariki navigate the complexities of a multicultural society with confidence and understanding, enabling them to thrive both academically and personally.

These pukapuka offer a playful, narrative-driven way of sharing their experiences, providing a creative avenue for their unique stories to unfold. As one of the most powerful and enduring forms of Māori storytelling, pūrākau represents a vital link to Māori cultural knowledge and heritage (Lee-Morgan & Hutchings, 2016). The creation of new pūrākau stands to ensure the continuity of these narratives for future generations, not only safeguarding but keeping alive the traditions, values, and beliefs that are essential to Māori culture (Lee-Morgan & Hutchings, 2016). The pukapuka series also functions as a bridge, connecting the cultural knowledge and practices applied at school (like pūrākau-based physical activities) with the knowledge and practices upheld by whānau at home.

Beyond the scope of this thesis, Ka Ora te Tamaiti as a form of praxis challenges established norms surrounding both research analysis and the dissemination of Māori research outcomes therefore serving as a blueprint for other researchers to follow. As a praxis it fosters a sense of inclusion and equity within the research process, cultivates connection across diverse age groups, and amplifies the voices of tamariki. It also consolidates the core findings into an impactful resource that is engaging, accessible and leaves a lasting imprint, which transcend the boundaries of academia. Ultimately, Ka Ora te Tamaiti as a praxis signals a commitment to decolonise the research process, exercise tino rangatiratanga, prioritise mātauranga Māori and empower the mana of tamariki.

Whakakapi – Final Thoughts

Figure 34: Photograph of Waewae Tūtuki



Source: Personal collection

Kaua hoki i te waewae tūtuki, ā, āpā anō hei te upoko pakaru

Do not turn back with stumbling feet, but only with broken heads

(Mitchell, 2017, p. 132)

I conclude this thesis with a few personal reflections. Firstly, embarking on this PhD journey stands out as one of the most challenging tasks I've ever faced, a statement I certainly don't make lightly. The mental fortitude and endurance required to articulate research that I longed to put into practice tested the reserves within me. There were moments where I questioned, why this path? And I asked myself, what benefit does this hold for my people and for my mokopuna yet to be born? Many times, I questioned whether this mahi would even generate its intended impact. Then, in the final six months leading up to submission, I stumbled upon the whakataukī above and realised a whakapapa connection existed between its origins, and the name of my pounamu taonga featured in Figure 34. That taonga is named Waewae Tūtuki, and was gifted to me upon my departure by Neavin Broughton and the Rautaki Māori team from Sport NZ in January 2023. Its name derives from the whakataukī, "Kaua hoki i te waewae tūtuki, ā, āpā anō hei te upoko

pakaru" symbolising the challenges we face as Māori, working in non-Māori system leadership roles. For me, Waewae Tūtuki symbolises the principle that if I strongly believe in something, I must not be deterred by obstacles but continue to face challenges head-on until I reach the desired outcome. I later discovered that this whakataukī finds its origin in a pūrākau recounted in Mitchell's (2017) book *Takitimu - A History of the Ngāti Kahungunu People* (pp. 132-133):

The story revolves around Te-O-Tane, who in a conversation with his younger brother Pai-teihonga urged him not to abandon their war expedition. They had been mistreated by the chief leader of the expedition Te Kahu-o-te-rangi and in response to Pai-teihonga's plea to return home, Te-O-Tane says "*Kaore, kei ingoa rua taua, kaua taua e hoki i te waewae tutuku, a, apa ano hei te upoko pakaru*" (No, let there be no second news about us; do not turn back with stumbling feet but only with broken heads). He insisted they persevere until their mission to avenge the deaths of their people was accomplished.

Prepared for war, Te Kahu-o-te-rangi and his ope moved to attack the main pā while Te-O-Tane followed in single file at a distance in the rear. Under attack by Te Whānau-ā-Apanui, Te Kahu-o-te-rangi soon became overwhelmed and had to retreat. Te-O-Tane and Pai-teihonga opting for a different strategy waited patiently at the rear for their signal to attack. Ultimately, Te-O-Tane and Pai-teihonga formulated the winning strategy, successfully attacking three pā in what would later be known as the Battle of Whawha-po.

Despite Pai-teihonga suffering a head injury and eventually falling in battle, Ngāti Kahungunu successfully avenged the deaths of their people. The aftermath of the battle fulfilled a prophecy from a tohunga who foresaw a mat soaked with the blood of Te Whānau-ā-Apanui. As a result, Te-O-Tane was granted rangatira status, much to the disappointment of Te Kahu-o-te-rangi, who aspired to be the superior leader.

The kura huna within this pūrākau are powerful and they resonate with me. Not only did this pūrākau offer insights into my own characteristics and traits as an uri of Ngāti Kahungunu, but it also stood as a reminder that my taonga symbolises resilience, akin to the endurance required of me to navigate this PhD journey. Thus, I share this pūrākau as my final parting words, encouraging those aspiring to overcome challenges — whether pursuing a PhD, navigating the demands of various professional roles within non-Māori institutions, reconnecting with whakapapa, unlocking mātauranga, or normalising Māori cultural practices and reo in the home – Don't be deterred in the face of challenge, but rather, forge new paths forward for the benefit of those who follow in your footsteps!

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Glossary

Kupu	Description
Āe	Yes
Āhea ka taea ki runga?	How far/long to the top?
Ahi kā	Those whānau who keep the home fires burning and occupied
Aka	Vine, climbing plant
Aka matua	Refers to the parent vine or the golden thread
Ākonga	Student, learner
Ao	World, light
Aotearoa	Māori name for New Zealand
Ariki	Paramount chief, high chief, chieftain
Aroaro tākaro	Artefacts of play
Aroha	To love, feel compassion, affection
Ātaahua	Beautiful, handsome, pretty, gorgeous
Atua	Māori deities, ancestor with continuing influence
Atua Matua	A Māori Health Framework, developed by Dr Ihirangi Heke, which strives to enhance Māori health through meaningful interactions with the environment and quality interpretations of Māori knowledge
Atua wāhine	Female deities
Aua	To be unsure, I don't know
Awa	River, stream, creek
Awhi	To hug, embrace
Hā ki roto, hā ki waho	Breathe in, breathe out
Haka	Posture dance, chant, cultural performance
Hākinakina	Sport, game
Hapū	Subtribe, kinship group
Hau	Breath, vital essence of a person
Hau kāinga	Home people, local people of the marae
Haumiatiketike/ Haumia	Deity, origin and personification of uncultivated foods
Hauora	Holistic health, wellbeing
Hauraki	A district in the Waikato region, North Island, New Zealand
Hawaiki	Ancient homeland, the place from which Māori migrated to New Zealand
Hawaiki Kura	A Māori-owned business based in Te Taihū (the Top of the South Island) which specialises in Māori development, Māori tourism and cultural awareness training.
He kaitaraiwa ahau	I'm a racing car driver
He maha ngā koha o te ngahere	There are lots of gifts from the forest
He Oranga Poutama	Sport NZ funded initiative which promotes the development and implementation of physical recreation and sport in a way that is culturally appropriate to Māori – as Māori for Māori
He Pī Ka Rere	A Kaupapa Māori physical activity and nutrition approach which nurtures and develops the whole being of a tamaiti in Early Learning Environments. The kaupapa aims to inform both kaiako and tamariki of the role that traditional activity plays in the growth and development of a child

He pipi paopao noho kōhanga, he pī ka rere!	With wings extended, it turns towards the wind and propels itself into the sky
He toa takitini	It is the strength of many
Hīkoi	To step, march, hike, trek, tramp, trip, journey, stepping
Hineahuone	The first woman created out of the soil at Kurawaka
Hinemōana	Female deity of the sea
Hoa	Friend, companion, mate, partner
Hoani Waititi Marae	Established in 1980, its purpose was to provide a centre for Māori, language, culture, and practice. Now a Māori medium education centre.
Hoe	Steering paddle (refer to Waka hourua)
Hongi	To press noses in greeting
Hononga	Connection, relationship, bond
Hopu ariki	A game inspired by mau rākau, which has a goal of capturing the paramount chief
Huahuatau	The metaphorical interpretations that explain the learning within that environment (e.g., pūrākau, whakatauki, haka, waiata)
Hui	To gather, congregate, meet, assemble
Hui Whakaoranga	Māori Health planning workshop held at Hoani Waititi Marae in March 1984
Inu wai	Drink of water
Io/Iho	Supreme deity, parentless, eternal
Ira tākaro	Schema, the physical behaviours and abilities you are born with
Iron Māori	An initiative established in 2009 with the vision of promoting health, wellbeing, and longevity from mokopuna through to kaumātua
Iwi	Tribe, extended kinship group
Iwi of Origin	A festival of sport, te reo Māori and culture, established in 2006 with a mission to serve a dynamic urban collective of Māori living in or connected to Tāmaki Makaurau
Ka Hikitia	A cross-agency strategy for the education sector in New Zealand
Ka pai	Well done
Kae	A priest, spiritual leader who performed a baptism ceremony for the son of Tinirau, Tūhuru hūru
Kaha	Strength
Kai	Food, meal, nutrition
Kaiako	Teacher, instructor
Kaiārahi	Guide, leader, mentor
Kaikaranga	Female ceremonial caller
Kaimahi	Worker, employee, staff
Kaimoana	Seafood, shellfish
Kaitiaki	Guardian, caregiver, steward and also an assigned role within He Pī Ka Rere in Murihiku
Kaitiaki kāri	Atua Matua resource cards
Kaitiakitanga	Guardianship, stewardship, trustee
Kaiwaiata	Singer, support vocalist
Kaiwhakahaere	Manager, director, administrator
Kanohi ki te kanohi	Face to face discussions/conversations
Kapa haka	Māori performing arts
Karakia	Incantations, prayer, ritual chant
Karanga	Ceremonial call, female formal call of welcome

Kareao	Supplejack, a high-climbing, woody native plant with tough pliant stems used in the construction of hīnaki
Karetao	Puppet, toy figure carved in human form with arms and legs that move by pulling a string
Karoro	Seagull, southern black-backed gull
Kaumātua	Elderly man or woman, a person of status within the whānau
Kaupapa	Topic, matter of discussion, plan, purpose, programme, initiative, agenda
Kaupapa Māori	Māori approach, Māori topic, Māori ideology, Māori principles, knowledge, skills, attitudes and values of Māori society
Kaupapa Māori Theory	A theory which asserts a position that to be Māori is normal and taken for granted i.e., te reo Māori, mātauranga Māori, tikanga Māori, and ahuatanga Māori (Māori characteristics) are actively legitimated and validated
Kauri	The largest native tree in New Zealand found only in forests in the North Island
Kei korā ā Tāne Mahuta	There is Tāne Mahuta
Kei te hiahia koutou ki te ako i ētahi kēmu hou	You want to learn some new games?
Kēmu	Game, match
Kererū	New Zealand native wood pigeon
Kete	Basket, bag, kit
Kewa	Southern right whale, with a large head and curved jaw found in temperate waters
Ki muri mā mā!	To the back mum!
Kī o Rahi	A traditional ball game played with a small round ball called a kī
Kīato	Crossbeams (refer to waka hourua)
Kiwa/Kewa	Male divine guardian of the ocean
Ko wai koe e tama?	Who are you son?
Ko wai te atua o te ngahere?	Who is the deity of the forest?
Ko wai tērā?	Who is that?
Koha	The kawa of giving in recognition of contribution, commitment, and generosity and fulfils the obligation of reciprocity which is key to upholding the mana of both the giver and the receiver
Kōhanga Reo	Māori language preschool
Kōnae ipurangi	Atua Matua podcasts
Kōrero	Speech, narrative, story, news, discussion, conversation
Kōrero tuku iho	Narratives passed down from our ancestors, stories of the past
Kori tinana	Physical activity, exercise, body movement
Korowai	Feathered cloak
Kū	Hand games
Kua pau te hau	To run out of energy, be exhausted or out of breath
Kua reri?	Saying – Ready?
Kuia	Female elder, grandmother
Kupe	An early migrant to Aotearoa who returned to Hawaiki
Kupu	Word, vocabulary, saying, message
Kura	School, education setting
Kura huna	Hidden message, important knowledge
Kura Kaupapa Māori	Māori medium primary school

Kurawaka	Name of the place in the creation narratives where the first woman was created
Mahi	Work, job, employment
Mahi a te rēhia	Leisure, recreational activities
Mahi toi	Māori art
Māmā	Mother, mum
Mamau	Wrestling
Mana	Prestige, authority, control, power, influence, status, spiritual power, charisma
Mana motuhake	Self-government, self-determination, independence, sovereignty, authority
Mana ōrite	Equal partnerships with mutual outcomes
Mana taurite	A 'Just Society' section within the 2021 Sport NZ preferred futures report
Mana whenua	Certain iwi who hold the mana of the land or specific location/territory.
Manaakitanga	Hospitality, kindness, generosity, support
Manu	Birds
Manu tukutuku	Kite-flying activities
Māori	Indigenous New Zealander, Indigenous person of Aotearoa, New Zealand
Māori Futures – Te Tuarā Report	Sport NZ commissioned report which describes the insights that emerged which reflected on the challenges of current approaches and aspirations for the future of physical activity and wellbeing from Māori perspective.
Māori Movement	A unique health and wellbeing programme that brings together the traditional training of warriors (both male and female) into a modern interpretation based on fitness and movement
Māoridom	The world or sphere of Māori people
Marae	Ancestral meeting place, complex of buildings around wharenui
Maraetai	Coastal township, Southeast of Auckland, North Island, New Zealand
Maramataka	Māori lunar calendar
Māramatanga	Understanding, enlightenment, insight, meaning
Maremare	Coughing
Mātaiao	A kaupapa Māori initiative supporting kura and kaiako to implement a te ao Māori approach through whakapapa and matauranga Māori to connect tamariki to te taiao for better health and wellbeing outcomes which is underpinned by Atua Matua
Mātanga	Expert, specialist, consultant, professional
Matariki	Māori New Year
Mātauranga	Knowledge, wisdom, understanding, skill
Matua/mātua	Parent/s, adult, grown
Mau rākau	Māori weaponry
Maunga	Mountain, mount, peak
Mauri	Life principle, life force, vital essence
Mauri ora	Flourishing wellness
Me kōrero Māori anake mō te rā katoa?	Shall we only speak Māori today?

Mita	Tribal dialect, rhythm, intonation, pronunciation and sound of a language, accent, diction
Moana	Ocean, sea, large lake
Moemoeā	Dream, vision
Mōhio koe ki a Tāne Mahuta?	Do you know who Tāne Mahuta is?
Mōhiotanga	Awareness, insight, perception, intelligence, comprehension
Mokopuna	Grandchild, grandchildren, descendant
Momo	Uses, type, variety, type of, kind, race, breed
Mōteatea	Lament, traditional chant, sung poetry
Murihiku	Southland region of New Zealand
Muriwhenua	Hauraki maiden of surpassing charm
Nekehanga	Movement, to move, choreography
Ngā taonga	A Māori cultural enrichment programme
Ngā Tapuwae o Rongokako	A trail on the East Coast of the North Island which represents the footprints of Rongokako and they show just how large his strides were
Ngā uri o Hinemoana me Kiwa	The descendants of Hinemoana and Kiwa
Ngā whakararu o Hinemoana	Hinemoa's frustrations
Ngahere	Forest, bush
Ngāi Māori	Collective name for Māori tribes
Ngāi Tahu	Tribal group of much of the South Island, sometimes called Kāi Tahu by the southern tribes
Ngāti Kahungunu	Tribal group of the southern North Island east of the ranges from the area of Nūhaka and Wairoa to southern Wairarapa
Ngāti Porou	Tribal group of East Coast area north of Gisborne to Tihirau
Noho marae	Overnight marae stays
Non-Māori	Not of Māori descent
Ora	To be alive, well, safe, healthy, fit
Oranga	Survival, livelihood, welfare, health, living
Oriori	Lullaby - song composed on the birth of a chiefly child about his/her ancestry and tribal history
Ōtaki	Small town on the Kāpiti Coast District, North Island, New Zealand
Pā / papa kāinga	Whānau home base, village
Pā harakeke	Flax plantation, sometimes represents generations of whānau
Pā Wars	Inter-marae, inter-whānau sports festivals for the iwi
Pākehā	English, foreign, European
Pāoa	Māori rangatira (chieftain) of the Hauraki tribe Ngāti Pāoa
Pāpā	Dad, father, uncle
Papatūānuku	Earth mother, wife of Ranginui (sky father)
Patu	Club, weapon
Patu Aotearoa	An enterprise aimed at improving the fitness and health of Māori and Pasifika people who wouldn't normally go near a gym.
Patupaiarehe	Fairy folk, fair-skinned mythical people who live in the bush on mountains and come out at night
Pau te Hau	A programme that embeds mātauranga Māori and provides teachers the opportunity to incorporate HIIT during school lessons, such as during physical education classes

Pepeha	Tribal expression, formal greeting
Pirita	Supplejack, Ripogonum scandens - a high-climbing, woody native plant with tough pliant stems used in the construction of hīnaki
Pīwaiwaka	Fantail
Pō whakangahau	Night concert
Pono	Genuine, sincere, valid
Pōtaka	Spinning tops
Pōtēteke	Haka in an upside-down position
Pourewateitei	Sky Tower
Pōwhiri	Invitation, rituals of encounter, welcome ceremony on a marae, welcome
Pukamahi	Atua Matua workbook
Pūkana	To stare wildly, dilate the eyes - done by both genders when performing haka and waiata to emphasise particular words and to add excitement to the performance.
Pukapuka	Book, children's book, manuscript
Pukenga	Flood of water
Pūkenga	Skill, expertise, well versed
Puna	A well, spring, fountain. Often used as a metaphor for a spring of knowledge
Pūngāwerewere	Spider
Pūrākau	Māori cultural narrative
Pūrerehua	Spinning disc on a long string
Pūtōrino	Flute
Rā	Sails (refer to Waka hourua)
Rahitūtakahina	Rahi – The well-known ancestor associated with the traditional Māori game Kī o Rahi
Rākau	Sticks, branches
Rākau pū	Wooden gun
Rakiura	Stewart Island, New Zealand
Rangatahi	Young people, youth
Rangatahi Tū Rangatira	An initiative which encourages Māori fitness, health and physical wellbeing for Māori youth.
Rangatira	Chiefly, leader, to be of high rank, noble, esteemed, revered
Ranginui/ Rangī	Sky father, sky, husband of Papatūānuku (earth mother)
Raranga	To weave, weaving
Raukura	Graduate of Te Aho Matua in Māori-medium learning environments
Reo Rangatira	He Pī Ka Rere assigned role to assist with the use of te reo Māori during sessions
Rohe	District, boundary, territory, area
Rongokako	Student of the ancient school of higher learning. Grandfather of Kahungunu, the founding ancestor of Ngāti Kahungunu
Rongomatāne/ Rongomarae-roa/ Rongo	Deity, origin and personification of the arts of agriculture, cultivated foods and peace
Rotarota	A type of verse or phrasing which is appealing to young children. It may contain rhythm, rhyme, assonance, and alliteration.
Ruawharo	Priest, spiritual leader onboard Takitimu waka from Hawaiiki
Ruku pāua	He Pī Ka Rere game/activity which mimics diving for pāua
Rūnaka/Rūnanga	Tribal council, iwi authority

Taha hinengaro	Mental and emotional wellbeing
Taha tinana	Physical wellbeing
Taha wairua	Spiritual wellbeing
Taha whānau	Social connections and family wellbeing
Taiaha	Long wooden weapon
Taiao	Natural environment
Tākaro	Play, game, recreational activity
Takitimu	A migration canoe - the crew of this canoe from Hawaiki are claimed as ancestors by Ngāti Kahungunu, Ngāi Tahu and Ngāti Ranginui.
Tama	Son, boy, young man, nephew
Tamaiti	Child (singular)
Tāmaki Makaurau	Auckland region of New Zealand
Tamanuiterā	Deity, origin and personification of the sun
Tamariki	Children
Tāne Mahuta/ Tāne-nui-a-Rangi/ Tāne	Deity, origin and personification of the forest, trees and birds Wānanga activity – With reference to Tāne, deity of the forest and pursuer of the three baskets of knowledge, this activity centred on what new things tamariki learnt throughout their journey with pūrākau-based physical activity
Tangaroa/Takaroa	Deity, origin and personification of the ocean, fish and sea creatures
Tangata tiriti	Non-Māori, migrants to Aotearoa
Tangata whenua	Māori people Indigenous to Aotearoa
Tangata/Tāngata	Person (singular), people (plural)
Taniwha	Water spirit, monster, dangerous water creature, powerful creature. Taniwha take many forms from logs to reptiles and whales and often live in lakes, rivers or the sea
Taonga pūoro	Musical instruments
Taonga tākaro	Traditional Māori games and amusements
Taonga tuku iho	Heirloom, treasures passed down through generations, cultural property
Taonga-o-wharawhara	Adornments
Taonga/Taoka	Treasure, anything prized or considered to be of value. Sometimes refers to a pounamu necklace
Tapu	Sacred, prohibited, restricted, forbidden
Tapuwaekura	Former name for an initiative called Mātaiao (refer to Mātaiao)
Taringa turi	Deaf, hearing impaired
Tātaiako	Supporting document for Ka Hikitia (see Ka Hikitia)
Tatū	Negotiation process exercised in the game of Kī o Rahi
Tauira	Student, pupil, apprentice
Tautoko	To support, verify, advocate, accept, agree
Tāwhirimātea	Deity, origin and personification of wind, thunder, lightning, weather elements
Te Aho Matua	The philosophical base for Kura Kaupapa Māori education for the teaching and learning of children. Te Aho Matua is presented in six parts, each part having a special focus on what, from a Māori point of view, is crucial in the education of children
Te aka matua	The parent vine, Tāwhaki/Tāne climbed this vine to gather the three baskets of knowledge
Te ao kikokiko	The physical world

Te ao Māori	Māori worldview
Te ao marama	The world of life and light, Earth
Te ao wairua	The spiritual world
Te Ara a Kiwa/Kewa	The Path of Kiwa otherwise known as Foveaux Strait, South Island, New Zealand
Te ihi, te wehi, te wana	The joy of movement – A primary goal for He Pī Ka Rere
Te Ika-a-Māui	North Island, New Zealand
Te kete-aronui	Basket of knowledge of pursuit aroha, peace and the arts and crafts which benefit the Earth and all living things - one of the three baskets of knowledge
Te kete-tuatea	Basket of darkness, ancestral knowledge of <i>mākutu</i> and <i>whaiwhaiā</i> and evil, including war - one of the three baskets of knowledge and also includes agriculture, tree or woodwork, stone work and earth works
Te kete-tuauri	Basket of light, sacred knowledge - one of the baskets of knowledge. This basket relates to the creation of the natural world and the patterns of energy that operate behind the world of sense perception and the realm of the <i>tohunga</i> . It includes the knowledge of <i>karakia</i>
Te kore	The nothingness, realm of potential being, the void
Te Koronga	Māori research excellence group focused on research pertaining to Indigenous science and <i>mauri ora</i> – flourishing wellness
Te Kotahitanga	A project which saw the birth of Ka Hikitia in 2008
Te Kura Kaupapa Māori ō Maungawhau	The second Māori-medium school established in 1988 in Central Auckland
Te Kura Kaupapa Māori ō Waipareira	The first Māori-medium school established in 1987 in West Auckland
Te Mata Peak	Mountain located in the Hawkes Bay region. Also known as ‘Rongokako’ or the ‘Sleeping Giant’
Te Matau-a-Māui	Hawkes Bay region of New Zealand
Te Niho o Kewa	The rocks which symbolise the teeth Kewa lost in his pursuit to bite through Te Puka a Māui (the anchor rope). Also known as Solander’s Rock.
Te Pae Māhutonga	The name for the constellation of stars popularly referred to as the Southern Cross. Also a Māori Health Promotion Model developed by Professor Sir Mason Durie
Te pō	The dark night, darkness, long night
Te puka a Māui	Māui’s anchor rope
Te reo kori	Māori physical education curricula
Te reo Māori	Māori language
Te reo me ōna tikanga	Māori language and customary practices
Te ringa o Muriwhenua	The hand of Muriwhenua
Te Rūnanga o Ngāi Tahu	The iwi authority for Ngāi Tahu
Te tawhiti a Pāoa	The great trap Pāoa devised in an attempt to outsmart Rongokako and win Muriwhenua’s hand in marriage
Te Tiriti o Waitangi	Te reo Māori version of the Treaty of Waitangi, New Zealand’s founding document
Te Wairoa	Also known as Clevedon, a rural town outside Auckland City, North Island, New Zealand
Te wao tapu nui a Tāne	The great sacred forest of Tāne
Te wehenga	The separation of Ranginui (sky) and Papatūānuku (earth)

Te whai paranga Te Whānau-ā-Apanui	Child Development – A primary goal for He Pī Ka Rere Tribal group from Maraenui to Tihirau on the East Coast, who descend from Apanui-waipapa.
Te Whare Tapa Whā	A Māori holistic health framework developed by Professor Sir Mason Durie
Te Whāriki	A curriculum framework specifically designed for Kōhanga Reo and is founded on Kaupapa Māori principles to provide a holistic approach to early childhood education
Te Wheke Teina/ tēina	A Māori health model developed by Rose Pere Teina (singular), tēina (plural). Younger brothers (of a male), younger sisters (of a female), cousins (of the same gender) of a junior line, junior relatives
Tīarakurapakewai	Also known as Tīara, a key character in the pūrākau relevant to Kī o Rahi
Tika	True, correct, fair
Tikanga	Māori customary practices and protocols
Tinirau	A rangatira in Hawaiki who killed Kae for eating Tinirau's pet whale, Tutunui
Tino kaupapa Tino rangatiratanga	Important, main, best topic, subject, matter for discussion Self-determination, sovereignty, autonomy, self-government, domination, rule, control, power
Tio	Oyster
Tipua	Supernatural, abnormal, strange being, super hero
Tiratū	Masts (refer to Waka hourua)
Tītī	Muttonbird, sooty shear water
Tītī Islands	Muttonbird Islands located near Stewart Island in the far south of New Zealand
Tītiro māmā, tēnei taku pū	Look mum, this is my gun
Tītī tōrea	Stick games
Toheroa	A large edible bivalve mollusc with a triangular shell found buried in fine sand between tides, often below large sand dunes
Tohu	Sign, mark, symbol, emblem, token, qualification, cue, symptom, proof, directions, company, landmark, distinguishing feature, signature.
Tohunga Tohunga waka Tohutaka	Expert, proficient, adept, skilled person. Priest, spiritual healer Expert waka navigator The signs, symbols and messages we observe from the trees, fish, birds, insects and weather that determine when to do certain things
Toi Tangata	A national Māori health agency which operates as a not-for-profit organisation with a primary focus on fostering positive health outcomes by utilising Māori approaches to nutrition and physical activity
Toiora	Survivor, wellbeing, welfare
Toka mauri	Mauri stones (refer to waka hourua)
Tōkere	Castinets
Tokotoko	Walking stick, to prop up, pole, staff, cane, crutch
Toro Tekā	Dart-throwing
Tuākana	Elder brother (of a male), elder sister (of a female), cousin (of the same gender from a more senior branch of the family), prefect, graduate or alumni

Tūī	Parson bird, a songbird that imitates other birds' calls and has glossy-black plumage and two white tufts at the throat
Tukutuku	Decorative lattice-work
Tūmataunga/ Tū	Deity, origin and personification of war and weaponry
Tupuna/ tūpuna	Tupuna (singular), tūpuna (plural), ancestors, grandparents
Tūrangawaewae	Ancestral homelands
Tutunui	Tinirau's pet whale
Uku	Clay, pottery
Urupā	Cemetery, ancestral burial ground, graveyard
Wahine/ wāhine	Wahine (singular), wāhine (plural), female, women, feminine
Wai	Body of water
Waiata	Songs
Waiora	Health, soundness
Waipukurau	Largest town in the Central Hawkes Bay district on the East Coast of the North Island, New Zealand
Waitangi Tribunal	A New Zealand permanent commission of inquiry established under the Treaty of Waitangi Act 1975.
Waka	Canoe, vehicle, allied kinship groups descended from the crew of a canoe which migrated to New Zealand and occupying a set territory
Waka ama	Outrigger canoe racing
Waka hourua	Large double hulled waka for voyaging
Wānanga	A traditional method of Māori knowledge transmission, and has been described as a place, a school, an act, and a form of governance, practice and pedagogy
Whai	String games
Whaikōrero	Oratory, oration, formal speech-making, address, speech - formal speeches usually made by men during a pōwhiri and other gatherings.
Whakaaro	To think, plan, consider, decide. Thought, opinion, idea, intention, conscience
Whakamā	Embarrassment, ashamed, shy, bashful
Whakangahau	Entertainment concert
Whakanoa	To remove tapu, to free things up from the extensions of tapu
Whakanui	To celebrate, honour, exalt, commemorate
Whakapapa	Genealogy, genealogical table, lineage, descent - reciting whakapapa was, and is, an important skill and reflected the importance of genealogies in Māori society in terms of leadership, land and fishing rights, kinship and status. It is central to all Māori institutions.
Whakapapa kōrero	Conversations and discussions about one's genealogy
Whakatau	Less formal proceedings pertaining to an official welcome
Whakataukī	Māori proverbs (no record of composer)
Whakatinanatanga	The application of knowledge in physical activity form
Whakatōhea	Tribal group in the Ōpōtiki area, North Island, New Zealand
Whakawhanaketanga	Child Development – A primary goal for He Pī Ka Rere
Whakawhanaungatanga	Connectedness – A primary goal for He Pī Ka Rere
Whakawhiti kōrero	Mutually beneficial conversations, two-way, with cross over and exchange, discuss, deliberate, negotiate
Whānau	Extended concept of family, kinship within a larger family group
Whanaungatanga	Building relationships and connections

Whare	House, home, building, residence, dwelling
Whare Āio	Wellbeing wānanga for both females and males developed by Ngarino Beez Te Waati.
Whare tapere	House of entertainment, theatre, community centre, arena, auditorium - traditionally a place where people gathered for entertainment.
Whare Tū Taua	House of war and weaponry
Whare tukutuku	Spider web, cobweb
Wharenuī	Meeting house, large house - main building of a marae where guests are accommodated.
Whenua	Country, land, nation, ground, territory, domain, placenta, afterbirth
Wiki Hā	A weeklong tournament which combines sport with a chance to practice te reo Māori with other kura students from across Aotearoa.

Appendices

Appendix A – 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

7 December 2021

Isaac Warbrick
Faculty of Health and Environmental Sciences

Dear Isaac

Re Ethics Application: **21/422 Tuia te mātauranga kia hono ai te kori – Bind the knowledge to connect movement**

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 7 December 2024.

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: nicole.timu@gmail.com; Nigel Harris

Appendix B – Participant Information Sheet (Kaiako/Teacher)



Participant Information Sheet (Teacher)

Date Information Sheet Produced:

01 November 2021

Project Title

Tuia te mātauranga kia hono ai te kori

An Invitation

Kia Ora, my name is Nikki Penetito-Hemara and I am conducting research as part of a qualification for a Doctor of Philosophy in Indigenous Health at Auckland University of Technology. You are invited to participate in a project exploring the impact of pūrākau derived physical activity programmes on experiences of hauora for tamariki and rangatahi; including exploration into how these programmes can be scalable and sustainable nationally. The two pūrākau derived physical activity programmes which are the focus for this study are He Pī Ka Rere¹ and Pau te Hau².

What is the purpose of this research?

This research aims to understand how pūrākau derived physical activity impacts hauora; and how pūrākau derived physical activity programmes can be sustainably scaled to a national level. The research questions for this study are:

1. What is pūrākau derived physical activity?
2. What is hauora in the context of physical activity?
3. How does pūrākau derived physical activity impact hauora?
4. What are the hauora experiences for tamariki, rangatahi and kaiako in engaging in pūrākau derived physical activity programmes?
5. How can this approach using pūrākau derived physical activity programmes be scalable and sustainable long-term?

Tuia te mātauranga kia hono ai te kori represents one way to draw inspiration from our traditional knowledge systems that once nurtured us as indigenous people. As such, it becomes a preventative measure to ensure the health, happiness and continuation of whakapapa Māori into the future. This research is centred on the belief that if we create a paradigm shift whereby our pūrākau become an anchor in the delivery of physical activity programmes then the focus becomes more about reclaiming traditional knowledge systems rather than physical activity as an enabler of health and wellbeing.

The findings of this research will contribute to my doctoral thesis and may be used for academic publications and presentations.

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

Your school has been recognised as participating in either He Pī Ka Rere or Pau te Hau and you have been identified as a teacher who is leading or facilitating either of these physical activity programmes at your school.

How do I agree to participate in this research?

To participate in this research project, you need to complete and sign the Consent Form.

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

¹He Pī Ka Rere¹ - a kaupapa Māori physical activity approach to nurturing the development of tamariki in early learning environments and schools. He Pī Ka Rere enables tamariki to be engaged in physical activity within a Te Ao Māori context. The programme incorporates pūrākau, mātauranga Māori and other relevant skills. The activities in the programme share direct links to Atua Māori and the domains in which they reside.

²Pau te Hau - a curriculum-based, teacher-led, mātauranga Māori enhanced HIIT (high intensity interval training) intervention for rangatahi in schools. The programme is delivered within curriculum time with sessions designed to fit 10-15 minute slots during 2-3 periods per week. Pūrākau are embedded within the exercises with a focus on Atua Māori and related movements.

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.

What will happen in this research?

We acknowledge teachers/kaiako as enablers of physical activity within school settings and so your involvement in the project will be to participate in an interview. Interviews will be semi-structured in nature and will promote storytelling about your experience as a lead facilitator of either of the two physical activity programmes. Each interview will take approximately 45 minutes to 1 hour as scheduled and will be audio recorded. No names will be used.

What are the discomforts and risks?

All interviews will be carried out using a Kaupapa Māori approach, led by, for and with Māori. Interactions will be guided by tikanga and will always involve whanaungatanga whereby participants will be asked to introduce themselves in a way that they feel comfortable with. Establishing genuine, nurturing connections within safe spaces which are built on trust allow relationships to flourish resulting in participants being able to share more deeply their lived experiences. In the event you feel uncomfortable at any time during the interview, you are completely free to stop the interview and free to leave, with no questions asked.

How will these discomforts and risks be alleviated?

It is not envisaged that participants would experience any risk or discomfort resultant from these aspects.

What are the benefits?

Your experiences of these physical activity programmes will help us understand the impact and efficacy of pūrākau derived physical activity programmes, so that we can determine the long-term effectiveness of this approach on hauora outcomes for Māori tamariki and rangatahi. Prioritising the development and implementation of physical activity in a way that is culturally appropriate for Māori and unique to all New Zealanders is paramount.

The findings from this research will be presented in a doctoral thesis for other researchers, practitioners and service providers. They may also be used within academic publications or used to develop other approaches that are suitable for Māori families engaged in physical activity programmes.

How will my privacy be protected?

Your participation will remain anonymous and confidential, as highlighted in the Consent Form, therefore no personally identifiable data from the study will be shared with others. To further protect your privacy, the records of this study will be kept private. Research records will be kept in a locked file and sorted by number codes, not by names; only the researchers involved in the study will have access to the records. Data will be stored for 10 years and will be permanently destroyed after this period.

What are the costs of participating in this research?

There are no financial costs of participating. The only cost to participate will be your time. Interviews will take 45 minutes to 1 hour as scheduled and will occur at a time/place convenient to you. You will be given a koha to the value of \$100 in acknowledgement of your time and valuable insights.

What opportunity do I have to consider this invitation?

If you are interested in participating in the research and have read this Information Sheet, you are most welcome to contact me directly to discuss any further questions you may have before deciding to consent to participating. Once your queries have been answered, you may then sign the Consent Form and return it to the research team.

Will I receive feedback on the results of this research?

Yes, as highlighted in the Consent Form, you will receive a summary of the research findings if you have selected this option. Findings will also be presented in the form of a doctoral thesis which will be accessible online upon completion of the qualification.

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 Isaac Warbrick; email, Isaac.warbrick@aut.ac.nz; phone, 0221301208.

Concerns regarding the conduct of the research should be notified to the Executive Secretary of AUTC, 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:

Nicole Penetito-Hemara

Email: Nicole.timu@gmail.com

Project Supervisor Contact Details:

Dr Isaac Warbrick

Email: Isaac.warbrick@aut.ac.nz

Approved by the Auckland University of Technology Ethics Committee on, 7 December 2021, AUTEK Reference number 21/422.

Appendix C – Participant Information Sheet (Parent/Guardian)



Participant Information Sheet (Parent/Guardian)

Date Information Sheet Produced:

01 November 2021

Project Title

Tuia te mātauranga kia hono ai te kori

An Invitation

Kia Ora, my name is Nikki Penetito-Hemara and I am conducting research as part of a qualification for a Doctor of Philosophy in Indigenous Health at Auckland University of Technology. Your child/children is/are invited to participate in a project exploring the impact of pūrākau derived physical activity programmes on experiences of hauora for tamariki and rangatahi; including exploration into how these programmes can be scalable and sustainable nationally. The two pūrākau derived physical activity programmes which are the focus for this study are He Pī Ka Rere¹ and Pau te Hau².

What is the purpose of this research?

This research aims to understand how pūrākau derived physical activity impacts hauora; and how pūrākau derived physical activity programmes can be sustainably scaled to a national level.

1. What is pūrākau derived physical activity?
2. What is hauora in the context of physical activity?
3. How does pūrākau derived physical activity impact hauora?
4. What are the hauora experiences for tamariki, rangatahi and kaiako in engaging in pūrākau derived physical activity programmes?
5. How can this approach using pūrākau derived physical activity programmes be scalable and sustainable long-term?

Tuia te mātauranga kia hono ai te kori represents one way to draw inspiration from our traditional knowledge systems that once nurtured us as indigenous people. As such, it becomes a preventative measure to ensure the health, happiness and continuation of whakapapa Māori into the future. This research is centred on the belief that if we create a paradigm shift whereby our pūrākau become an anchor in the delivery of physical activity programmes then the focus becomes more about reclaiming traditional knowledge systems rather than physical activity as an enabler of health and wellbeing.

The findings of this research will contribute to my doctoral thesis and may be used for academic publications and presentations.

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

One of the research team attended an information session at your child/children's school where they talked about the study with all those students eligible to participate. The research team were available to answer any questions about the study as well as hand out this Information Sheet and Consent Form to bring home for your reading. They also have an Information Sheet specifically for them to read, and an Assent Form for them to sign should they choose to be involved. Your child/children may still choose not to take part in the research even if you agree.

¹He Pī Ka Rere¹ - a kaupapa Māori physical activity approach to nurturing the development of tamariki in early learning environments and schools. He Pī Ka Rere enables tamariki to be engaged in physical activity within a Te Ao Māori context. The programme incorporates pūrākau, mātauranga Māori and other relevant skills. The activities in the programme share direct links to Atua Māori and the domains in which they reside.

²Pau te Hau - a curriculum-based, teacher-led, mātauranga Māori enhanced HIIT (high intensity interval training) intervention for rangatahi in schools. The programme is delivered within curriculum time with sessions designed to fit 10-15 minute slots during 2-3 periods per week. Pūrākau are embedded within the exercises with a focus on Atua Māori and related movements.

This research is centred on Māori experiences of pūrākau derived physical activity programmes and therefore your child/children is invited to participate as they identify as Māori and have participated in either He Pī Ka Rere or Pau te Hau during the school term.

How do I agree to participate in this research?

To participate in this research project, both you and your child/children need to complete and sign the Consent and Assent Forms.

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

What will happen in this research?

The primary method of data collection used is wānanga³. Wānanga enables us to explore and understand participants experiences of the two programmes and are powerful illustrations of indigenous storytelling and collective sharing. Each wānanga will provide opportunities for your child/children to describe their experiences in creative ways using methods such as pūrākau and design thinking tools. These methods could include, but are not limited to creating games, developing haka or waiata, sculpting using playdough, gathering rauemi (resources) from the taiao (natural environment), drawing and painting. Participants will be expected to reflect and share their creations back to the group for further discussion. These reflections and insights will be captured using platforms such as photos, text, audio recording and modelling for further analysis. The research team will ensure that the pace and momentum of activities is age appropriate.

What are the discomforts and risks?

All wānanga will be carried out using a Kaupapa Māori approach, led by, for and with Māori. Interactions will be guided by tikanga and will always involve whanaungatanga whereby participants will be asked to introduce themselves in a way that they feel comfortable with. Establishing genuine, nurturing connections within safe spaces which are built on trust allow relationships to flourish resulting in participants being able to share more deeply their lived experiences.

We anticipate little risk beyond the physical discomfort associated with participating in a group setting. The research team are well aware of the potential power imbalances of conducting research with tamariki/rangatahi and will do all we can to ensure participants are comfortable and understand they can withdraw from participation at any time. We have also designed the wānanga to be fun and varied for this specific age group.

How will these discomforts and risks be alleviated?

It is not envisaged that participants would experience any risk or discomfort resultant from these aspects.

What are the benefits?

The experiences your child/children choose to share as part of this research will help us understand the impact and efficacy of pūrākau derived physical activity programmes, so that we can determine the long-term effectiveness of this approach on hauora outcomes for Māori tamariki and rangatahi. Prioritising the development and implementation of physical activity in a way that is culturally appropriate for Māori and unique to all New Zealanders is paramount.

The findings from this research will be presented in a doctoral thesis for other researchers, practitioners and service providers. They may also be used within academic publications or used to develop other approaches that are suitable for Māori whānau engaged in physical activity programmes.

How will my privacy be protected?

Due to the nature of the study, other people may be aware that your child/children is/are taking part, and it is likely that the class teachers will know who is participating in the research; however no personally identifiable data from the study will be shared with others. The records of this study will be kept private. You and your child/children will be given access to any information we collect about your child/children. We will not include information that will make it possible to identify your child in any way. Research records will be kept in a locked file and sorted by number codes, not by names; only the researchers involved in the study will have access to the records. Data will be stored for 10 years and will be permanently destroyed after this period.

³ Wānanga is a traditional method of Māori knowledge transmission, and has been described as a place, a school, an act, and a form of governance, practice and pedagogy

What are the costs of participating in this research?

There are no financial costs of participating. The only cost to participate will be your child/children's time. Wānanga will take 2 hours in length and will occur after school hours on the school premises. Your child/children will be given a koha to the value of \$50 in acknowledgement of their time and valuable insights. Food will be supplied.

What opportunity do I have to consider this invitation?

If your child/children is/are interested in participating in the research we would like them to complete the Assent Form provided, and you sign the parental Consent Form provided, then return them to the research team by placing them in the dropbox (marked) at the reception area of your school within one month.

We will accept the first 20 students with consent/assent pending they meet the eligibility criteria (i.e. identify as Māori, and are participants of either He Pi Ka Rere or Pau te Hau).

Once you have read this Information Sheet, you are most welcome to contact me directly to discuss any further questions you may have before deciding to consent to your child/children participating. Once your queries have been answered, you may then sign the consent form.

Will I receive feedback on the results of this research?

Yes, as highlighted in the Consent Form, you will receive a summary of the research findings if you have selected this option. Findings will also be presented in the form of a doctoral thesis which will be accessible online upon completion of the qualification.

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 Isaac Warbrick; email, Isaac.warbrick@aut.ac.nz; phone, 0221301208.

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:

Nicole Penetito-Hemara

Email: Nicole.timu@gmail.com

Project Supervisor Contact Details:

Dr Isaac Warbrick

Email: Isaac.warbrick@aut.ac.nz

Approved by the Auckland University of Technology Ethics Committee on, 7 December 2021, AUTEK Reference number 21/422.

Appendix D – Participant Information Sheet (Tamariki/Student)



Participant Information Sheet (Students)

Project title: Tuia te mātauranga kia hono ai te kori
Project Supervisor: Dr Isaac Warbrick, Assoc Prof Nigel Harris, Assoc Prof Anne-Marie Jackson
Researcher: Nicole Penetito-Hemara

You are invited to take part in a study. Deciding if you do want or don't want to take part is your choice. If you do not want to take part, you don't have to give a reason. If you do want to take part now, but change your mind later, you can withdraw from the study at any time.

This sheet will help you decide if you would like to participate. We have also given your parent / guardian some information about the study so that they can tell you a bit more about it. Please read through this sheet carefully with your parent(s) / guardian. If you do want to take part in the study, you will be asked to sign a form on the last page and you can keep the copy of this information sheet. Your parent / guardian will also need to sign a form. Both these forms can be placed in the labelled dropbox at school reception.

This document is 3 pages long, including the Assent Form. Please make sure you have read and understood all the pages.

What is the purpose of this research?

We want to understand how your experiences of He Pī Ka Rere and/or Pau te Hau have impacted on your hauora. We also want to know what helps to create positive experiences of these programmes and what challenges those experiences negatively (i.e. what do you want more of and what do you want less of and why).

What will my participation in the study involve?

This study will take place after school, located on the school premises, and will last for 2 hours. You will join a group of other students who will share their experiences of either He Pī Ka Rere or Pau te Hau. You will be asked to describe your experiences in creative ways. These creative methods could include, but are not limited to creating games, developing haka or waiata, sculpting using playdough, gathering rauemi (resources) from the taiao (natural environment), drawing and painting. You will be expected to reflect and share your creations back to the group for further discussion. These reflections and insights will be captured using platforms such as photos, text, audio recording and modelling for further analysis.

If you are interested in participating in the research, we would like you to complete the Assent Form provided, along with your Parent/Guardian Consent Form, and return them in the dropbox (marked) at the reception area of your school within one month. We will accept the first 20 students with consent/assent pending they identify as Māori and are participants of either He Pī Ka Rere or Pau te Hau.

What are the possible benefits and risks of the study?

The experiences you share as part of this research will help us understand the impact, He Pī Ka Rere or Pau te Hau has had on your hauora. This will provide further evidence for physical activity programmes which promote Māori knowledge and culture.

There are no financial costs of participating. The only cost to participate will be your time. Wānanga will take 2 hours in length and will occur after school hours on the school premises. You will be given a koha to the value of \$50 in acknowledgement of your time and the valuable insights you shared with us. Food will be supplied also.

We do not expect that you will experience any risk or discomfort from being involved in this study. The research team will do all we can to ensure participants are comfortable and understand they can withdraw from participation at any time. We have also designed the wānanga to be fun and varied for your age group.

What are my rights?

After talking about the study with your parents it is up to you to decide if you want to take part in the study. If you decide not to take part, that is ok.

Other people may know that you are taking part in the study, including your class teacher, but we won't share information about you with anyone.

What happens after the study or if I change my mind?

You can withdraw from the study at any time by just letting me know. You can send me an email to my address below. We will keep all the information about you. In reports we write, we will not include information that will make it possible to identify you. All your information will be kept in a locked file and your name will be removed so no one will be able to know that this information is yours.

Who do I contact for more information or if I have concerns?

If you have any questions about the study at any stage, you can ask your parents to contact the Researcher or Project Supervisor:

Researcher Nicole Penetito-Hemara
Email: Nicole.timu@gmail.com

Project Supervisor Dr Isaac Warbrick
Email: Isaac.warbrick@aut.ac.nz

Approved by the Auckland University of Technology Ethics Committee on, 7 December 2021, AUTEC Reference number 21/422.

Appendix E – Participant Information Sheet (Research Partner)



Participant Information Sheet (Toi Tangata)

Date Information Sheet Produced:

01 November 2021

Project Title

Tuia te mātauranga kia hono ai te kori

An Invitation

Kia Ora, my name is Nikki Penetito-Hemara and I am conducting research as part of a qualification for a Doctor of Philosophy in Indigenous Health at Auckland University of Technology. You are invited to participate in a project exploring the impact of pūrākau derived physical activity programmes on experiences of hauora for tamariki and rangatahi; including exploration into how these programmes can be scalable and sustainable nationally. The two pūrākau derived physical activity programmes which are the focus for this study are He Pī Ka Rere¹ and Pau te Hau².

What is the purpose of this research?

This research aims to understand how pūrākau derived physical activity impacts hauora; and how pūrākau derived physical activity programmes can be sustainably scaled to a national level. The research questions for this study are:

1. What is pūrākau derived physical activity?
2. What is hauora in the context of physical activity?
3. How does pūrākau derived physical activity impact hauora?
4. What are the hauora experiences for tamariki, rangatahi and kaiako in engaging in pūrākau derived physical activity programmes?
5. How can this approach using pūrākau derived physical activity programmes be scalable and sustainable long-term?

Tuia te mātauranga kia hono ai te kori represents one way to draw inspiration from our traditional knowledge systems that once nurtured us as indigenous people. As such, it becomes a preventative measure to ensure the health, happiness and continuation of whakapapa Māori into the future. This research is centred on the belief that if we create a paradigm shift whereby our pūrākau become an anchor in the delivery of physical activity programmes then the focus becomes more about reclaiming traditional knowledge systems rather than physical activity as an enabler of health and wellbeing.

The findings of this research will contribute to my doctoral thesis and may be used for academic publications and presentations.

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

Your organisation has been recognised as research partner in the design and delivery of He Pī Ka Rere and Pau te Hau which are the two physical activity programmes at the centre of this research.

How do I agree to participate in this research?

To participate in this research project, you need to complete and sign the Confidentiality Agreement.

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

¹He Pī Ka Rere¹ - a kaupapa Māori physical activity approach to nurturing the development of tamariki in early learning environments and schools. He Pī Ka Rere enables tamariki to be engaged in physical activity within a Te Ao Māori context. The programme incorporates pūrākau, mātauranga Māori and other relevant skills. The activities in the programme share direct links to Atua Māori and the domains in which they reside.

²Pau te Hau - a curriculum-based, teacher-led, mātauranga Māori enhanced HIIT (high intensity interval training) intervention for rangatahi in schools. The programme is delivered within curriculum time with sessions designed to fit 10-15 minute slots during 2-3 periods per week. Pūrākau are embedded within the exercises with a focus on Atua Māori and related movements.

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.

What will happen in this research?

We will gather data from both students and teachers within schools who are participating in either He Pi Ka Rere or Pau te Hau. Participants' main roles in the research project will be to share their experiences of the programmes and contribute to developing knowledge. Tamariki and rangatahi principal involvement will include describing their experiences in participating in He Pi Ka Rere and Pau te Hau in creative ways. They will be expected to reflect on hauora outcomes as they share their creations back to the group. While teachers/kaiako involvement will include leadership and implementation of the programmes within school settings, liaison and sharing their individual experiences with the primary researcher. It is anticipated that participants' hauora will be positively impacted through participation in the programmes.

Your participation as a research partner will

What are the discomforts and risks?

This research project will be carried out using a Kaupapa Māori approach, led by, for and with Māori. Interactions will be guided by tikanga and will always involve whanaungatanga whereby participants will be asked to introduce themselves in a way that they feel comfortable with. Establishing genuine, nurturing connections within safe spaces which are built on trust allow relationships to flourish resulting in participants being able to share more deeply their lived experiences.

There is a potential risk that participants have had a negative experience in these programmes at which point this feedback will be communicated to you in the findings so that your organisation can use the insights for future improvements of the programmes.

How will these discomforts and risks be alleviated?

It is not envisaged that your organisation would experience any major risk or discomfort resultant from these aspects.

What are the benefits?

Participants experiences of these physical activity programmes will help us understand the impact and efficacy of pūrākau derived physical activity programmes such as those which are at the heart of this study. As a key research partner this study can help you to determine the long-term effectiveness of this approach on hauora outcomes for Māori tamariki and rangatahi. Prioritising the development and implementation of physical activity in a way that is culturally appropriate for Māori and unique to all New Zealanders is paramount.

The findings from this research will be presented in a doctoral thesis for other researchers, practitioners and service providers. They may also be used within academic publications or used to develop other approaches that are suitable for Māori families engaged in physical activity programmes.

How will participants privacy be protected?

Due to the nature of this study your organisation and the two named programmes will be identified. However, participants (tamariki, rangatahi and kaiako) will remain anonymous and confidential.

What are the costs of participating in this research?

There are no financial costs of participating. The only cost to participate will be your time as a research partner.

What opportunity do I have to consider this invitation?

If you are interested in participating in the research and have read this Information Sheet, you are most welcome to contact me directly to discuss any further questions you may have before deciding to consent to participating. Once your queries have been answered, you may then sign the Confidentiality Agreement and return it to the research team.

Will I receive feedback on the results of this research?

Yes, you will receive a summary of the research. Findings will also be presented in the form of a doctoral thesis which will be accessible online upon completion of the qualification.

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 Isaac Warbrick; email, Isaac.warbrick@aut.ac.nz; phone, 0221301208.

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 Confidentiality Agreement for your future reference. You are also able to contact the research team as follows:

Researcher Contact Details:

Nicole Penetito-Hemara

Email: Nicole.timu@gmail.com

Project Supervisor Contact Details:

Dr Isaac Warbrick

Email: Isaac.warbrick@aut.ac.nz

Approved by the Auckland University of Technology Ethics Committee on, 7 December 2021, AUTEK Reference number 21/422.

Appendix F – Consent Form (Kaiako/Teacher)



Kaiako (Teacher) Consent Form

Project title: Tuia te mātauranga kia hono ai te kori

Project Supervisor: Dr Isaac Warbrick, Associate Professor Nigel Harris, Associate Professor Anne-Marie Jackson

Researcher: Nicole Penetito-Hemara

- I have read and understood the information provided about this research project in the Information Sheet dated 01/11/2021.
- 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 research findings (please tick one): Yes No

Participant's signature:

Participant's name:

Participant's Contact Details:

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

Date:

Approved by the Auckland University of Technology Ethics Committee on 7 December 2021, Reference number 21/422

Appendix G – Consent Form (Parent/Guardian)



Parent/Guardian Consent Form

Project title: Tuia te mātauranga kia hono ai te kori

Project Supervisor: Dr Isaac Warbrick, Associate Professor Nigel Harris, Associate Professor Anne-Marie Jackson

Researcher: Nicole Penetito-Hemara

- I have read and understood the information provided about this research project in the Information Sheet dated 01/11/2021.
- 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 my child/children and/or myself from the study at any time without being disadvantaged in any way.
- I understand that if I withdraw my child/children from the study then I will be offered the choice between having any data that is identifiable as belonging to my child/children removed or allowing it to continue to be used. However, once the findings have been produced, removal of the data may not be possible.
- I understand that photos, sound recordings and film footage of my child/children's designs and the work that they produce at the wānanga (workshop) can be used for the purposes of this research project.
- I agree to my child/children taking part in this research.
- I understand that my child/children is/are able to refuse to give assent to take part in this research.
- I wish to receive a summary of the research findings (please tick one): Yes No

Child/children's name/s :

.....

Parent/Guardian's signature:

Parent/Guardian's name:

Parent/Guardian's Contact Details:

.....

.....

.....

.....

Date:

Approved by the Auckland University of Technology Ethics Committee on 7 December 2021, Reference number 21/422

Appendix H – Assent Form (Tamariki/Student)



Tamariki/Rangatahi (Student) Assent Form

Project title: Tuia te mātauranga kia hono ai te kori

Project Supervisor: Dr Isaac Warbrick, Associate Professor Nigel Harris, Associate Professor Anne-Marie Jackson

Researcher: Nicole Penetito-Hemara

- I have read and understood the sheet telling me what will happen in this study and why it is important.
- I have been able 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 I can stop being part of this study whenever I want and that it is perfectly ok for me to do this.
- I understand that photos, sound recordings and film footage of me and the design's or work that I produce at the wānanga (workshop) can be used for the purposes of this research project.
- If I stop being part of the study, I understand that then I will be offered the choice between having any information that that other people can know is about me removed or letting the researcher keep using it. I also understand that sometimes, if the results of the research have been written, some information about me may not be able to be removed.
- I agree to take part in this research.

Participant's signature:

Participant's name:

Participant Contact Details:

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

Date:

Approved by the Auckland University of Technology Ethics Committee on 7 December 2021, Reference number 21/422

Appendix I – Research Agreement (Research Partner)



Toi Tangata Research Agreement

Project title: Tuia te mātauranga kia hono ai te kori

Project Supervisor: Dr Isaac Warbrick, Associate Professor Nigel Harris, Associate Professor Anne-Marie Jackson

Researcher: Nicole Penetito-Hemara

- I have read and understood the information provided about this research project in the Information Sheet dated 01/11/2021.
- I give permission for the researcher to undertake the outlined research related to He Pī Ka Rere and Pau te Hau. Two programmes which Toi Tangata have been involved in designing and developing.
- I give permission for the researcher to access the staff/ students/ employees of Toi Tangata for the purposes of this research.

CEO's signature:

CEO's name:

CEO's Contact Details:

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

Date:

Approved by the Auckland University of Technology Ethics Committee on 7 December 2021, Reference number 21/422

Appendix J – Interview Protocol



Interview Protocol

Project title: Tuia te mātauranga kia hono ai te kori

Project Supervisor: Dr Isaac Warbrick, Assoc Prof Nigel Harris, Assoc Prof Anne-Marie Jackson

Researcher: Nicole Penetito-Hemara

Briefing

This interview guide is intended for the Kaiako/Teacher Interviews. It forms a guide only. Each interview will take approximately 45 minutes to 1 hour as scheduled.

This research aims to understand how pūrākau derived physical activity impacts hauora; and how pūrākau derived physical activity programmes can be sustainably scaled to a national level. The study investigates the impact and efficacy of this approach by exploring the experiences of tamariki, rangatahi and kaiako within two programmes, He Pī Ka Rere and Pau te Hau.

The following research questions aim to develop a deep understanding of the realities for tamariki, rangatahi and kaiako who have experienced the use of pūrākau alongside physical activity within education settings:

- What is pūrākau derived physical activity?
- What is hauora in the context of physical activity?
- How does pūrākau derived physical activity impact hauora?
- What are the hauora experiences for tamariki, rangatahi and kaiako in engaging in pūrākau derived physical activity programmes?
- How can this approach using pūrākau derived physical activity programmes be scalable and sustainable long-term?

The overarching approach used to guide this study is Kaupapa Māori and the methodological framework chosen to anchor it is Wayfinding. Tamariki and rangatahi will be invited to an interactive wānanga whereby we will use pūrākau and design thinking tools to frame the insight gathering activities. Kaiako will also be invited to participate in empathy interviews to share their lived experiences leading the programmes in practice.

Data collected across the wānanga and interviews will be themed to develop the findings from this study. Determining the long-term effectiveness of this approach on strengthened connections to Te Ao Māori and other hauora outcomes for tamariki and rangatahi is paramount. Critical success factors and catalysts for sustainable implementation of these programmes at scale will be identified.

Remember to discuss:

- Ensure consent/assent have been completed.
- Offer karakia and affirm a safe space at the beginning and end of the process.
- Acknowledge the person(s) in room, acknowledge time and space provided to korero.
- Affirm the safety of this space and that they do not need to share anything that do not wish to.
- Use the interview questions from the interview schedule as a guide.

Appendix K – Interview Guide



Interview Guide

Project title: Tuia te mātauranga kia hono ai te kori

Project Supervisor: Dr Isaac Warbrick, Assoc Prof Nigel Harris, Assoc Prof Anne-Marie Jackson

Researcher: Nicole Penetito-Hemara

1. Whanaungatanga - No wai? Ko wai?
 - a. Can you please share a bit about yourself (whakapapa, whānau, role etc)
2. Can you please describe:
 - a. What makes a happy, healthy and well tamariki/rangatahi/whānau?
 - b. What are your aspirations/vision/hopes for current and future generations of your tamariki/whānau?
 - c. What is your understanding of the term hauora? What other words would you use to describe it?
 - d. What are the benefits of physical activity for hauora?
 - e. What are the differences in hauora between Māori and non-Māori?
3. Prior to this initiative can you explain what experience you had using pūrākau alongside physical activity
 - a. What role did you play? Participant, leader, learner?
 - b. What made it a positive/negative experience for you? Why?
4. Can you describe your understanding of the term pūrākau
 - a. What is your favourite pūrākau? Why?
 - b. You explained prior, your understanding or the term oranga. What ways do you think pūrākau supports the aspiration of oranga for tamariki/rangatahi/whānau
5. How did you find out about He Pī Ka Rere / Pau te Hau?
6. What attracted you to the programme? Why?
7. What did you learn throughout the implementation of the programme?
 - a. Specifically, what did you learn from a Māori worldview?
8. What was your favourite part about the programme? Why?
9. What was your least favourite part about the programme? Why?
10. What are the benefits associated with the use of pūrākau derived physical activity programmes?
 - a. Impact on overall health and wellbeing / hauora
11. What are the risks associated with the use of pūrākau derived physical activity programmes?
 - a. Impact on overall health and wellbeing
12. Did any particular group of students relate better or worse toward the pūrākau aspect of the programme?
 - a. Gender, race, ethnicity, class
13. Was the amount of pūrākau embedded in the programme good, too much, not enough? Why?
14. What are some enablers which would be able to further support the implementation of pūrākau derived physical activity experiences for your tamariki/rangatahi?
15. What are some challenges that would get in the way of successful implementation of pūrākau derived physical activity experiences for your tamariki/rangatahi?
16. Do the hauora experiences of pūrākau derived physical activity differ for Māori and non-Māori participants?
17. What needs to change to ensure this approach is scalable and sustainable in the long-term?

Appendix L – Wānanga Run Schedule – Pau te Hau

[REDACTED] Pau te Hau - Run Sheet				
Date:	Thursday 15th September			
Venue:	[REDACTED]			
Hau kainga:	[REDACTED]			
Manuhiri:	Nikki Penetito-Hemara (AUT PhD student)			
Participants:	2 Kaiako (teachers) [REDACTED] 21 Taurira (students)			
Kaupapa:	Pau te Hau			
Runsheets				
Time	Kaupapa	Details	Who	Note/s, resources
7:35am	Travel	Nikki to arrive at Napier/Hastings airport	Nikki	Grab hire car (23 mins from airport to school)
8:30am	Travel	Nikki to arrive at Hastings Intermediate School Meet [REDACTED] and [REDACTED]	Nikki, [REDACTED]	
8.45am	Mihi whakatau	Mihi whakatau.	Nikki, [REDACTED] Tamariki.	
9am	Pau te Hau	Observe Pau te Hau in action	[REDACTED]	Nikki to take observation notes
9:20am	Whanaungatanga	Ko wai au? Why am I here	Nikki, [REDACTED]	
9:30am	He hokinga mahara A Reflection of the Pau te hau journey	Awa mapping (45 minutes) <ul style="list-style-type: none"> Tamariki to visually map their journey with Pau te Hau Tamariki to use prompts to support their journey mapping 	Nikki, [REDACTED] and Tamariki	<ul style="list-style-type: none"> Butch paper Awa Prompts Glue Reference a local awa as a metaphor - Tukituki??
10.15am	Pūrākau activities	Te Whare Tapa Whā (15 minutes) <ul style="list-style-type: none"> What is hauora? How does Pau te Hau improve your hauora? Hineahuone (30 minutes) <ul style="list-style-type: none"> Sculpt an Atua using playdough which personifies hauora Describe in only a few words using post it notes why your sculpture represents hauora 	Nikki, [REDACTED] and Tamariki	<ul style="list-style-type: none"> Hauora handouts Playdough Post-its Design the persona of someone who is happy, healthy, and well - epitomises hauora Capture tamariki hauora understandings and outcomes.
11am	Morning tea	Set out kai for the kids		
11:15am	Anga whakamua	Ki Uta, Ki tai - Design Challenge! (45 minutes) <ul style="list-style-type: none"> Brainstorm what leveling up looks like for Pau te Hau Physically design what you want Pau te Hau to look like at Waipawa in the future 	Nikki, [REDACTED] and Tamariki	<ul style="list-style-type: none"> Taiao resources Contemporary rauemi Video record & photograph
12pm	Lunch	Distribute koha to the kids	Katoa	
12:15pm	Interview	Nikki to interview [REDACTED] (45 mins)	Nikki, [REDACTED]	
		Nikki to interview [REDACTED] (45 mins)	Nikki, [REDACTED]	
1pm	Travel	Nikki to leave Hastings Intermediate School	Nikki	

Session 1 - He hoking Maharā - A reflection of your journey with Pau te Hau

Awa Mapping (20 - 30 minutes)

Resources

- 4 Prompt cards (see below)
- Sharpies (for each participant)
- Camera to photograph the finalised awa



Activity numbers

- All (individually with time to discuss alongside their pairs)

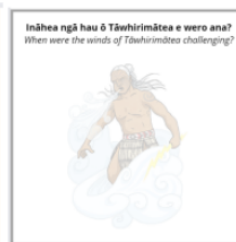
Step 1: I have been fortunate enough to have been to your awa Waipawa. I have seen all the amazing toka (rocks) that are there, I have seen families take their kids to the awa and share in some whanau time there, and I have seen Waipawa when it was very dry and lacking the flow of the waters within. I want you to visualise Waiapawa and think about your journey with Pau te Hau

Step 2: You each have 4 prompt cards. The first thing I want you to do is write your name on the back of them.

Step 3: Explain each of the prompt cards:

- **(5 mins) Ināhea i whiti mai te rā?** When did the sun shine during Pau te Hau for you? When did you feel the rays of Tāwhirimātea? When were some memorable moments? Or significant events for you throughout?
- **(5 mins) Ināhea ngā hau o Tāwhirimātea e wero ana?** We know that the winds of Tāwhirimātea can be both disruptive AND productive. When did the winds of Tāwhirimātea challenge you during Pau te Hau? What was hard, a barrier, something that got in the way for you and made things challenging?
- **(5 mins) Ināhea te taniwha i ohore ai koe?** Around the bend of every awa there is a taniwha. Tell us a time during your journey with Pau te Hau where you were surprised. You may have been surprised by something you did, your friends did, something you learned etc.
- **(5 mins) Ko wai kei runga i tō waka?** Tell us who is on board your waka when it comes to engaging with Pau te Hau? What are their roles? Caller, steerer, paddler, leader, follower, chaser. Tell us why you have included them and remember it doesn't have to include people from kura only. There may be others in your life who help impact your haura positively.

Step 4: Grab a glue stick and glue your card to the large map. We aren't necessarily going to share each other's journey, however it will be up on display today for those of you who want to have a read.



Session 2 - Te Whare Tapa Whā/Hineahuone

Unpacking Te Whare Tapa Whā (10 minutes)

Resources	Activity numbers	
<ul style="list-style-type: none"> Distribute handouts to each person individually Sharpies 	<ul style="list-style-type: none"> Pairs for pātai 1 Individually for pātai 2 	
<p>Step 1: Nikki to briefly discuss hauora as a concept - while i'm doing that each person writes their name on the handout.</p> <p>Step 2: 1 minute to talk to the person next to you and discuss hauora - what is it?</p> <p>Step 3: 5 minutes for tamariki to capture their thoughts on the handout:</p> <ul style="list-style-type: none"> What is hauora? When has How does it apply to me? What does it really look like in practice? <p>Step 4: 5 minutes for tamariki to write down their individual thoughts on the handout:</p> <ul style="list-style-type: none"> How is my hauora enhanced during Pau te Hau? Think about each of your taha and use the prompt above as a reference for example, tell me how pau te hau has impacted on your spiritual wellbeing, social/whanau wellbeing, mental and emotional wellbeing and of course physical well being <p>Step 5: Collect each handout at the end</p>		

The creation of the first women, Hineahuone (20 minutes)

Resources	Activity numbers	
<ul style="list-style-type: none"> Playdough Post its Sharpies Camera to photograph each sculpture at the end 	Groups of 4 <ul style="list-style-type: none"> Head/neck Torso/puku Hands/arms Legs/feet 	
<p>Step 1: (4 mins) Does anyone know who Hineahuone is? Tānemahuta? For this next activity I want you to close your eyes, listen, think about what you've written about hauora in the previous activity and just listen to the story of Tānemahuta and Hineahuone.</p> <p>Step 2: Have the tamariki form groups of 4 and assign each person in the group a body part.</p> <p>Step 3: (5 minutes) Have the tamariki think about what makes a person happy, balanced and well and form their body part on that basis.</p> <p>Step 4: (10 minutes) Each member of the group must now use a post it note to write down one word or one sentence that describes how they have sculpted something that demonstrates hauora.</p> <p>Step 5: (5 mins) One by one each person shares and connects their body part and value for the person they are forming. Get each group to stop and listen to every group.</p> <p>Step 6: (1 minute) Once everyone has shared, get them all to stand around their person and breathe life into them by all say 'Tihei Mauriora - Let there be Life' just as Tanemahuta did when he brought Hineahuone to life.</p> <p>Step 7: Photograph your sculpture with post it notes.</p>		<p>This is one version of the creation story of the first woman, Hine-ahu-one, the Woman of the Earth.</p> <p>Tānemahuta and the creation of the first women, Hineahuone</p> <p>Tānemahuta, the god of the forest and birds, decided one day that he wanted to create people to walk on this earth. He searched both land and sea, and then finally Tānemahuta went to his mother, Papatūānuku, for her advice and knowledge.</p> <p>Papatūānuku told Tānemahuta to go to a place called Kurawaka, for it was there that her blood had flowed into the ground when she and Rangiūi were torn apart. There he would find the earth that would be essential to creating a woman.</p> <p>Tānemahuta journeyed to Kurawaka and here he found the red clay that Papatūānuku had spoken of. From the clay he shaped a female body. From there Tāne took her in his arms, pressed his nose to her nose and breathed life into her nostrils. All of a sudden her eyes opened and she sneezed. Tihei Mauriora! Let there be life!</p>

Session 3 - Anga Whakamua - Pau te Hau in the Future

Ki Uta, Ki Tai - Design Challenge! (30 minutes)

Resources

- Contemporary rauemi
 - Playdough
 - Tākaro box
 - Post its
 - Sharpies
- Taiao rauemi
 - Rākau
 - Anga
 - Toka
- Camera
 - Photograph
 - Video record
- Each table (or group of 4) needs 1 x A3 paper, 5 post-it notes

Activity numbers

- Groups of 4
- Ensure the groups do the **brainstorming** before they touch the rauemi



Pau te Hau
KI UTA, KI TAI

Step 1: This final activity is a bit of fun, and is a design challenge. Ki uta, ki tai represents our role as kaitiaki of Pau te Hau within our school environment and has us cast our attention to the future and ensuring other tamariki have the opportunity to experience Pau te Hau like you all have.

Step 2: In groups of 4, nominate a scribe and spend 5 minutes writing down what you want more of, and what you want less of... What do you love about it, what do you dislike about it? What do you need to make it even better? What does leveling up look like for Pau te Hau?

Step 3: Now spend 5 minutes brainstorming where to next for Pau te Hau at Waipawa? In your brainstorm include ideas on how you would physically design this aspiration using equipment from the table.

Step 4: Spend 10 minutes physically designing what you want Pau te Hau to look like at Waipawa in the future.

Step 5: While you are designing you must use a maximum of 5 post it notes to explain/describe what you have designed

Step 6: Last 10 minutes for all groups to share back their design explanations using their post it notes **(VIDEO RECORD)**

Examples of design:



Appendix M – Wānanga Run Schedule – He Pī Ka Rere

Murihiku He Pī Ka Rere - Wānanga Schedule

Date: Friday 10th June – Saturday 11th June
Venue: [REDACTED]
Hau kainga: [REDACTED]
Manuhiri: Darrio Penetito-Hemara (Toi Tangata Kaiwhakahaere Matua)
 Nikki Penetito-Hemara (AUT PhD student)
Participants: 5-6 Kaiako (teachers)
 Up to 23 Taura (students)
Kaupapa: He Pī Ka Rere

Runsheets - Day 1 Friday 10th June				
Time	Kaupapa	Details	Who	Note/s, resources
12:10	Travel	Arrive in Invercargill	Darrio, Nikki	Collect bags and get a rental car Maybe drop bags to accommodation?
1:00pm	Travel	Travel to [REDACTED] and meet [REDACTED]	Darrio, Nikki	1:30pm lunchtime finishes
1:40pm	He Pī Ka Rere with Junior class	Observe He Pī Ka Rere in action at [REDACTED] School	Darrio, Nikki, [REDACTED]	Nikki to take observation notes
2:30pm	Interview	Nikki to interview - [REDACTED] (45 mins max) Location - DP Office @ WPS	Nikki, Teacher 1	[REDACTED] to take over interviewee class Darrio to source equipment with [REDACTED]
4:00pm	Powhiri	Te Tomairangi Marae <ul style="list-style-type: none"> • Kōrero o nehe? • Whanaungatanga - ko wai koe, no hea koe? 	Katoa	Tangata Whenua Kaikaranga - [REDACTED] Kaikōrero - TBC Manuhiri Kaikaranga - Nikki Kaikōrero - Darrio
5pm - 5:45pm	He hokinga mahara - Reflection of the journey to date	Awa mapping - local awa as a metaphor for the journey to date <ul style="list-style-type: none"> • Kids to visually map their journey with He Pī Ka Rere • Prompt cards to support their journey mapping: <ul style="list-style-type: none"> ○ Ngā hau o 	Darrio / Nikki to facilitate Katoa	Nikki to develop a template and prompting cards *kids can add to this overnight too

		<p>Tāwhirimātea?</p> <ul style="list-style-type: none"> ○ Kei hea ngā taniwha? ○ Ināhea i whiti mai te rā? <ul style="list-style-type: none"> ● Share with the group 		
5:45 - 6:30pm	Pātai mai	<p>Pātai mai</p> <ul style="list-style-type: none"> ● In pairs get the participants to ask a series of questions related to how they feel about He Pt Ka Rere ● What did you learn about yourself while doing HPKR? ● What did you learn about your culture? ● What is your favourite part about HPKR? (why) ● What was your least favourite part about HPKR (why) ● Have each pair share 	<p>Darrio / Nikki to facilitate</p> <p>Katoa</p>	<p>Capture responses with audio recording</p> <p>Focus</p> <ul style="list-style-type: none"> ● Learning ● Cultural connection ● Enablers/ barriers
6:30pm	Kai o te pō		Katoa	
7:30pm	Interview	Nikki to interview Wiki (45 mins)	Nikki, [REDACTED]	Location
8:30pm	Interview	Nikki to interview Raiha (45 mins)	Nikki, [REDACTED]	Location
9:30pm	Travel	Head to accommodation	Nikki, Darrio	

<p style="text-align: center;">Runsheets - Day 2 Saturday 11th June</p>				
Time	Kaupapa	Details	Who	Note/s, resources
8:00am	Parakuihi		Katoa	
9:00 - 11:30am	He Pt Ka Rere / Atua Matua activities	<ul style="list-style-type: none"> ● Review new He Pt Ka Rere pukapuka ● Review previously learnt activities ● Atua Matua at home <ul style="list-style-type: none"> ○ Whakatinana kāri 	Darrio, tamariki	<p>HPKR pukapuka hou</p> <p>Bring whakapakari kaitiaki kāri</p>
9:00 - 9:30am	Interview	Nikki to interview [REDACTED]	Nikki, [REDACTED]	<p>Location</p> <p><i>*this may work better as a focus group?</i></p>
9:45 - 10:15am	Interview	Nikki to interview [REDACTED]	Nikki, [REDACTED]	Location
10:30 - 11:15am	Interview	Nikki to interview [REDACTED]	Nikki, [REDACTED]	Location
11:30 - 12:15pm	Kai o te rānui		Katoa	

12:15 - 1pm	Pūrākau	<p>Pūrākau activity</p> <ul style="list-style-type: none"> • Discuss hauora as a concept and share the laminated image /prompt of Te Whare Tapa Whā • Participants to discuss hauora in pairs: • What is it? • How is our hauora enhanced during the programmes? • What happens when we feel like our hauora is optimum • Read the story of Hineahuone and follow activity instructions. (See activity below) 	Nikki to facilitate with tamariki	<p>Need playdough and taiao resources</p> <p>May substitute Atua for a more familiar one to the tamariki</p> <p>This is a great activity for participants to design the persona of someone who is happy, healthy, and well.</p> <p>Capture hauora understanding and outcomes.</p>
1:00 - 1:45pm	Anga whakamua	<p>Ki uta, ki tai - Design Challenge!</p> <ul style="list-style-type: none"> • Revise journey maps • Tamariki to physically design their aspiration for He Pt Ka Rere • Designing "ki tai" - transition from the confinements of the riverbank to the expansive horizons of the open oceans • Wahapū - Transition of the kaupapa, pathways outside of Waverley, support needed) • Moemoea (Where to next for He Pt Ka Rere for tamariki) • Pae moana (What is on the horizon? How do we get there?) • Share back 	Darrio to facilitate	<p>Nikki to design templates to use</p> <p>Taiao resources - rākau, anga, kareao, toka</p> <p>Contemporary rauemi - playdough, tākaro box, post it notes, felts</p>
1:45 - 2pm	Whakakapi			Koha
2pm	Travel	Travel to the airport	Darrio, Nikki	