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Te Ao Kori in New Zealand physical education: a narrative literature review

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ABSTRACT

Te Ao Kori represents an Indigenous Māori worldview of Physical Education. Its introduction into New Zealand's Physical Education curriculum was an effort to integrate Māori perspectives on movement into mainstream education. Over time, interpretations of Te Ao Kori have varied, ranging from a surface-level focus on playing traditional Māori games to more holistic teaching and learning embedded in Māori worldviews. While culturally responsive frameworks and Treaty knowledge have developed, there has been no comprehensive review of how Te Ao Kori has been conceptualised and evolved in Physical Education literature. This paper seeks to remedy this. A narrative review methodological approach was chosen to align with Māori storytelling traditions, enabling a holistic and reflexive analysis of the literature. This allowed for critical engagement with diverse sources, capturing the evolution of discourse surrounding Te Ao Kori. The result is a socio-cultural narrative review of Te Ao Kori that identifies historical, pedagogical, and socio-political influences shaping its understanding and use. Findings indicate that while Te Ao Kori is acknowledged in curriculum documents, there is little research on how this translates to practice. This narrative literature review highlights the conceptual evolution of Te Ao Kori but simultaneously exposes the need for clearer frameworks to support meaningful understanding and use in Physical Education. Without support, Te Ao Kori's inclusion risks being 'referenced' rather than being meaningfully embedded. The paper provides insights for educators and policymakers to move beyond symbolic inclusion toward the development of curriculum and teaching approaches that authentically embed Māori epistemologies. Moreover, it adds to the increasing body of global literature on indigenous knowledge in bicultural and multicultural educational environments.

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Te Ao Kori; physical education; Aotearoa New Zealand; HPE; curriculum; Māori games; Indigenous knowledge

Introduction

Te Ao Kori is known in Aotearoa New Zealand (NZ) as a Māori¹ interpretation of 'the world of movement'. The origin of Te Ao Kori can be traced back to the 1940s when Māori physical activities and games began influencing formal Physical Education² settings. It was an attempt to bridge the gap between Māori and non-Māori (Pākehā³) worldviews. Some of the key authors who have written about Te Ao Kori are Craig (2001), Hokowhitu (2016), Legge (2011), Salter (2002, 2003), and Stothart (2002, 2012). Early literature

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prioritised Māori physical movements and apparatus; however, after formal inclusion in NZ Physical Education in 1987, understandings of Te Ao Kori began to shift. There was growing recognition that Te Ao Kori encompassed not only physical movement but also Māori culture, language, and values (Craig, 2001; Pere, 1988; Stohart, 2002; Walker, 1995). Over time, as understandings of culture, curriculum and colonisation have developed in Education settings, the many nuances, complexities, and opportunities of bicultural education in schools have been exposed (Dixon & Robertson, 2022; Heaton, 2016; Meier & Culpan, 2020). These developments have impacted Physical Education practices; however, these insights have not been captured. This paper, therefore, critically reviews Te Ao Kori literature with the advancement of culturally responsive and Treaty knowledge in New Zealand. Despite its formal inclusion, interpretations of Te Ao Kori in Physical Education have often remained surface-level, reducing it to activities rather than recognising it as a pedagogical framework embedded in Māori epistemology. This paper critically examines these gaps and questions what is missing in New Zealand's Physical Education landscape.

Theoretical positioning

This paper takes a socio-critical position. This approach aims at deconstructing a commonly held epistemological position to reveal underlying practices or assumptions, exposing how 'knowledge' about Te Ao Kori has evolved. The authors understand the complexity of culture and Curriculum and acknowledge that deep debate on these sophisticated topics is beyond the scope of this paper. However, as critical social research involves an epistemological perspective in which knowledge and critique are intertwined (Morrow & Brown, 1994), this paper explores Te Ao Kori literature to expose underlying assumptions, in the hopes of progressing understandings and knowledge. In the case of this paper, the authors identify one of the most dominant historical structural manifestations in NZ Education from a socio-critical perspective, as Te Tiriti o Waitangi | The Treaty of Waitangi. This Treaty document was signed in 1840 and became a founding document between several Māori communities and the British Crown. The Māori version is referred to as Te Tiriti o Waitangi and the English version as the Treaty of Waitangi (Barnes et al., 2024; Berryman et al., 2018; Riini & Lyford, 2022). There are differences between the two versions, and the Māori and English versions are not exact translations of one another (Ministry for Culture and Heritage, 2002). Te Tiriti is guided by Articles which are inherent in the original document. Conversely, the Treaty is underpinned by Principles⁴. The Articles are Kāwanatanga (Governance), Tino Rangatiratanga (Autonomy) and Mana Ōrite (Equal Status) (Te Puni Kōkiri Ministry of Māori Development, 2002). The Principles are Partnership, Participation and Protection. The differences expose (mis)understandings of what Te Tiriti o Waitangi and the Treaty of Waitangi mean (Tawhai, 2013) and subsequently, influence Curriculum edicts, educational discourse and pedagogical practice in New Zealand⁵.

⁴Te Tiriti o Waitangi (in English, the Treaty of Waitangi), New Zealand's founding document, was meant to be a partnership between Māori and the British Crown. Although it was intended to create unity, different understandings of the treaty, and breaches of it, have caused conflict. From the 1970s the general public gradually came to know more about the treaty, and efforts to honour the treaty and its principles expanded.' (Orange, 2024)

Depending on one's ontological position, the Treaty could be viewed as either a controversial topic or an indicator of cultural competence (Jones & Creed, 2010). The importance of this from a theoretical perspective is that despite having a Treaty in place, power imbalances persist in schools and Curricula. In Education, equal status for Māori (mana ōrite) would be the most influential Treaty Article. In the literature on equal status in Education, topics like decolonisation disparities, racism, cultural marginalisation, and privilege shape discussion (Bishop, 2003; Jones & Creed, 2010; Stewart, 2020). In NZ, there has been significant work and progress to combat deficit thinking and formally acknowledge that Māori have had to endure 'cultural survival' through paternalism and a sense of alienation in Education (Coons & Weber, 2013; Schenker et al., 2019; Whitinui, 2010). Literature supports that any prior conceptions of Māori in Education as a homogenous

'disengaged' or 'failing' group are neither relevant nor correct and conversely suggests that the educational environments of the past were 'culturally deficient' for Māori (Bishop, 2003, p. 222).

This socio-critical progression in thinking has led to the Treaty being acknowledged and used more widely in Education documentation, Curriculum and discourse. The Treaty is now being used in Education to leverage the guarantee that the history, language, and traditions of Māori are embedded and seen equally within our schools (Meier & Culpan, 2020). For example, the Ministry of Education (2021) document: *'Kōrero mātauranga: Let's talk about education'* suggests there are efforts to position Māori and Pākeha as equal partners in Education, through the authentic use of multiple knowledge, and the position that mātauranga Māori should have equal value. This means the curriculum would have to emphasise all components of Māori knowledge (ways of knowing, learning, and doing), not just Māori games or activities (Macfarlane, 2004; Whitinui, 2010). As critique of colonisation, deficit thinking and racism in Education have increased, so have understandings and interpretations of how knowledge and formative documents like the Treaty *could* and *should* be used in Education. The authors were interested to see if these socio-critical developments had impacted the literature on Te Ao Kori in Physical Education.

Methodological approach

The research was conducted from a socio-critical paradigm and used the qualitative methodology of a narrative literature review (Paré & Kitsiou, 2017; Patton, 2015). Templier and Paré (2015) state that six generic steps can be used to conduct a review article. These include formulating the research question, searching the literature, screening for inclusion, assessing the quality, and then extracting and analysing data. For this narrative review, our research question was: *How has Te Ao Kori in Physical Education evolved in literature?* This open question allowed for critical interpretation and qualitative thematic analysis. A narrative review is useful for the examination of under-researched fields or complex topics that demand a synthesis of traditional and non-traditional texts. In the case of Te Ao Kori literature, where the accounts are diverse, an element of subjectivity is needed to interpret them. This subjectivity can mean that the review is subject to author bias, so in this case, although strict protocols are not required (Grant & Booth, 2009), the authorship has disclosed key protocols to exhibit trustworthiness (Ahmed, 2024).

Protocols used

The following databases were used to establish and identify the literature: ERIC, Learning Ground (Indigenous Education Research Database), Education Source, Informit: Humanities and Social Sciences Collection, NZCER Journals Online, SAGE, and Scopus. A partial search string was used to include subject categories with the criteria being 'title', 'abstract', and 'author keywords' (See Table 1. Partial string search strategy). Google Scholar was also used for open access, grey literature and random literature that may not have been published in databases. No date restriction was put on the search so that the history of the subject could be observed. A date restriction would have also seen the exclusion of most sources, as very few have been written in the last 10 years. Similarly, we did not omit sources based on 'quality', as the authors agreed that all sources have contributed to the field over time. Given the paucity of research in this field, there was no requirement to exclude

Table 1. Partial string search strategy.

| Category 1 | Category 2 |
|-------------|--------------------|
| Te Ao Kori | Educat* |
| Te Reo Kori | Teach* |
| Māori Games | Pedagog* |
| Tākaro | Learn* |
| Hauora | Physical Education |

research, as the Category 1 topics did not generate large results. To broaden the range of sources available for review, the search included non-academic teaching resources produced for schools. Subject librarians (Māori and Pacific) supported the location of physical texts, alongside Physical Education New Zealand staff who supported the location of old journals not available online (some physical copies, some digitised but for members only).

Thematic analysis

A reflexive thematic analysis was used to examine the literature on Te Ao Kori, drawing on Braun and Clarke's (2022) framework. Rather than grouping findings into broad categories, the analysis focused on identifying patterns, tensions, and gaps that provided insight into how Te Ao Kori had been conceptualised in Physical Education. The process involved multiple readings of the literature to engage with how Te Ao Kori has been positioned over time, the shifting narratives surrounding its inclusion in curriculum and pedagogy, and the socio-political influences that have shaped its trajectory.

To ensure a structured yet reflexive approach, each source was coded based on its primary focus, following the process outlined by Braun and Clarke (2022). The coding framework identified whether a source was:

- Historical – focused on accounts of activities and experiences.
- Pedagogical/curriculum-focused – examined implementation within Physical Education.
- Political/socio-cultural/critical – critiqued, challenged, or questioned the positioning of Te Ao Kori.

Judgments were made based on the intent and themes of each source. Coding decisions were peer-checked to ensure alignment with the broader analytical approach, recognising that subjectivity plays a role in thematic interpretation (Braun & Clarke, 2022). The peer checking was a vital part of the thematic analysis, as it drew out the diverse perspectives of the authorship. The resulting discussions centred on deepening the authors' collective understanding of the literature, while respecting individual perspectives (Barnes, 2013). The authorship of this paper reflects both Pākehā and Māori perspectives, and this positionality has influenced how the data has been analysed. The literature on Te Ao Kori (Legge, 2013; Salter, 2003) suggests that lived experiences shape our worldviews, forming the basis for interpretation, coding, and thematic development. This analysis, therefore, was not only about identifying categories but about critically engaging with how Te Ao Kori has been positioned and lived over time, revealing the tensions and challenges that remain.

A summary of the thematic coding is presented here (Table 2).

Findings

There were two key findings from the narrative literature review.

1. Te Ao Kori in Physical Education literature is a mixture of historical accounts, pedagogical practices, and socio-political critiques.

Table 2. Thematic analysis coding.

| Code | Foci | Description | Indicators |
|------|-----------------------------------|---|---|
| H | Historical | Accounts or descriptions of activities and experiences. | Labelling, listing, recall or descriptive accounts, informing. Emphasis on the 'What' |
| Ped | Pedagogical/curriculum-focused | Sources that focus on how to implement Te Ao Kori. | Instructional models, frameworks, and teaching resources. Emphasis on the 'How' |
| Pol | Political/socio-cultural/critical | Sources that critique, challenge, or question Te Ao Kori's positioning. | Socio-critical, exploratory, questioning, inquiring, challenging, and provocations. Emphasis on the 'Why' |

2. Three key acts may have supported the uptake and evolution of Te Ao Kori in Physical Education; however, little research exists on the topic.

These findings are discussed below.

Historical accounts

In formal schooling around 1932, a syllabus of physical training from Britain shaped much of NZ Physical Education practices. In 1937, a local New Zealand/Australian Syllabus was introduced; however, it wasn't until the 1940s that a more progressive implementation of Māori physical activities and games was introduced into formal Physical Education settings. The literature suggests that Māori had traditionally engaged in a range of physical pursuits, both men and women, because it was essential for life. Literature suggests early examples of physical acts included stick games with chants, spear throwing (one threw, one dodged), hand games, boxing and wrestling (Stothart, 1974). The introduction of Māori games in Physical Education settings can be documented back to 1941 when Phillip Smithells (one of NZ's early Physical Education academics) published articles in the Education Gazette about traditional Māori games and dances (Craig, 2001; Salter, 2000a). From 1930 to 1947, it is documented that Phillip Smithells observed Māori children and captured recordings and photographs of Māori games to develop programmes for schools (Stothart, 2012). Some literature suggests it was this work that led to a rebirth of Māori games and activities that may have otherwise been lost forever (Salter, 2000a).

Pedagogical practices

Māori games and pastimes have been categorised by key authors into various types, including: poi (ball on a string), whai (string games), haka (traditional war dance), tī rākau (stick games), koruru (knucklebones), pōtaka (spinning tops), hehia ringa (hand games), poutoti (stilt walking); kaukau (swimming); ki-o-rahi (ball games); boxing; wrestling and kites (manu tukutuku) (See: Best, 1925; Brown, 2007b; Buck, 1982; Carryer, 1999; Hokowhitu, 2008; McDowell, 2007a; Salter, 2000a; Stothart, 1974, 2002). Early accounts tend to be historical and descriptive.

Brown (2008), a leading Māori and Indigenous Games expert, uses *Ngā Taonga Tākaro* as an all-inclusive term for Traditional Māori games, kawa (protocols), tikanga (values), and whakapapa (genealogy). This term is used commonly today. There is a varied approach to the pedagogical approaches used with these games and pastimes (Salter, 2003). While traditionally some activities were more commonly performed by men or women, there is little discussion in the literature on how these distinctions have shifted in modern Physical Education. The extent to which Te Ao Kori has been reshaped to align with contemporary education priorities remains largely unexplored. Politically, the idea of introducing Indigenous *tikanga Māori*⁶ into mainstream schooling was deemed world-leading. The 1980s saw a curriculum review that exposed educational inequalities, and a call was made to develop a more equitable curriculum, one that included *Te Reo Kori* – 'the language of movement' (Legge, 2013; Stothart, 2012; Stothart & Culpan, 2012). NZ was seen as being 'ahead of the game' in recognising Indigenous knowledge and embracing a bicultural Physical Education curriculum through the development of Māori dimensions (Salter, 2000b; Stothart, 2012). The literature shows that the national subject association Physical Education New Zealand (PENZ)⁷ was an early adopter and supporter of Te Reo Kori in Physical Education, providing professional learning for teachers (Salter, 2003; Stothart & Culpan, 2012). As they identified the challenges and minimal enduring support from the Ministry of Education about implementation, PENZ essentially took on the duty of embracing and caring for this form of bicultural Physical Education (Salter, 2000a). PENZ utilised a plethora of passionate Māori experts and educators over the decades to provide resources, support, and workshops. Some showcased enduring authentic partnerships between Māori and Pākehā, and other initiatives were short-lived. Literature shows that the pedagogical approaches have been

varied, sporadic, and sometimes tokenistic. Similar critiques have emerged in the Australian context, where Indigenous games have been integrated into Health and Physical Education (HPE) in ways that fail to challenge dominant Western knowledge systems (Meston et al., 2023). Like Te Ao Kori in Aotearoa, Indigenous games in Australia are referenced in curriculum documents but are rarely enacted in ways that are meaningful and embed Indigenous epistemologies. However, these attempts, despite their challenges, reflect an ongoing commitment to bicultural and Indigenous education. Salter (2000a) and Stothart (2002) acknowledge that the efforts made within New Zealand to promote bicultural Physical Education have been important, even if the outcomes remain contested.

The literature on Te Ao Kori pedagogy from a Māori paradigm reveals a complexity, as much of the 'ways of knowing' are specific to the local area they originated. Marsden and Royal (2003) articulate that there are *iwi*⁸ variations of oral stories (*pūrākau* and *kōrero*). For example, there are several variations of oral stories about gods and creation. There are also oral stories that do not include gods and creation. There are verbal accounts, and there are movement accounts, such as *whai* (string games), where oral stories are told through a pattern of movement of the hands, mouth, feet, and teeth (Brown, 2008; Stothart, 2012). Depending on the geographical location in New Zealand, and what *iwi* (tribe) the narrative comes from, it will shape the way that the knowledge is passed down through generations. Pedagogical approaches that recognise the significance of culture, land, and these *iwi* (tribe) specific 'ways of knowing' are acclaimed to have positive outcomes for Māori students. This is because the approaches focus on the relational aspect and respond to a learner's identity and needs (Gay, 2010; Macfarlane, 2004; McNabb, 2019; Paris, 2012). This is not unique to Māori, as bicultural pedagogical approaches within Education have been utilised by an extensive range of anthropologists, academics, and educators as a means to solve educational disparities that exist for Indigenous and other minoritised students across the globe (Bishop et al., 2014).

Socio-political critiques

The literature shows that discourse about Māori movement and Te Ao Kori in Physical Education has evolved from 'playing a Māori game' or 'doing pastimes' (Brown, 2016; Hokowhitu, 2016; Salter, 2003). This can be seen in literature through the normalisation of Māori language, holism, and the connection of movement to the environment and the land. There is literature that supports the teaching of Māori values, such as *manaakitanga* (caring for others), *whanaungatanga* (relationships) and *whakapapa* (genealogy) through movement (Rameka, 2015; Salter, 2000a; Stothart, 2002). Te Ao Kori is seen to include '*Kori Hinengaro (mind), Kori Ngākau (heart), Kori Wairua (spiritual) and Kori Pukupukutia (gut feeling)*' (Craig, 2001, p. 8). This has expanded the discussion on Māori games and pastimes to include dance, art, storytelling, *waiata* (songs), learning through movement, mental and emotional movement, spiritual movement and feeling joy (Craig, 2001; McDowell, 2007b; Stothart, 2002). While the literature acknowledges the presence of Te Ao Kori in curriculum frameworks, there is a notable gap in research on how it is enacted beyond superficial inclusion. This omission is reflective of broader structural tensions in bicultural education. The privileging of Western epistemologies in teacher education and Curriculum design constrains the depth of Māori knowledge integration, reinforcing a surface-level approach that aligns with compliance rather than transformation (Heaton, 2016; Meier & Culpan, 2020). This lack of critical examination and action focused on implementation suggests an ongoing reluctance to challenge dominant narratives of Physical Education, despite obligations under Te Tiriti o Waitangi to actively uphold and embed Māori knowledge systems. These tensions raise questions about whether biculturalism is meaningfully enacted in practice in English-medium Schools.

Three key acts, and a desire for more research

The second finding of the narrative literature review highlights three key acts that have influenced Te Ao Kori in Physical Education.

1. *Consideration of the name Te Reo Kori or Te Ao Kori.*

The first key act that has influenced Te Ao Kori is the terminology used. Literature shows there was debate and revision to the terminology, *Te Reo Kori* 'language of movement', resulting in the renaming: *Te Ao Kori*, meaning 'world of movement'. A leading Māori educator, Rangimārie Te Turuki Arīkirangi Rose Pere (Ngāi Tūhoe, Ngāti Ruapani, Ngāti Kahungunu), was instrumental in supporting the Physical Education community to understand that it should not be *Te Reo Kori* but *Te Ao Kori*. The broader term included reo (language), tikanga (values) and perceived movement through the eyes of Māori – the understanding that movement included games, dance, music, medicine, and art (Craig, 2001; Legge, 2011; Stothart, 2002). Walker (1995) attests that this shift in thinking, to include tikanga (values) and view things from a Māori worldview, gave Physical Education the 'unique opportunity to lead New Zealand Education' (p.19). Despite the Ministry of Education retaining *Te Reo Kori* in documentation (Ministry of Education, 1993, 1999), literature by those in the profession used the terminology *Te Ao Kori*, not *Te Reo Kori* to accentuate the learning about tikanga (values) and kawa (protocols) through movement as well as the movement itself (Hokowhitu, 2016; Legge, 2011, 2013; Salter, 2002). PENZ also adopted *Te Ao Kori Aotearoa*, in place of *Te Reo Kori Aotearoa*,⁹ displaying a formal uptake of the term by the subject organisation. The change from *Te Reo Kori* to *Te Ao Kori* throughout literature and resources illustrates developing non-Māori (pākehā) interpretations of Māori movement to better understand the 'more-than-physical' element of movement.

2. *Health and Physical Education coming together in Curriculum.*

The second key act that has influenced Te Ao Kori is the holistic positioning of Physical Education in the Curriculum. The 1990s was the first time the subject areas of Health and Physical Education combined with overlapping ideals; becoming one learning area (Dixon & Robertson, 2022; Fitzpatrick, 2011). Emeritus Professor Ian Culpan (Physical Education), and Dr Gillian Tasker (Health Education) were principal writers for the 1999 *Health and Physical Education New Zealand Curriculum* (HPENZC)¹⁰, and literature has documented the enormity of this responsibility (Culpan, 2000; Dixon & Robertson, 2022; Hokowhitu, 2016; Salter, 2000b; Stothart, 2012; Stothart & Culpan, 2012). There were 15 additional people selected to support and advise the principal writers, of whom only two from 15 were Māori (Hokowhitu, 2016). Despite the 1999 HPENZC being an attempt to shift Health and Physical Education from a colonised curriculum into one that was bicultural (Meier & Culpan, 2020), critics suggest the process still seemed to 'portray an image of inclusion' (Hokowhitu, 2016, p. 77). The initial draft Curriculum attempt sought to include Te Ao Kori as a Key Area of Learning (A core element of the curriculum, mandating its significance and prominence). This move was not supported by the Ministry of Education, and the principal Curriculum writers argued that its removal resulted in a weaker document (Culpan, 2000; Fitzpatrick, 2006; Meier & Culpan, 2020; Salter, 2000a; Stothart, 2012; Stothart & Culpan, 2012). Nevertheless, this Curriculum achieved a significant goal. The objective was a socio-critical HPE curriculum, and this was successful (Culpan & Bruce, 2013). Two things were important for social change. First, the political position of 'Health' and 'PE' together encouraged a holistic approach to health and well-being and challenged the preceding paradigm of physicality and performativity. Second, the use of Peter Arnold's (1979) formative work on 'in, through and about movement' that challenged singular understandings of what it meant to be a competent mover (Culpan, 2000). The holistic positioning of what constituted Physical Education, and the inclusion of multi-dimensional movement frameworks afforded pivotal structural changes that supported Māori knowledge (Salter, 2000a).

3. *The inclusion of a Māori well-being concept in formal curriculum.*

The third key act that has influenced Te Ao Kori is the inclusion of a Māori well-being concept and model as one of the underlying concepts of the Health and Physical Education curriculum. This

meant the explicit acceptance of a Māori concept and model socio-culturally, resulting in the inclusion of Te Ao Kori philosophically and foundationally into mainstream PE programmes in schools. The Māori concept of well-being included in the curriculum is called *Hauora*, and is based on Sir Mason Durie's (1994) Māori health model *Te Whare Tapa Whā* (four-sided house) (Dixon & Robertson, 2022; Ovens, 2010). This model has become conventional in Health and Education literature in NZ (See Hokowhitu, 2016; Jackson et al., 2018; Meier & Culpan, 2020; Moewaka Barnes & McCreanor, 2019). The model has four interconnected elements of 'total well-being' that need to remain balanced to ensure health and well-being. The imagery is of a house (whare in Māori) with a roof balanced on top of four walls, and this image and interpretation are well documented in the literature. The concept *Hauora* comes from two Māori words, *hau* and *ora*, *hau* meaning breath or air, and *ora* meaning alive, well, and safe in health (Hokowhitu, 2016). It was defined in the 1999 Curriculum document and the 2004 Curriculum document as:

Taha tinana (Physical well-being) – the physical body, its growth, development, and ability to move, and ways of caring for it;

Taha hinengaro (Mental and emotional well-being) – coherent thinking processes, acknowledging and expressing thoughts and feelings, and responding constructively;

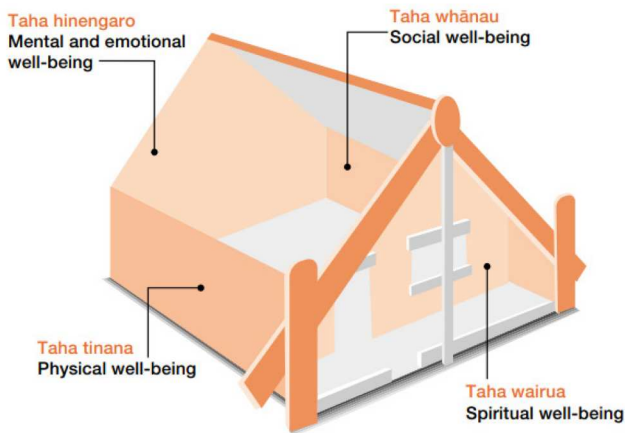
Taha whānau (Social well-being) – family relationships, friendships, and other interpersonal relationships; feelings of belonging, compassion, and caring; and social support;

Taha wairua (Spiritual well-being) – the values and beliefs that determine the way, people live, the search for meaning and purpose in life, and personal identity and self-awareness (For some individuals and communities, spiritual well-being is linked to a particular religion; for others, it is not) (Ministry of Education, 1999, p. 31)

Following the publication of the 1999 Curriculum, the inclusion of *Hauora* became a much-debated topic. What followed was an increase in critical literature that examined the socio-cultural and political implications of using this Māori concept and model of health (See: Dixon & Robertson, 2022; Fitzpatrick, 2006; Stothart, 2012; Stothart & Culpan, 2012). Most of this literature exposes nuances and tensions when Māori and Pākehā worldviews come together (See: Dixon & Robertson, 2022; Heaton, 2016; Meier & Culpan, 2020). Specifically, the desire to move away from simplified versions of *mātauranga Māori* being used in the curriculum (Heaton, 2011) to avoid compartmentalisation and misappropriation of Māori concepts being interpreted from a Pākehā lens. This was because when Durie (1994) proposed a Māori model of health to be included, he provided several options: *Whare Tapa Whā*, *Te Wheke* and *Ngā Pou Mana* (Durie, 1994). The notable difference between *Te Whare Tapa Whā* and *Ngā Pou Mana* was the explicit and implicit inclusion of *whenua* (the land) (Durie, 1994; Hokowhitu, 2016). In *Te Whare Tapa Whā* model, the use of *whenua* (land) is implicit as the house sits on land to stabilise it (Hokowhitu, 2016). However, in *Ngā Pou Mana*, *tūrangawae-wae* (or the land base) is one of the houses' four supports (Durie, 1994). Hokowhitu (2016) claims that despite the chosen model having an 'implicit' portrayal of *whenua*, it was a vital element of Durie's *Te Whare Tapa Whā*. Yet, the 1999 Curriculum draft was released, without any mention of *whenua* (land) altogether. This indicated that a Māori model had been interpreted to 'fit' the mainstream Curriculum document. As the model became popular in Education, organisations created imagery to support conceptual understanding. Consequently, many different versions can be found in the literature (Figure 1).

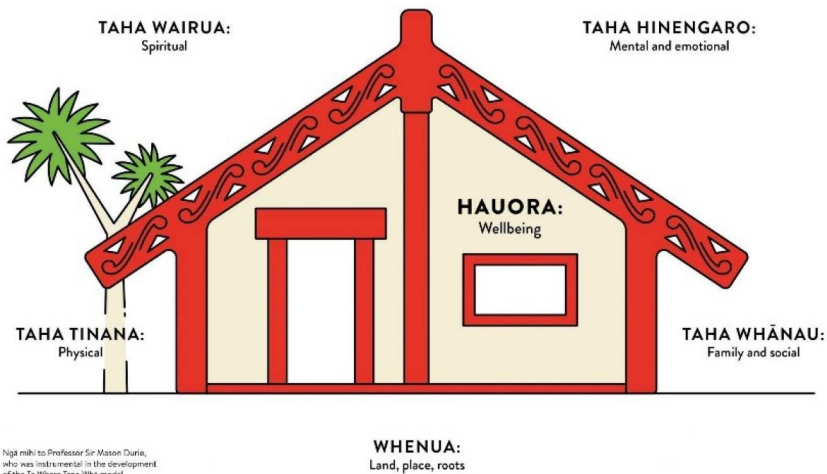
Critical literature challenged the omission of *whenua* and labelled the resulting framework a 'sanitised' version of *Hauora* (Salter, 1999, 2000d). The core issue with this omission is that *whenua* (land) is imperative to Māori, representing one's place of belonging, connection, and *whakapapa* (genealogy) (Barnes & Riwai-Couch, 2022; Salter, 2000d). 'Māori are deeply connected and embodied to the environment' (Jackson, 2015, p. 329). Over time, and with the introduction of a Māori health concept and model in the curriculum, there was an increasing understanding of the 'four dimensions' of well-being; however, these dimensions continued to omit connection to the land. Teachers were left with a significant knowledge gap when it came to how the concept and model of well-being should be

Each of these four dimensions of hauora influences and supports the others.



Dr Mason Durie's whare tapawhā model compares hauora to the four walls of a whare, each wall representing a different dimension: taha wairua (the spiritual side); taha hinengaro (thoughts and feelings); taha tinana (the physical side); and taha whānau (family). All four dimensions are necessary for strength and symmetry. (Adapted from Mason Durie's *Whaiora: Maori Health Development*. Auckland: Oxford University Press, 1994, page 70)

Te Whare Tapa Whā



Nga mihi to Professor Sir Mason Durie, who was instrumental in the development of the Te Whare Tapa Whā model.

WHENUA:
Land, place, roots

Figure 1. Te Whare Tapa Whā 1994 – Different versions. Source: Health and Physical Education in the New Zealand Curriculum. Source: All Right Mental Health Campaign.

understood and taught. The socio-cultural analysis here is not just about the surface-level knowledge transmission impacted by this misstep, yet the intentions behind it. The primacy of whenua being central to Māori significance in this world, and the removal of it from the 1999 New Zealand Curriculum, represents a worldview dominated by Eurocentric discourses (Salter, 2000b). Meier and Culpan (2020) and Salter (2000b) query the motives of the Government to remove whenua (land) from the model due to the political and historical grievances and trauma with land ownership. Moreover, the 2007 Curriculum (Ministry of Education, 2007) reduced the one-page explanation on Hauora to only four lines, and Stothart (2012) and Fitzpatrick (2006) labelled this

moment the 'de-emphasising of Hauora'. Māori worldviews do not typically view land as 'property', rather whenua (land) is a 'determinant of health and a way of healing people and the environment' (Moewaka Barnes & McCreanor, 2019, p. 28). Given that Durie's model of Hauora positioned whenua (land) as crucial to Māori total well-being (Meier & Culpan, 2020), these actions could be seen as a misrepresentation of Māori worldviews. Critical literature suggests that actions like these perpetuate the injustice of colonisation and Eurocentric discourses within the New Zealand Curriculum (Vickers, 2020).

As Hauora has become institutionalised as *the* Māori concept of health with *Te Whare tapa whā* as its manifesting model, its prevalence at a surface level may have prevented sophisticated lessons from Māori knowledge, or alternative approaches to Māori health and well-being. Meier and Culpan (2020) contend that Hauora as a model is often thought of as the 'only' concept in a Māori worldview that has been implemented by Pākehā; an example of the reductionism and oversimplifying that occurs when models are selected to represent an entire area of knowledge. This reductionism and oversimplification in the HPE shape how we come to know a concept, how teachers teach it, and how learners '*... make meaning, but only if that meaning fits within the existing structure*' (Stevens and Culpan, 2022, p. 87).

Why do these three acts influence Te Ao Kori in Physical Education?

The literature review shows that early research and resourcing focused on the physicality of Māori movement and its use in Physical Education lessons. There was little connection to whenua (land), or the political and critical discourse about the use of Māori in Physical Education. The inclusion of Hauora was significant to Physical Education and Te Ao Kori because it challenged pre-existing notions of health, well-being, and physicality. However, the move was equally liberating as it was restrictive for Māori (Heaton, 2016; Jackson et al., 2018). On one hand, the move contributed to bicultural education in New Zealand Aotearoa (Ross, 1998). It allowed openings for a dialect to exist between Pākehā and Māori worldviews and placed Health and Physical Education in a rare position rivalled by other curriculum learning areas in New Zealand (Fitzpatrick, 2006). It encouraged educators to think about Physical Education as something broader than just Western sports or exercise (Fitzpatrick, 2006). Literature shows that ITE programmes included content on, and researched Te Ao Kori: '*Because the sports-based normative frame of reference for physical education was removed, te ao kori coursework provided the chance to discover a wider role for physical education as a medium for learning about, in and through movement*' (Legge, 2011, p. 91). On the other hand, acts such as the 'de-emphasis' of Hauora and the minimisation of whenua (land) raised questions about whether the curriculum could ever represent an authentic Māori worldview (Meier & Culpan, 2020; Ovens, 2010).

Whether literature has labelled these actions as editorial decisions, Treaty breaches, or acts of racism, these actions have influenced how a generation of teachers and learners understand Te Ao Kori in Physical Education. These acts, while appearing to support bicultural aspirations, also reveal tensions in how *mātauranga Māori* is positioned within the curriculum. The exclusion of key Māori knowledge, such as whenua (land) in well-being models, reflects enduring colonial structures that continue to shape Physical Education policy and practice. This is not unique to NZ. Dowling and Flintoff (2015) exposed structural curriculum 'whiteness' across a range of countries, and Te Ao Kori follows a trajectory similar to Australia, where Indigenous knowledge in Health and Physical Education (HPE) has undergone phases of marginalisation, documentation, and partial curriculum inclusion (Meston et al., 2024). Like the three waves of Indigenous games implementation in Australia, Te Ao Kori has evolved through terminology shifts, curriculum restructuring, and pedagogical reframing. However, in both contexts, inclusion remains constrained by systemic barriers that limit the full enactment of indigenous knowledge within Physical Education. An example of a systemic barrier and an act to overcome it is the increasing

availability and use of culturally responsive resourcing in response to the formal exclusion of the Treaty.

The treaty, culturally responsive pedagogy and Te Ao Kori

The New Zealand government formally acknowledged the differences between the two versions of the Treaty of Waitangi in 1989 (Te Ara, 2024). This acknowledgement came as part of the government's official statement on the Treaty principles. The recognition of these differences was pivotal in shaping how the Treaty was understood and applied, marking a significant step towards addressing the distinct meanings of the English and Māori versions and how they influenced Crown-Māori relations.

Despite the 1999 and 2007 Curricula being 'bicultural', several independent curriculum reviews stated: *'The lack of inclusion of Treaty of Waitangi, biculturalism and Māori concepts [was] the most common theme'* (Doig, 2007, p. 5). Of the 10 substantive recommendations that emerged from the review, the Treaty recommendation was first: *'Recommendation 1: That the Treaty of Waitangi and Māori be strengthened throughout the document.'* (Doig, 2007, p. 25). This was echoed in wider consultation and sector feedback, where the most common issue was the absence of the Treaty, with over 65 submissions commenting on this (Doig, 2007). The Ministry of Education claimed that the content was implicit in the document, but Māori rejected this as insufficient and petitioned that if the material was not included explicitly, then schools and teachers could blatantly disregard it (Karaka-Clarke, 2023). Despite the awareness of the absence of the Treaty during the draft stages of writing, the final 2007 Curriculum document still only mentions the Treaty once (Hughson, 2022). This inconsistency in 'power-sharing' throughout the curriculum process seemed to prevent the authentic implementation of a Māori worldview in the Curriculum (Hokowhitu, 2016; Jones & Creed, 2010). Hokowhitu (2016) stated that the Curriculum development saw 'jargon' around post-colonisation and inclusion, but it continued to misrepresent Māori.

As the Education sector has come to understand and include Treaty dialogue and foci, we have seen literature progress in similar realms. This has allowed for more literature around pedagogical approaches, socio-cultural critiques, and culturally responsive literature, and much of this literature has been led by Māori. Literature on culturally responsive and relational pedagogy (CRP) has become commonplace in NZ schools, and subsequently Physical Education. Although not Te Ao Kori specific, it is an educational approach that aims to align teaching practices with the cultural backgrounds of the students within the classroom, with a particular focus on marginalised communities (Gay, 2002, 2010, 2015). It looks to empower students by valuing and celebrating positive student academic outcomes, cultural competence, and critical consciousness (Gay, 2015). Moreover, it enables Māori learners to have a greater sense of cultural identity and be culturally connected to their learning and place, which increases their health and well-being (Darder, 1991; Whitinui, 2010). In this sense, culture is viewed as a vehicle to empower learning and academic excellence (Ladson-Billings, 1995). CRP emphasises the importance of culturally inclusive classroom environments, students who challenge societal norms and biases and make room for indigenous worldviews within the curriculum delivery (Bishop et al., 2009; Cantrell et al., 2023; Gay, 2002). This means, if Physical Educators are genuine about Te Ao Kori being more than physical Māori games, CRP is vital.

Two explicit examples of CRP in Physical Education are *Ako* and *Tuakana-Teina*. The first, *Ako*, is a term that means learning is reciprocal, both student and teacher learn from and teach each other (Bishop et al., 2007; Bishop & Berryman, 2009; McDowell, 2007a; Salter, 2000b). *Ako* challenges traditional teaching approaches by involving students in the learning design, and the power is shared because the teacher and student work together in designing learning that interests them both (Bishop et al., 2007; Macfarlane & Macfarlane, 2016; Riwai-Couch, 2022). The topics covered, the learning styles used, and the direction of learning are determined in this partnership. This cultivates respect for relevant history, culture, identity, and language within the learning process (Bishop & Berryman, 2009; Hemara, 2000; Macfarlane, 2016). The second, *Tuakana-Teina*, is a Māori pedagogy. The

whakatauki (proverb) *'Mā te Tuakana kā tōtika te Tēina. Ma te Tēina kā tōtika te Tuakana'* captures the essence of this pedagogical approach. It means: *'From the older sibling the younger one learns the right way to do things, and from the younger sibling the older one learns to be tolerant'* (SLIANZ, 2023). This demonstrates the reciprocal relationship of this pedagogy. It is an illustration of Ako due to the nature of reciprocal teaching and learning between the student and teacher (Salter, 1998, 2000a; Walker, 1995). In the Māori language, tuakana means an older sibling, and teina means a younger sibling (Oetzel et al., 2021; Reilly, 2010). However, in an educational context, it can be best described as the reciprocal relationship between tuakana (mentor/kaiako/teacher/master) and teina (mentee/ākonga/student/apprentice) (Rawlings & Wilson, 2013; Salter, 2002). Age does not matter here; it is the ability, skill, understanding, experience, and passion that drive this partnership.

CRP encourages planning that includes *'what'* is taught, the *'why'* it is taught, and the *'how'* it is taught. This is considered from a Māori lens, not from a Eurocentric lens. Research into Māori pedagogical approaches and CRP highlights that the *'how'* it is taught and *'why'* it is taught are just as, if not more, significant than the *'what'* is taught (Gay, 2010; November et al., 2021; Riwai-Couch, 2022). However, the literature review has highlighted that early accounts of Te Ao Kori in Physical Education primarily focused on the physical aspects of traditional Māori games rather than the deeper epistemological foundations that underpin them. They were focused on the *'what'*. This reflects similar critiques in Australia, where the inclusion of Indigenous games in HPE has often been performative rather than epistemologically transformative (Meston et al., 2024). The call for a *'fourth wave'* by Meston et al. (2024) in Indigenous HPE highlights the necessity of moving beyond activity-based inclusion and instead embedding Indigenous knowledge as a framework that informs pedagogy, curriculum, and relational learning. Indigenous knowledge is not simply referenced, but actively disrupts dominant paradigms (Meston et al., 2024). In the case of Te Ao Kori, this means ensuring that its integration into Physical Education is guided by Māori epistemologies and place-based pedagogies that reflect the local context in which it is being taught (Gay, 2010; Macfarlane, 2004; Riwai-Couch, 2022).

Te Ao Kori in physical education now

As NZ Education evolves to reflect a better understanding of the Treaty, and as teachers work to implement the Curriculum, the complexity of Treaty-led Education affirms the importance of CRP (Turner-Adams, 2021). Brown (2007a) states that despite there being no *'official'* expectation within the Curriculum documentation for educators to teach Te Ao Kori, there has been widespread uptake of educators across the country who have included it within their programmes. There seems to be an increasing availability of resources to support this uptake. For example, Brown (2022) now have over 300 Māori games (Ngā Taonga Tākaro) with resources that include the important formalities for playing the games; integral to the mauri¹¹ (life force) of the tribes and the longevity of traditional Māori games. Rangatahi Tu Rangatira (2022a), a Māori organisation, are producing supporting documents on pūrākau (oral narrative, oral traditions) and tikanga (values) connected to games. As this resourcing increases, so do the lessons on how important oral narratives were to Māori to pass on knowledge, ancestral beliefs, history, and wisdom in how they viewed the world. This is an example of the *'why'*, *'how'*, and *'what'* coming together in Te Ao Kori. Consequently, when this occurs, many of the complexities with different iwi knowledges or Māori and Pāheka worldviews coming together are resolved.

For example, local variations of rules or proverbs do not matter, as negotiations called *'Tatū'*¹² can take place before commencing (Brown, 2008). The process of Tatū begins with the participants of the game or tournament discussing the tikanga (values) and kawa (protocols) to find a common ground for how the game is to be played. These values and protocols take the form of pūrākau (narratives), whakataukī (proverbs), or karakia (incantation or prayer) (Heke, 2017). If teachers apply Eurocentric thinking to a Māori activity, for example, that only one *'true'* set of rules is necessary for a particular sport to be successful, then many Māori sports or activities may seem hard to implement. However, if

Table 3. The evolution of Te Ao Kori.

| Era | Focus on Māori Movement | Curriculum Influence | Critiques & Challenges |
|--------------|---|--|--|
| Pre-1940s | Traditional Māori games as part of daily life. | No formal inclusion. | Loss of Indigenous practices due to colonisation. |
| 1940s–1980s | Introduction into schools | Early documentation in Physical Education. | Lacked authentic integration of Māori values. |
| 1980s–1990s | Development of Te Reo Kori/Te Ao Kori | Push for biculturalism in HPE curriculum. | Seen as world-leading but inconsistent in implementation. |
| 1999–2007 | Inclusion of Hauora, using the model (Te Whare Tapa Whā). | Official curriculum recognition. | The omission of whenua (land) raised concerns about tokenism. |
| 2007–Present | An increase in culturally responsive pedagogy. | Greater Treaty recognition in education. | Gaps in research on authentic implementation and ‘bicultural’ physical education |

teachers understand and practice tatū, they hold a new conception of ‘rules’ (the why) and can recognise that the negotiation process (the how) strengthens and validates implementation of a version of a game (the what) that suits the learners.

Examples of common activities used in mainstream schools that have pūrākau (oral narratives) and tikanga (values) are Horohopu, Ki-o-rahi, Kōruru, Matimatia, Poi Rākau, Poi Toa, Mau Ti, Tapu Ae, Ti uru, Tū Kōhatu and Whanowhano.¹³ (Brown, 2014, 2016; Rangatahi Tu Rangatira, 2022b). One popular example is the Māori game Ki-o-rahi (an invasion ball game), which stemmed from a narrative (pūrākau) of a man called Rahitutakahina and the rescue of his wife Tiarakurapakewai (Brown, 2008).

As teachers and schools become more familiar with CRP literature and Treaty-informed pedagogies, resources that support authentic implementation are being requested more frequently (Physical Education New Zealand, 2024). This may indicate that things have progressed from physical participation in Māori games to wanting to engage in CRP in Te Ao Kori. A summary of the evolution of Te Ao Kori in Physical Education can be seen here (Table 3):

Despite this evolution of Te Ao Kori in Physical Education, there is very little recent published academic work. The literature review found there were few academic sources on the topic, Te Ao Kori in Physical Education, or research into how Te Ao Kori was currently being taught. Most of the current academic research focused on CRP in general Education settings or socio-political critiques of biculturalism. This indicates that teachers using Te Ao Kori still may not have specific praxis-based guidance on *how* to include Te Ao Kori in their programmes authentically, despite having more CRP-influenced practical resources available to them, and an increasing understanding of the Treaty.

Future research

This narrative review of Te Ao Kori in Physical Education revealed that there is a limited body of published research and acknowledges that some sources remain unavailable to the public. While Te Ao Kori is present in Curriculum and policy documents, little research examines how it is enacted in practice. This presents a significant gap that requires further exploration to develop pedagogical frameworks that move beyond surface-level references to Te Ao Kori towards culturally responsive approaches that embed Māori epistemologies in Physical Education. Future studies should investigate how teachers currently implement Te Ao Kori, focusing on best practices and challenges.

A key area for further research is the willingness and preparedness of teachers to adopt Te Ao Kori in Physical Education. While resources on Ngā Taonga Tākaro (Māori games) and movement practices have increased (Brown, 2007a, 2022; Rangatahi Tū Rangatira, 2022b), there is little understanding of whether educators feel adequately supported to move beyond the physical components and embed whenua (land), whakapapa (genealogy), and mātauranga Māori into Physical Education (Heaton, 2016; Karaka-Clarke et al., 2022). Research could also investigate whether institutional structures, teacher training programmes, or systemic Educational constraints continue to marginalise Māori epistemologies within Physical Education.

This research holds relevance beyond NZ, particularly as Indigenous knowledge systems gain recognition in Health and Physical Education (HPE) globally. Just as Australia calls for a ‘fourth wave’ where Indigenous knowledge actively reshapes dominant paradigms (Meston et al., 2024), a similar shift could occur in Aotearoa, conceptualised as a ‘fourth act’ in bicultural Physical Education, where Te Ao Kori is not treated as a supplementary activity or context, but critically informs movement, pedagogy, and Curriculum design in Physical Education at a foundational level.

Conclusion

This narrative review examined the evolution of Te Ao Kori in Physical Education through a socio-critical perspective. While Te Ao Kori is widely anecdotally acknowledged as integral to bicultural Physical Education in NZ, its practical enactment remains under-explored and under-documented. This raises a critical question: Is this lack of Te Ao Kori literature a reflection of its absence altogether, or does it indicate a gap in research documenting its implementation?

Although Te Ao Kori was not granted formal Key Area of Learning status in the Health and Physical Education Curriculum, it remains present in curriculum discourse, teacher-led initiatives, and broader efforts toward culturally responsive practice. However, this does not guarantee meaningful or consistent application (Williams, 2016). While the literature reflects an overall evolution in recognition and understanding, the lack of research examining how Te Ao Kori is enacted in practice leaves its actual implementation and impact unclear.

This paper highlights the critical tensions with the inclusion of indigenous knowledge in typically Western Curriculum subjects. The shifts from Te Reo Kori to Te Ao Kori, the integration of Health and Physical Education, and the formal inclusion of Hauora in curriculum frameworks all reflect broader socio-political efforts to embed Māori knowledge in Physical Education. However, the removal of whenua from well-being models and the diminishing presence of Hauora in curriculum revisions reveal ongoing challenges in power-sharing and the marginalisation of Māori epistemologies within education policy (Macfarlane, 2016; Karaka-Clarke et al., 2022). A Tiriti-centric (Treaty-centric)¹⁴ approach to the shaping of a curriculum subject would have to reflect Māori epistemologies, identity, place-based learning, and relational pedagogies (Berryman, 2018; Riwai-Couch, 2022). This aligns with broader socio-critical discussions on mana ōrite (equal status) and the need for genuine power-sharing within curriculum design (Jones & Creed, 2010; Meier & Culpan, 2020). This literature review indicates that the Physical Education Curriculum has yet to achieve this.

Te Ao Kori has undoubtedly evolved, and this can be seen in the small body of literature that has documented this. However, in examining the evolution of Te Ao Kori in Physical Education, this paper has exposed a considerable gap. A gap that the authors believe could threaten Te Ao Kori’s future. Forthcoming studies should contribute to both academic socio-political inquiry *and* the pedagogical presentation of Te Ao Kori if educators still value its place in curriculum discourse, formal Curriculum statements and Physical Education practice. This work should reflect the progressions in Treaty understandings and CRP to address power-sharing in Education. For Te Ao Kori in Physical Education, this means critical, deep questions concerning power in policy, equity in pedagogy and authenticity in practical implementation.

Notes




1. Māori are the indigenous peoples of New Zealand.
2. Physical Education is used here in its formal sense as a curriculum school subject. It is not meant to encapsulate physical education in its broadest sense outside of school settings.
3. Pākehā is a term to describe a non-Polynesian New Zealander or more specifically a European New Zealander.
4. The principles were developed by the New Zealand Courts because of legal action taken by Māori against the government for breaching the Treaty (Hayward, 2015; Orange, 2021).
5. The authors use the term Treaty throughout the paper for international readers, but our position is to acknowledge the different versions and uphold the Articles of Te Tiriti o Waitangi.

6. Māori values, traditions, customs and practices.
7. Physical Education New Zealand is the national subject association who support the planning, delivery and assessment of Physical Education in New Zealand.
8. Iwi refers to a tribe or community of Māori people.
9. <https://penz.org.nz/a-history-of-penz/>
10. The New Zealand Curriculum is the document that sets the 'direction for student learning and provide guidance for schools as they design and review their curriculum.' More can be found here: <https://nzcurriculum.tki.org.nz/The-New-Zealand-Curriculum>
11. Rameka (2015) defines mauri to be 'a generic life force' and that 'all living things have a mauri, and all things are connected (p.86).'
12. A process of negotiation of rules based on land/iwi/tribe.
13. The names of these traditional Māori games cannot be translated, but they are listed here to represent the popularity and increasing uptake of Māori games in mainstream schooling.
14. Riwai-Couch (2022) describes this as the Treaty being 'in some way central to our thinking and actions' (p.36).

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