Mātauranga Māui and Mōkū Te Ao:

An exploration of how NZEI Te Riu Roa member leaders'

perspectives on climate activism align with the union's philosophy

of Mōkū Te Ao

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Abstract

The philosophy of Mōkū Te Ao challenges the New Zealand Educational Institute (NZEI) Te Riu Roa, Aotearoa to centre tamariki Māori (Māori children) in its work. In recent years, NZEI Te Riu Roa has adopted Mātauranga Māui to address climate change. This research explored how member leaders' perspectives on climate activism aligned with Mōkū Te Ao.

Eight semi-structured interviews were carried out in early 2022 with member leaders. The views of four Māori members were centred. Two Pacific and two Pākehā (European) members completed those interviewed.

A Critical Systems Heuristic approach drew out members' motivations. These included tamariki, whānau (family) and whenua (land), the loss of culture, language and identity, and a passion for education. Members' knowledge came from their rich life experience as educators, unionists, community members, and from indigenous knowledge.

The key finding of the research is that Mātauranga Māui and Mōkū Te Ao are intrinsically interlinked, centring the rights and interests of tamariki Māori and the value of Mātauranga Māori (Māori knowledge). Both seek to build agency, strengthen kaitiakitanga (stewardship) and uphold te tino rangatiratanga (sovereignty) of tamariki Māori. Members' power to progress this work is found in their enduring community and professional relationships and their understanding that we cannot address climate change without addressing the multiple, intersecting oppressions of colonial injustice.

The research generated a series of strategic recommendations: Mōkū Te Ao could be broadened out to include a focus on climate change; national level leadership on climate change; building alliances with iwi/Māori organisations; and strengthening engagement with Pacific members and communities, are imperative. Finally, union members should continue to advocate for a comprehensive, Tiriti-based climate change education strategy.

Dedication

For the educators – especially my much-loved English teacher, Lyn Martinez.

You told me that women could do anything. So, I did.

For tamariki Māori. You hold the essence of greatness within you.

Mai te Rangi ki te whenua

Ko ngā tangata katoa o te Ao

To the sky above, to the land below

To all creatures that inhabit this world

Rongopai Kira (2021)

*I created this painting in 2016. It depicts my two sons, Paddy
and Joey Rockell, and their friend Arita Tahana-Campbell at play in
our much-loved Pukerua Bay, when they were all about eleven.*

He mihi: Acknowledgements

I am so very grateful for the kindness shown by all those who helped this thesis come together. Members, colleagues, family, friends and neighbours all cheered me on. Kia ora.

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A special thank you to Laures Park, Matua Takawaenga for your friendship and mentoring. I have learnt so much from being around you: your patience, generosity, and good humour.
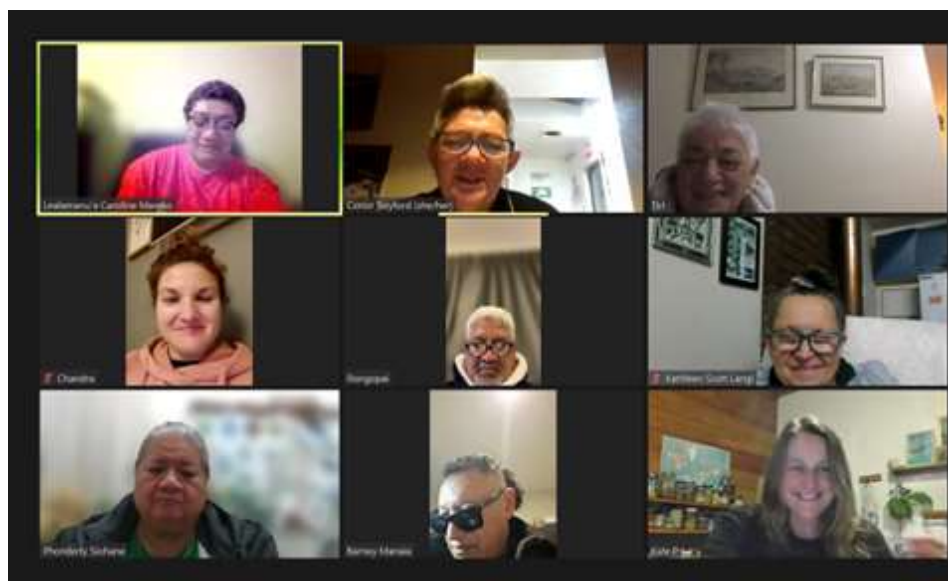
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Ngā mihi nunui
Conor

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Ngā kupu Māori: glossary of Te Reo Māori words and terms

Te Reo Māori, the Māori language, has been used liberally throughout this thesis.

Because of this, I have not provided in-text translations. Instead, I have attempted

to provide a comprehensive list here.

It is important to note that many Te Reo Māori words have multiple translations and

more than one grammatical form. The definitions provided here, mostly from Te

Aka, the Māori Dictionary (2022), are those which most closely align with the way

the word is used in context in this thesis.

Aotearoa	North Island - now used as the Māori name for New Zealand
Aronui Tōmua	Māori governance area of NZEI Te Riu Roa
auraki	mainstream
awa	river, stream
hapū	kinship group, clan, tribe, subtribe
hauora	health, vigour
hīkoi	step, march, hike, trek, journey
hoki	return
hua	benefit, fruit, product
Hui-a-Tau	Annual Conference
iwi	extended kinship group, tribe, nation, people, nationality, race - often refers to a large group of people descended from a common ancestor and associated with a distinct territory
ka	used before a verb to name an event as occurring or a state existing
kai	food
kaiako	teacher
kāinga	village, settlement
kaitiaki	trustee, minder, guard, custodian, guardian, caregiver, keeper, steward
kaitiakitanga	guardianship, stewardship, trusteeship, trustee
kaiwhakawhiwhi mahi	Employer

karakia	Prayer
karanga	formal call, ceremonial call, welcome call
kaumatua	adult, elder, elderly man, elderly woman
kaupapa	topic, policy, matter for discussion, subject
Kaupapa Māori	Māori approach, Māori topic, Māori customary practice, Māori institution, Māori agenda, Māori principles, Māori ideology
koha	gift, present, offering, donation, contribution
kōhanga	nest, nursery
kōrero	discussion, conversation, discourse
kua	has, had, have
kuia	elderly woman, grandmother, female elder
kupenga	net, fishing net
kupu	word/s, vocabulary
kura	school
mahi	work
mahinga kai	garden, cultivation, food-gathering place
mai	this way
mamae	ache, pain, injury, wound
mana	prestige, authority, control, power, influence, status, spiritual power, charisma - mana is a supernatural force in a person, place or object.
mana motuhake	separate identity, autonomy, self-determination, independence, sovereignty, authority
mana whenua	territorial rights, power from the land, authority over land or territory, jurisdiction over land or territory
manaaki	support, take care of, give hospitality to
manaakitanga	hospitality, kindness, generosity, support
manga	branch of a river or tree, bough, creek
manu	bird
Māori	Indigenous person of Aotearoa New Zealand
māra kai	food garden
marae	courtyard - the open area in front of the wharenui, where formal greetings and discussions take place. Often also used to include the complex of buildings around the marae
Maramataka	almanac, Māori lunar calendar, calendar

māramatanga	enlightenment, insight, understanding
Mātauranga	knowledge, wisdom, understanding, skill
Mātauranga Māori	Māori knowledge - the body of knowledge originating from Māori ancestors, including the Māori world view and perspectives, Māori creativity and cultural practices
Mātauranga Māui	The name gifted to the union's climate work
mātou	we, us, they and I, them and me
matua	main, chief, primary
Matua Takawaenga	lead staff member for Miro Māori
Māui	well-known Polynesian character of narratives. He performed a number of amazing feats. Also known as Māui-tikitiki-o-Taranga
mema	member
mihi	to greet, pay tribute, acknowledge, thank
Miro Māori	Māori governance structure of NZEI Te Riu Roa
moana	sea, ocean
mokomoko	great-grandchild
mokopuna	Grandchild, descendant
ngā	the - plural of te
ngahere	bush, forest
nunui	large, big
Ora Taiao	Climate Health Council
Pākehā	English, foreign, European, exotic
papa kāinga	original home, home base, village, communal Māori land
Papatūānuku	Earth, Earth mother and wife of Rangi-nui
paru	sewage
pātaka kai	pantry, food storage
piharau	lamprey, Geotria Australis - an eel-like fish
pono	true, valid, honest, genuine, sincere
pou	post, upright, support, pole, pillar
rangatahi/rakatahi	younger generation, youth
rangatira	chief (male or female)
rangatiratanga	chieftainship, right to exercise authority, chiefly autonomy
Ranginui	atua of the sky and husband of Papa-tū-ā-nuku

Rauora	to save alive, rescue
rohe	boundary, district, region
rongoā	remedy, medicine
rōpū	group, party of people
rumaki	immerse
rūnaka/rūnanga	council, tribal council, assembly, board, boardroom, iwi authority
Takawaenga	Māori Field Officer, NZEI Te Riu Roa
tamariki	children
tangata	people, men, persons
Tangata Whenua	local people, hosts, indigenous people - people born of the whenua
Taonga	treasure, anything prized
tapu	sacred, prohibited, set apart
tauira	student, pupil
Tauiwi	foreigner, European, non-Māori, colonist
te	the
Te Ao Māori	the Māori world
Te Reo Areare	the Māori executive of NZEI Te Riu Roa
te taiao	the natural world
Te Tiriti o Waitangi	The Treaty of Waitangi
tika	right, just, fair, accurate, appropriate
tikanga	correct procedure, custom, habit, lore, method
tīmatatanga	introduction
tino rangatiratanga	self-determination, sovereignty, autonomy, self-government
tōhu	sign, mark, symbol
tonu	still, continues
tūāpapa	foundation, stone
tuatahi	first
tuarua	second
tuatoru	third
tuawhā	fourth
Tuarima	fifth

Tumuaki	Principal
Tumu Whenua	Deputy Principal
tupuna, tūpuna	ancestor, ancestors
uniana	union
urupā	burial ground, cemetery, graveyard
utu	reciprocity, balance
wai	water
waiata	song, chant, psalm
wairuatanga	spirituality
wero	challenge
whaea	mother, aunt, aunty
whakamana	enable, authorise, legitimise, empower, validate
whakapapa	genealogy, genealogical table, lineage, descent; background/layers
whakawhanaungatanga/ whakawhanaukataka	process of establishing relationships, relating well to others
whānau	extended family, family group
whanaungatanga	relationship, kinship, sense of family connection
whare kura	school - traditionally the place where esoteric lore was taught
wharenui	meeting house, large house - main building of a marae
whare wānanga	university, place of higher learning - traditionally, places where tohunga taught the sons of rangatira their people's knowledge of history, genealogy and religious practices
whāriki	carpet, woven mat
whawhai	fight
whenua	land

Sources: Te Aka Māori dictionary (2022); NZEI Te Riu Roa

Chapter one: Introduction

Introduction

The philosophy of Mōkū Te Ao lays down a wero to the members and staff of the New Zealand Educational Institute (NZEI) Te Riu Roa to centre tamariki Māori in everything they do. In recent years, NZEI Te Riu Roa has also committed to addressing climate change. My objective in conducting this research was to help inform the union's emerging climate change work in light of its commitment to Mōkū Te Ao. This introductory chapter provides some context to the research topic and outlines the thesis structure. I also provide an overview of my theoretical approach and outline my position as a Tauiwi researcher in relation to Te Ao Māori.

Background

Across the world, unions are grappling with the challenge of responding to the social, economic and workplace impacts of climate change (Public Services International, 2018; Slycan Trust, 2021). NZEI Te Riu Roa, the largest education union in Aotearoa New Zealand, was the first union in this country to pass a climate change policy at its Hui-a-Tau in 2016. It was also the first union to invest in a community organiser role primarily dedicated to supporting members to take climate action. The name Mātauranga Māui – the knowledge of Māui – was gifted to the union's climate mahi, in recognition of the demi-god Māui's famous battle to slow down the sun.

NZEI Te Riu Roa represents the interests of around 48,000 education sector workers in Aotearoa New Zealand (NZEI Te Riu Roa, 2022a). Its members include teachers and leaders in early childhood and primary education, including Kōhanga Reo, Kura Kaupapa Māori and Wharekura; support staff in early childhood, primary, intermediate, and secondary

education; school advisers employed by universities; and Learning Support staff employed by the Ministry of Education. NZEI Te Riu Roa is governed by a National Executive and its Māori equivalent, Te Reo Areare (NZEI Te Riu Roa, 2022a). Fourteen Area Councils sit under this, connected to twenty-four Aronui Tōmua – Māori governance rohe – as well as a number of Komiti Pasifika in the main centres (Figure one).

The primary objective of NZEI Te Riu Roa is "to advance the cause of quality public education generally while upholding and maintaining the just claims of its members individually and collectively" (Goulter, Rutherford, & NZEI Te Riu Roa staff, 2021). NZEI Te Riu Roa has a history of advocacy on education and wider social issues dating back to 1883 (NZEI Te Riu Roa, 2022a). Recent work includes advocacy on school principals' wellbeing and professional development, primary teacher staffing, pay equity and pay parity, and resourcing for learning support (NZEI Te Riu Roa, 2022a).

Aotearoa was a key locus for the global 'neoliberal experiment' that swept the world from the 1980s (Kelsey, 1997). Despite its size, NZEI Te Riu Roa has not been immune to the challenges of building membership and industrial power in this landscape. In spite of these challenges, and some ambivalence about whether climate change is core union business (Parker et al, 2021), NZEI Te Riu Roa and other unions in Aotearoa have in recent years increased their engagement on climate change issues.

The union's work takes place within the context of a superdiverse society built on two centuries of settler colonialism (Spoonley, 2015). Within this context, NZEI Te Riu Roa seeks to uphold its commitment to honour Te Tiriti o Waitangi (Archives New Zealand, 2022). To this end, it has adopted an overarching philosophy – Mōkū te Ao (Appendix one).

Figure one. Map of NZEI Te Riu Roa Area Councils and Aronui Tōmua

NZEI TE RIU ROA AREA COUNCILS, BRANCHES AND ARONUI TŌMUA

**TE PĪPIRI MANANUI O NGĀ TĀTAHA A MĀUI AC
COMPRISES OF ARONUI TŌMUA 1-13**
AT Te Hiku o te Ika (1)
AT Hokianga ki Taumarere (2)
AT Manaia ki Tutamoe (3)
AT Tāmaki Makaurau (4)
AT Manukau Whānui (5)
AT Te Mangai Maori Waikato (6)
AT Tauranga-Moana (7)
AT Te Rohe Pōtae (8)
AT Tokoroa (9)
AT Rotorua (10)
AT Mataatua (11)
AT Manaakitia o Opotiki (12)
AT Te Whānau a Apanui (13)

WAIKATO AC
Cambridge
Central King Country
Coromandel Peninsula
Huntly
Maniapoto
Matamata
Piako
Thames
Tokoroa
Waihi
Waikato
Waipa

TARANAKI AC
AT Parininihi ki Taipake (14)
North Taranaki
Patea-Waverley
South Taranaki

TE HAUNUI CENTRAL AC
AT Ruapehu (15)
AT Whanganui (16)
AT Manawatū (17)
Feilding
Horowhenua
Manawatu
Rangitikei
Taihape
Whanganui

TE TAI TOKERAU AC
Bay Of Islands
Far North
Hokianga
Kaipara
Northern Wairoa
Rodney-Otamatea
Whangarei

AUCKLAND CENTRAL AC
Auckland
Hibiscus Coast
Komiti Pasifika - Auckland
North Shore
West Auckland

COUNTIES MANUKAU AC
Franklin
Howick
Manurewa
Otahuhu
Papakura
Papatoetoe
Waiuku

BAY OF PLENTY AC
Murupara
Opotiki
Rotorua
Taupo
Tauranga
Te Puke
Turangi
Whakatane

CENTRAL EAST AC
AT Kahuranaki (18)
AT Whanganui a Orotu (19)
AT Kahungunu ki te Wairoa (20)
AT Turanga (21)
AT Hikurangi ki te Tairawhiti (22)
Central Hawkes Bay
Hastings
Napier
Poverty Bay
Southern Hawkes Bay
Wairoa

TE TAU IHU O TE WAKA A MĀUI AC
AT Whakatu-Motueka-Mohua (24)
Buller
Golden Bay
Marlborough
Motueka
Nelson

WELLINGTON AC
AT Te Whanganui-ā-Tara (23)
Heretaunga
Hutt Valley
Kapiti
Komiti Pasifika - Wellington
Mana
South Wairarapa
Te Kura
Wainuiomata
Wairarapa
Wellington
Wellington North

OTAGO AC
AT Ōtepoti (26)
Central Otago
Otago
South Otago
Waitaki

WAITAHA AC
Ashley
AT Waitaha (25)
Christchurch
Ellesmere
Grey
Hurunui
Mackenzie
Malvern
Mid Canterbury
South Canterbury
Waimate
Westland

MURIHIKA AC
AT Te Rōpu Manawatahi o Murihiku (27)
Hokonui
Takitimu

NZEI
TE RIU ROA

Mōkū Te Ao, which can be interpreted to mean 'the world is for me', challenges members and staff to centre the interests of mokopuna Māori in everything they do. Its fundamental premise is that the current education system is failing Māori children, and that under Te Tiriti O Waitangi, the union has an obligation to advocate for system change that upholds the rangatiratanga of all children, and mokopuna Māori in particular, so that they can achieve their full potential. Mōkū Te Ao was conceptualised for the union in 2019 by the Matua Takawaenga, Laures Park, in conjunction with Te Reo Areare, the Māori leadership of NZEI Te Riu Roa (L. Park, pers. comm.). However, as I discuss in chapter seven, it simply formalises a framework for action on the issues that Māori education activists have been advocating on for decades, if not generations.

I was employed as the union's community organiser in October 2020. In mid-2021, I set out to explore NZEI Te Riu Roa member leaders' perspectives on climate activism, in the hope that it might help inform the work of this union, and perhaps other unions too. While Mōkū Te Ao is primarily centred on education system change, I proposed to explore whether it might also provide guidance for the union's emerging climate work. As Tauiwi, with an environmental science degree, and a longstanding interest in union and community organising, indigenous sovereignty issues and climate change, I was interested in exploring how NZEI Te Riu Roa member leaders saw their work on climate change aligning with this philosophy. For the purposes of this research, I undertook eight semi-structured interviews with members from six of the Area Councils – four Māori, two Pacific and two Pākehā members. It would be fair to say that most members I interviewed would describe themselves as being at the start of their climate change journey. However, all have been active on environment or sustainability issues and it is from this base that the union looks to build.

Aim of the research and proposed outcomes

This research aimed to explore member leaders' perspectives on how the union's

emerging climate mahi – Mātauranga Māui – aligns with its philosophy of Mōkū Te Ao.

I proposed that this research might:

- help progress the union's understanding of how Mōkū Te Ao can be reflected in

    its climate work, and support a systems change approach to that work

- help illustrate what member leadership looks like in a climate change context

- shed light on how activism on climate change might grow membership.

- identify key organising challenges and learnings for NZEI Te Riu Roa, for the New

    Zealand union movement more widely, and for education unions

    internationally.

These proposed outcomes align with the union's 'Organising Diamond' approach (Figure

two), which seeks to build union power to win on issues of concern by activating

members, building member leadership, recruiting new members and building external

leverage.

Figure two: NZEI Te Riu Roa Organising Diamond

Building member leadership is at the heart of the union's organising approach and as such, is arguably the most important corner of the Organising Diamond in the context of this research. In this thesis, a member leader is defined as someone who models leadership for other members, inspiring them to action. Traditional examples would include being part of a bargaining team, or a pay equity campaign. The idea of building member leadership on climate change is new. Thus the focus on exploring member leaders' perspectives on climate activism through the lens of Mōkū Te Ao became the centre of gravity for my research.

Structure of this thesis

This thesis is structured as follows. In this first chapter I introduce and contextualise the research topic, provide an overview of my theoretical approach, and discuss my positioning as a researcher in relation to Te Ao Māori. Chapter two is my literature review. Here, I describe the search strategy used to find relevant material, and provide an overview of the range of literature canvassed for this research. The literature review traverses three broad thematic areas, each of which in turn group together connecting subthemes: settler colonialism, climate change and indigenous climate justice; indigenous knowledge systems, education and climate change education; and social movement unionism, community organising and a Just Transition.

Chapter three introduces the methodology and methods used for this research, and discusses ethical considerations. I begin by discussing my use of a Critical Systems Heuristics (CSH) inquiry approach, provide an overview of my research design, the participant selection process, the interview questions, and how interview data was collected and analysed. I then discuss important ethical concerns: how I sought as a non-Māori researcher to be culturally appropriate and to ensure the cultural and

emotional safety of participants; the choice to make this research non-anonymous; and managing the conflict of interest inherent in my 'insider/outsider' role as a staff member.

Chapter four, the whakawhanaungatanga chapter, marks a turn from research context to research findings. It begins by setting the conceptual frame for the findings chapters that follow, and the discussion and recommendations. To assist readers to track the heuristic approach used in the interviews, I suggest that the research journey might be considered as being akin to a 'maunga (mountain) of inquiry'. The 'ascent' begins with a values-based discussion – what is the foundation from which participants draw their motivation to act? Building on this, what knowledge and expertise do they draw on to take that action? I envisaged the two kaupapa – Mātauranga Māui and Mōkū Te Ao – resting at the peak of the maunga, the summit of people's efforts and a place from where the whole landscape of inquiry can be seen. From that peak, the conversation then 'descends' with a consideration of the power and resources people can draw upon to serve the kaupapa, and finally, their visions of legitimacy and success. Having set that conceptual frame, I then introduce each participant, using their own words and adding further contextual information about themselves and their roles as member leaders.

The next six chapters outline the research findings, describing the ascent up and down that maunga. We commence the climb with member reflections about motivations and knowledge. The central findings chapter then focuses in depth on the alignment between Mātauranga Māui and Mōkū Te Ao. I then relate what power and resources members felt they could bring to the climate task, and their views on legitimacy and success. A sixth chapter, 'what ought to happen', emerged from my analysis of the interview transcripts, based on the is/ought dialectic inherent in the CSH inquiry

approach. That chapter lays the foundation for the strategic recommendations that follow in the discussion.

Chapter eleven discusses the findings, generating key messages for each of the inquiry areas. I then outline a series of strategic recommendations. In chapter twelve, I reflect on my research journey and provide a methodological critique of CSH in a Tiriti context. Chapter thirteen summarises and concludes the research. In this final chapter, I assess how this thesis has addressed my proposed research outcomes, discuss its limitations and consider possibilities for future research.

Writer's note: I have generally used surname only when citing authors in-text. On some occasions I have used first names, however, as part of providing further context about the author.

Theoretical approach

1. Critical theory

In this thesis, I have chosen to take a critical theoretical approach to understanding the root causes and impacts of climate change. Critical theory (see, for instance, Collinson, 2005; Holck, 2015; and Villesèche et al., 2018) requires us to consider the historical power structures, norms and discourses that have created, and perpetuate, climate change and its impacts on different sectors of society. In 1989, critical race theorist Kimberlé Crenshaw broke new ground with the concept of intersectionality, arguing that multiple identities intersect to inform individuals' experiences of oppression (1989). More recently, noting the persistent exclusion of marginalised communities in environmental struggles, ecological and climate activists have stressed the importance of connecting social issues to environmental ones, in order to identify 'the shared roots

of all types of injustice' (Grosse, 2019, p. 13). I have therefore grounded my literature review in a consideration of the root causes of climate change, particularly the way it disproportionately impacts indigenous people; and I have centred the voices of Māori member leaders in my interviews. Given the dramatic impacts that climate change is already having on Pacific nations (World Wildlife Fund, 2022), I felt it was important that this research project also involved Pacific participants. Two Pākehā participants were interviewed to provide an allyship lens.

2. Climate change and systems theory

Climate change is sometimes called a 'super wicked problem' (Levin et al., 2012, p. 1). Such problems possess at least four characteristics. First, they result from multiple interactions across systems; secondly, solutions may produce unintended consequences; thirdly, causes and future impacts may be uncertain; and finally, they are generally cumulative (Levin et al., 2009). As with other wicked problems, such as racism, addressing climate change therefore requires a systems approach (Came & Griffith, 2018). Systems approaches encourage researchers to look at things holistically – to assume that 'everything in the universe is directly or indirectly connected to everything else, making knowledge of all of the possible permutations of a solution impossible' (Came & Griffith, 2018, p. 185).

3. Critical systems thinking

Critical systems thinking combines these two approaches. Using a critical systems approach, questions can be asked about who holds power in the system, and whose values and concerns need to be considered (Ulrich, 2005). Researchers can then make value judgments about how best to intervene (Griffith et al., 2007). That said, some problems – such as climate change – will be inherently more difficult to resolve,

particularly when they are structured into the whole way society works (Midgley, 2016). As I will discuss in more depth in the methodology section, I have employed a Critical Systems Heuristics approach to conduct my research.

Positioning the researcher in relation to Te Ao Māori

To genuinely honour Te Tiriti o Waitangi, all research that takes place in Aotearoa must be relevant and useful to tangata Māori (Hudson et al, 2010). As Linda Tuhiwai Smith (Ngāti Awa, Ngāti Porou) has written, there are sound reasons why Māori are interested in issues such as education, employment, health and history: 'each of these domains situates us in crisis. They are more real and more pressing' (2012, p. 91). Given the concern now being expressed by Māori regarding the heightened impacts of climate change on their communities (Parahi, 2018), climate change must now be added to this list. Is it appropriate, though, for a Tauiwi researcher to be asking why?

In her ground-breaking 1999 text, *Decolonizing methodologies,* Linda Tuhiwai Smith stated that research involving Māori but undertaken by non-Māori has often aimed to be culturally sensitive, but proven not to be. However, Smith and Bishop (1994, in L. T. Smith, 1999) have both independently argued this should not necessarily preclude non-Māori allies who have a genuine desire to work with Māori from conducting research on topics of importance to Māori.

From an ethical standpoint, Sherwood and Anthony (2020) have suggested that good manners should be the touchstone for conducting any research which involves Māori. They note that a focus on undertaking research with ethical integrity is not new to indigenous people, who see the development of knowledge and the *way* it is developed as intrinsically interlinked (Sherwood & Anthony, 2020). In this regard, respectful

listening, recognition of the diversity of world views and knowledge systems, investment in ongoing relationships, and a collaborative approach to disseminating the results are simply prerequisites for carrying out the work.

Conducting ethical research should also be about giving weight to cultural values other than one's own, as Barry Smith (Te Rarawa, Ngāti Kahu) has written (B. Smith, 2018). The challenge, as he wrote, and as long-time Tiriti educator Catherine Delahunty (2021) has also noted, is not so much to adopt those values, since they are not yours; rather it is to consider them in a way that opens up conversation and critical reflection – while not generalising 'all things Māori' (B. Smith, 2018).

I originally struggled with the challenge of foregrounding Te Ao Māori as a Tauiwi researcher. It did not feel like terrain that was mine to explore. However, through robust dialogue with my supervisors, and with the mentoring of our union's Matua Takawaenga, Laures Park, I was able to arrive at a research question that felt both tika and pono. This research would simply set out to gauge the opinions of members about two kaupapa the union is already committed to, and how they align.

Conclusion

This chapter has provided some context to this research project, and how it came about. I have briefly overviewed each chapter, and also provided a rationale for my critical theoretical approach and a conceptual model for navigating the findings chapters. While I originally had reservations about proceeding, through a process of robust inquiry, I was able to arrive at a suitable research question. The next chapter provides an overview of the range of literature related to this research topic.

Chapter two: Literature review

Introduction

Kia whakatōmuri te haere whakamua.

I walk backwards into the future with my eyes fixed on my past.

This well-known whakataukī seems an apt place to begin this literature review. To face the future, we must begin with the past. It took until 2022 for the world to admit that colonialism lies at the heart of climate breakdown; finally, in the sixth assessment report of the Intergovernmental Panel on Climate Change, released in March, colonialism was named as an historical and ongoing driver of the climate crisis (Mercer, 2022). The first theme of this literature review therefore focuses on the links between colonialism and climate change, and the disproportionate impacts on indigenous people. As a counterpoint, I introduce the concept of indigenous climate justice. Theme two begins by discussing indigenous knowledge systems and the colonising effects of post-contact education. I briefly discuss the emergence of the Kura Kaupapa Māori movement as a response to this, and this in turn provides a backdrop for considering Mātauranga Māori and its relevance to climate change education. The final theme of this literature review focuses on the history of unions' involvement in social movements and community organising, and the concept of a Just Transition. The literature review concludes by considering a Just Transition from worker, Māori, and Pacific perspectives.

First, though, I begin by briefly discussing my search strategy. As a caveat it is important to note that it is impossible to cover the breadth of material available across the range of topics I traverse here. What I have attempted to do instead is paint a broad-brush canvas of some of the key themes.

Search strategy

For this literature review, I undertook a keyword search of peer-reviewed books, conference papers, and journal articles using Whitireia Polytechnic's library database. I focused on EBSCO Host, Google Scholar and ProQuest, the databases Whitireia subscribes to that lend themselves most to social and community research. Keyword searches included words and phrases such as 'indigenous climate justice', 'Te Ao Māori and climate', 'climate change education and Mātauranga Māori', 'union community organising' and 'union climate organising'. I found a large number of articles and books related to various aspects of my study, but nothing relating to my explicit research question.

A range of themes emerged from this review – not surprising, perhaps, given the diversity of issues covered by this thesis topic. These were grouped into three broad categories as outlined below.

Theme 1: Settler colonialism, climate change and indigenous climate justice

The first thematic area considers the history of settler colonialism, climate impacts on indigenous people, and the value of applying an indigenous climate justice approach.

Settler colonialism, indigenous people and the disproportionate impacts of climate change

Whyte (2018) describes settler colonialism as a complex set of social processes which sees one society seeking to permanently 'settle' places which are already occupied by other groups who already benefit from the place-based relationships they have established. Settler colonialism, the driving mechanism of capitalist expansion, has left a

'tenacious legacy' for indigenous people (Vaeau & Trundle, 2020, p. 211), causing climate and environmental breakdown and destroying biological and cultural diversity. Bacon (2019) comments that the mechanisms of this disruption are numerous; they include the theft and redistribution, renaming, privatisation and pollution of land, water and air, and the redefinition of the value of those things. Forced relocations have undermined indigenous people's interdependence with the natural world, and their social resilience (Whyte, 2018).

In Aotearoa, the Royal Society Te Apārangi published a report in 2017 about the health impacts of climate change on various sectors of society, including children, the elderly, people with disabilities and chronic disease, and low-income groups (Bolton & Dewes, 2017). The report pointed out that climate change is a particular risk for Māori, given existing inequalities in health, housing and income, and because important Māori infrastructure and sacred sites are often located on exposed coastal lands (Bolton & Dewes, 2017). The government's 2017 Adapting to Climate Change Stocktake also identified Māori as among the groups most vulnerable to climate change (Climate Change Adaptation Technical Working Group, 2017). The spokesperson for Te Pou Take Ahurangi, the National Iwi Leadership Group for Climate Change, Mike Smith (Ngā Puhi, Ngāti Kahu) echoed this in 2018 when he stated that 'we're super vulnerable... When it comes to climate change, it's like the poorest people in the world are going to be hit the hardest first, and that's a lot of us' (Waikato Times, 2018). In the same article, Dr Rhys Jones (Ngāti Kahungungu) from Ora Taiao, the Climate and Health Council, noted that climate change acts as a 'threat multiplier' for Māori (Waikato Times, 2018).

He and other colleagues later reiterated the multiple risks Māori face in a 2021 Ngā Pae o te Māramatanga / New Zealand's Māori Centre of Research Excellence report

(Awatere et al., 2021). These include increased exposure to extreme weather events, reductions in water quality and availability, an increase in vector-borne diseases, disruption to services, food insecurity, and increased stress and inequities, as well as impacts on Māori enterprises and employment (Awatere et al., 2021). The 2021 Ngā Pae o te Māramatanga report noted that climate change also threatens the present and future spiritual wellbeing of tangata Māori, since customary practices, cultural identity, language, lore and cultural infrastructure and activities will all be affected (Awatere et al., 2021). For urban Māori, vulnerabilities will be heightened because they often lack networks to fall back on (Waikato Times, 2018).

Coastal flooding and sea level rise is likely to particularly affect Māori. Masters research by Akuhata Bailey-Winiata (Ngāti Whakaue, Tūhourangi, Ngāti Tutetawha, Ngāti Tawhaki) (2021) into the exposure of coastal marae and urupā found that many are already experiencing the impacts of coastal flooding and erosion. His research found that 191 marae around Aotearoa are situated within one kilometre of the coast and of those, 30 percent are situated below 10 metres above sea level (Bailey-Winiata, 2021). Tairāwhiti / the East Coast of Te Ika a Māui / the North Island was hit hard by severe storms and flooding in June and November 2021, and again in February, March and April 2022, impacting Māori farms and landholdings in the region (Burke, 2022; Kitchin, 2022). In 2021, the National Institute of Water and Atmospheric Research (NIWA) published data showing that rising tides will likely put up to 94 schools in the country at risk of flooding and closures (Wannan, 2021). NZEI Te Riu Roa analysis of enrolment data

for those schools against national population averages found that tamariki Māori were 10 percent more likely to attend those schools than children of other ethnicities.[1]

Applying an indigenous climate justice approach

A counterpoint to considering the impacts of climate change on indigenous people is to take an indigenous climate justice approach. International commentators have noted that not only do existing economic and political frameworks for responding to climate change fail indigenous people; they fail all life (Acha, 2017; Spencer et al., 2020). In Aotearoa, Wright et al (1995, in Wehi et al, 2019) argue that the dominant Western conservation ethic serves to actively alienate Māori from the Crown's promise in Article Two of Te Tiriti o Waitangi to uphold tino rangatiratanga, or sovereignty.

It is not rational therefore for indigenous people to rely on these frameworks for climate justice. Writers such as McGregor et al (2020) argue that remedies to climate change will only succeed when we apply an approach grounded instead in indigenous knowledge. Indigenous frameworks, they argue, offer sustainable, life-affirming alternatives (McGregor et al., 2020).

Planning processes have traditionally ignored, misunderstood or undervalued indigenous knowledge systems (Bacon, 2019). However, researchers are beginning to argue that Te Ao Māori perspectives must be integrated into climate adaptation planning in order to assist whānau, hapū and iwi and Māori businesses to adapt (Awatere et al., 2021). In the 2021 Ngā Pae o te Māramatanga report, Rhys Jones goes

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[1] NZEI Te Riu Roa analysis was based on the following Ministry of Education data: https://www.educationcounts.govt.nz/statistics/6028 The ethnicity data of the rolls of the schools listed in the NIWA data were compared against national student averages.

as far as to say that solutions to climate change grounded in Te Ao Māori will improve

health and wellbeing for Māori and help reduce inequalities overall (Awatere et al.,

2021).

Many iwi have already begun developing their own strategies and plans. These include

Ngāti Whānaunga in Coromandel; Te Arawa in Bay of Plenty; Ngāti Kuri in Kaikoura and

Ngāi Tahu in Te Waipounamu / the South Island (Waikato Times, 2018).

Theme 2: Indigenous knowledge systems, education and climate change

As concern about climate change has deepened, a broad acceptance has emerged that

radical social transformation will be necessary to respond effectively (McPhearson et al.,

2021; Tannock, 2021; Verlie, 2022). Calls are being made for approaches to education

that can support this transformation (Tannock, 2021). Blanche Verlie argues that

supporting young people to develop their own agency to respond to the climate crisis

involves recognising that life happens in relationship (Verlie, 2019). Increasingly,

commentators are pointing to the inadequacy of Western knowledge systems alone to

support this kind of learning (Spencer et al., 2020; Whyte, 2018).

Mātauranga Māori as an all-encompassing knowledge system

Mātauranga Māori has been defined by many authors (Durie, 2004; Martin & Te Aho,

2021; Royal, 2009; H. Smith, 2020; L. T. Smith et al., 2016; West, Hudson & Kukutai,

2020). Royal (2009) uses the term to refer to all knowledge created by Māori according

to their experiences, worldview and lifeways. Linda Tuhiwai Smith et al (2016) offer

perhaps the most all-encompassing definition when they refer to Mātauranga Māori as:

…theories, practices and protocols for being in the world, ideas about

what it means to know something and how knowledge is organised,

about classification systems, about what counts as reality or truth,

about education, about power and about how experts are trained and

validated. These ideas traverse western philosophical concepts of

metaphysical, ontological and epistemological ways of knowing (p.

135).

Although scholars tend to speak of Mātauranga Māori as a single nationwide approach,

Wehi et al (2019) suggest it is more appropriate to use the term mātauranga-ā-iwi, or

local knowledge that is connected to specific iwi or mana whenua. Smith et al (2016)

note that Mātauranga Māori includes insights about the impacts of colonisation - and is

still evolving. Mike Smith, in the Iwi Climate Leaders' 2021 *Rauora* report, defined

indigenous science as being founded on that local knowledge:

Indigenous science is really Indigenous knowledge and may also be

termed 'traditional ecological knowledge' (TEK) since a large

proportion of this knowledge served to sustain Indigenous

communities and ensure their survivability within the environmental

contexts in which Indigenous communities were situated (Ihirangi,

2021).

A foundational component of Mātauranga Māori is Te Maramataka, the Māori lunar

calendar. Māori have over time developed a detailed empirical understanding of how

changes in the natural world synchronise with the movements of the sun, moon and

stars throughout the year (Goodall, 2019). West, Hudson and Kukutai (2020) explain

how it is used not just for weather forecasting and management of natural systems, but

also for cultural activities and to predict energy levels for certain activities. Mātauranga Māori is thus fundamentally different from Western science, since it denotes an all-encompassing system that supports not just the physical, but also the cultural, philosophical and spiritual aspects of day-to-day life.

As Linda Tuhiwai Smith et al (2016) have noted, this includes collective responsibility for environmental stewardship. Kaitiakitanga describes a range of local traditional responsibilities vital to maintaining relationships for future generations (McAllister et al., 2019). Retaining indigenous knowledge is thus also linked to self-determination, or tino rangatiratanga.

The Aotearoa education system, Mātauranga Māori and climate change education

How, then, could climate change education integrate Mātauranga Māori? Runk (2014) argues that indigenous knowledges offer concepts and practices that strengthen young people's connection with the natural world, helping build empathy and agency. As stated at the outset of this chapter, to face the future, we must, however, begin with the past. It is important at this juncture, therefore, to briefly consider the history of post-contact education in Aotearoa as a colonising force. As Rameka and Stagg Peterson have commented, the colonial education system was built to reinforce Western ways of being in the world (2021). The situation in Aotearoa has been no different. As Pihama et al (2002) have commented, post-contact education in this country has sought to 'civilize,' 'assimilate,' and 'integrate' tamariki Māori.

The modern Kaupapa Māori education movement emerged in the 1970s and 1980s as a response to this: as a vision for transforming education to centre Māori cultural

philosophies and practices (Pihama et al., 2002). The advent of Kōhanga Reo in the early 1980s was followed by the emergence of Kura Kaupapa Māori, Kura Kaupapa Māori teacher training, resources, wharekura and whare wānanga. These interventions were designed to ensure the survival of Mātauranga Māori, language, culture and scholarship (Pihama et al., 2002).

The Kura Kaupapa Māori movement emerged as a rallying call for change to a system that has not served tamariki Maori. In recent years, young people and educators have begun to call for system change on climate education too. Buck (2010) has noted in the US context that it is hard to imagine climate repair taking place without fundamental changes in our existing education system. A stocktake carried out in 2021 on behalf of Education International, the education unions' global peak body, indicated that, like many other countries, and despite the urgency of the climate crisis, Aotearoa is not prioritising climate education (Kwauk, 2021). A greater emphasis on climate education was one of the Aotearoa School Strikes 4 Climate movement's key demands when it last took to the streets (RNZ, 2021).

As part of the union's submission on the government's draft Emissions Reduction Plan in 2021 (NZEI Te Riu Roa, 2021), and again in the following year in their submission on the draft National Adaptation Plan (NZEI Te Riu Roa, 2022b), members called for a comprehensive climate change education strategy that provides educators with release time, initial teacher education, professional development and learning resources to support them to teach climate change education. Members said that these resources need to be Tiriti-based, up to date, evidence-based, gender-responsive, adapted to local contexts, in local languages, culturally appropriate, and sensitive to the development needs of teachers and students (NZEI Te Riu Roa, 2021).

Policy change of this magnitude is inevitably slow. We can perhaps look to the rollout of the new Aotearoa New Zealand Histories curriculum as a foundation upon which genuinely Tiriti-responsive climate change education can be built (Ministry of Education, 2022a). At the time of writing, this curriculum had, however, only just been launched. Often, change comes more quickly from the flaxroots. The summer 2021 edition of the union's professional journal, *Ako,* relates the story of primary teacher Michelle Haua, who has reorganised her daily classes to align with the rhythms of Te Maramataka (Collins, 2021). In June 2021, a Rotorua school was the first school in the country to be granted formal permission from the Ministry of Education to realign its school calendar with Te Maramataka (Waikato, 2021). These kinds of intervention have the effect of directly connecting tamariki with the rhythms and cycles of their own bodies and of the natural world (Collins, 2021). Such changes support tamariki Māori to be educated in ways that affirm, validate and nurture them as Māori.

On a critical note, it is important to remember that these kind of interventions are rarely won without a struggle. Pihama has written that, in asserting the right of Māori to be Māori, the Kura Kaupapa Māori movement sought to expose and disrupt the power relations that perpetuate the continued oppression of Māori (Pihama, 1993, in Pihama et al, 2002). As the African American civil rights campaigner Frederick Douglass stated in 1857, 'power concedes nothing without a demand' (BlackPast, 2007). This seems an appropriate note on which to turn to the final section of this literature review, where we consider the role of union members organising in their workplaces and communities for a Just Transition.

Theme 3: Social movements, community organising, unions and a Just Transition

In this final part of my literature review, I consider the emergence of community organising, social movement unionism, and union responses to climate change both in Aotearoa and internationally. Secondly, I consider the concept of a Just Transition, and worker, Māori and Pacific perspectives on this concept.

Social movements and community organising: a brief history

In 2010, writer and social activist Bill Moyer defined social movements as 'collective actions in which the populace is alerted, educated, and mobilized, sometimes over years or decades, to challenge the power holders and the whole society to redress social problems or grievances and restore critical social values' (p. 2). During the 1950s and 1960s, the emergence of the civil rights movement and the writing of Saul Alinsky and the Chicago-based Industrial Areas Foundation saw the rise of community organising, a relational approach to building power and leadership within social movements (Sinnott & Gibbs, 2014; Whelan, 2012). Sinnott and Gibbs describe community organising as building 'leadership that enables people to turn the resources they have into the power they need to make the change they want' (2014, p. 5). Using training and education, community organisers work with activists to analyse who holds the power and support them to take actions that help build relationships and solidarity (Castells, 2012).

During the 1980s and 1990s, a gap seemed to widen between academic writing about social movements and community activism (Bevington & Dixon, 2005). By the turn of the century, however, the connection had been renewed, as writers such as Thylor (1998), Blee (1998) and Kurtz (2002) sought to apply feminist and class analyses to activist contexts. The early 2000s saw a renewed interest in community organising.

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Combined with new digital tools, this led most famously to the successful 2008 Obama presidential campaign (York, 2008).

Alinsky's early community organising work had been based on the power-based organising model, which relied on communities mobilising large numbers of people to gain power (Loeppky, 2014). Critical social justice scholar Loretta Pyles, however, argues that this time-honoured, reform-oriented organising approach is now no longer sufficient to gain traction on today's increasingly complex social and economic issues – including climate change (2019). She proposes a 'transformative' approach to community organising, in which the means are considered just as important as the ends, and systemic change is the goal.

Community organising and climate change

Many challenges face the climate movement. Loeppky notes that, since the introduction of neoliberalism in the 1980s we have seen an ongoing struggle for the construction of meaning, with power increasingly perceived to be concentrated in the hands of a few, and the worth of individuals reduced to their value as consumers (2014). Sparrow (2021) has written that the narrative of climate change action as an individual responsibility has been purposely promulgated by industrial elites. This narrative of personal responsibility feeds neatly into the discourse of limited power held by the few, making it challenging for activists working on climate justice to organise.

Community organising has emerged as one approach to building power in this difficult landscape. In 2012, James Whelan, co-founder of the Sydney-based community training organisation The Change Agency, noted that in an attempt to build more enduring campaign relationships, environment campaigns had begun to focus more on

community organising than on standard forms of campaigning such as email, petitions and social media (Whelan, 2012). Two years later, Joan Staples wrote about how Lock the Gate, a coalition of farmers and activists from across Queensland and New South Wales, showed how rural networks could successfully combine with urban activists to oppose fracking (Staples, 2014). More recently, the Sydney Alliance, an organisation of civil society organisations, has worked with diverse communities in Western Sydney to launch Voices for Power, using a community organising model which has resulted in the development of community energy hubs and funding for a pilot social access solar garden (Tattersall et al., 2020).

The climate movement and social justice have often made for uneasy bedfellows. Grosse (2019) , for example, has noted that the Californian environment movement has not traditionally prioritised social justice. She points to a consistent lack of meaningful inclusion of or support for the communities most affected by climate change (Grosse, 2019). This has been reflected in the climate movement in Aotearoa, where indigenous communities advocating for climate justice have often lacked resources and visibility (Simons, 2021). The documentary High Tide Don't Hide, which followed the work of young, mostly Pākehā School Strikes for Climate (SS4C) activists in Aotearoa in 2019, identified how young Pacific students from South Auckland struggled for visibility in the School Strikes movement (Rebel Film Collective, 2020).

Unions, climate change and building member leaders

How, then, are unions positioned in this landscape? Unions historically emerged as a challenge to workers' experience of capitalism and, despite the onslaught of neoliberalism, authors such as Darlington argue they remain a fundamentally important agent of social change (2014). They have also long been engaged in wider social issues.

Tattersall, in her seminal book, Power in Coalition: Strategies for Strong Unions and Social Change (2013), and Parker and Alakavuklar (2018) have commented that social movement unionism – the idea that unions should become actively involved in wider community issues – is nothing new. In Aotearoa, two prominent examples include the Industrial Areas Foundation-inspired Living Wage Movement and community based migrant worker organising (Parker et al., 2021).

There are compelling reasons for unions to engage in collective action beyond the workplace. Generally, unions are no longer strong enough to tackle the political and economic power of employers on their own; working with community allies can foster influence and legitimacy (Tattersall, 2011). Working in coalition may also help build a shared sense of meaning around pressing social, economic and environmental issues (Parker & Alakavuklar, 2018). However, the work can be slow and challenging, and unions can hold legitimate concerns about resourcing and the achievement of their core business (Parker & Alakavuklar, 2018).

Reflecting on the decade since her book on community coalitions was originally published, Amanda Tattersall wrote in 2018 that despite these challenges, they have become a significant part of the union landscape – including on issues like climate change (2018). In Western Australia, the Climate Justice Union was established in 2019 by experienced organisers and funded by unions to work on climate issues using a community organising approach (Climate Justice Union, 2022). Along similar lines, in the United States, the Climate Justice Alliance is a network of networks spanning the whole country that brings labour, environment and other community organisations together to campaign for a Just Transition (Climate Justice Alliance, 2022).

A key concern for unions within this context is building member leadership. As organisations built on collective practice, developing member leadership is seen as core to building union power (Fairbrother, 2008). Put simply, leadership development in a union context is about how to strategically enable all workers and their communities to participate. Member leaders are those people who, by leading by example, inspire others to participate too.

Community coalition work can provide opportunities for members to build their organising skills. In a study of two successful civil-society and union alliances published in 2019, Han noted that, via their work in community coalitions, members were able to develop leadership skills by building relationships, taking risks, developing strategy, and holding decision-makers accountable (2019). Education, training and leadership development are the building blocks of this work (Ganz, 2014).

Unions' response to climate change in Aotearoa

Aotearoa was a key locus for the 'neoliberal experiment' that swept the world in the 1980s and 1990s (Kelsey, 1997). In this country, it resulted in the marketisation of public assets and services, a massive increase in unemployment, and deregulation of the labour market, including the passage of the 1991 *Employment Contracts Act*, under which many of the rights of unions to organise were stripped away (Parker & Alakavuklar, 2018).

A survey conducted in 2018 indicated that only 13.3 percent of workers in Aotearoa still belonged to unions, most of these in the public sector (Parker et al., 2021). In the education sector, primary and secondary education is still relatively highly unionised; however, NZEI Te Riu Roa analysis in 2020 found that as much as 65 percent of early

childhood education provision is privately owned.[2] This makes it hard to recruit members and build union 'density' – i.e., a high ratio of members to non-members. It is in this context that unions in Aotearoa, including NZEI Te Riu Roa, face the challenge of building power on the ground to achieve industrial change.

In a 2016 study, Douglas and McGhee interviewed leaders from 11 of the largest unions in Aotearoa to find out what role they saw unions having on climate (2016). While they voiced their personal concern, and saw the union movement as an important stakeholder, none were yet well prepared to deal with it. Only two unions had begun to develop policy, and only two indicated that members had raised it as an issue. At the time, the researchers put this down to the declining rate of membership of unions in Aotearoa and a focus on the part of union leaders on just surviving (Douglas & McGhee, 2016).

Two years later, Parker and Alakavuklar (2018) noted that the peak body for unions in Aotearoa, the New Zealand Council of Trade Unions (NZCTU), had begun to articulate a union movement position on climate. In February 2016, the NZCTU made a submission on the government's Emissions Trading Scheme Review (NZCTU, 2016). The following year, the NZCTU released its first position paper on climate change (NZCTU, 2017), and in 2018, it followed this up with a 'next steps' document (NZCTU, 2019). In October 2018, the NZCTU was instrumental in organising the first ever Aotearoa Just Transition round table, at which it launched a ten-point plan for decent work in a low-carbon economy (NZCTU, 2018; Parker et al., 2021). In 2019 the NZCTU actively supported the School Strikes for Climate marches (Parker et al., 2021).

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[2] Data source: https://www.educationcounts.govt.nz/directories/early-childhood-services

Over the last few years, several unions have deepened their engagement on climate change issues. In 2016, NZEI Te Riu Roa members passed a climate change policy at their Annual Conference (NZEI Te Riu Roa, 2017). In the wider public sector, Public Service Association members voted to formally recognise their eco network at their 2020 Congress (Public Service Association, 2020). Two unions, FIRST and NZEI Te Riu Roa, have become members of the New Zealand Climate Action Network and Unite union has joined as an observer (NZ-CAN, 2022). The Post Primary Teachers Association and Tertiary Education Union have both formed climate networks (Brunskill, pers. comm.; Tertiary Education Union, 2021). As I describe in the next section, the largest private sector union, E tū, has also become increasingly engaged.

A Just Transition in Aotearoa: worker, Māori and Pacific perspectives

Ki te kāhore he whakakitenga ka ngaro te iwi

Without vision and foresight the people will be lost.

– Kīngi Tāwhiao Pōtatau Te Wherowhero

Over the last two decades, the concept of a Just Transition has emerged as a framework for thinking about and planning the social and economic shifts that will be needed to secure workers' livelihoods in the move to a low-carbon world (Pinker, 2020). Originating in the United States labour movement in the 1970s, the term has been picked up by union, climate and indigenous groups across the planet (Acha, 2017; Pinker, 2020). In Aotearoa, the ten-point Just Transition plan launched by the NZCTU in 2018 included a social guarantee of good jobs, a voice for working people, the involvement of Māori, active labour market management and making decent work a condition of all new public procurement (NZCTU, 2018).

The announcement by the Labour-led government in 2018 of the end to future permits for offshore oil and gas exploration in Aotearoa provided an impetus for unions to campaign and organise on climate (Parker et al., 2021). In May 2019, the government launched a Just Transition '2050 Roadmap' at a summit in Taranaki, the region with most of the country's oil and gas exploration and production (Venture Taranaki, 2019). E tū, the union for many of the workers most likely to be immediately affected by industry closures, engaged energetically with this process. This included putting a senior staff member of the union forward for election to the deputy chairpersonship of the governance group for the Roadmap process (Ministry of Business, Innovation and Employment, 2021).

As Parker et al (2021) comment, this engagement has not been without its tensions. Rank and file members have sometimes questioned the involvement of their union in climate issues (Parker et al., 2021). And, while unions in Aotearoa may have successfully pushed the Just Transition concept into public policy discourse, recently the NZCTU has criticised the government's draft Emissions Reduction Plan for including few practical steps to engage working people (2021).

Tangata Māori and a Just Transition

In Aotearoa, consideration of a Just Transition must be undergirded by consideration of the obligations the Crown has to Māori through Te Tiriti o Waitangi. Associate Professor Maria Bargh (Te Arawa, Ngāti Awa) from Te Herenga Waka Victoria University, argues that to be enduring, the transition must be 'tika' – guided by what is right and just' (2019, p. 37). Bargh asks, what would a tikanga Māori way of going about transitioning to a low-emissions society look like? How would we balance the risks, costs, and

benefits of responding to climate change, and how would Māori be involved in planning those responses? (Bargh, 2019).

The concept of tikanga has been defined as a set of practices and procedures established over time and validated by more than one generation which guide the conduct of groups and individuals (Mead, 2003, in Bargh, 2019, p. 37). Tikanga varies from iwi to iwi and is turn guided by fundamental values such as whānaungatanga, kaitiakitanga, utu, mana, and tapu (Bargh, 2019). Environmental changes caused by climate change will affect customary practice, the retention of mātauranga and the application of tikanga (Rowe, 2021).

The 2021 Ngā Pae o te Māramatanga report on the impacts of climate change noted that 'many cultural and traditional sites like papa kāinga, marae, urupā and mahinga kai are incredibly vulnerable. The destruction of these sites would have wide-ranging effects on whakapapa, identity and rangatiratanga' (Awatere et al., 2021). It could be argued that this directly breaches the promise of tino rangatiratanga made by the Crown under Article two of Te Tiriti.

A Just Transition for Māori, then, would mean the Crown would need not just to comply with, but also avoid further breaches of, Te Tiriti (Bargh, 2019). Bargh's 'Tika Transition Toolbox' factors Māori rights and interests into transitions to a low carbon economy (Husband, 2021). Bargh asks a series of open questions, such as: what would a tikanga Māori way of going about transitioning to a low-emissions society look like? What would we need to do if we were using tikanga as a lens through which to assess policies relating to the climate? How will we balance the risks, costs and benefits of climate

change policies? What do we need to change, and who's going to be vulnerable? (Husband, 2021).

At the 2021 climate negotiations in Glasgow, Māori climate activist India Logan-Riley summed it up when they said: 'I cannot put it more simply than we know what we are doing, and if you are not willing to back us or let us lead, then you are complicit in the death and destruction that's happening across the globe ...This is an invitation to you. This COP, learn our histories, listen to our stories, honour our knowledge and get in line, or get out of the way' (NZ Herald, 2021).

Pacific people and a Just Transition

Although the Pacific Island nations are responsible for much less than one percent of global greenhouse gas emissions, Pacific Island nations are among the most vulnerable in the world to the effects of climate change (World Wildlife Fund, 2022). Impacts include temperature variability, storm surges, sea level rise, changes in rainfall patterns and coral bleaching (World Wildlife Fund, 2022).

As with Māori, the impacts are much more than physical: climate change affects culture and identity. As Pacific participants discuss in the Findings chapter, for Pacific people culture and identity is connected to place – where they can track their histories back to (Spencer et al., 2020). Pacific people living in Aotearoa maintain their bonds with their families in the home islands, and through this their culture and identities (Naidu et al., 1994). Rising sea levels profoundly impact on these important connections (Fernández-Llamazares et al., 2021). As Spencer et al (2020) have commented, environmental justice in the Pacific must therefore include 'not just distributive and procedural justice but identity, land and culture as a primary component' (p. 49).

As with Māori, significant challenges exist, much of them rooted in the legacy of colonialism. Kya Raina Lal, a Fijian lawyer and climate activist, writes that these include the backyard foreign affairs politics played by Australia, Aotearoa and China, the lack of sovereignty of some Pacific nations, the challenges of daily survival, the increasing severity of natural disasters, and the impracticality of some climate solutions for remote island communities (2019). At the international level, Pacific and other indigenous leaders have fought for over two decades now for negotiating power on the international stage (Doolittle, 2010). The emergence of demands from the global South for Loss and Damage compensation at the 2021 United Nations Climate Change Conference in Glasgow were simply the latest instance of this (Jackson, 2021). Yet Pacific people seek not dependence but interdependence; success, not failure. In the words of the Pacific Climate Warriors, 'we are not drowning, we are fighting' (Tahana, 2019).

Conclusion

In this chapter, I sought to provide a broad-brush overview of the diverse range of literature related to my research topic, organised into three broad themes: settler colonialism, climate change and indigenous climate justice; indigenous knowledge systems, education and climate change education; and social movements, community organising, unions and a Just Transition.

A key point made in this literature review has been the importance of taking a critical approach to understanding the issues related to climate change, including the failure of Western models of inquiry, and the opportunities presented by indigenous frameworks to foster understanding and support genuine change at a time when nothing less than radical transformation is needed. This informed my choice to employ a Critical Systems

heuristic, and to centre Mōkū Te Ao in that heuristic. In the next chapter, I introduce the

methodology and methods used for my research, and canvass key ethical

considerations.

Chapter three: Methodology, methods and ethical considerations

Introduction

This research set out to explore NZEI Te Riu Roa members' perspectives on the alignment between Mōkū Te Ao, with its focus on education system change, and the union's emerging work on climate change – Mātauranga Māui. In this chapter I outline my methodological approach and the methods used for this research. In the literature review, I touched on the importance of taking a critical approach and of centring indigenous knowledge. As I will expand upon in this chapter, this in turn informed my choice of methodology and the interview content and structure.

I begin by discussing my methodological approach, and the use of Critical Systems Heuristics as a boundary critique and discovery tool. I provide an overview of my qualitative design research methods and explain how data was collected and analysed. I conclude this chapter by considering ethical questions posed by this research. I discuss how I sought as a non-Māori researcher to be culturally appropriate, and to ensure the cultural and emotional safety of participants, and I explain why this research was non-anonymous. Finally, I discuss the conflict of interest inherent in my 'insider/outsider' role as a staff member, and how I sought to manage that.

Methodological perspectives and approach

Linda Tuhiwai Smith et al (2016) wrote that methodology can be understood as the systematic way we seek and develop knowledge constructs, or paradigms, that help us design 'methods and tools that best unlock social discourse, social relations and social institutions' (p. 147). Thirty years prior, feminist scholar Sandra Harding had defined method as 'how you do it' and methodology as 'the analysis you apply to it' (1987). As

Harding wrote, experiences of race, class, gender and culture – what Crenshaw two years later coined as intersectionality – shape both the approach of the researcher and the outcome of the research (Crenshaw, 1989; Harding, 1987). Choices about methodology and methods, therefore, are not made in a vacuum. As Bull (2020) has written, they reveal multiple realities – and have their own history.

Taking a systems approach: Critical Systems Heuristics

For the purposes of this research, I chose to use Critical Systems Heuristics (CSH) as my inquiry approach. CSH is an analytical framework developed by Ulrich (2005) based on systems theory. A system is at once a generic and an abstract concept, and definitions are elusive, particularly in a social context (Lankelly Chase Foundation, 2018). A useful definition for the purposes of this research, given its focus on human behaviour related to climate change, is that of Meadows (1999), who defines a system as a set of interconnected things that manifest specific patterns of behaviour over time. Systems change aims to bring about lasting change 'by altering underlying structures and supporting mechanisms which make the system operate in a particular way. These can include policies, routines, relationships, resources, power structures and values' (Lankelly Chase Foundation, 2018, p. 9). Systems theory focuses on identifying the root causes of problems, the key actors involved, and points of leverage in a system (Lankelly Chase Foundation, 2018). In order to progress change, one must therefore first define the system and its boundaries, discern what can be changed or influenced, determine what steps needs to be taken and what they will achieve (Lankelly Chase Foundation, 2018).

I was attracted to CSH since it applies an equity lens to this systems approach. First devised by Ulrich in 1983 (Ulrich, 2005), it employs a discovery process which allows

practitioners to engage in 'boundary critique' – what is included and what is not

becomes a dialogical discourse about who we implicitly or explicitly marginalise when

we define our research boundaries (Williams & Hummelbrunner, 2011).

A CSH approach covers four areas: motivation, control, expertise, and legitimacy:

- Basis of motivation – Where does a sense of purposefulness and value come

  from?

- Basis of power – Who is in control of what is going on and is needed for

  success?

- Basis of knowledge – What experience and expertise support the claim?

- Basis of legitimacy – Where does legitimacy lie? (Ulrich, 2005).

Questions are dialectically framed around 'what is' and 'what ought to be' (Midgley,

2016; Williams & Hummelbrunner, 2011). The responses to these questions are

analysed for insights on where the participants set boundaries around the system. This

is a different approach to a thematic analysis, where themes are inductively derived

from the data without having a predetermined framework.

Its 'discovery' approach makes CSH useful in qualitative research contexts where the

problem may be hard to define (Ulrich, 2005). Its working premise is that system change

can be brought about by 'purposeful action by an agent … in relation to reflection upon

boundaries' (Midgley, 2016, p. 2).

Critical systems approaches can employ a variety of methodologies, often in

combination, to analyse complex problems. Snowden's *Cynefin,* SOSM and soft systems,

for example, respectively pay increasing attention to the human elements of the

problem at hand (Jackson, 2020). Mixed methods approaches can also be employed -

for instance, combining CSH with another systems analysis tool. This is known as

methodological pluralism (Midgley, 2016). For the purposes of this research, however,

and given its limited scope, and because of its critical systems approach, I considered

CSH to be a sufficient and appropriate tool on its own.

One aspect of CSH that particularly appealed to me is that the questions can be

answered proficiently by laypeople, as long as they are tailored to the topic (Midgley,

2016). Given the real-world application of this thesis – in which I sought to interview

busy educators with a wealth of expertise and experience in operating within the

education system – it seemed particularly appropriate. In the Discussion chapter, I

critique the use of this tool in a Tiriti-based context.

Methods

Below I discuss the choice of qualitative research design, how participants were

selected, and how the data was collected and analysed. I also discuss further ethical

considerations.

1. Qualitative research design

I set out in this thesis to explore NZEI Te Riu Roa member leaders' perspectives on

taking action on climate change, within a Tiriti-based context. As Cresswell (2014) points

out, qualitative methodologies lend themselves well to exercises such as these, where

one is seeking to build an understanding of a social phenomenon. However, as Denzin,

Lincoln and Smith have commented, research can act as an instrument of colonial

power, providing a foundation for reporting on 'the other' (2008, p. 12). Therefore, I

consciously sought to centre members' voices, not my own – by asking members about

their perspectives, and, as I discuss in the interview questions section, to platform indigenous knowledge by centring Mōkū Te Ao in the interview structure itself.

2. Selection of participants

I proposed to interview around six NZEI Te Riu Roa member leaders. To centre and honour Māori perspectives, I aimed for at least half of the interviewees to be Māori. I also proposed to interview two Pasifika member leaders, to bring a different indigenous lens in relation to my topic. In discussions with one participant, Tiri Bailey, we discussed how adding one or two Pākehā participants might perhaps provide an avenue for some Tauiwi union members to reflect on what good allyship and Tiriti relationships look like – provide a level of responsiveness to a Māori-centred discussion. If considering Mōkū Te Ao through the lens of climate change might help some Tauiwi better understand Tiriti issues, then this could be a welcome co-benefit of the research (T. Bailey, pers. comm.)

3. Inclusion/exclusion criteria

The following inclusion/exclusion criteria for the research were established as follows:

Inclusion

- Since the project specifically focused on union member perspectives, participants needed to be NZEI Te Riu Roa members.
- Initially, participants were to be drawn from one of the five Area Council climate pilot areas, since these were the areas where the union had first sought to focus its energies and build leadership. However, as my work eventually extended to all 14 Area Councils, the concept of pilot areas became redundant. This meant that I could widen my search for participants.

- In line with the intent of centering indigenous knowledge and voices, it was determined that at least 50 percent of participants should be Māori.

- Participants needed to be approved by their respective Area Council chair/s, their related Aronui Tōmua/the Pasifika Leaders Caucus and the Mātauranga Māui climate steering committee. This requirement was put in place to ensure that the existing leadership structure maintained a level of oversight over my research, and that the research process could support Area Councils' work in building leaders.

- Participants must be a member leader with experience in organising on climate issues with other union members, climate activists, students, parents and/or members of the wider community. The research, it was hoped, would model for other members what exercising union leadership looked like in this new and emerging space.

Exclusion

- Does not have a pre-existing relationship with the researcher other than in the context of the union's climate work. While it was important to have developed a working relationship on climate change issues, as I discuss in the ethics section of this chapter it was also important to maintain professional boundaries between myself as a staff member and the participants.

I received approval from NZEI Te Riu Roa for my research proposal in September 2021. A supporting email from Laures Park, Matua Takawaenga of NZEI Te Riu Roa and one of the members of the Mātauranga Māui steering committee, is attached in Appendix two. I received ethics approval from the Whitireia Ethics and Research Committee in October 2021 (Appendix three). In advance of commencing the research, I sought permission

from relevant Area Councils, Te Reo Areare and the Pasifika Leaders Caucus, as well as the Mātauranga Māui steering committee. Each group was kept updated on the progress of the project. In my initial research proposal, participants were to have been drawn from the five Area Councils which had originally agreed to act as 'pilots' for the union's climate mahi. However, by the time I came to recruit participants, the pilots had been superseded. Instead, I had begun working with all 14 Area Councils. Participants were drawn from across six Area Councils – seven participants from Te Ika a Māui / the North Island and one from Te Waipounamu / the South Island.

I identified participants through relational discussions with the leadership of the union, and through my own organising work. In the end, I interviewed eight participants - four Māori, two Pacific and two Pākehā. Other than in the context of our climate work, I did not have a pre-existing relationship with any of the participants. In the next chapter, I introduce each of the participants.

4. Data collection instrument: semi-structured interviews

Using a CSH approach, I undertook semi-structured interviews to gather my interview data. Pilot interviews with a fellow staff member and with the Matua Takawaenga were carried out in November 2021, enabling me to interrogate both questions and process. Prior to commencing the formal interviews, participants were emailed a pack consisting of a Mōkū Te Ao information sheet (Appendix one), a participant information sheet (Appendix four), and a consent form (Appendix five).

Prior to scheduling the interviews, I had a pre-meet with each participant. At these meetings we engaged in whakawhanaungatanga and discussed the research kaupapa. We also discussed the use of karakia, how the data would be used, and any other questions participants might have.

Formal interviews were carried out between 20 January and 20 February 2022. Originally it had been intended that the interviews would primarily be done face to face, with all the necessary COVID-19 precautions. However, as the start of my interviews coincided with the onset of the Omicron variant of COVID-19, I decided not to delay but instead to move to a fully online approach. All interviews were thus conducted by Zoom. Interviews took between 60 to 90 minutes, and all were video recorded via Zoom, with a backup made using a hand-held audio recorder.

All data was stored in the cloud on my individual NZEI Te Riu Roa Microsoft OneDrive. Access to my computer and OneDrive is password protected with Multi Factor Authentication, and the password remains known only by me. The data will be returned to participants after this thesis has been submitted and my file copies will be destroyed.

5. Interview questions

I constructed my interview schedule using the CSH approach as an base. I began by focusing on the areas Ulrich (2005) had identified: motivation, knowledge, power and resources, and legitimacy and success. In the area of motivation, for example, I framed the initial line of questioning around who the member was trying to help. Appendix six lists the interview questions.

As the interviews proceeded, the conversations found their own rhythm, and I tended to go more with the participants' direction of flow. For instance, the question of 'why' members were taking action came up organically in the interviews from the very start. I also found that the discussion about what knowledge and expertise participants drew on led to a discussion about education, mātauranga and Mōkū Te Ao. This in turn led to a conversation about the kind of power and resources members might draw upon to

progress their climate work, and it was a fitting end to the interviews to talk about what success might look like. An is/ought dialectic was not overtly used but was inherent in my line of questioning, and this generated a wealth of 'should' statements that later became the basis for my strategic recommendations.

An important innovation in the structuring of the interview schedule, and the centrepiece of the research, was the inclusion of the questions around Mōkū Te Ao. Initially, I intuitively centred the Mōkū Te Ao questions in between motivation and knowledge on one side and power and resources, legitimacy and success on the other. In writing up the findings, however, I began to consider the interview process through the metaphor of a 'maunga' of inquiry. Questions about motivation and knowledge could be seen as part of the 'ascent' up the maunga, - a values and knowledge 'base' from which members could begin their 'ascent' towards a discussion about the two kaupapa. Once the conversation had reached its 'peak', questions about power and resources and legitimacy and success could then be seen as part of the 'descent' back down the maunga of inquiry, and the conclusion of the interviews. I later used this conceptual approach to structure the findings chapters.

6.   Data analysis procedures

Transcription

Following the interviews, I personally transcribed the recordings. I then emailed participants a copy of their transcript to provide them with a chance to clarify any details or errors in my transcription.

Data Analysis

My review of the interview data involved systematically reviewing the transcripts to identify any overarching insights from across the data (Braun & Clarke, 2006; Cresswell, 2014). This enabled me to present a rich discussion based on multiple, cross-cutting perspectives (Cresswell, 2014).

First, I examined the interview transcripts to become familiar with the data. I then created a list of codes based on the CSH framework in my interview schedule, using qualitative data analysis software called Dedoose ([Appendix seven](#)). I developed a broad framework of codes based on the interview schedule, and then coded the transcripts within that structure, generating more codes and subcodes, which I then periodically rationalised and refined. From there, I began to identify key insights from within and across each CSH category.

I created a series of memos across the codes, to develop a deeper understanding of the linkages across the categories. I then shared the research data with my supervisors, undertaking a critical reflection process with them in order to challenge any assumptions or biases I might have that could affect my interpretation of the data. Finally, I wrote up the data as research findings.

Ethical considerations

Below I discuss some of the concerns around conducting cross-cultural research in Aotearoa, my own efforts to be culturally appropriate, why this research was not conducted anonymously, and how I managed my inherent conflict of interest as a staff member interviewing union members.

1. The ethics of non-Māori undertaking research with Māori in Aotearoa

Indigenous people have, over millennia, developed and refined their own knowledge systems (L. T. Smith, 1999). Under colonialism, however, research has become a tool for enforcing power and control (Held, 2019; L. T. Smith, 1999; L. T. Smith et al., 2016). In Aotearoa, Vaeau and Trundle (2020) note that research 'on' Māori has often happened without informed consent or collaboration, or attention to cultural protocols. Rather than serving communities' interests, it has tended to perpetuate harmful stereotypes (Vaeau & Trundle, 2020).

Some authors point out that critical, transformative approaches (such as CSH) and indigenous paradigms share important philosophical underpinnings (Held, 2019, Lincoln & Denzin, 2008). Both seek to work in ways that are respectful, relational, holistic, and give voice to the oppressed (Lincoln & Denzin, 2008; Held, 2019; Mertens & Cram, 2016). Yet most would not deny that any alliance between transformative and indigenous approaches is not going to be an entirely comfortable fit, and, what's more, 'may or may not be acceptable to Indigenous researchers' (Mertens & Cram, 2016, p. 186).

If methodology has become, as Ndlovu-Gatsheni (2017) has argued, the straitjacket we must all wear if we are to discover knowledge, what are the ways forward for allies seeking to conduct ethical research? How do non-Māori researchers conduct research ethically in Aotearoa?

In 2010, the Te Ara Tika evaluation framework was developed to support researchers to conduct themselves ethically and Tiriti-responsively (Hudson et al., 2010). Te Ara Tika enables ethics appraisers to critically assess proposals on four principles: whakapapa,

tika, manaakitanga and mana (Hudson et al, 2010). Whakapapa refers to the quality of the research relationships and the structures and processes established to support those relationships. Tika relates to the validity of the proposal, in particular the extent of participation of Māori in the research design, at different stages of the process, and in the analysis and project dissemination. Manaakitanga speaks to the responsibility to ensure care and respect for social and cultural practices, and the maintenance of both parties' mana. Finally, mana relates to issues of equity and distributive justice, seeking to clarify who has rights, roles and responsibilities concerning the risks, benefits and outcomes of the project (Hudson et al., 2010).

According to this framework, and depending on the level of involvement of Māori, research is categorised as either mainstream, Māori-centred or Kaupapa Māori (Hudson et al., 2010). Since I am non-Māori, but centred my research on an issue of interest to Māori and 50 percent of participants were Māori, this research project tended towards being Māori-centred.

Using this framework, research proposals can be assessed as minimum standard, good practice, or best practice (Hudson et al, 2010). Dr Barry Smith, one of the authors of Te Ara Tika, has noted that the research relationship should cover the complete enterprise from initial engagement through to design and dissemination (2018).

In terms of whakapapa and manaakitanga, in the first year of my role, I worked to establish relationships with members in Te Reo Areare and the Pasifika Leaders Caucus. This set the baseline for proposing and conducting the research. Once I had received permission from the union leadership and consent from participants, I checked in regularly with the relevant Area Councils, Te Reo Areare, the Pasifika Leaders Caucus,

and participants themselves. I also held a report-back Zoom with the eight participants while my supervisors were reading my first draft.

In terms of being tika, the union's commitment both to the climate change kaupapa and to Mōkū Te Ao made this a promising area of inquiry for the union. I felt further assured by the positive response to the proposed research question from members in Māori and Pacific leadership positions. Ultimately, however, the mana and integrity of this research is for others to judge.

2. Cultural and emotional safety

This research explored issues concerning climate and ecological breakdown which are intimately related to the pain of colonisation (Kutia, 2021). I therefore put measures in place to try to ensure the process was culturally safe. These included an opening and closing karakia, as well as providing the names of internal support people and external organisations where participants could access further support if needed. My own emotional safety was also something I was aware I needed to consider. To manage this, I limited interviews to one per day, with at least a day's space in between. I also invested in paid external supervision throughout the course of the research.

3. Anonymity

A key intention of this project was to profile members who are active on climate change. Therefore, I envisaged from the outset that all participants would be identifiable in their roles as member leaders. Non-anonymity was discussed, and consent was sought from each person prior to the interviews commencing. While members enthusiastically agreed that this was an appropriate approach, I still took care to make sure participants knew that they could withdraw any time, that their data could

be anonymised and that any references that could potentially identify them would be deleted.

4. Managing conflicts of interest

It is a fundamental tenet of union work that the first step of organising is to build trust and rapport with members (Ganz, 2014). While this could be seen as an inherent conflict of interest, in terms of introducing a potential power imbalance in my research, union work is inherently relational. It is impossible for me to work with members without first establishing some level of rapport. In order to help mitigate any potential power imbalance, I built the interview schedule around a series of open-ended questions.

As a staff member, I am in the position of being an insider, since I am, like the members I interviewed, part of the union organisation. However, I am also an outsider relative to them – someone from outside their communities and cultures. Dwyer and Buckle (2009) have defined this insider-outsider role as occupying 'the space between', requiring an ability on the part of the researcher to be open, honest, genuinely engaged, and committed to accurately portraying the perspectives of all involved.

Conclusion

In this chapter I have outlined the methodological approach and methods I used to conduct this thesis research. My choice of the Critical Systems Heuristics approach fitted well with my critical theoretical approach, and my focus on social justice and systems change. The onset of the Omicron variant of COVID-19 meant that I had to move to a fully online process for my interviews.

In my role as a Tauiwi researcher, I sought to ensure that my research was culturally appropriate and emotionally safe by taking time to establish relationships, checking in regularly with Area Councils and participants, ensuring interviews were opened and closed with karakia and providing options for support. I also centred indigenous voices and knowledge in my research approach and in the interview structure itself. A key intention of the research was to profile member leaders, hence its non-anonymity. I acknowledged the conflict of interest inherent in my role as a staff member while also noting the importance of having an established rapport. In the Discussion chapter I return to the issue of my role as a Tauiwi researcher, and critique the Critical Systems Heuristics approach. The next chapter introduces the research participants.

Chapter four: Whakawhanaungatanga

Introduction

Whāia te iti kahurangi ki te tūohu koe me he maunga teitei
Seek the treasure you value most dearly: if you bow your head, let it be to a lofty mountain.

Figure three: The maunga of inquiry

This chapter marks the turn from setting the context of the research to exploring the findings. This 'whakawhanaungatanga' chapter introduces the eight research participants. Before proceeding, however, a note on Figure three above.

In the methodology chapter I described how, in writing up the findings, I realised that I had intuitively centred the discussion about Mōkū Te Ao in the interview schedule, but had later come to consider the interview process as a maunga of inquiry. The conversations began their 'ascent' by talking about participants' values and knowledge bases. The two kaupapa represented the 'summit' of our discussions, a place from to view the deeper meaning and wider landscape of the inquiry. The conversations then began their 'descent' by talking about the power and resources members might draw upon, and their visions of legitimacy and success, ahead of perhaps climbing another maunga – that of taking further action. In many ways, this ascent and descent reflects the flow an organising conversation often takes with union members, again validating for me the suitability of using CSH as a discovery tool. I thus offer the illustration above as a model to assist the reader to navigate through the next six chapters of research findings, and indeed, the rest of the thesis.

Before I move on to the findings, however, it is important to introduce the eight research participants, since their contexts and stories are pivotal. I begin by presenting some basic demographic data: gender, ethnicity, sector, occupation, geographical location, and Area Council membership. I then introduce the participants, using their own words from the interviews, in each case adding further context myself, where appropriate, regarding their roles as member leaders.

Demographic data

As discussed, I sought to centre Māori participants' views in this research. Thus, four participants were Māori. Two Pacific members were interviewed to provide a different indigenous perspective, and two Pākehā members were also interviewed. This is not representative of the education sector workforce, which comprises 73 percent

European/Pākehā, 12 percent Māori, five percent Asian, four percent Pacific, and one percent Middle Eastern, Latin American and African (Ministry of Education, 2022b). It is important to note that many people in Aotearoa identify with more than one ethnicity. Although it was not a research aim, participant demographics reasonably reflected the sectoral and occupational diversity of the union's membership. As shown in Figure four, half of the participants came from the primary school sector, a quarter from early childhood, one from a Kura Kaupapa Māori, and one from secondary. Occupations included deputy principal (two participants), an early childhood teacher, primary teacher and secondary teacher, a resource teacher Māori, a special education needs coordinator, and a community services manager in the early childhood sector. The ratio of six female to two male participants is reflective of the sector's female-dominated education workforce with 76 percent of employees being female and 24 percent being male (Ministry of Education, 2022b). Apart from a heavy weighting toward the North Island, I also ended up with a reasonable geographic spread and a mix of urban and rural participants.

Participants were drawn from six Area Councils: Te Whanganui-a-Tara/Wellington (two participants), Taranaki (two participants), Central East, Tāmaki Makaurau/Auckland, Waitaha/Canterbury, and Te Pipiri Mananui o Ngā Tātaha ā Māui. This reflects to some extent the fact that Taranaki Area Council had been the first to be involved in Just Transition work due to the 2050 Roadmap process, and the high level of support for climate issues and larger populations of the urban Area Councils, of which Te Whanganui-a-Tara/Wellington is one. Like Taranaki, Central East Area Council had also been a 'pilot' Area Council for the union's climate work. Tāmaki Makaurau/Auckland and Waitaha/Canterbury are urban Area Councils, with larger populations, and Te Pipiri

Mananui o Ngā Tātaha ā Māui is strongly Māori, with 13 of 24 Aronui Tōmua connected

to it.

Figure four: Participant demographics

Gender
- F - M - O

Ethnicity
- Māori - Pacific - Other

Sector
- ECE - Primary - Secondary - Kura Kaupapa - Area School

Occupation
- Tumuaki Tuarua/Deputy Principal - Early Childhood Teacher
- Kaiako / Primary Teacher - Kaiarahi / Resource Teacher Māori
- Special Education Needs Coordinator - Community Services Lead - ECE
- Secondary Teacher - Head of Department, Secondary School

Location
- Heretaunga/Hastings - Hokitika
- Taranaki - Tāmaki Makaurau/Auckland
- Waikato - Whanganui-a-Tara/Wellington

Area Council
- Central East - Taranaki
- Te Whanganui-a-Tara/Wellington - Waitaha/Canterbury
- Te Pipiri Mananui o Ngā Tātaha ā Māui - Tāmaki Makaurau/Auckland

Barney Manaia

Ko Barney Manaia tōku ingoa, ko Pirongia te maunga, ko Waipa te awa, ko Maniapoto, Waikato, Tainui ngā iwi. Ngāti Apakura hoki. E mihi atu ki ā koutou katoa i tēnei wa. Kia ora! My name is Barney Manaia. I'm presently acting chair of Kahotea Marae in the Maniapoto area.

Barney is a secondary teacher in Pukekohe and a member of Te Reo Areare, the governance group for Miro Māori, the Māori leadership of the union. A longtime unionist, he is active in Te Pipiri Mananui o Ngā Tātaha ā Māui Area Council. He plays many roles in his community, including representing his iwi in various forums. Barney has written about climate change and his commentary has been included as source material for this thesis. In November 2021, Barney spoke on a panel hosted by NZEI Te Riu Roa on the government's draft Emissions Reduction Plan.

Caroline Mareko

My name is Lealamanu'a Aiga Caroline Mareko. Lealamanu'a is my Samoan chiefly name that was bestowed on me by my mother's family from the village of Avao in Savai'i. Aiga is my grandmother's name on my father's side. She's from the village of Faleula, in Upolu. Caroline was the name of my mother's maid of honour, and she was a Tongan nurse. Mareko is not really my last name. In Samoan culture, you take your father's first name, so my father took his father's first name Mareko to be our last name. Our family name is actually Seiuli from the village of Vaiusu in Upolu. Mareko is my grandfather's first name. And it's also a Catholic name, because my father was from a very staunch Catholic family. So that's really how I got my name. And usually names are very, very

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> *important because names tell a story. They hold history of a significant event or*
>
> *person.*

Caroline is a leading member of the Porirua community, involved in many Pacific community initiatives. A long-time member of NZEI Te Riu Roa, she is a member of Te Whanganui-a-Tara / Wellington Area Council and convenor of the union's Pasifika Leaders Caucus as well as the New Zealand Council of Trade Unions Komiti Pasefika Co-Convenor. Caroline currently works for Whānau Manaaki Kindergartens, as their Community Services Lead. She was instrumental in initiating a NZEI Te Riu Roa Pacific members' Climate Talanoa[3] in November 2021, bringing together members from around Aotearoa in conversation with union colleagues from the wider Pacific.

Chandra Littlewood

> *My whānau are from England. I was raised in Auckland. I now live, work and am*
>
> *raising my family in Wellington. My connection to the natural world has*
>
> *continued to grow through these experiences. Looking after Papatūānuku has*
>
> *always been at my core. This is my passion and what I share with tamariki.*

Chandra is Pākehā and has been teaching at Moriah, a Jewish early childhood centre in Te Whanganui-a-Tara / Wellington, for the last five years. In 2021, she was honoured by the Futurity Investment Group with the Seed Award for early childhood educators, and the Early Career Teacher's Award for her work with teachers, tamariki and whānau on sustainability and the environment. Before retraining as an early childhood teacher, she had been employed in a wide range of sustainability focused roles. Chandra brings an

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[3] In many Pacific languages, Talanoa means to tell a story, or have a conversation. It can be formal or informal, and can be used for different purposes. (Johansson Fua, 2022).

important early childhood perspective to this research, particularly around *Te Whāriki*, the early childhood curriculum.

Kate Paris

> *I was born in Christchurch and grew up on the West Coast in a little town called Greymouth. … When other children were getting piled into the car to go to church on a Sunday, my dad was putting us in the car to take us bush. And so one of the most treasured memories I have is of our family doing all the West Coast bushwalks. And we never really returned to the same one twice without really wanting to go back.*

> *One of my grandmothers grew up in Ōmata and the other one in Midhurst. So both of those women gazed upon Maunga Taranaki every day. And it's been really lovely to come home four years ago to that mountain.*

Kate is Pākehā and currently working as a Special Education Needs Coordinator and part-time Forestry Instructor at Whanganui Intermediate. Prior to this she was the Literacy Leader at Pātea Area School. An ex-Greenpeace staffer, she has a dual passion for education and the environment. Prior to becoming the first elected climate convenor for the Taranaki Area Council, she had never occupied an officeholder role in the union, so this was an exciting development both for the Area Council and for the union, since it suggested that the union's climate work might attract member leaders who had never been involved before.

Nō Te Waipounamu ahau. Ko Aoraki te mauka ariki. Ko Tutoko te mauka tipuna. Ko Makaawhio te awa. Ko Poutini Kāi Tahu te iwi. Ko Kāti Māhaki te hapū. Ko Te Tauraka Waka a Māui tōku marae. Kei Hokitika au e noho ana ināianei. Ko Kathleen Scott Langi tōku ikoa. He kaiako ahau ki te Kura Tuatahi o Hokitika i roto i Te Ara Reo. He kaiako ahau mo kā tau maha. I ako au i Te Reo Māori i te wā pakeke, ā, e ako tonu ana ahau.

I was born and brought up in South Westland before the main road was created to join with the road to Haast and through to Wanaka and Queenstown. Back in the day the main road stopped just past where I lived. I have Pākehā early settler families and Māori whānau as part of my whakapapa. 97 percent of our hapū takiwā is in the conservation estate. Kāi Tahu came over the mountains from Waitaha with their Kāti Māmoe relations and fought to establish our mana over Te Tai o Poutini so that we can access pounamu and other resources. We hold lots of the stories and have an enduring connection.

Kāti Māhaki have a very close connection to Māui, the tupuna. A thousand years ago, he landed near where our marae is now. Māui had to fight taniwha so that his waka could land in the area. When we talk about Mātauranga Māui, I feel a very close connection to Māui. Many people will have a whakapapa connection to Māui, and my home is where his waka first arrived in this land.

Kathleen is a kaiako at Hokitika Primary School. She is active in the Waitaha / Canterbury Area Council, which stretches from Ōtautahi / Christchurch across to the West Coast of Te Waipounamu, the South Island. Kathleen has been active in all the education unions for many years and has strong links to her local marae and rūnaka (tribal council). We

first met when we were invited to speak at a Just Transition hui at Blackball, a former West Coast mining town and the home of this country's trade union movement, on May Day 2021.

Phonderly Siohane

Ko haku ingoa ko Phonderly Siohane, ko haku motu ko Niue. Ko haku kainga ko Hakupu Atoa. My homeland is Niue, my village is Hakupu and I am from the nation of Niue. We are not an island; we are a nation of the Pacific. There are eight brothers and sisters, four of us were born in New Zealand, four were born back home. We're … a Pasifika family that came to New Zealand, on the dream of wanting the children to have a better education, to do well in life. So that is why my parents made the migration here, way back in the late 50s. And once they got here, they were able to set up house in Grey Lynn. My family house was the house where a lot of our relatives from back home would then come - travel to New Zealand and stay with us while they were looking for a place to stay. My family basically spent many, many years teaching our relatives how to do things, so that they could acclimatise in New Zealand.

A New Zealand-born Niuean, Phonderly is Deputy Principal of New Windsor School in Mt Roskill where she has been teaching for 15 years. She has a background in governance and leadership and has been a member of the NZEI Te Riu Roa National Executive for six years. In 2022 Phonderly was appointed as co-chair of the Mātauranga Māui Committee. She is a member of the Pasifika Leaders Caucus and is active in her own Area Council of Tāmaki Makaurau / Auckland as well as the National Executive liaison for Te Tai Tokerau Area Council in the Far North of Te Ika-a-Māui, the North Island.

Rongopai Kira

I grew up in Pukekohe. But my family whakapapa links to a place called Tākou

Bay, which is just north of Kerikeri, in the Whangaroa Region. And the hapū

there is Ngāti Rehia, Ngāti Torehina, Ngāti Whakaeke, Te Uri o Hau. I also have

whakapapa links to Matauri Bay, which is Ngāti Kura, into the next bay, which is

Te Ngaere, which is Ngaitupango, and then Te Wainui, which is Ngāti

Ruamahue, which in fact makes me as I put it Ngāti Kahu ki Whangaroa and

Ngāpuhi ki Whangaroa.

Rongopai is a member of the Central East Area Council and a prominent leader in the

union. He was born in the Far North of the North Island, but now resides close to his

wife's whānau in the Hawkes Bay. He has had many occupations ranging from public

servant during the 1980s neoliberal reforms, union organiser and Tumuaki, through to

his current role as Tumu Whenua - Deputy Principal of Te Kura Kaupapa Māori o Ngāti

Kahungunu ki Heretaunga. Over the course of his life, Rongopai has developed

considerable expertise both in Te Reo Māori and Mātauranga Māori. Rongopai has

encouraged tamariki at his kura to be active in lobbying Hastings District Council on

water quality issues which have seriously affected the local community at Bridge Pā.

Tiri Bailey

Ki te taha o tōku pāpā, ko Taranaki te maunga. Ko Waitara te awa. Ko Te

Atiawa, ko Taranaki, ko Ngāti Mutunga ōku iwi. Ko Otaraua, ko Ngāti Rāhiri, ko

Manukorihi ōku hapū o Te Ati Awa. Ko Charles Bailey tōku matua. He was an

innovative farmer, NZ Māori Farmer of the Year, kaitiakitanga o te whenua,

active in iwi, hapū, marae, founding Chair of Parininihi ki Waitotara. Ki te taha o

tōku māmā, Hinemarie Tirikātene, ko Ngāi Tahu, Waitaha, Kāti Māmoe, ko

Ngāti Pāhauwera, ko Ngāti Toa Rangatira.

E noho au ki Waitara, te kainga o tōku tīpuna o tōku papa. Ko Bailey te ingoa o

tōku whānau, ko Wharepōuri, ko Rārawa ōku tīpuna ki Parihaka. Ko Waitara

tāku kainga. He kaiako ahau, he Takawaenga Mātauranga o Aotearoa,

Resource Teacher of Māori, based at Waitara East School. I am one of fifty-three

in the country. Koirā tāku mahi, koirā ko au. Tokotoru ngā tamariki, pakeke

nāianei, engari, tokowhā ngā mokopuna. Kei te tino, tino aroha ki ngā

mokopuna.

Poua and Tāua are the Ngāi Tahu dialect for kui and koro. All of our mokopuna

call me tāua. … Sir Eruera and Lady Tirikātene - my tāua, her whānau originally

were part of a group who escaped from Mohaka and Nuhaka with the support

of Adolphus Henrici, and made their way during the time of Te Kooti down to the

South Island by boat, where they went to Port Levy and Akaroa. Tāua's

grandmother Ropine married Henrici. My Poua Sir Eruera Tirikātene is a

transliterated name from Edward Tregerthen. … It came about because he was

too young to go to the First World War. He signed up as Eruera Tirikātene, hence

the name. …he became an MP in 1932 and he fought for the acknowledgment of

Māori rights and Te Tiriti, as did his second daughter Whetu when she won the

Southern Māori seat after Poua's death in 1967. As Māori in Parliament

they were in the minority and were treated as such. Acknowledgement of the

Treaty was always on their radar, and they made many forays to try and have

that acknowledged in their time in Parliament.

Tiri Bailey is a longstanding member of NZEI Te Riu Roa, has been awarded a Fellow of

NZEI Te Riu Roa and is a member of Te Reo Areare as well as the Taranaki Area Council.

Tiri has been a kaiako for over forty years. She is passionate about sharing stories of her people. She has a deep interest in environmental matters and is an active member of her local conservation community.

Conclusion

In this chapter I introduced the members I interviewed for this research, in order to set the scene for the findings chapters which follow. The participants bring great passion and a rich range of experience to their mahi as member leaders of NZEI Te Riu Roa. As discussed in the introduction, for most members the idea of climate activism is relatively new, but they have generally been involved in sustainability or environment projects for a long time. While it was not a specific aim, in many ways participant demographics reasonably reflected the diversity of the union's membership. The next six chapters detail the research findings. Quotes from participants have been used liberally throughout these chapters to illustrate their points of view about the matters we discussed.

Chapter five: Motivations

Introduction

This chapter marks the ascent up the 'maunga of inquiry', detailing participants' motivations for wanting to get involved in addressing climate change. For the purposes of this research, 'motivation' was used as a frame for surfacing the values that members draw on and that inspire them to act on climate change. Questions in this section of the interviews focused on why, and for whom, the participants felt motivated to act, and what they felt they were trying to achieve.

Who are you trying to help?

I began most interviews by asking members who they felt they wanted to help. Tiri expressed a growing concern about what would be left for her grandchildren and future generations:

> *I think probably the biggest motivation are my mokopuna and mokomoko – what is there going to be for them? … we've become more aware that unless we change how we live and what's happening in the world, I really worry about what's going to be left for them.*

For Kathleen, it was also an intergenerational issue, a matter of continuity:

> *We care deeply about the taiao. We've been there for a long time, and we intend for our whānau to be there for a long time.*

Caroline spoke of her concern for family members in Samoa, and having first-hand experience of loss due to natural disasters:

When my mother's village was hit with the tsunami in Lalomanu, it killed many of our family who'd lived down on the beach. People moved inland and have never come back to the village. The rebuild - rebuilding not just buildings and material things, but also rebuilding lives. And the devastation and the amount of angst here. But also, for us here in New Zealand, the amount of fundraising and trying to help our families over there.

She talked about how changes in the climate are affecting culture, language and identity, and her concerns about the future:

My aunty was a weaver, she wove fine mats. And I remember her telling us that she couldn't continue weaving the quality fine mats using a particular flax, because that particular type of flax had been wiped out by cyclones. So our fine mats now are made from a different plant type, but it's not as good as what our weavers of fine mats used to use. … When the islands are unliveable … how do you sustain passing on what's important from generation to generation when you can't go home? What happens to the people, what happens to their culture? What happens to their language when they come off island?

For Chandra, having her own children gave her the motivation to get involved in early childhood education, and to continue on with her sustainability work in that context:

I've always been passionate about the environment … but wasn't until I started being heavily involved in the children's kindy that I really started to make an impact. … And I realised I wanted to be involved. … they said to me, you could lead us in the Enviroschools programme. … so I did a term and decided that I would do the study.

Why do you believe it's important to take action?

I followed on from this by asking members *why* they wanted to do something about climate change. Kathleen's sense of deep connection to the whenua came through very clearly:

> So do we want to be caring for our whenua? Yes, we do. Because it's a part of who we are.
> A really, really close part of who we are.

Her whakapapa connections to Māui connect her to the stories of the area in which she was born and grew up:

> So we connected with the stories as well as the whakapapa. It's like when you look at Heretaniwha, when you look at Kā Tiritiri o Te Moana, you look at trying to overcome obstacles, when Māui had to challenge those two taniwha, admitting our mistakes, it's kind of like that's all part of it. It's not just a nice story.

Connection to whakapapa and concern for ancestral sites was also a theme for Tiri. She spoke about how she has watched with concern as erosion has brought the urupā of one of her hapū closer and closer to the cliff edge:

> Not far from our kura, we have our urupā, which is Ngāti Rahere, that's one of my hapū and where our Bailey whānau are buried now. It's on a high hill, cliff. And whenever I fly over the area, past the urupā, I take photos … over the years I can see how the cliff is getting closer and closer to our urupā. Now this will be disastrous. And we need to talk as a people about what we're going to do – but we're not the only ones who are being affected.

Rongopai talked about the impacts of colonisation on traditional forms of sustenance:

From where Te Aute College is, across the road, right across to where those

ranges are, that area used to be a major lake source for our people. You

know, there were amazing amounts of tuna, and other species there to

sustain us. So that used to be one of our pātaka kai, that provided food for

our whole iwi for generations. Then one gardener decided to drain it all and

put it into garden so they can grow their marrow to send overseas.

In his written commentary on climate, Barney wrote about the impacts of colonisation, and the fundamental disruption of indigenous people's relationship to the land:

Land is central to Indigenous peoples' identities and well-being ... from a

Māori worldview, humanity is seen as being inseparable from the natural

world. This is exemplified in many tribal oral traditions, such as the

Whanganui iwi proverb, 'Ko au te awa, ko te awa ko au' ('I am the river and

the river is me'). Land and its associated natural systems are connected to

health through a variety of pathways, providing cultural, spiritual, social,

and economic benefits for well-being . Climate change is leading to a

fundamental disruption of Indigenous peoples' relationships with lands and

territories.

He discussed the likely health effects of climate change on Māori as a result of declining air and water quality:

Many whānau, hapū and iwi will lack access to safe drinking water and

wastewater treatment in their communities. Climate change is expected to

increase health risks associated with water quality problems like

contamination and may reduce availability of water, particularly during

droughts.

He also wrote about how rising temperatures and changes in rainfall patterns will likely make it harder for whānau, hapū and iwi to access and store safe and nutritious food, and threaten the built environment in Māori communities.

Kate also talked about the impacts of colonisation. One of the most poignant moments in my interviews was when she related the story of how, as a new teacher, and the only Palangi (non-Pasifika person) on the bus, she had gone on a field trip with students from Ōtara, in south Auckland. One of the mothers who had come as parent help, a Pasifika woman, broke down in tears when they reached the Auckland Harbour Bridge:

> *… she starts to weep quietly. And I notice, because that's your job when*
>
> *you're a teacher is to notice what's going on. And I went and sat with her,*
>
> *and I just kind of said, hey are you okay, what's going on? Is everything all*
>
> *right, and she says, whaea, you know, this is the first time I've seen the*
>
> *ocean. And she had grown up in Ōtara, where it's probably a two-dollar bus*
>
> *ride to the coast. But her whole existence would have been as part of a big*
>
> *family, you know, surviving from meal to meal, and having duties within that*
>
> *family, and then having a family of her own. And she was right there beside*
>
> *the coast, a Pasifika woman, from an island nation, where the ocean is a*
>
> *part of your everyday survival. And she had made it to the age of 36 without*
>
> *seeing the sea.*

For Māori and Pacific members, there was a strong element of cultural identity. As Kathleen put it, 'it's just who we are'. It means that, as she went on to say, 'I just get myself involved, don't I':

Well, we're just progressing. It all just keeps going. And you know, when we get knocked back for some things, well, we're still here. We're here for the long term.

For Caroline, there had always been an expectation of getting involved in family affairs:

I mean, we used to resent it when our parents would go 'oh we need you to give money. We're going to send money to Samoa for this and that.' But now, more and more our family want to protect what our parents grew up in. Otherwise, what do we go back to?

For Phonderly, taking action on climate change was intrinsically the right thing to do:

We do it because it's right. And we do it because we're trying to be a part of saving the planet.

What are you trying to achieve?

When we talked about what members were trying to achieve, the conversations often turned to the role of education. Phonderly talked about the need to build both children and adults' understanding of climate change:

Well, what motivates me is, it's an area that goes unnoticed, it's an area where there's very little education. ... It has to be a focus. What you're doing is you're just starting the Talanoa with them, to gain an understanding of where they're coming from, or what they actually know about it.

Tiri talked about how she works with tamariki to foster their connection to the whenua:

We here are working with our tamariki for them to become kaitiaki. We're very active within our community to ensure that there are opportunities for

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them to go out, do water quality testing and see what changes there are in

our awa, in our manga, our little streams.

Kate and Chandra both spoke about how being an agent of change for Te Taiao can look like offering children experiences in nature:

> *One of the things I can do to be an agent of change is offer students*
>
> *experiences in nature, which helps to connect them, like I was connected on*
>
> *the West Coast. Because you can't go and have a camp at the beach and*
>
> *ride down the sand dunes on a boogie board and swim and kayak up a river*
>
> *and make a campfire without enjoying that arena of nature. I don't know*
>
> *any kid that doesn't love playing in mud and climbing a tree. It's naturally*
>
> *instinctive in them, all we need to do is provide opportunities for them to*
>
> *play in nature, and have a good bit of kit and some knowledge. And then*
>
> *they become stewards of that. – Kate*

> *So learning about it, experiencing it, but then learning how to take action.*
>
> *- Chandra*

Chandra spoke about her genuine enjoyment of sharing knowledge and practice with tamariki:

> *I think spending more time with my children, other children. ... I mean, I*
>
> *genuinely am so passionate ... when we go walking in the forest or*
>
> *discovering different animals and plants, I can genuinely enjoy that myself,*
>
> *to share that with children.*

Conclusion

In this chapter I commenced my ascent up the 'maunga of inquiry' of this research by considering the motivations underlying participants' concern for, and action on, climate change in their workplaces and communities. Connection to the natural world was a common theme. Māori participants were concerned about what would be left for future generations – for mokopuna and mokomoko – and mentioned their strong connections to whakapapa, whānau, stories, names and places. Caroline related the personal tragedy of losing family members in Samoa to a natural disaster. Concerns about degradation of the whenua, both here and in the wider Pacific, and the implications for access to land, sustenance and cultural practice were also shared. All of these fuel participants' passion for education. The next chapter discusses the sources of knowledge that participants see themselves drawing on to undertake their climate work.

Chapter six: Knowledge

Introduction

In this next stage of the interviews, en route to discussing the central question of how
the two kaupapa of Mātauranga Māui and Mōkū Te Ao align, I asked people about the
experiences, skills or education – the forms of knowledge – they had acquired over time
that they felt equipped them to act on climate change. I grouped participants' responses
into formative life experiences; Mātauranga Māori and indigenous knowledge;
community activism; and education union activism.

Formative life experiences

Three participants spoke about formative life experiences that inform their climate and
environment mahi. After losing family members in the tsunami, Caroline went on to play
an active role in the Red Cross Pacific advisory group:

> I was really fortunate to be sitting in that space to learn about cyclone
>
> warnings, and what devastation could be caused, listening to the experts
>
> involved in disaster management. It was really, really interesting being
>
> involved in that space with the Red Cross.

Tiri recalled her experience of growing up on a farm:

> We knew the cycle of life on a farm. I think we were fortunate in
>
> understanding that. It was always - we don't put paru into the streams. Dad
>
> was very strict on how things went out from the shed, and instead of buying
>
> in food for the cows, a lot of it we grew ourselves. So, we've got back to that,
>
> we still have our dairy farm today and we're a small farm – and at times

when my sister talks about getting palm kernel, I just about have a heart

attack.

Kate spoke to the diversity of life experience that has shaped her thinking:

…when I think about my teaching, it's informed by every experience I've

had … I don't think you can be alive and not kind of have a bit of a

spiritual journey as well. And so, you know, the work of Suzanne Aubert

up at Hiruharama informs me. The Dalai Lama informs me and the lyrics

in punk music inform me and everything I've ever done, and every

conversation I've ever had around a bonfire at the beach informs me.

And I don't pretend that I have all the answers. I don't even know half of

the questions. But I care about the planet, and I care about people. And

I've learned through suffering and hardship, how to remain hopeful and

positive, and go, the world is a wonderful place, and people are

essentially good and kind.

Mātauranga Māori and indigenous knowledge

As I discussed in the literature review, Mātauranga Māori and other indigenous

knowledges inform many indigenous peoples' approach to caring for Te Taiao. In my

interview with her, Kathleen spoke of a woven net of knowledge:

Sometimes we use the phrase kua whārikihia, that has been laid down,

like our connections have woven together to make a whāriki, a

welcoming mat, for us to sit on and kōrero. And like that welcoming

mat, when they have the Talanoa, the conversations in Pasifika, they

have the fine mats that they sit on, so that they can be prepared for the

kōrero. Yeah, I keep looking at the links, and the interconnectedness,

called whakawhanaukataka. But all that whāriki. And the kupenga, the

net, so that we can catch all the knowledge.

Phonderly drew on her own experience from Niue, about how children there respond to natural disasters:

They know when there's a cyclone coming, it's the kids that have to help

board up the windows and so on. It's the kids that have to prepare all

that with family.

On the subject of life experience, and of indigenous knowledge, and as a lead-in to the discussion about Mātauranga Māui and Mōkū Te Ao, in the next chapter I will relate Rongopai's story of his experiences as a young person that led him to develop his expertise in Te Reo Māori and Mātauranga Māori, and to his lifelong commitment to education Māori.

Community activism

Members also talked about their work in iwi and community settings. Barney talked about his role as chair of a marae:

In Maniapoto we've always had kaitiaki guardians of the river Waipā.

And we believe there's a spirit up in Pirongia Maunga who looks after it,

is a kaitiaki for it. So we respect it. And we want to make sure that we

treat and give water the significance that it has, as part of Papatūānuku.

There's a new private dairy firm company being set up out of

Otorohanga. We've got a relationship with them where they are

building a wetlands as part of their filtration system for it and they're

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also putting in native trees around there. And we've looked at all the

kaupapa Māori thinking that has gone in to that, me as chair of the

closest marae to it. I've had the opportunity to have quite detailed

discussions with them.

Chandra had done a range of paid roles in sustainability and environmental spaces
before retraining as an early childhood teacher:

I tried lots of different things at university. But it was a Bachelor of

Science that I ended up sticking with, that was in ecology and

environmental science. I did this Antarctica studies programme. And as

part of it, we went to Antarctica and that was a turning point for me. … I

actually did a high school teaching diploma. ... And then I got a job

working for the Department of Conservation in the Regional Council in

Canterbury … doing community-based work and environmental

education work. … in London, I worked for a council doing a sustainable

transport campaign … the second contract I did was a cloth nappy

campaign. But I just kept coming back to the education.

Kate worked in education, and volunteered for Greenpeace, before eventually gaining
her teaching qualification:

I started the journey of kind of cobbling together, you know, bits of learning

– and threw in an arts degree eventually and then went on to do my post

grad. By which stage I was taking time off, actually, to go on ship missions

with Greenpeace. I often joke that my years of teacher's college took from

like 1995, when I first enrolled, all the way until 2010. So, years of studying

to be a teacher.

Education union activism

Members' education activism can be viewed as a source of leadership development that informs their work in the union. Caroline spoke about how her commitment to education underlies her union activism:

> *My partner and I, we're both teachers and working in the education sector. So I've been involved in the education sector for a very long time, probably over 30 years. And very much involved in activism into NZEI Te Riu Roa.*

Phonderly recalled the early days of Pacific organising within NZEI Te Riu Roa, which has more recently enabled the Pasifika Leaders Caucus to form:

> *I was on the original steering committee of Komiti Pasifika, where we got everything set in concrete as far as - we had to have the numbers. So we had to go around different schools, we called fonos[4] on Saturdays, where we got the numbers of Pasifika teachers to agree to want to be a part of this, this new journey.*

Caroline, Barney and also Rongopai all went on to play a leadership role in the New Zealand Council of Trade Unions (NZCTU).

Going against the stereotype

There is perhaps, something of a stereotype about climate activism; that it requires a certain level of knowledge about climate science; perhaps requires a certain kind of person. Interestingly, though, only the Pākehā participants referred explicitly to having any grounding in climate education, work or activism. Although Chandra had worked on

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[4] The word Fono is used in different countries of Polynesia. In general, the term means councils or meetings great and small and applies to national assemblies and legislatures, as well as local village councils or any type of meeting between people. Source: https://en.wikipedia.org/wiki/Fono

a range of sustainability and environment initiatives, only one participant, Kate, had

campaigned specifically on climate change, during her time at Greenpeace. But again,

the learning was not formal:

> *I was a boots-on-the-ground activist who trusted the people on the next*
>
> *floor up who were total genius, environmental scientists. And then they trust*
>
> *this kind of global science fraternity. And rather than reading pages and*
>
> *pages of scientific essays online, I'm quite practical. I haven't studied this at*
>
> *university. I've got a very basic understanding, and I'm okay with that. And I*
>
> *think my students are okay with that, too.*

Conclusion

In this chapter I outlined participants' reflections on the knowledge they draw upon to

undertake their climate and environment mahi. Formative life experiences are

important, as well as activism in community, iwi and union settings. Kathleen and

Phonderly referred to indigenous knowledge as sources of guidance. Interestingly,

participant responses served to unsettle the stereotype that perhaps exists that climate

activists have to be a certain type of person, or require certain kinds of knowledge.

Rather, participants bring a rich range of life experience to the task. We move from here

to consider, in the next chapter, the central focus of this thesis research and therefore

the peak of the mauanga of inquiry: members' perspectives on the relationship between

Mātauranga Māui and Mōkū Te Ao.

Chapter seven: Mātauranga Māui and Mōkū Te Ao

Introduction

We come now to the central question of this thesis: the peak of the maunga. How do members consider that Mātauranga Māui, the union's climate mahi, aligns with Mōkū Te Ao?

To provide a backdrop to Mōkū Te Ao, I begin by relating Rongopai's reflections on his lived experience of colonisation, and how that led him to his professional calling as an educator, a unionist, and an education activist. I weave in other member perspectives to complete that section. Building on that foundation, I move on to consider Mōkū Te Ao, outlining members' views on the need for system change. I then discuss the origins of the name Mātauranga Māui, and the story of Māui and the sun. I move from there to relate stories of members' work to connect tamariki to whakapapa, whānau and whenua, and I begin to reflect on the ways that Mātauranga Māui and Mōkū Te Ao might be interlinked. Finally, I outline members' views on climate justice.

Impacts of colonisation

In my interview with Rongopai I was honoured to hear his life story. We began by talking about how his father had been punished for speaking Te Reo Māori:.

> *As a young person I had no understanding of Te Reo Māori, no understanding of tikanga. And that was largely due to my dad's schooling life where, at Matauri Bay, the native school there, he was caned, he was punished, he was made to wash his mouth out with soap, because Te Reo Māori was not allowed to be spoken. And so subsequently, he left school*

at the age of 14, and vowed that if he had children, none of his children

would learn Māori. And that's the background that I actually grew up in.

When Rongopai attended high school, he found that institutional racism was still alive and well:

One of the first obstacles I found ... is that you are Māori, so you're

deemed that you aren't going to succeed. And so consequently, in my sixth

form year, at Manurewa High School, I was told by our principal that

you're going to be nothing but a labourer. And being the stubborn Māori

that I grew up to be, I got up in the middle of assembly, because I just

happened to be one of those prefects, and walked out of assembly right in

front of everyone else, and walked home.

In the 1980s, in his early twenties, Rongopai was contracted by Māori Affairs to be part of a team considering the economic effects of the corporatisation of the Forestry Service in Northland. He saw first-hand the devastation to communities wreaked by sudden mass unemployment, including depression, alcoholism, violence and suicide. He began to make his own links between his experience at school and his experience in Northland of the human consequences of changes in government policy:

A lot of those workers there were actually my cousins, my relatives. To see

them having no job was just so devastating. And so for me, that's where

the social injustice started, in terms of looking at what happened to my dad

education-wise. And looking at what's happened in terms of employment

.... And so I took up that cause in terms of, okay, where is the stability that

we were promised initially at the beginning of our careers, and we then

start to feel like there's actually gonna be no stability. We're gonna have to

fight every inch of the way for what we wanted. And it reminded me of my

principal, at school – saying that at the end of the day all you're going to be

is a road worker.

This led to his involvement in unionism, first as a Public Service Association delegate and later, as a paid union organiser. Around the same time, he also became involved, via his wife, in the Kaupapa Māori education movement:

When we had our first child, she says, our child's going to Kōhanga Reo,

and we're going to learn Māori. And I'm going, pardon? You want me to

learn Māori? And she goes, well you are Māori aren't you? Once my wife

finished training college, she volunteered to work in a kura, Toku Mapihi

Maurea, unpaid for a couple of years. And of course, I became one of the

board members to help support that. ... And that's when, for me, the

realisation that it wasn't my dad's fault, it was the whole education system

had been geared towards our parents basically being told that the

language is of no value.

One of the connections I made in analysing the transcripts was between Rongopai's experience of the corporatisation of the Forestry Service and Tiri's family history. Tiri's grandfather, Eruera Tirikātene, had been a Minister within the second Labour government in the late 1950s. Yet rather than being given something like Māori Affairs, he had been assigned the lowly Forestry portfolio:

... it wasn't easy as Māori to be members of Parliament at that time. Yes, so

they were always given the little jobs. My grandfather was never the

Minister of Māori Affairs. He unfortunately got a job, got a position, a

cabinet portfolio that yeah, was Ministry of Forestry. And his hands were

tied really, in those times. But that has had an impact on our life today, the

forests were denuded and pine and others put up. So we're now trying to

recover I guess a lot of those things that happened back in those times.

Te Ara, the Encyclopedia of New Zealand, notes that Tirikātene clashed with then Prime Minister Walter Nash; while prominent leaders in Māoridom had requested his appointment as Minister of Māori Affairs, the Prime Minister took that portfolio (Ballara, 2022). Here, we can see the arc of colonial history writ large, with racism toward Māori, that experience of being treated as 'less than', intertwined with the degradation of the whenua.

Another poignant moment in my interviews came when Rongopai related the story of his daughter's graduation from her Master's degree. He flew his father down for the ceremony and she asked him to take her across the stage:

> *It's when he came off, and he started crying and telling us, he says, after all*
> *these years of saying that we would get nowhere, my mokopuna is the one*
> *that opened my eyes. And I think for me, that whole - it wasn't resentment,*
> *that whole realisation that my dad finally saw that there was a validity in*
> *Māori education ... that's the first time I actually saw him acknowledge*
> *Māori education and Māori reo. And so for me, I felt like, yeah, I've actually*
> *achieved.*

Rongopai's journey ultimately became a professional and academic calling:

> *My own Master's thesis was based on the origins of Mātauranga Māori for*
> *Kōhanga Reo, Kura Kaupapa Māori, Wharekura and Wānanga. The actual,*

what was the hua, what was the benefits, is based on my children's

success.

Attitudes to Te Reo Māori and tikanga have changed, at least in some quarters. While Kate related how as a young person she had to lie to her parents - that she wanted to be a broadcaster - in order to study Te Reo Māori. Chandra and Kathleen both spoke about how tamariki where they teach are now growing up with confidence in both Te Reo and tikanga:

I think them identifying and learning Te Reo and being familiar with Te Ao
Māori, to have that growing up, that confidence, and that knowledge, and
feeling like it's part of who you are, if they have that from early childhood,
then I just think it's beautiful. They just don't even think twice. Their words
are interchangeable, when they're going somewhere or identifying names
for things. I think it's really special for them. – Chandra

60 percent of the tamariki at this school are not Māori. ... but it's normal
that we waiata at school. It's normal that when we have assembly, that we
kōrero. It's not unexpected that the school production will have Māori
themes in it. ... one of the classes that's not in the Rumaki unit ... in the kura
auraki stream of the school, last year for their assembly, they put on a little
play about Māui slowing down the sun. That's just normal for them ... It
might have been very rare for their parents, and for their grandparents it
may have been even more rare. But we're helping them to see that it's
normal. Most rakatahi in the country know things. – Kathleen

However, poverty and racism continue to place limits on the aspirations of tamariki Māori. Tiri talked about how tamariki do not have the money to go on field trips:

People say, oh, we're doing the sea. But many of them don't have the

opportunities to go to those places - like up the maunga or to some of our

beautiful sanctuaries, like we have at Rotokare. The children don't get

those opportunities to be part of it. We at school can give them those

opportunities.

She also alluded to the barriers presented by the system of streaming children into different levels of 'ability', and its impacts on tamariki Māori:

... again, that's another kōrero that I think as educators we need to have.

On this issue of streaming ... Back in the day people were put into classes,

trades or economics or home economics, professional or general,

commercial - those were the streams that we were put into when I was at

school. Hopefully, it's changed somewhat. But the children are still being

put into certain levels.. ... we don't get the chance to talk and say, we need

to make changes. We're doing the same thing, but nothing changes. You

know, our tamariki are still coming out, those in auraki, who are not

confident and don't have those pou behind them.

Kate also spoke to her concerns about inequities impacting Māori and Pacific children's education – and the role of the union in addressing it:

Teachers like me working in low decile schools, recognizing the issues that

impact negatively on our students, especially our students who are Māori,

or Pasifika, we know what works. And we know some of the things that

are happening around us that are not working. ... I guess that's a political

thing, which NZEI is in the arena to combat.

This provides a fitting segue to the topic of Mōkū Te Ao.

Education activism, Mōkū Te Ao and system change

My wife started teaching, and I was working for Hamilton City Council. We

started realising that education was the key for us to survive. ... We've

been doing this kura most of our lives, fighting for ... Mōkū Te Ao.

– Rongopai

Experiences of colonisation and racism have led members like Rongopai and Tiri to

advocate for system change; for education that centres the needs and interests of

tamariki Māori. This sets the backdrop for the union's commitment to Mōkū Te Ao. But

what is this philosophy exactly?

Mōkū Te Ao (see Appendix one) stipulates that education system change is crucial for

the success of tamariki Māori. It was adopted by the union in 2019 as a formal

framework, following years of discussion among Māori members of NZEI Te Riu Roa

about how to make genuine progress on education Māori. Its guiding pou are

respectively whakamana, whanaungatanga, rangatiratanga, whakapapa, manaakitanga,

wairuatanga, kaitiakitanga, and tikanga. Its purpose is to challenge union members and

staff to ask themselves if what they are doing will work for mokopuna Māori, and for

Māori generally; challenges them to foreground Māori frameworks; to centre the pou of

Mōkū Te Ao; and to centre tino rangatiratanga o tamariki Māori.

Phonderly remarked that Mōkū Te Ao is not solely about education, or about history,

but instead about seeing the world through the lens of Te Ao Māori:

... it's actually looking at everything through the lens of being Māori, that

to me is what Mōkū Te Ao is ... it's not just the European way that we need

to be thinking about, it's actually the way of the land, of the tangata

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whenua. And it's actually putting the value back where it should be on

tangata whenua as the indigenous people - it's not just about history, no

it's more than that. It's about day to day living now.

Now seems a useful point to touch on the pou of Mōkū Te Ao. I had intended to ask about the individual pou, but participant kōrero was revelatory:

So some people might think that a pou is standing on its own in the whare.

But once you learn a little bit more ... look at the tukutuku panels that are

beside it, some of their stories and how they connect with some of the

pou. So, it might be a tukutuku panel here connecting with that pou over

there as well as the ones that are near it. Up the road, we have a whare

called Tuhuru. And in the whare, I was working with some other whānau

from up there last year. And we started to look at some of the connections

between that pou at the front and who is it connected to going down the

walls of the whare, and some of them are very, very related. Then going

across lots of connections across the whare and from the front because

they are the leading, the main origins of the whakapapa so they of course

go to all the sides... all sides connect to those ones at the front. ... that

interrelationship ... you're saying kaitiakitanga is a pou and manaakitanga

is a pou and whakamana is a pou, [but] they are very interrelated. Pou,

you know, you think they're all on their own, but they're not. – Kathleen

My conversation with Kathleen, the first Māori participant I interviewed, enabled me to see the pou as part of an integrated, holistic system. This holistic way of considering the application of the pou was also later reiterated by Tiri:

No, you cannot do things without all of those pou, as part of what we're doing.

As a result, I resolved not to pursue the line of questioning around individual pou, but to focus instead on talking about the kaupapa of Mōkū Te Ao as a holistic system in its own right, and as a rallying call for system change. Tiri later shared with me a photograph from a workshop on Mōkū Te Ao (Figure five) which provided a visual illustration of the interrelatedness of the pou. In the workshop, participants wrote down their understanding of ngā pou on paper strips, which were then woven together as a whāriki, connecting all pou (T. Bailey, pers. comm.).

Figure five: Interrelatedness of ngā pou o Mōkū Te Ao. Photo courtesy of Tiri Bailey.

During the interviews, members touched on some of the constraints to progressing system change. Tiri talked about the problem of inertia:

> *If you don't have groups, streamed groups, how do we teach them? So this is where we have to have a conversation on what do you do. Tuakana teina? That's a good opportunity to not have that streaming. But again, this is something that people have been brought up with, you do what you know.*

Rongopai touched on issues of institutional and structural racism:

> *I suppose that's the hardest part. Is that for us to have Mōkū Te Ao, we then have to face tumuaki, principals, senior leaders who don't have a strong commitment to Te Reo Māori.... we also don't get well resourced in terms of education Māori. You know, we are only maybe six, seven percent of the national byproduct of education. We've had to create a lot of our own resources. And if we do get resources, it's normally second class type of resources that have been created by non-Māori to profit on the backs of a lot of us .And we only have about 13 to 14 percent of our Māori kids within kura kaupapa, the rest are entered in mainstream.*

Phonderly circled back to the need to tackle racism head on:

> *... the barrier that still exists out there - it's that saying that you hear in schools, some schools, not all schools, where nothing can ever come from being Māori and Māori having Māori knowledge, you need to know how to exist in the Western world.*

We now turn to the final part of this section, where we consider the linkages between Mātauranga Māui and Mōkū Te Ao.

Mātauranga Māui and Mōkū Te Ao

In this part of the interviews, the 'peak' of the process, I asked members about the linkages between the two kaupapa of Mātauranga Māui and Mōkū Te Ao, and how this is reflected in their mahi. This is a good point at which to consider the meaning of the name gifted to the union's climate mahi: Mātauranga Māui.

The name Mātauranga Māui was gifted to NZEI Te Riu Roa by Paetahi Park, husband of the union's Matua Takawaenga, Laures Park. He related it to the story of how Māui sought to slow down the sun, a version of which follows below:

Many years ago, the sun raced so fast across the sky that every day the earth was plunged into darkness ... One evening Māui and his brothers could barely even see their evening meal. … So Māui announced the idea to his brothers that he'd catch the sun and make it travel more slowly. Māui was a demi-god and had pulled off amazing feats already, like catching the largest fish in the world (the North Island of New Zealand). His brothers still laughed, however: the sun was huge and much too hot to catch.

But Māui had a trick up his sleeve – he had the magical jawbone of his ancestor, Murirangawhenua. He convinced the others that it would allow him to catch the sun. The next day, Maui asked his village to collect flax, and with it they plaited a pile of long ropes that they could use to catch the sun. Maui chanted a karakia (prayer) over the ropes for protection. That night, ropes and supplies in hand, Māui and his brothers set off on the long journey under the cover of darkness, to the place where the sun rose. During the days, they would hide under trees so that the sun wouldn't see them coming. Along the way, they collected water in calabashes.

Soon morning came – the sun woke and started to rise. The heat was so great the brothers screamed in fear and tried to run away, but Māui commanded them to stay. It was a matter of staying to fight the sun or being killed by the sun's fireballs as they tried to escape. So the brothers pulled on the ropes and trapped the sun as it rose, which grew angry when it realised what was happening. Māui then pulled out the jawbone and,

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braving the heat, struck the sun powerfully. The sun roared and thrashed in

anger.

Māui commanded the sun to slow down – 'No longer will you dictate the

length of our days – from now on you will travel slowly across the sky!' After

a long and violent fight, and a few more jawbone strikes, the sun finally

gave up – and agreed to slow down. The brothers let go of the ropes, and

the tired sun drifted slowly to the sky.

From then on, Māui and his people had more than enough time to fish, work

and gather food, and the sun continued to travel slowly across the sky.

- Maunga Hikurangi (2022)

Kathleen, whose whakapapa reaches back to Māui, pointed out that not all Māori see him in a positive light, or as a unifying force. Of note, however, she mentioned that Māui was considered enough of a focal point across many iwi for the curators at Te Papa Tongarewa, the national museum, to create their Te Taiao exhibit around him (Te Papa, 2022).

1. Building connections to whakapapa, whenua and whānau

In their educational and community practice, members work to connect tamariki with mātauranga and tikanga; with whakapapa, whenua and whānau. In my discussions with Rongopai, he pointed to the importance of Mātauranga Māori as a foundation for building resilience in tamariki and whānau:

So I gained the knowledge that Mātauranga Māori was essential for our

kids, is essential for our parents to know where we are and who we are

from. Because from that is the tūāpapa, the base from where we grow. ... if

we're strong in knowing who we are, we know exactly where we are, we can

actually plant our foot and make our stand and start pushing back.

Barney saw this as crucial to weathering the existential challenge of climate change:

This crisis has the ability to consume us - I'm talking about climate change -

and destroy our way of life as we know it. So the first thing we have to

replicate or recreate is that through our own cultural practices and

understanding of our own resilience, we cannot be consumed by it. So we

have to then look at what are the things that we do, as Māori, that we value

as Māori?

Rongopai spoke about the cycle of visits he takes tamariki on every four or five years:

All this history, Aotearoa history, we've been teaching for years ... this is

why we take them up north, to understand where their tūpuna came from.

Every five years we have a hīkoi. We go to Tai Tokerau. We go to Tauranga

Moana, we go to Te Moana-ā-Toi, to the Wairarapa where they come from,

down there and over to Māhia. We have a cycle of visits for each of the

schools and so it is a progression of learning. They get to have a deep

understanding of where their ancestors come from, and how it pertains to us

here at the kura.

In Taranaki, Tiri spoke about how each year she takes tamariki to visit the piharau, and
how this encourages them to notice changes to the environment brought about by
industrial activity and climate change:

So it's a lamprey. ... but for us, it is te kai o te raNgātira, or the kai o ngā

tangata, and so, I every year I show tamariki our piharau. And when we look

at, what is significant, what will happen if we don't look after our awa, if we

don't look after our moana. We hear the currents are shifting in the moana.

And we have a worry that the climate, the change in the drifts will push the

piharau past the awa that they would normally come into. So we do know

the - every year we are having less and less, and a lot of that's because

industry around us has taken a lot of water out of our awa, and it's not

helped by the conditions that we have.

In Hokitika, Kathleen works in conjunction with Enviroschools to engage tamariki in riparian planting along the Arahura River:

Last year, we were involved in a special project to fix up the Arahura, to help

revitalise the awa, help the farmers put in riparian planting and give them

some advice. And we've got some people trying to grow the plants that are

going to go there. And so as soon as I found out that it was on, you know,

I'm in to the person who was in charge – come on our kids, we're ready to go

out and plant. So Enviroschools did a hui up at the marae.

In my conversation with Chandra, we touched on how the national early childhood curriculum, *Te Whāriki*, aligns with the concept of Mōkū Te Ao, in centring children's experience of learning. Te Whāriki literally means the woven mat, a schema for education in which children are encouraged to see the interconnectedness in everything, to experiment and learn about Papatūānuku and Te Ao Māori through play, growing their sense of connection to whānau, community and place.

Te Whāriki, I don't even know how to put it into words. It just weaves that

throughout in that it's just part of being. It's not a separate thing. ... Te

Whāriki just embraces so many more things, as ways of learning. And your

family - Te Whāriki is all about whānau, you're all connected.

She saw this reflected in the kindergarten community's annual Matariki experience, which weaves in the values both of Te Ao Māori and of the kindergarten's predominantly Jewish whānau and community:

It's a cultural experience, rather than religious experience. And what's so

beautiful is a lot of the values - traditional Jewish values – weave into Te

Whāriki, and Te Ao Māori: looking after the world, looking after people,

feeding your communities. And the Jewish New Year is in September, so

*Matariki is a really special time to celebrate such a different coming*

together.

Her reflections on Te Whāriki and Matariki led her to consider how for tamariki, making those connections to place and people may also help address feelings of powerlessness:

It's that sense of place, right? ... that our tamariki are connected to the

whenua and that they understand why it's important, they understand

where their kai comes from. ... I know there's so many young people with

anxiety issues and worries, and I think that comes from that feeling of

powerlessness. ... it's prioritizing our tamariki, actually saying, you're

important, you're worthy of this space and of this time.

From this basis of connection, action can follow; kaitiakitanga is strengthened; tamariki are empowered. Rongopai talked about Te Mana O Te Wai, a learning inquiry in which tamariki are taught the history of how various awa in the Hawkes Bay have been diverted by farmers, what the consequences of that have been for tangata whenua, and what the future implications are likely to be. Things took a tragic turn in 2016 when five

people died from campylobacter poisoning in the local water supply (Austin, 2018;

Harper, 2017). In reaction to this, and because the local supply had dried up, Rongopai

organised students at his kura to take direct action (Figure six).

Figure six: Rangatahi from Te Kura Kaupapa Māori o Ngāti Kahungunu ki Heretaunga taking their concerns to Hastings District Council, 27 September 2021. Photo courtesy of Rongopai Kira.
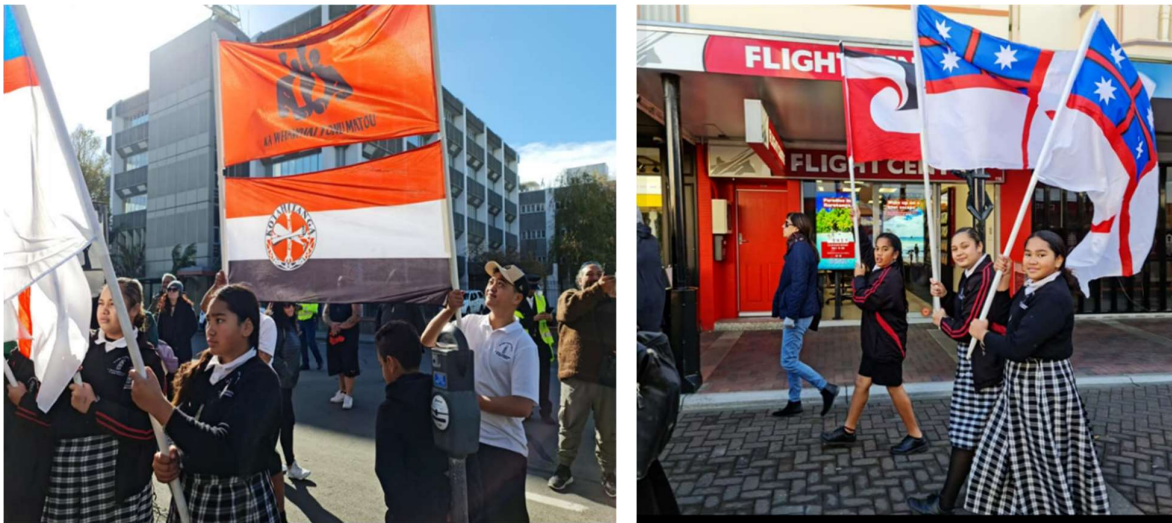
We took the kids down there, all our primary school kids, and they did a

haka. We did a video, to send to the Council, in terms of whakahokia, you

know, return the waters to us, to our people that it belongs to … it was very

powerful, but just to see the kids where they used to swim, they used to

swim and for them to walk under the bridge and just see nothing's there

anymore. Yeah, that's the site that we want to be able to show as well and

say, well, where is the life essence of our valley? Where's the life essence of

our community? You want to give it to those ones who gain monetary value

out of it, but do we see the gain? No, we don't. … we're not going to stand

and let that happen. We're going to be vocal, we're going to get up there. …

We understand climate change. But this is a fight for our lifestyle. This is a

fight for our moana, our awa, and so even though we know climate change

is here, this is our little battle, to obtain what belongs to us.

As I talked with members, I began to see that both kaupapa put tamariki at the centre. In so many ways, with regard to the centrality of Mātauranga Māori, to upholding tino rangatiratanga o tamariki Maori, to the maintenance of connections to whakapapa and whenua, to the building of agency, kaitiakitanga and in empowering tamariki to lead, the two kaupapa are intrinsically interlinked.

2. Critical perspectives on climate justice

One of the areas that I had not specifically included in the interview schedule was about the intersectional nature of climate change; that it can't be considered in isolation from social justice issues. However, this thinking did emerge in our discussions. Phonderly talked about the need for a values-based approach:

> *What should drive climate justice, is values - the values that you bring into your world as a person, as a child. And if you haven't got particular values, well, then you can learn them, you can actually see another way of living that helps our world become a better place, whether that's the environment, or whether that's just the little world that you live in. But everybody contributing will help. – Phonderly*

Kate and Barney talked about the multiple oppressions of colonisation:

> *We can't talk about accelerating Māori achievement without talking about ending poverty. ... about housing. ... about changes to our health system ... about colonisation ... about why so many Māori men are in prison. You just can't. – Kate*
>
> *We cannot understand and address climate-related health impacts for Indigenous peoples without examining this broader context of colonial oppression, marginalization and dispossession – Barney*

Those intersecting oppressions can be starkly obvious in a classroom setting. When she

went teaching, Kate soon realised that without a social justice lens, climate change

becomes something only affluent people can afford to care about:

> *I went and taught at Avondale Intermediate, which had 85 percent Pasifika and I*
>
> *started to realise that when you've got three families sharing a two bedroom*
>
> *home and you're sending, you know, the majority of your income home to the*
>
> *islands to support family over there, having someone kind of lecture your*
>
> *children about buying eggs from chickens that are happy instead of chickens*
>
> *that are in battery farms is not actually very helpful ... people are disconnected*
>
> *from their connections to land ... under the pump and need to put all of their*
>
> *energy into keeping food on the table and paying the rent. ... You can't be at the*
>
> *chalk face of New Zealand education, primarily obsessed with teaching about*
>
> *climate, because you've got to get poverty out of the way first.*

Participants thus saw action on climate change needing to be firmly rooted in social

justice; in rectifying the trauma of colonial injustice. In the words of Phonderly and Kate:

> *It isn't just about change. It's actually also about making sure that people are*
>
> *treated properly, and that people feel that they're not on their own. … it's not*
>
> *just climate change. When I think of trauma, trauma happens in lots of other*
>
> *ways, but it does interrelate to climate justice. – Phonderly*
>
> *I think the future of education is leaning towards ... rectifying some of those big*
>
> *old wounds that have been inflicted way before we were born. ... our guilt over*
>
> *colonisation can be used to fuel this next movement of disrupting what we've*
>
> *built out of an archaic system that doesn't actually serve anyone except maybe*
>
> *the big corporations. And like you say, shifting that power back to indigenous*
>
> *people. – Kate*

Conclusion

It shouldn't be separate. People keep trying to make it something separate. –

Caroline

Well, I can't see how they can't align. - Kathleen

In this chapter, I considered the central question of this thesis: how do members see

their activism on climate change, which has been gifted the name Mātauranga Māui,

aligning with Mōkū Te Ao? I began by relating Rongopai's story; his experiences of

discrimination and racism which ultimately led to a professional and academic

commitment to education Māori and to union activism. This provided a backdrop for

introducing the kaupapa of Mōkū Te Ao. The persistence of structural racism has given

rise to the union's commitment to Mōkū Te Ao, which challenges members and staff to

centre education system change in their work, in the interests of upholding the rights of

tamariki Māori.

I related the story of Māui and how he sought to slow down the sun as a prelude to

discussing how members work to connect tamariki to whakapapa, whenua and whānau.

Building these connections builds agency and kaitiakitanga. From this tūāpapa, action

can follow.

As we reached the peak of the inquiry process, and the central point of our explorations,

I began to appreciate the strong connections that exist between Mātauranga Māui and

Mōkū Te Ao. Both centre the rights and interests of tamariki Māori, the value of

Mātauranga Māori, and the importance of maintaining connections to whakapapa,

whenua and whānau. This builds agency, strengthens kaitiakitanga and empowers

tamariki to lead. Both kaupapa seek to uphold the tino rangatiratanga of mokopuna

Māori. Members perceived climate justice as inherently a social justice issue. In the next

chapter, I discuss member's views on the power and resources they draw on to progress

their work.

Chapter eight: Power and resources

Introduction

Towards the end of the interviews, in line with my CSH approach, and as we began our descent down the 'maunga of inquiry', I asked participants about the power and resources they felt that they could draw upon to progress their climate mahi. Participants discussed their collective work in community and professional settings. Barney and Kathleen also discussed the ways that Māori can exert positional power when occupying roles in decision-making forums in local government. Resources included teaching tools, indigenous knowledge and the natural world itself; and the substantial resources of the union itself.

Power in community

For Tiri, such power was found in her community connections:

> I think it's just about getting out there and walking the talk. I belong to a
> rōpū that we started last year called Te Ara Taiao, which is a group of DOC,
> Sustainable Taranaki and our hapū, Otoraua, Manukorihi and Pukerangiora,
> … working with Sustainable Taranaki and we have parts of a kaitiaki
> kairuruku. And so it's working with the hapū and the iwi here, … and
> Enviroschools, getting it into our schools … one of the things is to have a
> rangatahi rōpū, who can make change, and suggest change.

Similarly, Kathleen talked about 'just getting involved' in community projects. As mentioned, she has persistently sought out opportunities to involve tamariki in a Department of Conservation project to revitalise the Arahura River. She also talked about the power of longstanding professional relationships: her decades-old education

connections, for instance, have now led to her getting involved in Just Transition work on the Coast:

> *It's important that we've had those relationships before, and we keep building on them. So years ago, I taught at Greymouth High School, and one of the other kaiako used to come in and help with drama. … he for years has invited me to Mayday, but last year, I went as a union person and ended up speaking about how climate change was affecting some of us and what kind of visions we have for the future, thinking about … Just Transitions happening on the West Coast. And so I've continued that conversation on with other union members, with the West Coast Development Trust … I'm here long term, doesn't have to be done in two weeks' time. So I'll just keep coming back to it.*

Kate talked about using her role in the classroom and community to catalyse change; about bringing tamariki together in the classroom in ways that their parents might never have experienced:

> *The average income here in Pātea is I think $17,000 per annum. … And then you've got the children from the farms on the lands that were stolen from these people not that long ago, coming in with the experience of privilege. They join each other in this classroom and mix and mingle and learn from one another. And I hope that children from their local farms go home and ask really difficult questions of their families. And I hope that the children that are from around here see what's possible from their experience of these children …. So that segregation, which is invisible in New Zealand, pretty much, but exists, knocking down the walls that kind of divide us so that we can understand one another better.*

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Power at the table

Barney and Kathleen reflected on the power that Māori can wield around the decision-making table. Kathleen for instance, talked about how Rūnaka representation on the Westland District Council has prevented the pumping of raw sewage into the ocean, where it would have backwashed onto the Arahura mussel beds:

> *Our local chairs of the two Rūnaka sit at the council table, and they help with decision making. So instead of saying, oh, … the sewage ponds are filling up, shall we just pump it out into the ocean? … when our chair people are there at the hui? You know, that's not an option.*

Regional growth funds have also required Māori consultation, as have many 'shovel-ready' COVID-19 recovery projects. Kathleen noted that in the past, some would do an 'absolutely terrible job' at consultation. At the moment, though, local government needed to listen to Māori:

> *If a local government body wants funding for a big project, they need iwi sign off. Otherwise, they won't get the funding from the government. So, they have to listen to us, so that's power. Power is in the signature.*

Similarly, Barney spoke about the importance of getting Māori onto regional councils as iwi spokespeople, or onto iwi regional committees:

> *In Maniapoto, we … basically monitor all resource consents. We have someone employed to send us the red flag ones … and we go through them pretty strongly too. If it doesn't look like it's going in the direction we want in terms of respecting water, we reject it, we have no qualms about it, and we say you need to do something here. That is where we, as Māori, can make an impact.*

However, this kind of engagement – on water, fossil fuel exploration, agricultural intensification, transport, and other climate policy proposals – if it is to be meaningful, requires resourcing. In Barney's experience in an iwi governance role:

> *Iwi in the main, are under resourced and over consulted by Crown, local government and local boards and expected to front to partnerships and Treaty responsibilities. There has to be a funding component to participation.*

He noted in his commentary that they also they often lack access to quality technical advice, are excluded from local and regional planning processes, and lack the capital to invest in climate-resilient infrastructure. Because of this, as Barney commented, it is important to 'be strategic about where you put your people and your energies'. By way of contrast, Caroline commented that during the draft Emissions Reduction Plan consultation in late 2021, Pacific communities were not considered at all, despite there being a higher number of Pacific MPs now in parliament:

> *That's what disappointed me most is about who was at the table? Was there any consideration given to include Pacific? … it's that same old thing, that we're talked about, or we're talked at. We're not really at the table to have a decent Talanoa. It highlighted how much our communities are not really engaged. In climate change or climate action, not properly or well informed.*

She further pointed out the need to establish enduring relationships:

> *They have to clearly understand what it means to engage with Pacific communities and also what it means to sustain relationships once you go*

down that track. …. They can't be one off transactions, it has to be ongoing,

and there has to be follow up.

Resources members can draw upon

In terms of resources member said they could draw on to support their climate work, responses could be broadly grouped into three categories: personal, Te Taiao and Mātauranga, and the union.

1. Practitioner resources

Educators build up a kete of resources through professional development and personal experience. Chandra spoke about some of the resources she draws upon:

I guess I've built up a little bit of a kete through my personal experience, but

also, you know, trying things out - what works, what doesn't work, and just

doing it as well. And in that sense I mean talking to children about waste, or

how we can practically experiment with some of the things like our

gardening, worm farms, compost bins. Before COVID, we would often have

somebody come in, like an expert from the council, or Project Jonah.

Because it's someone different, they bring a different perspective. So many

people are doing so many things.

2. Te Taiao and Mātauranga as resources

Several participants spoke to the wealth of resources all around them in nature, as well as the rich lore embedded in Mātauranga Māori and other indigenous knowledge. For instance, Barney referred to the way some local marae are using vacant land:

Well it's taking advantage too of the land that's sitting around. Like we've got maraes that are using land that council's not using or Waka Kotahi's not using and putting gardens on it. We're already doing that. I think if we can encourage every school to have a garden, a native garden, a rongoā garden, that would be great.

Kathleen spoke about the rich biodiversity to be found in local wetlands:

When I look at what some people might say is swamp, I go, 'oh, look, there's raupō' … most people now know that harakeke is really useful for many things… it's habitat for inanga, and tuna, and manu that we may or may not be able to eat and use the feathers if they die. … when I look at raupō, I think of manu aute, kites, and I think of mōkihi, which are rafts, really special rafts. So when I look at those things, I see a rich bank of resources, and not just, 'let's drain that and put paddock on it.'

She saw land as not just seen as something to be controlled and commodified, drained and ploughed, but a resource to be studied, observed, nurtured and considered for what it teaches tamariki about interconnectedness and systems.

On the subject of Mātauranga-a-iwi, Tiri spoke about what she planned to do in Taranaki:

We can't follow the Tai Tokerau way of Maramataka, we can't follow any other people's way. It's what it is for you, and your rohe. … We have a Reo Rua unit, there's five of us in the rōpū. And we are looking at how we can work around the Maramataka … we're going to have a look at what we can do, how we can do our own resourcing.

Phonderly had her own point of reference from Niue:

In Niue, we have what we call the blessing of the yams, the blessing of the

crops at the beginning in January. They're all blessed so that the crops for

the following year are grown with lots of love and nurturing and sustenance.

And then the minister disperses all the goods to families. … It's a communal

thing. It's everybody doing it together…. you take back whatever you're

gifted back. So the kids there know, the taro that I'm going to eat tonight for

dinner has been blessed by the minister. Now, there are stories and beautiful

pictures that have been turned into books about all this. So when you want

to talk about it, there's your resource already.

In terms of Mātauranga Māori resources, Barney spoke to the need to give Te Takanga o Te Wā – the Māori History Guidelines (Kauwhata Reo, 2022) more prominence, while Rongopai commented that Kura Kaupapa Māori were not well served by the prevailing system:

The challenge for me is to make sure that we do get resource because we

don't get well-resourced in terms of education Māori. … And so we're

realising that to do things we need to do it ourselves. And that's why it's so

good in terms of PLD now, that we can control what PLD looks like for us as

Māori.

3. The union as resource

The final resource members referred to was the union itself. In addition to the union's professional development offerings, members talked about the communication tools the union has at its disposal – such as its website, the union journal, *Ako*, its ability to produce campaign materials, and the use of mainstream and social media. Phonderly thought though that the most powerful communication tool members had was voice:

So the power we have is the power of voice that can be heard, that can be

put out there to other members. Then that power of being heard can turn

into being an enabler – where we enable people to go out and either share

what they've heard, research more what they've heard, or do something

about it, whether it's a little action, or a big action.

The ability of members to organise, to use their voice, is indeed the basis for building

union power.

Conclusion

In this chapter, participants talked about what forms of power and resources they draw

on to support their climate mahi. Rather than talking about money or status, members

instead talked about just getting stuck in; about the power of being in community, and

the enduring power of the relationships that they can call on to get things done. Barney

and Kathleen also talked about the positional power that Māori can wield around the

council table; a topic I will come back to in the 'what ought to happen' chapter, and in

my discussion. Resources members draw upon include their kete of practitioner tools

and resources, Te Taiao and Mātauranga, and the formidable voice of union members

themselves. In the next chapter, we consider members' visions of success, and who

judges that success.

Chapter nine: Success and legitimacy

Introduction

Towards the end of the interviews, I asked participants what success looked like to them, and who would judge that. In this chapter, I outline members' visions of success, and who judges that sucess. We also touched on how to include the voices of those who can't speak for themselves.

Mātauranga Māori is valued in education and wider society

Rongopai began by discussing visual signals:

> *When I can walk into kura, into schools, and see an environment that is about our Taiao that incorporates Ao Māori within the school.*

However, he went on to say that a major measure of success was genuine community acceptance of the value of Mātauranga Māori. Success in that regard would mean, among other things, educational authorities allowing time and space for tamariki to learn away from the formal school environment:

> *The issue, Conor, is that these students be given validity when they attend these sort of functions .... If the parents are going to take the children away on a whānau wānanga back home, is that important? More than schooling? Of course it is, it enhances. Because at the end of the day, that's where they're from, and so this can enhance the educational value when they come back to school. And not go, oh you're going to be sent to truancy, because your child is absent from school. No, that's actually education outside the classroom. That's actually education Mātauranga Māori.*

The end result being tamariki who can stand up strong in their own world:

> *We can take our children to any marae, they can stand, they can do the*
>
> *karanga, they can do the whaikōrero, they can do the kitchen, they can do*
>
> *anything related to the cleaning up, to making sure things are returned as*
>
> *they were, and be able to converse with the kaumatua and kuia about that*
>
> *area.*

These reflections from Rongopai are particularly poignant in light of the debate that had previously raged in 2021 about whether Mātauranga Māori was science. In July of that year, seven professors from the University of Auckland published an open letter raising concerns about a National Certificate of Educational Achievement (NCEA) working groups's proposal to give Mātauranga Māori parity with Western knowledge (Sachdeva, 2021). The letter sparked huge controversy and was roundly condemned by thousands of academics, the Royal Society and the New Zealand Association of Scientists, among others (May, 2021; Sachdeva, 2021; Waitoki, 2022). While it may seem like an esoteric debate, as Professor Stephen May commented at the time, 'the dismissal of indigenous knowledge impacts on our lives in real time in the real world' (2021).

Tamariki are curious, engaged and resilient

Another important measure of success identified by participants was how tamariki experience education about climate, and changes in Te Taiao. Phonderly talked about being able to measure success by the number of conversations happening:

> *The conversations that start in classrooms should be [about] curiosity, where*
>
> *it's wanting to know ... wanting to put their thinking forward, testing the*

whys. The how comes. And if we can get children to begin at that basic level,

it then permeates into adults having really good discussions.

For Kate, a poignant moment came recently when one of her Pacific students ended up
working in the climate movement:

> *I know that I'm making traction because one of those kids from Avondale*
>
> *Intermediate that I used to teach sustainable futures to, she sent me an*
>
> *email not long ago, and she's just started working with Greenpeace. And I*
>
> *think she's Greenpeace's first Pasifika woman on staff.*

Members and communities are informed, engaged and empowered

Success also looked like members creating spaces for people to talk about climate
issues. Chandra spoke about being able to measure the increase in climate
conversations happening at work:

> *It's the conversations, more conversations are happening, but also other*
>
> *people take on doing things. So that's that flow on effect. And hearing that*
>
> *something's happened outside of the center context. People coming back*
>
> *and saying, Oh, I was thinking about this, or this happened on the weekend,*
>
> *or we're working on a worm farm this weekend, or we'd like your advice*
>
> *about setting this up, or what do you think about this? And it's wider spread*
>
> *than just your immediate community, I suppose.*

For Caroline, success would look like engaged and empowered Pacific communities:

> *To me the ultimate success would be, that we've done our job to engage and*
>
> *inform our community, so that they can come up with their own solutions,*
>
> *that they can achieve. Our job is to remove any barriers or obstacles in the*

way … But also, people who are not Pacific understanding, having a clear

understanding of what engagement means.

Kate envisioned success as a transformation of culture and systems, underlaid by a growing movement for change in the teaching community itself:

When we build each other up and say, hey, you're probably really onto

something here. How can I help you? And providing spaces for people with

common goals and similar mindsets to get together and just support each

other … it's community, and it's empathy, and it's sharing, and it's meeting

the needs of people better. If you look at the permaculture principles of land,

looking after land, and people, there's an emerging bunch of teachers that

follow those principles. So you can't care for your students without caring for

the land that's going to nourish and nurture them. And you can't care for the

land without caring for the young people that are going to inherit the earth

off us. So yeah, our success is, I guess, measured in the growing of that

community that are switched on.

How to include the voices of those who can't speak for themselves?

One measure of legitimacy, or success, is about ensuring the voices of those who can't speak for themselves can be heard. This question generated a variety of responses. Caroline, for example, talked about including the voice of Te Taiao, and doing this by actively encouraging tamariki to seek permission from non-human beings:

They were doing a little nature walk around some walkway up in Ascot Park.

And the teacher, he was saying, now remember children, ask permission

before you take a leaf. And then thank. You know it was really interesting.

That kōrero to our children. And this is our tamariki in kindergartens or in

the early childhood sector. About how and why it was important to respect

the environment.

When I asked Tiri this question, she talked about the way piharau finds voice in the classroom setting, providing a strong sense of the way Te Taiao and Mātauranga Māori can be integrated into educational practice:

> *Hmm. It can only be through sharing, I mean, through sharing those stories.*
>
> *... one of our top awards for tamariki at our kura is Piharau Manawa Nui,*
>
> *which is for a student that really has given in their time at our kura, they*
>
> *may not be the academic person, they may not be the sporty person. But*
>
> *they have worked all the time. And enjoyed their time here. So hopefully, our*
>
> *tamariki will know what that story's about.*

Chandra talked about the youngest tamariki – noting that they were quite capable of communicating their connection to the whenua, even when not yet verbal; while Phonderly talked about working with children from traumatised backgrounds, such as from the refugee community, by allowing them to communicate in their own ways, providing accessible formats, and building trust.

Who is the judge of our success?

My final question was about who would judge their success. For Caroline, it was the people themselves, while for Rongopai, the ultimate stamp of success would be to have the approval of respected elders.

> *The people themselves and also what they've achieved. And it doesn't*
>
> *matter how small it is, it would never have been done, you know, nothing*

would have happened before. And you know, so that's why you've got

nothing to lose, you just get on with it. – Caroline

The greatest sign for us is when we get feedback from the kaumatua and

kuia to say that what an amazing lot of tamariki, who have been given the

gifts of their ancestors. – Rongopai

It often created a heartfelt moment at the end of these interviews, as people circled back to what really mattered.

Conclusion

In this final section of the interviews, participants spoke to their visions for the future. They spoke of their desire to see Mātauranga Māori valued in education and wider society, for tamariki to grow up curious, engaged and resilient, and for members and communities to be informed, engaged and empowered to deal with climate change. Success would be judged by the people themselves, and by esteemed elders.

Legitimacy and success, then, links strongly back to everything that has been covered in this thesis. In order to succeed, it could be argued that all of the other areas covered in my conversations with members are vital prerequisites. Motivation, knowledge, power and resources are all tools members must draw on in order to progress system change.

One more foothill on the maunga of inquiry made itself manifest later on, as I analysed the findings. The final findings chapter, which I have entitled 'what ought to happen', emerged organically from the interviews, and relates a range of opinions members expressed about the actions that members and the union as a whole should take on climate change.

Chapter ten: What ought to happen

Introduction

> *Building the movement, making a swell, building the swell. – Phonderly*

The following chapter was not based on questions in the interview schedule, but instead emerged organically from analysing members' comments in the interview transcripts. Using Ulrich's Critical Systems Heuristics approach (2005), interview questions were framed around 'what is' and 'what ought to be' (Midgley, 2016; Williams & Hummelbrunner, 2011). These comments were generated from our discussions about what 'ought' to happen – in other words, what actions members and the union as a whole should take next. In a way, this final findings chapter belongs not on the maunga of inquiry, but marks instead the beginning of a new journey – an ascent up a 'maunga of action'. I come back to the points below in my strategic recommendations.

The role of the union

We sometimes reflected during the interviews on why unions ought to be getting involved in addressing climate change. Barney commented that he was already active and thought the union should be too:

> *We need to be quite active in the climate change space. We need to be very active in how it's affecting our waters. So that's what I'm working on.*

Chandra, who had been employed on environment and sustainability kaupapa, wondered what union action on climate change might actually entail:

> *I guess the other side of that too is what action looks like? … in terms of a union offering, I don't know, some kind of idea to teachers, or schools or*

centres, what can we actually be doing? There's the teaching side, but in

terms of action, I don't know what that would be. But ... it's certainly

something because you can feel sort of powerless over it. ... … there does

need to be a shake-up in terms of - I guess, what the union's doing … it's not

like it's a radical issue anymore.

Mōkū Te Ao and climate change

Barney thought that the union could begin by extending Mōkū Te Ao to include climate change:

[We need to] broaden our Mōkū te Ao campaign to include an indigenous

Kaupapa Maori framework on climate change. ... implement actions that

can help to limit the worst/negative effects of climate change on health. ...

our cultural practices that we've known for hundreds of years, including

linking ourselves in our whole thinking with Papatūānuku, linking our

thinking with Ranginui, and linking how we kaitiaki with our ngahere, our

moana, our water and our land, has to be brought back into the focus and

front and center of thinking within our union and also within the crown. ... as

a union, our focus is to pick that voicing up, pick the messaging up and relate

it to what we used to do.

He thought that a starting point could be asking:

How does climate change affect my whānau? How does climate change

affect my marae? And how does climate change affect our hapū? So keep

asking those questions to yourself, and then look at all the things that we

have to do in the kaitiakitanga space.

Tiri talked about how Miro Māori has begun this process, with its focus on developing a strategy to realign the union's operations with Te Maramataka. As she pointed out, though, there is a need to take the whole membership on this journey:

> *We have to take the union members with us. ... we've got what, nearly 50,000 members. ... trying to ensure that at least half of them will have that understanding is going to be a little fraught ... so I'm not sure how that's going to work out. I think a lot of work and a lot of kōrero still needs to happen.*

Exercising leadership

Phonderly, who co-chairs the Mātauranga Māui committee attached to National Executive, talked about the important role of governance in leading this work:

> *We as a union need to be having it on the agenda on a regular basis ... looking at our strategic plan of where climate change sits within our union.*

She thought that the Mātauranga Māui Committee could also exercise leadership by weaving in a stronger focus on Mātauranga Māui into its report-back to National Executive:

> *Wouldn't it be neat, if at national executive level, when we do our reporting back, we also share some sort of new knowledge with them as a governance group.*

Building alliances

When discussing what needs to happen, Barney also talked about the need to build external leverage and relationships, particularly alliances with iwi:

> *[we need to] form working relationships with iwi and like minded political*
> *groups to work in regional networks, and collaborate with scientists and*
> *academics to leverage Crown resources to limit vulnerabilities and build*
> *greater community resilience.*

With respect to building connections with whānau, hapū and iwi, while he noted the existing level of demand already placed on both union members and iwi, Barney also noted that the value of those connections is that issues can be addressed at the ground level:

> *And that's really what we've got to do. All those activists that we've got, like*
> *the older ones, you've got to march into the Rūnanga. ... use the iwi hat,*
> *because I find that way more successful at the moment.*

Pacific engagement

For Caroline, the conversation turned to her concerns about a lack of Pacific engagement on climate change both inside and outside the union.

> *When you start talking about reducing, you know, carbon in your footprint,*
> *people go, what the hell is that? What does that mean? And me living in*
> *Porirua, working in Porirua with my whole aiga, who live around me in the*
> *same vicinity? What does that mean for my family, when you come up with*
> *these terminologies? How is that practical? There are practical things I need*
> *to do if I am to be an active participant in the action.*

This lack of engagement was starkly reinforced when the government's Emissions Reduction Plan (New Zealand Government, 2022a) was released for consultation in October 2021. A keyword search for the words 'Pacific' and 'Pasifika' produced only two

results, highlighting for the union's Pasifika Leaders Caucus how much their communities are not engaged, and not engaged *with*:

> *It was interesting that when we were in a Zoom with Minister Shaw and Minister Aupito, there was somebody on the Zoom goes, okay, well, we'll meet offline with the Pacific Climate Warriors, and I'm thinking, okay, you don't get engagement. It's not about just engaging with one group. No, it's about engaging with a cross section so that you can get a perspective of the young people, the community people and then the ethnic specific Pacific groups.*

In response, the Pasifika Leaders Caucus organised an online Climate Talanoa for Pasifika members, bringing in education union colleagues from across the Pacific. Follow up steps identified as a result of that Talanoa included supporting Pacific climate NGOs, particularly Pacific Climate Warriors; connecting with Pasifika networks in other unions in Aotearoa, and staying connected with Pacific Island unions and the issues concerning them:

> *It's important that we stay connected with our Pacific brothers and sisters, because what happens over there? It does impact on us. Because it's our families. It's our villages. It's our islands. And also we have a responsibility to support. So we must stay connected to be right across what the issues are that are happening in the Pacific region.*

Within the union, Caroline envisioned the following next steps:

> *The next step is our representatives reporting to the Area Council, what's the plan going forward for each region, because their contexts are all different. Making sure that there's a Pacific lens in those plans around climate action.*

And also that our leadership caucus takes the lead in creating a clear plan.

There'll be good ideas from here that people would see, oh, that could work

in Invercargill, or that can work in Oamaru with the Tongan community or,

you know,? Then also, hopefully generate some tools and resource.

Phonderly thought that the union might also be able to connect the NZEI Te Riu Roa membership more directly with Pacific climate concerns by, for instance, producing a pānui for schools and centres in the event of natural disasters in the Pacific, such as cyclones. Caroline also identified a need for education within Pacific communities:

I think there also needs to be community education. I don't think anyone's

come up with how we approach our churches, our faith-based organisations,

how we approach the sporting sector. All the different sectors in our

community. What's the community education programme to fit into

people's contexts?

Caroline pointed out that all of this requires strong leadership:

We need leadership … because that's what works, is having good leadership

that helps lead the Talanoa, that helps bring everyone to the table, that

helps put out really good information that is clear, and that people can

understand, that helps mobilize our communities to - you know, to

formulate simple actions - that can be achieved. And relevant to their

everyday lives.

On this note, Phonderly pointed out that capacity is a major issue for Pasifika members:

> *We're not strong enough as a group like Te Reo Areare are. They have taken*
>
> *years to get where they have got, very successfully. But it's not something*
>
> *that just happens overnight.*

The role of climate change education

As educators and education activists, the conversation about what ought to happen
often not surprisingly turned to education. Caroline felt strongly that climate education
needed to extend beyond the classroom, into Pacific communities and workplaces:

> *It shouldn't be separate. … it should be embedded right across our schooling,*
>
> *through our systems, in our classrooms, through teacher training, you know,*
>
> *preservice and professional development. It should be thought about in*
>
> *terms of our changing world, of our culture, language and identity with …*
>
> *multi-generational approaches and strategies within the home, within the*
>
> *community, but also within the learning environments that we're in. And*
>
> *also, within our workplaces.*

Phonderly thought that member leaders had a role to play to support other members,
too, to learn about climate justice:

> *It's tapping into people and giving them that empowerment, that*
>
> *enablement to actually go and look for it themselves. So to me, our role is -*
>
> *we're the connectors, we're the ones that connect them with what they*
>
> *should be connected with, to then platform into the next part for them, as*
>
> *opposed to what's that saying? - do it to them.*

Kate spoke about the need to build trust with tamariki in order to be able to talk about
big issues like climate change:

It's deemed as being something that could potentially upset young people to the point of them having their hauora impacted negatively. … But I feel a responsibility to be pono about the state of the world, whether that's talking about gender politics, or history, or environmentalism. It's my job as a kaiako, to teach … young people how to be critical thinkers. And solutionaries. Education is often referred to as a bridge out of where we're at to where we want to go. And my job as a kaiako is to lead my students over that bridge. And the bridge is always changing. … I don't want to shy away from the difficult conversations … and I'm really mindful that at any time, anything I say or do could be what this kid remembers for the rest of their life. And so I am delicate and careful and mindful of their wellbeing, but they blow me away with how much they already know.

Chandra commented that at least in early childhood you get to have those big conversations with tamariki and whānau:

I feel like for early childhood, maybe it's a little bit easier. In terms of for tamariki, perhaps? Because we can, in an inclusive setting all together, be having those conversations. And as situations arise, we can actually talk them through then and there.

A key concern, of course, was workload:

I think lots of places could be doing a little bit more, but I think a lot of schools, they find it all quite daunting. The thought of making any changes, it's not like there's time allocated for teachers who might be keen to set up a waste programme, or that sort of thing. I find there's just not enough hours in the day to do all the stuff that I'd love to do.

Building toward a Just Transition

Another stream of discussion in interviews related to what 'ought' to happen in terms of members working to support colleagues and communities to manage the impacts of climate change.

> *It's that whole manaakitanga, getting behind and supporting in the best way that we can. ... making sure that when something like that happens, regardless of what it is - that we've got a plan of action, that we don't just sit and wait and watch the news. We have a plan of action, especially where kids are concerned. – Phonderly*

> *We need to prepare our people so that they know what to do with ... natural disasters and hazards because it's not about if it's going to happen, it's when it's going to happen. And because we're not doing good in those spaces, we need to prepare our kids and everything to think in that space. – Barney*

In terms of a Tiriti-responsive a Just Transition, Barney noted that the Crown has an obligation under Article Two of Te Tiriti to protect life-giving taonga. In his commentary, Barney further stated that:

> *Poorly planned responses to climate change could also impact health equity through changes in the economic determinants of health. For example, climate change policies that raise costs for fuel and energy (and therefore increase costs of goods and services) could, without counter-balancing measures, place extra financial burden on low-income families – disproportionately Māori – affecting ability to afford the basics for good health. ... In Aotearoa/New Zealand, this means that iwi need to be fully*

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engaged in decision making on issues that affect their taonga, including

health.

As he noted, rising sea levels will also impact on Māori communities, affecting kura, marae and urupā, requiring a proactive response from government.

Phonderly talked about how union members can foster conversations about climate change in their workplaces and communities, and help put practical plans in place. Where union branches have connections with local marae, they can help support whānau when flooding does impact:

Not just money, but making sure that somebody connects with that iwi, connects with that school, connects with that kura so that, hey, there's someone out there that cares about us. There's someone out there that is interested in what's happened to us.

This kind of community level response was something Phonderly could easily relate to, it being a regular part of life in Niue:

The kids just picked up all their stuff and off they went, you know, there's no panic. Because it's naturally part of what they have to prepare themselves for. Our kids here, when we have a fire drill, they panic, you know, because it's something - it's change. So it's getting our kids used to change.

Kathleen spoke about the formal Just Transition process that has commenced in Murihiku / Invercargill, in Southland, where an aluminium smelter has been in operation since 1971 (Cook, 2010). While the current owners have prevaricated about whether or not it will close (Hooper, 2022), the four local rūnaka have decided to forge ahead with

community and ecological development initiatives under the auspices of Murihiku Regeneration:

> *The iwi is strongly involved in the planning, the model-making for what the future is. … they want Tiwai … to be given the mana that it should have been given originally, when they let Rio Tinto, or whoever it was that owned Rio Tinto back then, have an aluminum smelter.*

Conclusion

In this chapter, members discussed strategic ideas for progressing system change – for taking action. This included extending Mōkū Te Ao to include climate change, exercising leadership at the national level, building alliances with iwi and other external organisations, engaging with Pacific members and communities, and ensuring climate change education happens in schools, centres, communities and workplaces. Participants talked about the need to prepare, support and connect with members and their communities to address the impacts of climate change – in effect, beginning to envision the union's contribution towards a Just Transition.

In the last six chapters I have explored the findings from my interviews with participants. The next chapter crystallises the major insights and messages that have been generated in these findings, and offers some strategic recommendations for future action.

Chapter eleven: Discussion and recommendations

Introduction

In the last six chapters, I outlined the findings from my interviews with member participants, ascending and descending the 'maunga of inquiry' and even commencing the ascent up a new maunga of action. In this chapter, I synthesise the findings and generate some key messages. I conclude the discussion by proferring a set of strategic recommendations. These recommendations are an additional gift from the research and in most cases their message extends beyond the specifics of climate to speak to some of the universal challenges of union organising and leadership.

Motivations: tamariki, whānau, whenua, culture, language, identity

> *Tamariki, whānau and whenua, culture, language and identity motivate members to act on climate change. This connects with their passion as professional educators, inspiring them to act as agents for change.*

Participants spoke about their love for and connection to the natural world. However, for Māori members, motivations ran to deeper concerns about tamariki, whānau and whenua; about what will be left for mokopuna and mokomoko, and about the ongoing impacts of colonisation on the whenua. Caroline voiced strong concerns about loss of culture, language and identity.

In my literature review, I discussed the impacts of colonialism, including its 'tenacious legacy' of climate and environmental breakdown (Vaeau & Trundle, 2020, p. 211). Colonialism's various mechanisms of disruption have resulted in what Bacon has called 'colonial ecological violence' (2019, p. 63). in Aotearoa, and the wider Pacific, this colonial ecological violence impacts Māori and Pacific communities more intensely, in physical, spiritual and material ways. Member interviews brought the reality of this

colonial legacy strongly into view. What this research has added is an educational lens: members' concerns about climate change connect with their passion as professional educators, inspiring them to act as agents for change.

Knowledge: educators are amply equipped to tackle climate change

> *Educators do not need to be climate experts to be active on climate change.*
> *They come amply equipped with a wealth of skill and lived experience.*
> *Working on climate change in community and workplace settings could also present opportunities for member leaders to build their organising skills.*

Participants draw on a wealth of life experience to guide their climate mahi, as well as a rich reservoir of indigenous and traditional knowledge and family and whānau traditions. This knowledge and experience acts as a foundation for their leadership and activism. Notably, participants generally did not draw on formal climate training. This suggests that, contrary to the stereotype that possibly exists of climate 'activists', members do not need to be climate 'experts' to be active. Rather, as skilled and experienced educators, they come amply equipped for the task of working with tamariki. While not discounting the need for educators to be given release time and professional development to upskill on climate change education, this is an important message for members who may feel daunted by the idea of taking action.

Working on climate change in community presents opportunities for member leaders to build on their existing organising skills and experience. Han (2019) has discussed how, through their work in community coalitions, union members have developed leadership skills. In this sense, climate organising is perhaps much like any other member leadership development opportunity. However, it may take members into new and uncharted territory, and potentially, new relationships with people unfamiliar with union values and cultures. The tension between 'jobs' and 'climate' and the pressures of

everyday industrial concerns can make union members feel ambivalent about taking

climate action. However, I would argue that this is the work that needs to be done

urgently, since any sense of 'otherness' that groups feel now towards each other will

likely only be exacerbated as the climate crisis deepens. The challenge for union

members and those from other organisations working for climate justice to work in

coalition will be to find shared ground, and to bridge across inevitable differences in

capacity, organisation and culture.

Mātauranga Māui and Mōkū Te Ao are intrinsically interlinked

> *The two kaupapa are intrinsically interlinked.*
> *Both focus on upholding te tino rangatiratanga o mokopuna Māori.*
> *The problem is the system, and the solution is system change.*
> *We cannot address climate change without addressing multiple systemic injustices.*

Through my conversations with participants, I came to understand that Mātauranga

Māui and Mōkū Te Ao are intrinsically interlinked. This became the the central

conclusion of this thesis; the peak of the maunga.

The interview with Rongopai served as a backdrop for approaching the kaupapa of

Mōkū Te Ao. In the literature review I discussed how the colonial education system has

sought to 'civilize,' 'assimilate,' and 'integrate' tamariki Māori (Pihama et al, 2002). For

members like Rongopai and Tiri, their experience of intergenerational and structural

racism, and the way that racism and colonisation continue to limit life opportunities for

mokopuna Māori, fuel their commitment to Mōkū Te Ao – and to Mātauranga Māui.

These members' stories again bring the colonial reality into sharp definition. It is the

same reality that gave rise to the emergence of the Kura Kaupapa Māori movement; and

like that movement, it is fuelled by a determination to ensure the survival of

Mātauranga Māori, language, culture and scholarship (Pihama et al., 2002).

As Linda Tuhiwai Smith et al (2016) have noted, Mātauranga Māori includes collective responsibility for environmental stewardship. Members draw on Mātauranga Māori in their work with tamariki, supporting them to connect with whakapapa, whenua and whānau. Instilling this knowledge in tamariki Māori supports kaitiakitanga and self-determination, or tino rangatiratanga. I would argue that supporting tamariki in this way – to champion Te Taiao, confident in the knowledge that approaches grounded in Te Ao Māori provide positive and life-affirming solutions to the climate and ecological crisis – is an important contribution towards indigenous climate justice.

At the same time, existing injustices must be tackled. Members were clear that system change is needed on both fronts – that we cannot talk about addressing climate change without addressing the injustices that feed it.

Power and resources: the power is in members' collective connections

> *Education union members are a power for good in their communities.*
> *The union's greatest power is in their enduring relationships.*
> *Both Mōkū Te Ao and Mātauranga Māui are an organised attempt to re-imagine power.*

In the literature review, I wrote about the way that climate change has been framed as a personal responsibility, making it challenging for those working on climate justice to organise. In interviewing members, however, I did not hear this narrative of powerlessness reflected or reinforced. Instead, I heard members talk about the collective power that exists in their enduring professional, union and community relationships.

Members also talked about how Māori can exercise some degree of leverage over climate and environment issues. How does this relate to the work of unions? With

almost 50,000 members, the union *should* hold significant power. However, as I discussed in my literature review, there has been a decline in unions' power and influence over the last four decades, with many of the rights unions once had to organise having been stripped away (Tattersall 2011, Parker & Alakavuklar, 2018). Strengthening alliances with iwi and other groups would thus seem essential to addressing issues of shared concern. I will return to this issue in my strategic recommendations.

Critical systems thinking, concepts and sites of power

> *We have limited power as activists, within the system. ... how do we actually*
>
> *rearrange power?*
>
> *Through education, Conor! – Kate*

The way power is conceived is relevant to this discussion. Now seems an appropriate time to consider power through a critical systems lens. As discussed in the introduction, climate change is what is known as a 'wicked problem' (Levin et al., 2012, p. 1). Systems approaches lend themselves well to addressing such problems, since they encourage researchers to look at things holistically (Came & Griffith, 2017). Critical systems thinking takes that one step further, addressing the concept of power itself (Ulrich, 2005).

NZEI Te Riu Roa members become member leaders because they seek to build power for system change through collective action. Mōkū Te Ao is an expression of the union's commitment to addressing the power imbalance in the education system. In inquiring about how the union's commitment to address climate change aligns with Mōkū Te Ao, I have narrowed in on the power members have to address systemic injustice on both

education and climate. That power is in their ability to organise strategically in their

communities, drawing on their enduring connections, and on their roles as educators.

Community organising, as I have discussed, can enable people to 'turn the resources

they have into the power they need to make the change they want' (Sinnott and Gibbs,

2014, p. 5). Educators are generally held in very high regard by the communities they

work in. As the climate crisis worsens, the relationships they hold, and what they do

with them, will become increasingly important. Members can use union structures and

networks to organise their colleagues and communities; they can employ systematic

organising approaches and marshal resources that may otherwise be hard to find to

help communities achieve shared goals. In their roles as educators, they can support the

development of agency and kaitiakitanga in young people. Kate's reflections on her

work to connect tamariki across class boundaries in Pātea is a reminder that educators

can also play an important role in raising critical consciousness and addressing structural

power.

In March 2022, Professor Margaret Mutu (Ngāti Kahu, Te Rarawa, Ngāti Whātua) spoke

on a webinar on constitutional transformation about concepts and sites of power

(2022). She argued that the Western conceptualisation of power results in structures of

governance in Aotearoa that fundamentally do not serve Māori. The same can be said

with regard to the education system. The rise of the Kura Kaupapa Māori movement,

the development of Mōkū Te Ao, and indeed, of Mātauranga Māui, can be viewed as a

response to this: an organised attempt to rearrange and re-imagine power.

I would suggest that the *concept* of power members referred to in this research is

fundamentally different from the way that the neoliberal discourse has framed it. Pyles,

in her writing on transformational community organising, has referred to the concept of

relational power (2019). Often, power is not conceptualised in this way, but rather as 'power over', or even 'power against' (for instance, in the form of protest, or 'having the numbers'). This relational way of working, however, is more a form of building 'power with'. Simons (2021) explored the importance of relationship building in the climate justice movement in Aotearoa. Importantly, she noted that this kind of relational work is crucial to building alliances and solidarity. In an increasingly uncertain and volatile world, perhaps another of the most important findings of this thesis is that the greatest power unions have to contend with prevailing structures of power – with institutional racism, the education system, and climate change – is the power of members' enduring relationships with each other and in their communities.

It follows, perhaps, that the *sites* of power are also different. Enduring power, or perhaps the power to make system change, arguably rests not in ministries, or in formal processes, which are themselves a byproduct of colonialism. Instead, it rests in workplaces and communities, in whānau, hapū and iwi, in families, villages and communities. It rests in whakapapa, story, and place.

Visions of success: engaged, empowered tamariki, members and communities

Success looks like engaged, empowered tamariki, members and communities.

 In the last part of the interviews, I talked with members about their visions of success, and who would be the judge of that success. Talking about success was a powerful way to end the interviews, because it allowed people to dream. Members spoke of tikanga and Mātauranga being truly valued; of tamariki growing up strong and resilient; of union members and communities being fully engaged. The judge of success, said Caroline,

would be the people themselves, and for Rongopai, it was the approval of respected elders. In order to succeed, it could be argued that all of the other areas we touched on – motivation, knowledge, power and resources – are prerequisites. They are all tools members must draw on in order to progress system change.

Interestingly, given the research topic, success did not always look like taking direct climate action. Often it seemed to look more like ensuring the *preconditions* are in place for taking action – building that tūāpapa, or strong foundation, that Rongopai talked about. Again, educators are ideally placed to do this work with tamariki, colleagues and in their communities.

Strategic recommendations for progressing the union's role in a Just Transition

1. *Broaden Mōkū Te Ao to include a focus on climate change*
2. *Exercise active leadership at the national executive level*
3. *Build and strengthen alliances with iwi/Māori organisations*
4. *Build and strengthen Pacific engagement*
5. *Advocate for comprehensive, Tiriti-based climate change education.*

Along with the key messages identified in this discussion, the following set of strategic recommendations emerged from my conversations with participants, and form one of the key offerings of this research, extending its offerings beyond the specifics of climate to the some of the universal challenges faced by unions. While the research has in this regard gone above and beyond its initial brief, it also inherently reflects the 'is/ought' dialectic of CSH inquiry.

As Parker et al (2021) have noted, union members, and unions as a whole, have in the past been ambivalent about whether unions have a role to play on climate issues. NZEI

Te Riu Roa is no exception. At its 2016 Hui-a-Tau, members engaged in animated discussion prior to passing the climate change policy remit (Rutherford, pers. comm.). At the time of writing this thesis, the concept of a Just Transition was still an unfamiliar term to the majority of members. However, in recent climate training that I have run for members, it is clear that the tohu, the signs, of climate change are now being deeply and widely felt. Our challenge now is to staircase members from that noticing, to an understanding of what role they might play in a Just Transition. What follows are some strategic suggestions.

1. Broaden out Mōkū Te Ao to include a focus on climate change

For tangata Māori, the climate crisis has the potential, as Barney commented, to destroy 'our way of life as we know it'. As he stated, the first priority therefore has to be to 'look at what are the things that we do, as Māori, that we value as Māori'. Barney's suggestion was to broaden out Mōkū Te Ao to include a focus on climate change. Questions for Māori members could be, as he suggested, how does climate change affect whānau, hapū and marae; and what needs to be done in the kaitiakitanga space? Another question for members could be, as per Bargh (2019), what would a tikanga Māori transition look like? How *do* we balance the risks, costs, and benefits of responding to climate change, and how can Māori be involved in the process?

2. Exercise active leadership at national level

In order to 'take the members with us' as Tiri alluded to, the national level leadership of the union needs to actively engage with climate as a strategic issue: they need to bring their mana to the kaupapa. Senior management and governance members have an important role to play in providing leadership and direction, and in thinking about how the union's climate change mahi can become more embedded in its formal structures.

That journey has already begun, with the election of climate convenors in some Area Council executives. The challenge from here is to prioritise this mahi alongisde the union's day to day industrial work.

3.   Build and strengthen alliances with iwi/Māori organisations

Māori membership and activism in NZEI Te Riu Roa tracks back through the generations. Māori members have connections to iwi and hapū and to Māori communities that organisations focused specifically on climate justice often struggle to make, or worse, as I wrote about in my literature review, forget to make. The union has a veritable battalion of Māori member leaders who can use their voices and connections to help amplify concern about the disproportionate impacts of climate change and together, call for a truly tika transition.

At the national level, NZEI Te Riu Roa already works collaboratively with iwi/Māori organisations on shared educational concerns, such as alternatives to streaming. Shared concerns about supporting tamariki Māori and the fact that some iwi are already delving into this space provide strong incentives to combine forces. The union can also bring resources to this work that, as Simons (2021) has commented, indigenous communities and organisations advocating for climate justice can sometimes struggle to find.

4.   Build and strengthen Pacific engagement

As with Māori, the impacts of climate change on Pacific people are much more than physical: climate change affects culture, language, and identity. Despite the gravity of the situation, one of the themes that came through strongly in my interviews with Caroline and Phonderly is that Pacific people living in Aotearoa have not been supported to engage on climate change. Like the Emissions Reduction Plan, the government's draft

National Adaptation Plan (New Zealand Government, 2022b) released in April 2022

showed a lack of attention to the needs of Pacific communities in Aotearoa. The Pasifika

Leaders have been spurred on to continue with their climate Talanoa because of this.

Some of the actions Caroline and Phonderly identified in their interviews with me

included supporting Pacific climate NGOs; connecting with other Pasifika union

networks in Aotearoa, and staying connected with union colleagues in the wider Pacific.

Another strategic recommendation, therefore, has to be to building and strengthening

Pacific engagement, both within and outside the union.

If Pacific members are going to engage with government policy, however, and lead on

climate in their own communities, this requires resourcing. It points to the need to

build, and resource, a more cohesive Pasifika presence within NZEI Te Riu Roa.

5.   Advocate for comprehensive, Tiriti-based climate change education

Kwauk (2021) identified Aotearoa as one of many countries that have yet to make

climate change education a teaching and learning priority. To date, tinkering at the

edges has not worked. NZEI Te Riu Roa members have called for a comprehensive, Tiriti-

responsive climate change education strategy, with release time, initial teacher

education, professional development, and resources to support them to teach it.

In the interviews, members voiced the need for climate change education that is

grounded in Mātauranga Māori and that builds critical consciousness of our colonial

reality. As Kate put it, we need to lead tamariki over the bridge from 'where we're at to

where we want to go', not holding back from the big truths, while simultaneously being

mindful of their wellbeing. Workers and communities also need a baseline

understanding of what they are going to have to deal with.

A further strategic recommendation, therefore, is to continue to lobby for a comprehensive, Tiriti-based climate change education strategy.

The elephant in the room, of course, is workload. This speaks to the need to continue to organise for better teaching ratios, smaller workloads and improved resourcing for education overall – connecting climate concerns with the core industrial work of the union.

Conclusion

This discussion chapter has sought to synthesise the findings from my interviews into a series of key messages. Those messages are important ones for members wanting to be active on climate change, and the membership as a whole, to hear. The motivations – tamariki, whānau and whenua, culture, language and identity – will not be unfamiliar to educators. Furthermore, they do not need to be climate experts to take action; rather, they already have the skills and experience they need. What they do need is professional development, release time, a joined-up climate curriculum – and relief from the relentless pressures of workload. My realisation that the two kaupapa of Mōkū Te Ao and Mātauranga Māui are interlinked should also resonate with educators committed to system change, social justice and te tino rangatiratanga o mokopuna Māori.

The research also generated some strategic recommendations that went above and beyond the initial research brief. My suggestion for next steps with respect to these recommendations would be for the NZEI Te Riu Roa National Executive and Te Reo Areare to consider them carefully as part of their strategic planning, and to consider what resource is required from here on to progress these ideas.

Chapter twelve: Researcher reflections and methodological critique

Introduction

In this chapter, I reflect on my research journey, and on the use of the CSH approach. I finish with a footnote about the issue of boundary critique in a Tiriti context.

Researcher reflections

Pyles writes that transformative organising, 'rooted in feminist, postmodern, environmental, indigenous and spiritually based relational ethical systems, should result not only in external changes but in a change in consciousness in the organiser' (2019, p. 174). Further, Cram et al (2018) state that in te ao Maori, people can be both learners and teachers; we can all learn from each other. I have certainly learnt much about myself from this process.

Loeppky (2014) writes that activists who serve as bridgers between climate and justice groups have been developing intercultural competency throughout their lives. For much of my working life, I have stood at the interface between working class and feminist struggles and climate change. Working on the margins like this teaches one a great deal about social movements, organisational psychology and relational organising.
As an organiser and a campaigner, this was always ever going to be a bridge to something else; an organising tool in itself. The fact that participants agreed not to be anonymous is because they understand that too; NZEI Te Riu Roa has a strong focus on building member leadership by modelling for other members what action and leadership looks like. All along, the intention has been to position the people clearly in the story.

Methodological critique: Critical Systems Heuristics in a Tiriti context

I return now to briefly consider the methodological suitability of CSH. The strongest

aspect of CSH as applied to my research context was its efficacy as a discovery tool. The

inquiry areas suggested by Ulrich (2005) – motivation, knowledge, power and resources,

legitimacy and success – provided a useful approach to interviewing participants.

Probably the defining aspect of CSH, however, is its practice of *boundary critique.* Who

and what is included or excluded in research sets a crucial boundary that determines

whose knowledge is prioritised (Williams & Hummelbrunner, 2011). In this it provides

an important social justice lens. From a critical systems perspective, there is value,

therefore, in engaging in boundary critique.

In this regard, the idea of boundary critique does align nicely with Te Ara Tika itself. The

whakapapa of the question, the centring of Māori voices, and the way in which the

findings of this research are disseminated – who benefits – are all boundary choices that

Te Ara Tika sets out to evaluate.

However, the strength of CSH may also be its drawback. Boundary critique essentially

requires one to *draw boundaries* – divide and compartmentalise an otherwise holistic

system. This is potentially problematic when one considers the holistic nature of

Mātauranga Māori – as well as the interconnected nature of climate change problems.

In 2021, Hepi et al wrote that boundary critique used in isolation may be insufficient

when undertaking research work in a Tiriti-based context (2021). In an article about

enhancing cross-cultural evaluation practice the authors noted that where the

boundaries of research are drawn is certainly important – indeed, it is 'fateful in terms

of whose issues of concern and value are taken into account and how improvement and

merit/worth is understood' (Hepi et al., 2021, p. 53). They suggest, however, that to

ensure that ensure that evaluation research considers important inter-relationships and issues from a Te Ao Māori perspective, CSH be blended with a kaupapa Māori evaluation approach (Hepi et al., 2021).

My research, as I have stated, was not kaupapa Māori. Sometimes, differences in worldview did make themselves evident. After one of my interviews with a Māori member, for instance, I came away somewhat concerned that we had not covered the interview questions. Yet intuitively I knew that we had covered a huge amount of territory that would form a strong foundation for my findings. They had cut straight through to the essence of the research question. But we had different understandings of the question itself. These are the kinds of challenges that we need to tackle in cross-cultural research. They can best be approached, perhaps, using a more participatory research process than I was able to within the scope of this Master's research; one that is embedded in Te Ao Māori.

Conclusion

I finish with a reflection about a document I discovered close to the end of my research. In May 2021, the Ministry for the Environment commissioned the National Iwi Chairs Forum to develop an indigenous worldview framework to underpin the forthcoming National Adaptation Plan. The Rauora framework (Ihirangi, 2021) was the result of that work. In the report for the Ministry, the lead author, Mike Smith, noted that an indigenous worldview does not take a reductionist approach, but instead starts from a markedly different point; that of abundance, or rauora (2021). The report promotes transformative approaches, resilience building and the development of supporting measures that should be prioritised to ensure a socially just and effective adaptation process that centres tangata whenua. These include manaaki Mātauranga Māori, hoki

whenua mai, advancing constitutional transition to affirm Te Tiriti o Waitangi, shifting

economic control to communities, prioritising the health of fresh water, relocalising

economic production and consumption, and divesting from extractive industries, as well

as investing in deep democracy so that local communities can design and deliver their

own solutions.

As Smith stated, adopting an indigenous worldview requires policy makers 'to get

brutally honest about the root causes of climate change' – to 'centre the voices, needs

and leadership of the people most impacted by the crisis' (Ihirangi, 2021). The Ministry

for the Environment could have used the report to frame up its consultation process.

However, when the draft National Adaptation Plan was released for consultation in May

2022, Rauora had been reduced to one page and a graphic in a 146-page document,

effectively reducing the offering from the Iwi Chairs Forum to a side note. The Ministry

had made its boundary choice.

Boundary choices, then, do turn out to be crucial. Ultimately the firmest boundary we

have is a planetary one. I hope that we learn to respect it.

Chapter thirteen: Conclusion

Ko te piko o te māhuri, tērā te pupu o te rākau

The bend in a young sapling is indicative of how the tree will grow.

Introduction

This research set out to explore NZEI Te Riu Roa member leaders' perspectives on climate change activism, and how it aligns with the union's philosophy of Mōkū Te Ao. In 2016, members passed a climate change policy on the conference floor. Three years later, the union adopted the philosophy of Mōkū Te Ao. Mōkū Te Ao challenges staff and members of the union to centre the needs and interests of tamariki Māori in all aspects of their work.

This topic is important for obvious, and perhaps not-so-obvious reasons. The obvious one is that climate change is now upon us. Somewhat less obviously, perhaps, and as I have expanded upon in this thesis, there are strong parallels, indeed a fundamental synergy, between the struggle for educational justice for tamariki Māori and Tiriti-based climate justice. One way the whakataukī above could be interpreted is to say that the more thinking we can do now, paying attention to what really matters, the better chance we might have of managing our way through together.

My literature review considered the range of issues connected to this research topic. I highlighted the impacts of settler colonialism on indigenous people, the disproportionate impacts of climate change on Māori, and the concept of indigenous climate justice; the impacts of the post-contact education system on Māori and the emergence of the Kura Kaupapa Māori movement; the important contribution of indigenous knowledge to climate change education; the role of unions and community

organising in a Just Transition; and finally, what a genuinely Just Transition might look like for workers, tangata Māori and Pacific people.

The research findings in this thesis were based primarily around the core aspects of the Critical Systems Heuristics interview approach: motivation, knowledge, power and resources, legitimacy and success. The discussion of the alignment between Mātauranga Māui and Mōkū Te Ao sat in the centre, or, as I have described, rested at the peak of the 'mauniga of inquiry'. Members are motivated to act on climate by their concern for tamariki, whānau and whenua; by concerns about loss of culture, language and identity. For Māori members, connections to whakapapa create kaitiakitanga obligations that are threatened by the onset of climate change. Educators do not, however, need to be climate experts to be active on climate change. They bring skills and lived experience that more than adequately equip them for action. Another approach to interpreting the whakataukī above would be to reflect on the powerful role that educators can, and do, play in their communities in supporting tamariki to navigate through these challenging times.

The central conclusion of this thesis is that the kaupapa of Mātauranga Māui and Mōkū Te Ao are intrinsically interlinked. For Māori, the education system has been, and continues to be, at the heart of the colonising process, suppressing language, identity, ways of knowing and relationship to the land. In adopting the philosophy of Mōkū Te Ao, NZEI Te Riu Roa has made a commitment to challenge the existing educational system; and to champion instead a system based on the rangatiratanga of tamariki Māori. Mātauranga Māui, the union's climate mahi, is also ultimately about system change, and about upholding te tino rangatiratanga o tamariki Māori. Both Mōkū Te Ao and Mātauranga Māui are an organised, conscious attempt to re-imagine power.

Members were clear that we cannot talk about addressing climate change without talking about system change; without addressing the multiple, intersecting oppressions of colonial injustice.

In line with the CSH 'is/ought' dialectic, members also shared their thoughts about the way forward. I have interpreted these as a series of strategic recommendations. They suggest that the first step would be to broaden Mōkū te Ao to include climate change – in effect, take a kaupapa Māori approach. Other recommendations include exercising leadership at the national level, building alliances with iwi and other external organisations, engaging with Pacific members and communities, and continuing to advocate for a comprehensive, Tiriti-based climate change education strategy which provides educators with the time and resources they need. These recommendations, and the other themes I have identified, will hopefully assist this union, and perhaps others, to envision how members can play an active part in a truly Just Transition. Since I first proposed to undertake this research, there has been considerable change. On the climate front, the publication of the Intergovernmental Panel on Climate Change's Sixth Assessment Report has heightened global concern about climate breakdown (IPCC, 2022). In Aotearoa, the government has released its first Emissions Reduction Plan and its draft National Adaptation Plan on climate change (New Zealand Government, 2022a, 2022b). In neither plan has sufficient attention been paid to the resourcing needed to engage workers, Māori or Pacific communities, or indeed to a range of other communities. On the union front, the wheels are in motion to realign the entire operational framework of NZEI Te Riu Roa with Te Maramataka; an ideal time to be considering how the union's climate change mahi might be progressed from here. The Critical Systems Heuristics concept of boundary critique that I employed in this research is an important one, because it acknowledges that what, and even more

importantly who, we choose to include or exclude in our research has fundamental impacts on how we shape knowledge. It also shaped my interview approach and the structure of my findings. However, as I have argued in my reflections chapter, CSH on its own, in a Tiriti context, is not enough. It needs to be embedded in a Māori-centred worldview. Future research on this topic might benefit from a more participatory approach than I was able to take within the scope of this Master's research.

Evaluation of proposed research outcomes

I now consider how this thesis has met the outcomes I proposed at the commencement of my research. Rather than stepping through each one, I approach them more holistically, in keeping with the tenor of this research.

I hoped that this research might help progress the union's understanding of how Mōkū Te Ao might be reflected in its climate work. This has been well canvassed in an educational sense. The linkages between Mōkū Te Ao and Mātauranga Māui extend well beyond the classroom, however. They are as much a conversation about Tiriti justice and system change as they are about pedagogical practice.

In terms of developing member leaders, I have considered in depth what it looks like, at this time, to be a NZEI Te Riu Roa member leader taking action on climate change. While members may be well equipped to work with tamariki, they still need to understand how climate change will impact on their workplace and communities, and on indigenous and other marginalised communities. Member education on climate, as well as government-led resourcing and support, is vital.

Membership recruitment is always going to be a key priority for unions. In truth, I did not expect this research to shed much more than indirect light on this issue. The union is probably some way away from having people join it specifically because it is committed to addressing climate change. However, as it starts to develop a profile for its climate work, and as the climate crisis continues to worsen, some people may begin to say that the union's attention to climate change is the reason they joined. In undertaking this research, I sought to develop a solid foundation to guide the union's climate work, so that it can go forward with the integrity it needs to attract these kinds of members in the future. Developing member leadership, and a structured organising approach, are essential pre-requisites to membership recruitment.

I hope that the challenges thrown up by this research, as listed in the strategic recommendations, and the learnings throughout, will be of value to NZEI Te Riu Roa and to other unions, too, as they seek to progress their work on climate change.

Limitations

This research has sought to be Māori-centred, but was undertaken by a Tauiwi researcher. Respected mentors worked with me to develop a topic that felt appropriate to pursue. It was reassuring to know my pursuit of this research topic had the unreserved approval of Māori member leaders, and the research participants gave generously of their time. How I conducted myself during the research, however, and how I have interpreted the material here, remains my responsibility.

In terms of the applicability of this research to other unions, and to community organisations more widely, there are undoubtedly limitations. The education sector has a specific culture, and within that, education unions each have their own specific

cultures and ways of working. This thesis is also located in a certain time and space; in the early days of this union's climate mahi, and very much based in Aotearoa.

Future research

Outside the scope of my research but something that I would have dearly loved to do was incorporate the perspectives of tamariki and rangatahi. Future research could undertake to do this, and could consider also how educators have progressed the union's emerging climate work.

In terms of future research, there is also potential to take more of a human rights approach. When the United Nations Convention on the Rights of the Child (UNCRC), Te Tiriti o Waitangi and the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) are read together, they imply multiple obligations on the part of the Crown to address the systemic injustices experienced by tamariki Māori, and to maintain their spiritual, emotional, mental and physical health and wellbeing (United Nations Convention on the Rights of the Child, 1989; United Nations Declaration on the Rights of Indigenous People, 2007). In its sixth periodic report to the UNCRC (Ministry of Social Development, 2021), the New Zealand Government stated that 'The Ministry for the Environment does not have any climate change policies or programmes that are specifically aimed at addressing the special vulnerabilities and needs and views of children' (p. 38), let alone tamariki Māori. This is a stunning admission, and omission. Research is already underway on how Te Tiriti can be upheld in climate adaptation decision-making (Iorns, 2019). If these threads are combined, future research, perhaps as the basis for a legal case, could look into the Crown's obligations and what urgency the emergence of the climate crisis implies to make good on them with relation to mokopuna Māori.

Concluding comments

From here, *how* we tell the story of these two kaupapa – Mātauranga Māui and Mōkū Te Ao – is important. Researchers can aid social justice movements by working with others to draw out the lessons from our research. Central to that is how it is presented, and by whom. We will do this by co-presenting the results, so that together we can tell the story of how this union of educators has chosen to lead on addressing climate change.

One of the most powerful messages of this research is about the power of relationships. Members hold those relationships, and as such are the source of true union power. The neoliberal discourse has encouraged us to conceive power as something that resides in the political system; something that is held by politicians and corporates. Yet during challenging times, such as the COVID-19 pandemic, people have fallen back on connections that are often beyond political ideology and beyond capitalism: whānaungatanga, manaakitanga, wairuatanga. If true power rests in the enduring connections we have to each other, then what matters is our ability to use those connections to leverage change. Our responsibility as unionists is to articulate and reclaim the notion of power, address the injustices wreaked by two centuries of colonisation, and build something new.

The most powerful message, however, comes from tamariki Māori themselves. When they seek permission from Te Taiao before taking a leaf; when they connect with the piharau; when they march to Hastings District Council to uphold Te Mana o te Wai; they express the greatness that is within them. Tamariki Māori hold multiple realities within them, and they face inequity head on with that greatness.

The last word surely belongs to Māui. In all his many manifestations, Māui influenced

the shape of the world we live in, providing important resources for our survival

(Ministry of Justice, 2001). He was born to this earth for a reason – to model the morals,

themes, and behaviours from which Māori can learn. One of these is respect for the

natural world. His efforts to slow the sun speak to the hard work we must all undertake

and the resilience we must develop as we head into an uncertain, climate-changed

future. We must, indeed, walk respectfully into the future, with our eyes fixed firmly on

the past.

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Appendix one: Mōkū Te Ao information sheet

Mōku te Ao – 24 August 2021

Preamble

The current education system does not work for New Zealand children and is seen manifested in the experiences of multiple, marginalised, and minority groups. Under Te Tiriti o Waitangi we have an obligation to operationalise a system that recognises and uplifts Māori people and their identity. We believe that a system based on **Rangatiratanga** centres children with rights to control their own aspirations and destiny and would work for all children through values of mutual benefit to society.

NZEI Te Riu Roa are leading changes for the education of Māori, by showing political strength and industrial leadership to claim the space to flip the Education System. The whawhai to change the Education System for every mokopuna Māori is real, the time is now and the karanga must be heard. Maranga Mai!

Non-negotiables – Ngā Pou

- **Whakamana** - Honouring identity, language and whenua to give power and authority to others by maintaining Mana

- **Whanaungatanga** - Obligations based on relationships linking individuals to generations based on kin and non-kin and built on experience and place which is practice whakawhanaungatanga

- **Rangatiratanga** - The right to autonomy by controlling your own aspirations and destiny

- **Whakapapa** - Geneology, lineage, descent, kinship and status

- **Manaakitanga** - Duty of care to support and uplift others with kindness, generosity and respect

- **Wairuatanga** - The spiritual dimensions of thinking, being, doing and connecting through time and space

- **Kaitiakitanga** - A connection between human kind and the natural world which is a role of guardianship

- **Tikanga** - To follow tikanga is to follow processes that are right and based on rites

Purpose

- To change the Education System

- To empower staff and members to engage in System Change

- To recognise that system change is crucial for the success of tamariki Māori

Key Framing Questions

- Will "this" work for Mokopuna Māori?

- What is a Māori framework I can use instead of...?

- Does what I am doing, fit with ngā Pou?

- Is this mahi centred on Rangatiratanga?

- How will "this activity" benefit Māori

Appendix two: Support email from NZEI Te Riu Roa Matua

Takawaenga

Proposed Research by Conor Twyford

from Laures Park, Matua Takawaenga, NZEI Te Riu Roa

10 September 2021

An exploration of how NZEI Te Riu Roa member leaders' perspectives on climate activism align with the union's philosophy of Mōkū te Ao

Ko Matawhaura te maunga

Ko Ohau te awa

Ko Ngāti Pikiao te iwi

Ko Laures Park ahau

Ko te Matua Takawaenga ahau i roto i te uniana o NZEI Te Riu Roa

Tena tatou, tena tatou, tena tatou katoa.

While our philosophy for Mōkū te Ao is centred on the Education System and the necessity to change that system, we apply the same thinking to all areas of influence. The pou connect us to people and to whenua and as kaitiaki our guardianship is another obligation under Mātauranga Māori that links to our thinking around Mātauranga Māui.

I tautoko this patai, this whakaaro because the exploration will question but also support our beliefs as NZEI Te Riu Roa around Mōkū te Ao the philosophy and Mōkū te Ao the perspective.

Appendix three: Whitireia ethics approval

Ethics & Research Committee

12 October 2021
Conor Joy Twyford
School of Health & Social Services
Whitireia & WelTec

Kia ora Conor,

Thank you for your application to the Ethics & Research Committee.

The project entitled *An exploration of how NZEI Te Riu Roa member leaders' perspectives on climate activism align with the union's philosophy of Mōkū Te Ao* (RP 311 - 2021) was considered by the Committee in our September hui.

The Committee has fully approved your research project.

Thank you so much for all your hard work.

Ngā mihi nui,

Dr Fiona Beals
Principal Lead, Teaching Innovation & Research
Chair, Ethics & Research Committee

Appendix four: Participant information sheet

INFORMATION SHEET

An exploration of how NZEI Te Riu Roa member leaders' perspectives on climate activism align with the union's philosophy of Mōkū Te Ao

Thank you for your interest in my research project. This information is provided to help you make an informed decision about taking part. This project has been approved by the Whitireia and Weltec Ethics and Research Committee and contributes to a Master's of Professional Practice.

What is the purpose of the project?

I will undertake approximately six 1:1 interviews with NZEI Te Riu Roa member leaders such as yourself. You have been selected because you have exercised leadership as a union member in organising on climate issues. I am approaching you with the permission of your Area Council, Te Reo Areare, and the Mātauranga Māui climate working group attached to National Executive.

Who is overseeing the project?

This research project will be overseen by two supervisors, who you can contact if you have any questions:

Primary Supervisor – Dr Suzanne Manning Social Scientist Institute of Environmental Science & Research Email: suzanne.manning@esr.cri.nz	Secondary Supervisor – Jeanette Grace Dean, Te Wananga Māori Whitireia Polytechnic Email: jeanette.grace@whitireia.ac.nz

What will participants be asked to do?

I would like to invite you to participate in an interview that would take around one hour. It can be face to face, via Zoom or by telephone, as you wish, will be recorded, and will take place in a culturally safe and mutually agreed upon place. COVID arrangements will be made if needed.

During the interviews, I'll use a series of open-ended questions to explore your perspectives regarding:

- your motivations for undertaking your climate mahi;
- the knowledge and expertise you draw on;
- your understanding of the union's philosophy of Mōkū Te Ao and its relation to your climate work;
- the power, resources and support you can draw on, to do your mahi;
- what success in your work looks like, and who decides that.

Afterwards, you'll be emailed a copy of the interview transcript to check, and later, the final thesis.

What are the possible benefits and risks of participation?

Benefits

Sharing your perspectives and experiences should help:

- progress our understanding as an education union of how our commitment to Mōkū Te Ao can be reflected in our climate work
- support the development of member leadership on climate change
- how we can attract new members who are passionate about climate issues
- identify key organising challenges and learnings for our union, for the New Zealand union movement more widely, and for education unions internationally.

Risks

I very much appreciate that for some people the topic of climate change can generate feelings of grief, anxiety and/or mamae. I want to assure you that I will always seek to work with you in ways that are culturally safe, including agreeing up front how to manage any grief or anxiety the conversation might give rise to. I will be providing the names of internal support people or external support organisations where you can access further support if needed.

I am working to make this research a publication we can all benefit from. However, I am also aware that for some educators, being active on climate is not a safe space employment wise. If this is the case for you, or if you wish for any other reason to be interviewed anonymously, we will take all precautions to ensure and maintain your anonymity. This will be done by using a pseudonym in my notes and by ensuring no identifying references are used.

Can participants change their mind and withdraw from the project?

You can withdraw from the project at any time - before the interview, during the interview or after the interview. You won't be required to give any reason if you choose to withdraw - you will just need to let me know that you no longer wish to take part. There will be no disadvantages to you of any kind, or any consequences.

Will the information remain confidential and anonymous?

Two of the intentions of this project will be to publish the information and to profile members who have led on climate change. Therefore, at this stage I am envisaging that all participants will be identifiable. However, as discussed earlier, should you wish to be anonymous, this will be respected and we will work together to ensure you cannot be identified at any stage.

How will the research findings be used, and who will benefit?

Initial findings will be presented to the Mātauranga Māui climate working group, Māori and Pacific leadership groups and National Executive, at one of their regular bi-monthly meetings. I then intend to produce a resource for members to use. You and your Area Council will be sent copies of this resource.

The research will later be presented to educational institutions and unions. Additionally, I intend to publish the findings in union journals and present at the NZEI Te Riu Roa and Council of Trade Unions annual conferences, including Te Kāhui Whetū, the annual hui of our Māori members. I am hoping to make these presentations with you and/or other participants in the study, if you wish.

Is there a cost to taking part?
It will not cost you anything to take part in this study. If we do a telephone interview, I will call you.

What if I want more information?
If you have any questions about this project, at any time, you can contact me at
conor.twyford01@whitireianz.ac.nz

Thank you for considering participating in this research.
Ngā mihi
Conor Twyford

Appendix five: Research consent form

An exploration of how NZEI Te Riu Roa member leaders' perspectives on climate activism align with the union's philosophy of Mōkū Te Ao*

CONSENT FORM FOR PARTICIPANTS

I have read the Information Sheet about this research project and understand what it is about. All my questions have been answered to my satisfaction. I understand that I am free to request further information at any stage.

This project has been reviewed and approved by the Whitireia and WelTec Ethics and Research Committee.

I understand that:

1. My participation in the project is voluntary.
2. I am free to withdraw from the project at any time, and I can withdraw the information provided, without any consequence, and without giving any specific reason for my decision.
3. The intention of this project will be to publish the findings and to profile members who have led on climate change. Therefore, it is envisaged that all participants will be identifiable. However, should I wish to remain anonymous, my wishes will be respected and my data will be anonymised.
4. I consent to participate in the interview process and to my interview being video recorded.
5. All data will be destroyed on the completion of the qualification.
6. If I experience any emotional discomfort during my participation the researcher/s will provide me with appropriate reassurance as well as the names of union support people or external support organisations where I can access further support if needed.
7. I understand that this is a voluntary interview and I will not be paid for my participation in this project.

I agree to participate in the interview procedures.

I consent to participating in this project.

(Signature of participant)

_____
(Name)   (Date)

(Signature of Researcher)

_____
(Name)   (Date)

Any concerns can be directed to the Principal Lead, Teaching Innovation & Research, Dr Fiona Beals via email research@wandw.ac.nz

*See attached information sheet about Mōkū Te Ao

Appendix six: Research questionnaire

Research Questionnaire

Tēnā koe

Thank you for participating in this research project. I hope that the mahi we are doing together will inform the work of our union going forward, as well as the wider union movement both here in Aotearoa and internationally.

The questions below will help to inform my research project, which is called:

An exploration of how NZEI Te Riu Roa member leaders' perspectives on climate activism align with the union's philosophy of Mōkū Te Ao*

You have been invited to participate in this research because you are a member of NZEI Te Riu Roa, from one of the five Area Council 'climate pilot' areas. As a member leader from that Area Council, you have exercised leadership as a union member in organising on climate issues with other union members, climate activists, students, parents and/or members of the wider community.
The questions I am going to ask relate to your work on climate change in that context.
First, we will go through the information sheet and make sure you understand, and if you agree to participate I would ask that you sign the consent form.

Ngā mihi
Conor Twyford

* See attached information sheet about Mōkū Te Ao.

Research Questions

A. Motivation

1. Who are you trying to help when getting active on climate change?
    [Prompt for researcher: who are the immediate beneficiaries (eg union members, other educators; and other perhaps longer-term beneficiaries (eg non-human beings, te taiao, the planet). Note what order people identify beneficiaries.]

2. What do you think you should be trying to achieve?

3. What kind of difference do you feel you have made so far?

B. Knowledge

4. What expertise do you draw on for your work in climate change, and where does this knowledge/expertise come from? (think about people to advise on organising, science knowledge re climate change, Mātauranga Māori.)

5. What knowledge is less relevant for what you are trying to do?

C. Mōkū te Ao

[discuss Mōkū Te Ao handout, focusing on the pou, with participant].

6. Mōkū te Ao puts tamariki and whakaaro Māori at the centre of the work of NZEI Te Riu Roa. How does your climate work contribute to this kaupapa? How could it, or should it contribute?

7. How do you think the work you have been doing on climate change aligns with the philosophy and pou of Mōkū te Ao? *[Prompt: If they think it doesn't, ask prompting question such as, have you thought about why this is the case?*

8. How does the philosophy of Mōkū te Ao impact on your work? *[Prompt: If they think it doesn't, ask prompting question such as, have you thought about why this is the case?*

D. Power

9. What power do you have to make decisions about climate change activism? Who should have the power to make decisions?

10. What resources or support are you (should you be) given for your climate work? What resources or support do you (should you) provide for others?

11. What other factors affect your ability to do your climate change work?

E. Legitimacy

12. Who will judge whether you are successful? How will you know?

13. Who is involved in your climate change activism? Who should be involved? Who is missing?

14. How do you include the views of those who cannot speak for themselves (including nature)?

15. What differences, if any, are there between 'success' in your worldview and a Māori worldview? If there are differences, how can this be reconciled?

Appendix seven: Code tree in Dedoose

- 1. MOTIVATION
  - 1. Why
    - 1. Who doing it for
      - a. Tamariki / whānau / wider community
      - b. Passion for education
    - 2. Feeling of connection to whenua / kaitiakit...
    - 3. Impacts of colonisation on health, access t...
    - 4. Identity: It's just who we are/what you do
      - a. Whakapapa
      - b. Family, land, culture, identity, livelihoods
    - 2. What trying to achieve
- 2. KNOWLEDGE
  - 1. Life experience / activism / leadership
    - Community / environmental
    - Political
    - Union
  - 2. Mātauranga Māori / Indigenous knowledge / ...
    - Education activism
  - 3. Climate education
- 3. MĀTAURANGA MĀUI & MŌKŪ TE AO
  - 1. Impacts of colonisation
    - a. Suppression of culture, te reo and opportu...
    - b. Impacts on employment: Forestry case
    - c. Poverty still limits access to educational op...
  - 2. Education activism as key to survival and pr...
    - a. What ngā pou mean / their application
    - b. Constraints on progressing Mōkū Te Ao
  - 3. How Mātauranga Māui aligns with Mōkū Te Ao
    - a. Mātauranga MĀUI: meaning and application
    - b. Tamariki and Mātauranga Māori in relation t...
      - a. Matariki, Te Whāriki and Mōkū te Ao

- b. Te Maramataka
- c. Te Mana o Te Wai, Climate Justice and Cli...
- d. Alignment with Pacific education
- e. Climate mahi not limited to formal educati...
- c. Climate Justice - critical perspectives
- d. Reflections on COVID
- 4. WHAT THE UNION OUGHT TO DO (links to su...
  - 1. Strategies for building power
    - a. Developing a Mōkū Te Ao approach to clim...
    - b. Building alliances with iwi
    - c. Pacific engagement
      - Area Council leadership and organising
      - Connecting with NZ & Pacific unions / whānau
    - d. Progressing CCE grounded in Mātauranga ...
      - Challenges and aspects of teaching about cl...
  - 2. Just Transition: prepare, support, connect
- 5. POWER & RESOURCES
  - 1. POWER (in relationship)
    - 1. Community Relationships
    - 2. Māori and Pacific having a place (or not) at ...
  - 2. RESOURCES
    - 1. Educational resources and tools
    - 2. Te Taiao as resource (see also MM and how...
- 6. LEGITIMACY / SUCCESS
  - 1. Mātauranga Māori is valued in education & s...
  - 2. Tamariki are curious, engaged and resilient
  - 3. Members & Communities are informed, enga...
  - 4. Recognition by kuia and kaumatua
  - 5. How to include other voices