Te Tātua o Kahukura

A National Project Report to Ako Aotearoa

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Te Kotahi Research Institute

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E rere kau ana te au o waioha ki a Tākuta Rangi Matamua nānā i tapa ai te ingoa o *Te Tātua o Kahukura* hei tikitiki mō tō mātou kaupapa rangahau. I tiki atu ia tēnei ariā rongomaiwhiti nō roto mai i te ao Māori, e hāngai ana ki ngā taura me ngā tauira e whai ana i te ikeiketanga o te mātauranga Māori ki te apa o Kahukura rā anō.

Ko te kaupapa matua o tēnei rangahau he moremore, he nānā i ngā tauira ōnāianei ki te whakawhānui i ō rātou pūkenga, o rātou tirohanga ki te ao mātauranga ki tua o te pae o Te Tātua o Kahukura.

Kai ngā whare pātaka kōrero o ngā motu i whakatiketike ai te kaupapa rangahau o Te Tātua o Kahukura ki runga rawa - ko ngā hui-a-rohe i Tāmaki Makaurau, i Ōtākou, i Whakatane, i Waikato, i Te Whanganui a Tara, i Manawatū kai te whakamiha nui te ngākau me ngā whatumanawa ki a koutou i a koutou mahi nunui. E kore e mahue te puna o mihi ki te hunga e whai atu ana i tēnei huarahi tae noa atu ki te hunga tautāwhi i a koutou ko ngā whānau, ko ngā hapū me ngā iwi, tēnā rawa atu koutou katoa.

E papaki tonu ana te tai o mihi ki te hunga tāwharau i te kaupapa nei, arā ko Ako Aotearoa, Te Whare Wānanga o Waikato, Waikato-Tainui College for Research and Development, Te Puna Wānanga, The University of Auckland me Ngā Pae o Te Māramatanga, tēnā rawa atu koutou katoa.

🔺 Executive Summary

Aim, Methodology and Method

- The aim of this project is to understand the capacity building and career development needs of *Māori and Indigenous* (MAI) early career scholars, and to inform staff in the tertiary sector who provide programmes of support.

- Kaupapa Māori research methodology underpinned this project, which investigated the experiences of early career MAI doctoral scholars and the views of senior Māori scholars. The methods employed included interviews, hui and career pathway workshops, based on preliminary research findings and literature reviews.

- The project was developed over two phases. The first phase of data collection centred on hui at six locations, which began with the collective sharing of stories and experiences of MAI Te Kupenga doctoral scholars, and also included focus group interviews with staff. The second phase focused on the second round of six regional hui to share preliminary findings and themes and receive feedback. Parts of these hui included the workshopping of *Planning Alternative Tomorrows with Hope* (PATH) as a planning tool for career development with MAI learners.

Literature Review

- Over the past twelve years, the number of Māori postgraduate degrees awarded has grown significantly (Statistics New Zealand, 2013). A key development that has contributed to this growth is the MAI Te Kupenga doctoral programme. The initial goal of graduating 500 Māori doctoral scholars through the MAI programme was achieved over a five-year period from 2002-2007. A new benchmark of 1,500 Māori PhDs has since been established. There is a need to develop similar programmes for Māori and Indigenous researchers at all stages of their careers in order to make meaningful and transformative contributions beyond the achievement of a doctorate.

- Globally, the availability of tenured (i.e. permanent) academic positions has not kept pace with the number of doctoral graduates. Whereas historically the pipeline to a doctoral career was linear, today it is considered a 'leaky pipeline', characterised by much more divergence as doctoral graduates depart from the typical academic track.

- A myriad of factors such as: workload expectations; difficulty getting research funding; competition within academia; the limited academic job market in some fields; loss of interest in basic research; and increased interest in other careers all contribute to divergence in the doctoral pipeline.

- In Aotearoa, less than two percent of Bachelors' degree level Māori students enrol for a doctoral degree following graduation. Importantly, Māori remain underrepresented at six percent of PhDs earned, according to data from the Ministry of Education (2015), with 326 Māori earning a PhD from 2006-2013, compared to 5,266 non-Māori (Ministry of Education, 2015).

- Small numbers of Indigenous doctoral graduates are entering academic ranks, and a few of them advance to become professors, who then serve as role models by recruiting, mentoring, supporting, and sponsoring future Indigenous doctoral graduates.

- Internationally there are several initiatives, including online platforms, to recruit and support Indigenous and minority doctoral scholars through to completion and beyond to professional and community positions. Some of these initiatives are multi-organisational and not necessarily organised by a tertiary organisation. Initiatives include: The PhD project (TPP); PhD Job Fair; PhD Talent Career Fair; PhDs on the Job Market; American Indian Science and Engineering Society (AISES) Career Fair and Expo; National Postdoctoral Association (NPA); University of Western Australia's Post-doctoral Mentoring

Scheme; Caring For Our Own Program (CO-OP) at Montana State University; and the Indian Leadership Education and Development (ILEAD) Project, Montana University.

- Internationally, post-doctoral mentorship is an emerging area of growth with increased commitment from universities and government research agencies.

- In Aotearoa, Māori and Indigenous doctoral initiatives include: MAI Te Kupenga; NZ Uni Career Hub; GradConnection; Reduced conference fees for students; Health Research Council (HRC) Postdoctoral Fellowships; and Ngā Pae o te Māramatanga Postdoctoral Fellowships.

- Māori represent eight percent of full-time academic staff in New Zealand tertiary institutions and are heavily clustered at the junior level.

- Culturally responsive supervision is fundamental to Māori and Indigenous doctoral success.

- Supervisors need to be sensitive, aware, prepared for and supportive of any and all cultural matters that may arise throughout the research project, particularly if the supervision team is non-Indigenous. This includes having knowledge of relevant Indigenous methodologies and pedagogies that Indigenous candidates may prefer, and/or being open-minded and willing to accept and support these aspects of the research.

- Many MAI doctoral scholars experienced feelings of cultural and social isolation in academic institutions. To counteract this isolation, doctoral candidates need more opportunities to socialise and interact with other Indigenous doctoral candidates and Indigenous staff.

- Mentoring is regarded as significant for early career academics. Academic mentors can provide additional advice, support and guidance, along with pathways to socialise doctoral scholars within wider academic networks.

- Specific to Māori, mentorship is often framed within a tuakana-teina relationship, characterised by reciprocity where both tuakana and teina are teacher and student, mentor and mentee. There are many Māori mentoring programmes; these highlight the importance of positioning Māori values, principles, and practices at their core.

- Sponsorship is another approach to supporting doctoral scholars, described as an action-based process catalysing upward career mobility (whereas mentoring is credited with preparing people to move up). Sponsorship may include mentoring, coaching, protection, exposure, or an assignment of challenging work.

- The literature indicates that sponsorship is a potential framework for Indigenous doctoral pathway development. For Māori, it would require embracing a tuakana-teina model through a process of holistic and interconnected relationship-building and leadership building measures.

Research Themes
The doctoral journey

- Māori and Indigenous early career academics do not consider the term 'leaks in the pipeline' an accurate representation of their doctoral and academic journey. This metaphor fails to address the ways in which systemic processes and practices act as barriers to doctoral scholars who wish to pursue an academic position.

- Some students proposed that a circular model (rather than a linear pipeline) embracing fluidity and opportunities to pursue multiple pathways across various sectors may better suit the realities and career aspirations of Māori and Indigenous PhD scholars. This model accommodates the multiple directions in which Māori and Indigenous scholars are pulled and the numerous obligations and opportunities they experience.

- Diverse factors motivate Māori postgraduate students to undertake doctoral studies; many students indicated that the pipeline career path into academia was not their main motivator or ultimate career aspiration.

- One of the main unifying factors of Māori and Indigenous students was the overarching focus on research projects that would be transformational, if not for the researchers personally, then for their families, their hapū, iwi or their communities.

Systemic issues

- Participants felt that many of the mainstream programmes intended to support doctoral and early career development were inappropriate or of limited use and benefit.

- Institutional racism and white privilege were identified as a fundamental issue for Māori and Indigenous doctoral scholars engaging in western university structures.

Financial constraints

- Financial constraints, including restrictions on access to student loans and allowances, negatively impact many MAI doctoral scholars, particularly the more mature students who have wider financial commitments.

- It is important that Tertiary institutions and associated agencies, including iwi organisations, provide support to ease the financial burden faced by this group of early career scholars.

Commencing the journey

- MAI early career academics expressed their commitment and motivation to making a difference using their degree and research skills in their professions and their communities. They did not see the doctorate as an individual achievement of a qualification.

- Many mature Māori doctoral scholars experienced ageism as a significant barrier to their development of their careers.

- Some participants expressed the need to continue working throughout their doctoral studies, which often required them to juggle workload and studies, as well as children and whānau responsibilities.

Whanaungatanga: Support systems

- The significance of whanaungatanga through informal and formal support networks, in particular, the central importance of whānau, hapū, iwi, friends and staff members, is integral to students' support systems.

- MAI doctoral scholars acknowledged support that was primarily academic in focus as well as cultural, spiritual, or emotional in nature. They also acknowledged the support they received with their more practical, day-to-day needs.

- Mentoring within whānau, hapū and iwi contexts was considered. While not part of a formal professional role, this involves an individual's personal commitment to supporting the success of Māori students and ensuring the intergenerational succession planning necessary for their community.

- Whanaungatanga support also included groups where there was not a whakapapa connection. For example, institutional or local marae are central for students who may be away from their own 'homes' or tribal areas.

- An essential component in Māori and Indigenous doctoral scholars' and early career researchers' well-being is the formation of strong collegial relationships and the ability to develop trust, and build a community of support to help get through a shared journey.

- Significant support for Māori and Indigenous doctoral scholars is drawn from being around their academic peers. Highly valued are forums such as the MAI Te Kupenga programme, which brings together Māori and Indigenous doctoral scholars at all stages of the doctoral programme, across all schools of study within and sometimes between institutions.

- A significant source of informal support was identified as coming from academic staff members, most often supervisors. Māori academic staff members often provide a great deal of informal and unofficial support. In turn, students are often conscious of the extra workloads of these staff.

- Supervision was one of the most commonly mentioned formal support programmes. Most students' comments were focused on their positive experiences.

- Doctoral scholars noted some differences between Māori and Pākehā supervisors, particularly in the processes Māori supervisors brought to their relationships.

- It is common for Māori and Indigenous students to find Pākehā supervisors with the requisite knowledge from an institutional perspective, but lacking in epistemological and cultural foundations for that subject knowledge to make sense in context.

- The students called for the need to be safe as Māori within mainstream institutions and saw this as the central responsibility of our tertiary institutions, as part of their obligations, under the Te Tiriti o Waitangi.

- Whanaungatanga emerged as a critical principle for the post-doctoral journey. Whereas mentoring often refers to an individual relationship, the Māori students spoke about notions of tuakana-teina and the collective commitment to also 'give back'.

- Tuakana-teina as sponsorship, where tuakana actively provide spaces and guidance to enable capacity building, i.e. opportunities for students through exposure, networking, disseminating research, publications, experience, and access to more funding and greater opportunities.

Success Factors: Māori and Indigenous mentoring

- MAI doctoral scholars want to better understand 'the rules' to play the game of academic success.

- These MAI students want to find the 'right' mentor who has previously experienced this journey and can help them to avoid the pitfalls.

- The fostering of more collaborative environments was identified as a useful step towards enabling Māori staff and students to more effectively support one another and build capacity across and between institutions.

- Students called for more Māori staff in mainstream institutions to support Māori students. There was a clear preference for having at least one Māori mentor.

- Building a 'culture of mentoring' to develop strong networks and support mechanisms that permeates all aspects of the doctoral journey is needed.

- Implementing a 'sponsor' approach moves beyond mentoring and supervision to ensuring an active process of advocacy and creating research and career opportunities.

Hui

- Providing hui as collaborative meeting spaces and environments, and attending regular activities is critical for Māori doctoral scholars and early career academics to network and share experiences.

- Within hui, it is important to allocate appropriate time for whakawhanaungatanga to enable the development of important and sustained relationships.

Academic Capacity Building

- Capacity building for Māori and Indigenous doctoral scholars is required to enable them to develop skills and knowledge that will support them beyond the doctorate.

- Different students have different needs. Therefore the relationship with supervisors/mentors is critical to ensure a flexible approach.

- MAI students need support to develop their writing abilities, and gain knowledge about the range of journals (in which to publish), relevant conferences, book proposals, funding, promotions, and university committees, to increase and access wider professional development and growth. Māori and Indigenous early career academics require safe spaces to build their confidence and develop experience.

Post-Doctorate Pathways

- For many students, the doctorate is only one component of their pathway, as they aspire to make a contribution to those that follow in the doctoral journey and to contribute to Māori and Indigenous communities. They are a tauira, an example to present and future generations, and fundamental to any process of cultural and intellectual succession planning.

- Tikanga practices are significant in enabling successful MAI mentoring and support programmes, including whanaungatanga, manaakitanga, and tuakana-teina.

- Institutions need to provide a range of activities whereby Māori doctoral scholars and early career academics are able to meet with wider communities, both Māori and disciplinary.

- Workshops are needed, related to processes such as knowledge about the range of journals (in which to publish), relevant conferences, book proposals, funding, promotions, and university committees. Māori and Indigenous early career academics require safe spaces to build their confidence and develop experience.

- Post-doctoral pathways for MAI students need to be an intentional process and part of the wider role of tertiary institutions that offer doctoral programmes.

- A process that enables iwi to identify and connect to their own Māori doctoral scholars would be useful, particularly with potential researchers and specialists who have expertise that is required within communities.

- MAI early career academics require knowledge and information about existing opportunities, clear support, resources, and opportunities for planning.

Te Tātua o Kahukura: Critical Elements

- Both the literature explored for this project, and the processes of hui and interviews with Māori and Indigenous doctoral scholars and staff provided us with insights into a range of success elements. These can strengthen post-doctoral pathways and opportunities for this particular group of early career scholars.

- The literature surveyed indicates that in order to support Māori and Indigenous doctoral scholars and early career scholars in the development of post-doctoral opportunities, institutions need to create a range of opportunities. These could include professional development, networking, connecting to Māori and iwi organisations, and sponsored activities to support attendance at key events such as conferences, workshops, and symposiums.

- Hui and interviews with Māori and Indigenous doctoral scholars and Māori staff identified key Kaupapa Māori elements such as ako (Māori pedagogies), taonga tuku iho (validation of tikanga and te reo Māori), whanaungatanga (maintaining a focus on relationships), tuakana-teina (culturally defined relationships), kanohi ki te kanohi (face-to-face gatherings), and tikanga (aroha, respect and manaakitanga).

- Each of the Kaupapa Māori values and practices, identified through the hui and interviews with Māori and Indigenous doctoral scholars and Māori staff, provides a foundation for the development of Māori and Indigenous post-doctoral support programmes that would include a range of activities, workshops and opportunities.

PART ONE: PROJECT OVERVIEW

1. Introduction

This two-year project *Te Tātua o Kahukura* collaboratively developed an evidence-based understanding and awareness of the capacity-building needs of Māori and Indigenous (MAI) doctoral scholars. Early career scholars in this context includes MAI doctoral scholars throughout the New Zealand tertiary sector. The project explored the processes of academic support and sponsoring to consider viable pathways for senior scholars and researchers and to provide advocacy and opportunities for early career MAI scholars. Grounded within a kaupapa Māori research methodology that is informed by tikanga, te reo and mātauranga Māori, this project investigated the experiences of early career MAI doctoral scholars and the views of senior Māori scholars to highlight key principles and practices that enhance support programmes and increase Māori participation and success in higher tertiary education and beyond.

The name of this project was chosen with Dr Rangi Matamua, to express our traditions of higher learning. Te Tātua o Kahukura refers to the red belt of sky on the horizon that you see at sunset. Kahukura is associated with knowledge and tapu at a higher level and as such relates to a higher level of learning. Understanding the meaning of Te Tātua o Kahukura is to understand that our people have always maintained processes of education, learning, knowledge transmission, and pedagogical ways of learning and teaching that assume excellence and are grounded upon deeply intellectual and scholarly ways of knowing. The world of our tūpuna, of our ancestors, is a world that acknowledges multiple realms of knowledge and learning that is te kauwae raro and te kauwae runga, the earthly and spiritual domains of knowledge and Māori intellectual being (Nepe, 1991). For this project we maintain the aforementioned understandings; that our people have both a right and an aspiration to be supported within our intellectual pursuits. As such, we draw upon the understandings of Te Tātua o Kahukura as it relates to the notion of opening horizons and supporting Māori learners in the context of contemporary higher education.

Te Kotahi Research Institute took the overall lead for this project and brought together key partners committed to supporting early career Māori scholars. Te Kotahi Research Institute promotes and encourages connection between scholars and across disciplines to undertake research. This acknowledges the diverse nature of Māori and Indigenous research and the strong impetus within Kaupapa Māori research to collaborate with iwi, Māori, and community. The organisations together undertook a programme of research. Collectively the project team provided critical Māori and institutional relationships that enabled networking across the MAI Te Kupenga network. Two key partners for the project are the Waikato-Tainui College for Research and Development and Ngā Pae o Te Māramatanga, both of whom have a long history of supporting Māori graduate students across a range of institutions, in the form of scholarships, mentoring, internships and fellowships. The Waikato-Tainui College for Research and Development operates under the mantle of the Kīngitanga and one of its key objectives is to provide educational opportunities that encourage leadership in Indigenous development and practices. The College is also committed to finding innovative ways of supporting whānau, hapū and iwi researchers to achieve success for themselves and for Māori collectively. Ngā Pae o Te Māramatanga (NPM) has a clear focus on the provision of support for early career Māori and Indigenous scholars, particularly with regard to the growth and strengthening of the MAI postgraduate support programmes nationally.

Aim and Objectives

The aim of this project was to undertake research that would provide knowledge about the capacity building and career development needs of Māori and Indigenous learners who are early career scholars. It also aimed to inform staff in the tertiary sector who provide programmes of support. To do so, we have drawn upon Kaupapa Māori theory and approaches to explore the following objectives:

1. Identify the capacity building and learning needs of early career MAI scholars to achieve success in the tertiary education sector.
2. Document information relating to effective processes and practices that support the capacity building and sponsoring of early career MAI scholars.
3. Undertake a series of hui with early career MAI scholars and staff to disseminate and refine research findings, receive feedback and give-back to participants through the use of PATH, as a career pathway planning tool.

4. Produce a research report and resources to inform supervisors, research teams and the broader tertiary education institution (TEI) community on enhancing capacity building and sponsorship with early career Māori scholars.

The project focused on the doctoral level of study and operated across six regions, all of which include a number of Māori and Indigenous programme (MAI Te Kupenga)[1] sites. Statistics gathered from Ngā Pae o Te Māramatanga (NPM) in August 2014 indicated that 721 doctoral scholars were enrolled in the MAI programmes nationally. In speaking with Māori and Indigenous doctoral scholars and staff, it became clear that there is a desire across all sites to ensure that MAI doctoral scholars are actively supported to consider and plan post-doctorate pathways in ways that are more intentional. The team for this project consisted of Māori women academics and researchers who are linked directly, and committed fully, to MAI Te Kupenga and the wellbeing of Māori students and staff. The project was developed collaboratively across Māori research groups in four organisations: The University of Waikato; Waikato-Tainui College for Research and Development; Te Puna Wānanga at The University of Auckland; and Ngā Pae o te Māramatanga, with the research team involved enjoying extensive national networks.

At the time of the first round of research hui, MAI Te Kupenga student numbers were as follows:

Region	MAI Students
Te Tai Tokerau	10
Tāmaki Makaurau	171
Waikato	118
Whakatāne	30
Manawatū	72
Pōneke	35
Ōtautahi	147
Ōtepoti	138
Total	**721**

Background to Project

This project is informed by the success of the Māori and Indigenous (MAI) doctoral support programme. The MAI programme was initiated as the Māori and Indigenous (MAI) support programme by Professor Graham Smith, with the Māori Education group of the University of Auckland, in the late 1990s and integrated more formally with the establishment of Ngā Pae o te Māramatanga in 2002. The development of MAI can be seen in the wider context of Māori educational initiatives that commenced in 1982 with the development of Te Kōhanga Reo (Māori Language nests) and grew through the system with Kura Kaupapa Māori and Wharekura (Māori Immersion Schools) and Whare Wānanga.

Kaupapa Māori education initiatives were driven and established by Māori and were cultural and political responses to the institutional racism and systemic monoculturalism that dominates the mainstream Pākehā conventional education system (Penetito, 2010). It has been argued for many years that the mainstream Western system of education is based on a foundation of colonial ideologies, such as the assimilation, civilisation and christianisation of Māori and Indigenous Peoples (Simon, 1998). This has also been the experience of Māori students and whānau in the early childhood and compulsory State education systems. Furthermore, Māori in the post-compulsory tertiary sector have also had to deal with the marginalisation of te reo and tikanga Māori (*Māori language and culture*) and the denial of Māori knowledge and history (Hutchings & Lee-Morgan, 2016).

This situation continues today within the ongoing debate regarding the position of te reo Māori in the educa-

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[1] The MAI programme includes a national network focused on the enhancement of Māori and Indigenous post-graduate students throughout Aotearoa New Zealand.

tion system. The State continues to disallow the inclusion of meaningful contributions on the impact of the land wars and Māori history in the current curriculum (McLachlan, 2016). Although a brief introduction is provided here, it is critical that we remain vigilant in the assertion of our fundamental Treaty-based rights to be educated 'as Māori'. This includes challenging the structural racism that continues to define conventional Pākehā schooling models and continuing to assert our rights as tangata whenua (*people of the land*) 'to live as Māori' (Durie, 2004).

A critical component for many Māori in education is whanaungatanga, which in this context relates directly to having relationships that support the collective well-being rather than the ideology of individualism that has been central to colonial education in Aotearoa since 1816. The obsession with the student or scholar as an individual has rarely been challenged in Aotearoa, and yet it contributes significantly to the marginalisation of Māori students and staff within education. In reflecting upon her role as a Māori feminist academic, Kathie Irwin (1992) comments:

> *My dream of becoming an academic has sustained me through the first decade of my chosen career. It has the power to re-energise and re-commit me as a Māori feminist academic, because it is not my dream in an individualistic sense, but part of a dream and vision handed to us by our tipuna. This dream, more than anything else, keeps me working as an academic, against the odds.* (p. 52)

A key connection between this political position and the report is that the initial establishment of the MAI programme was not solely to increase numbers in the programme. Rather, it was designed to create spaces within which Māori cultural approaches and pedagogies could operate and be sustained in the academy. The MAI programme has also been driven to support Māori and Indigenous students through the doctoral journey in order to make meaningful and transformative contributions beyond the doctorate. In supporting Māori and Indigenous graduate scholars, we are contributing not only to their individual pursuits but also and more importantly to their contribution to Māori and Indigenous collective aspirations. As Graham Smith (2017) states:

> *In our work in Education we decided to focus on the graduate area. We started with the Masters. Then MAI expanded what we had learned in Education to the wider university and the nation. I wanted us to develop people who had a critical knowledge and could apply it to help our communities. It is not about the credential but what a credential can do to transform our lives. It is also about recognizing that many of our students were already leaders in their communities and we needed to help them navigate a university system that didn't know how to engage with Māori knowledge.* (Personal Communication, March, 2017)

International Indigenous developments such as the SAGE (*Supporting Aboriginal Graduate Enhancement*) programme were developed within a similar context and framework to provide support for Aboriginal graduate students located in an academy that was unresponsive to the needs of Indigenous students. As Pidgeon, Archibald, & Hawkey (2014) highlight:

> *A lack of strategic institutional commitment and action to remedy these higher edu- cation disparities by key university leadership and faculty will continue to convey the message to Aboriginal students that the academy is not interested or concerned about their involvement, educational needs, Indigenous knowledges, philosophies, and cultural integrities.* (p. 3)

The *Review of Higher Education Access and Outcomes for Aboriginal and Torres Strait Islander People: Final Report*, by Behrendt, Larkin, Griew, & Kelley (2012) highlights a range of issues in regard to support for Aboriginal and Torres Strait Islander students in universities, including the need for institutions to engage directly with issues of prejudice and racism. At the doctoral level, the need for a higher number of Indigenous supervisors and formalising cultural competency as a requirement for non-Indigenous supervisors in Australian universities is recommended in the report. What is clear is that programmes that are deemed successful, by the panel, in providing support for Aboriginal and Torres Strait Islander students include clearly defined requirements for cultural competency training as a key success element (Behrendt et al., 2012). It is also evident that Indigenous units within universities are considered by Aboriginal and Torres Strait Islander staff and students to be safe spaces. As Smith, Trinidad, & Larkin (2017) explain:

There is little doubt that Indigenous Support Units have played a pivotal role in addressing this divide (Andersen et al. 2008; Trudgett 2009; Behrendt et al. 2012). Indeed, these units have been born out of a recognition that Indigenous students need to have a safe and culturally appro-priate environment in which to study and learn (Andersen et al. 2008). They are a critical element of what a good Indigenous support structure looks and feels like within higher education in Australia. (p. 25)

This indicates that creating spaces and programmes that are culturally grounded and engage appropriately with Indigenous students is critical to successful outcomes. This has been a key focus of the MAI Te Kupenga programme within Aotearoa.

It is clearly documented that over the past twelve years, the number of Māori postgraduate degrees has grown significantly (Statistics NZ, 2013). A key development that has contributed to this growth is the MAI Te Kupenga doctoral programme (McKinley, Grant, Middleton, Irwin, & Williams, 2011; Ormond & Williams 2013), which has seen increased enrolment in and completion of doctoral studies by Māori. Ormond & Wil-liams (2013) note there is a need to develop similar programmes to MAI Te Kupenga for Māori and Indige-nous researchers at all stages of their careers.

Research about Māori medical student experiences (Curtis, Townsend, & Airini, 2012) highlights that quality teaching requires strong pedagogical approaches, academic support and development of cohort cohesiveness that aligns culturally for Māori students. McKinley et al. (2011) note that effective Māori doctoral supervision requires attention to key cultural approaches in areas of topic, identity and forms of engagement. For Māori students, cultural approaches, identity, positioning and engagement within an institution need to be a part of developing pathways within graduate study. Native American doctoral scholars have documented the need to develop cohort approaches and support networks to deal with barriers to success created by systemic issues of *"cultural alienation, racism and discrimination, and a lack of Indigenous role models in institutions"* (Keene, Tachine, & Nelson, 2017, p. 46). Research related to mentoring has provided valuable insights into the needs of Māori in the tertiary sector (Clarke, 1998; Tahau-Hodges, 2010). However, we are not aware of research in Aotearoa that engages with capacity building in ways that create post-doctoral pathways for early career Māori and Indigenous scholars. Fuhrmann, Halme, O'Sullivan and Lindstaedt (2011) highlight the need to provide more focus on career planning within graduate degree programmes:

Currently, career discussions between students and mentors often occur near the end of training, if at all. Our data emphasize that this is too late. Career education, guidance, and mentoring—tailored to the needs of students in the basic biomedical sciences and provided early in students' graduate educa-tion—would help students make career decisions from a well-informed position. Students considering non–research career paths (or research career paths outside of academia) may greatly benefit from an opportunity to try out this new role through a short-term internship. This would help ensure career decisions are made based on realistic expectations. (p. 246)

Team meetings between Te Kotahi Research Institute and staff at Johns Hopkins University, New York, in 2015 highlighted the role of senior academics in providing support as 'sponsors' for minority scholars. Imple-menting a 'sponsor' approach moves beyond mentoring and supervision to ensuring an active process of advo-cacy and creating research and career opportunities. Sponsorship of early career Māori scholars is not formally in place within Aotearoa; however, it is practised internationally (Foust-Cummings, Dinolfo, & Kohler, 2011) and has the potential to be adopted through existing programmes such as MAI.

Supporting Māori and Indigenous Learner Success

Tahau-Hodges' (2010) study highlights that there are a range of mentoring styles used across the twenty-one institutions involved, with twelve organisations taking a kaupapa Māori approach, and six others that integrate tikanga Māori. It is clear that a kaupapa Māori approach is viewed as a key pedagogical approach to support-ing students. It is also argued by Ratima, Brown, Garrett, and Wikaire (2007) that group and whānau-based models can provide collective approaches for Māori success. Tahau-Hodges (2010) highlights that providers have identified cooperative learning and collective mentoring as a successful model that is culturally relevant to Māori learners. The focus of the Te Tātua o Kahukura project has been to provide Māori learners with a means to work together across tertiary education institutions in order to advance their views and aspirations for achievement within the academic context.

The project aligns with the Māori academic framework of *Te Kōtuinga Mātauranga* as developed by Hall (2014). In her doctoral thesis, Hall (2014) draws attention to the very low participation of Māori in the university academic domain, and advocates for greater Māori involvement in, and kaupapa Māori approaches to, academic development. Te Tātua o Kahukura reveals a need to engage Māori learners in their career pathway developments before the completion of their doctoral study and to not leave it to chance or to a process that Hall (2014) refers to as the 'accidental' academic. However, it is pertinent to note that Hall's study participants are employed Māori academic staff, and as such the study is not focused on Māori learners. This is also the case with the work undertaken by Mercier, Asmar, and Page (2011), which examines the experiences of Māori academics within academia, highlighting the need for greater support in regards to making changes that serve the needs of Māori staff. More recently, Potter and Cooper (2016) highlighted the negative impact of 'whitestreaming' upon Māori academic staff and students. Whitestreaming is discussed by Milne (2013) as follows:

> *Denis (1997) defines "whitestream" as the idea that while American society is not "White" in socio-demographic terms it remains principally and fundamentally structured on the basis of the Anglo-European, "White" experience. Grande (2000a) points out that "mainstream" implies "white." She uses the term whitestream as opposed to mainstream to "decenter whiteness." Urrieta (2009, p.181) defines "whitestream schools" as all schools, "from kindergarten through graduate school and to the official and unofficial texts used in U.S. schools that are founded on the practices, principles, morals, and values of white supremacy and that highlight the history of white Anglo-American culture."* (p. 3)

In the tertiary context, 'whitestreaming' refers to situations *"where specialist Māori positions have been changed to generalist positions"* (Potter & Cooper, 2016, p. 9). The implementation of whitestreaming has significant negative implications for Māori staff and students, with Māori staff highlighting concerns in regards to areas such as loss of collegial support, increased workload, reduction in job satisfaction, and the reduction of services and support for Māori students that meet their academic needs through culturally appropriate pedagogies. The impacts which Māori students emphasised included less use of student support services, grades, and attrition rates (Potter & Cooper, 2016). Overall the report noted that:

> *Many Māori staff were struggling to continue to provide culturally-safe and responsive recruitment services and support to Māori students in the face of the reduction or removal of such support mechanisms, which was leading to Māori staff burn-out and resignations.* (Potter & Cooper 2016, p. 10)

Kidman, Chu, Fernandez, and Abella (2015) released their study *Māori Scholars in the University*, which looked at the socialisation of Māori academic staff members and the factors and influences which shaped the academic careers of their participants, including institutional engagement, career strategies, and engagement with their disciplinary knowledge bases. Although this research focused on senior Māori scholars, they noted that:

> *Māori experience a form of academic socialization in terms of career trajectories, access to suitable academic mentors, engagement with disciplinary knowledge bases and promotion prospects that pose unique challenges and tensions which differ from the trajectories commonly experienced by Pakeha academics.* (Kidman et al., 2015, p. 15).

Such insights reinforce the need to appropriately and adequately prepare and support Māori and Indigenous early career academics before the completion of their doctoral studies.

Māori education scholarship is acknowledged across the Indigenous world as a bastion of Indigenous language revitalisation, the forerunner of self-determining research by Indigenous peoples for Indigenous peoples, and a model for culturally grounded education systems from early childhood to postgraduate studies. Amongst the most impressive gains made in Māori education is the rate at which Māori have earned postgraduate degrees over the last decade. This achievement is the result of deliberate and sustained efforts by Māori educators to develop effective undergraduate to postgraduate transition and support programmes for Māori students. As previously mentioned, the establishment of MAI Te Kupenga in 2002 has significantly contributed to the increase in enrolment and completion of doctoral studies by Māori in New Zealand tertiary institutions (McKinley et al., 2011; Ormond & Williams, 2013). The initial goal of graduating 500 Māori doctoral scholars through the MAI programme was achieved over a five-year period from 2002-2007 (Cumming, 2009). A new benchmark of 1,500 Māori PhDs has since been established.

With over 700 Māori PhD students currently enrolled nationwide (NPM, 2014) the extension of support programmes beyond the postgraduate level is at a critical juncture. Despite these important and significant increases in participation, Māori students are still entering postgraduate study at less than half the rate of Pākehā students, as well as having higher rates of attrition and lower completion rates (McKinley et al., 2011). Similarly, Indigenous student populations continue to show lower completion rates across the board (Guillory, 2009; Shotton, Oosahwe, & Cintrón, 2007; Tertiary Education Commission, 2013; Te Tari Mātauranga Māori, 2007).

Kaupapa Māori Methodology

Kaupapa Māori provides the methodological approach to this research. Linda Tuhiwai Smith (1999) states that Kaupapa Māori provides us with a way to frame and structure our thinking and approaches to research. It enables an analysis of issues in Aotearoa from an approach that is distinctively Māori (G. Smith, 1997; Pihama, 1993). The research team for this project has been engaged with, and at the cutting edge of, Kaupapa Māori theory, methodology and praxis. Linda Tuhiwai Smith's (1999) seminal publication *Decolonising Methodologies* is recognised both nationally and internationally as a critical text within the field. Smith (1999) argues that Kaupapa Māori methodology must be transformative and provide clear pathways for change within our communities.

Essentially, Kaupapa Māori advocates the validity of Māori epistemological and ontological constructions of the world based on the 'taken for granted' position of Māori language, knowledge and culture (G. Smith, 1997). Kaupapa Māori often refers to Māori-centred philosophies, frameworks and practices and is asserted by the notion of tino rangatiratanga (self-determination) and Te Tiriti o Waitangi (G. Smith, 1997; L. T. Smith, 1999; Nepe, 1991). In addition, Kaupapa Māori should be viewed as encompassing theories in order to connect with the complexity of diverse Māori lived realities (Pihama, 2001). Kaupapa Māori is located as part of a wider struggle by Indigenous academics and researchers who have developed both theories and methodologies to make transformative change in the wider framework of self–determination, decolonisation and social justice (G. Smith, 1997; L. T. Smith, 1999; Pihama 1993, 2001; Pihama, Tiakiwai, & Southey, 2015).

Kaupapa Māori asserts that in the context of New Zealand's colonial history, there is an inherent tension and conflict between the dominant understandings of the production, ownership and use of knowledge, and the culturally-based understandings of Māori doctoral scholars or early career academics intent on maintaining (or strengthening) their sense of cultural identity and language. Māori and Indigenous doctoral scholars are likely to experience this very tension and conflict (Kidman et al., 2015), as Linda Tuhiwai Smith (2005) further explains:

> The epistemological challenges to research—to its paradigms, practices and impacts—play a significant role in making those spaces more nuanced in terms of the diverse interests that occupy such space. (p. 85)

Given that Māori and Indigenous doctoral scholars more often than not wish to carry out research framed within Kaupapa Māori and/or Indigenous methodological frameworks; these tensions cause very real difficulties and additional barriers that their Pākehā peers do not have to contend with (Wilson, 2017).

The approach taken within Te Tātua o Kahukura is one that actively involves learners in a collective practice of co-designing key elements and principles that they believe are necessary to more effectively support Māori learners to achieve success within the academy. This includes the development of clear academic pathways and identifying the resources and types of support required to enhance their experiences as emerging Māori academics. A key element of this methodological approach is the notion of research as transformational, and in the context of Māori education, there is a need to ensure that Māori learners are able to live fully as Māori during their educational experiences.

The centrality of transformative praxis within a Kaupapa Māori approach is essential to this project. The whanaungatanga principle ensures that relationships are at the centre of the project. Relationships are forged across multiple collaborations, which include the project team and multiple institutional buy-in through the MAI network. The prioritising of Māori learners' capability building, and the development of connections through supporting regional networking and the involvement of NPM has brought together a wide range of tertiary organisations in the project.

Methods

Kaupapa Māori shaped the methods used in the gathering of voices and knowledge for this project and included interviews, hui, workshops and career pathway workshops based on preliminary research findings and literature reviews. The analysis is grounded upon and informed by Kaupapa Māori and thematic analysis. The hui process enabled participants to share their experiences collectively and gave an opportunity for the strengthening of student networking that further consolidated connections between learners.

The project was developed over two phases that began with the collective sharing of stories and experiences of MAI Te Kupenga doctoral scholars over six locations. Te Tātua o Kahukura provided hui and workshop opportunities with a highly experienced team of senior Māori academics, committed to supporting participants in planning their academic and research pathways. These processes were undertaken to directly support those involved in the project by providing a space to engage with the facilitating academics with regard to their current research pathway as Māori and Indigenous doctoral scholars. Eighty-nine Doctoral and Masters students and twenty-one Māori staff attended the research hui, and a further ten Māori staff were interviewed separately. Providing opportunities for students to have engagement with senior academics has proven to be an extremely successful way to have focused conversations that support Māori and Indigenous learners to engage with senior Māori staff who are outside of their supervisory teams.

The project team used our extensive networks and relationships to invite participants to the research hui and workshops. This process aligns with a framework of whanaungatanga and is grounded in notions of building strong, respectful relationships that have longevity. Drawing upon relationships that were both whakapapa- and network-based enabled the project team to ensure a wide and enhanced participatory potential. The following section provides details of the project methods.

Hui One: Māori learners

Six regional hui provided an opportunity to support Māori and Indigenous (MAI) learners to discuss with the project team the needs and aspirations that would enhance their opportunities for achieving success as doctoral scholars. The hui were facilitated by at least two members of the project team and enabled students to engage directly and share their views of what they saw as the most critical components. Project leaders presented a brief paper that included an overview of the existing literature relating to notions of learner 'sponsorship' and how that has been implemented internationally.

The overview briefing paper provided a useful discussion starter for Māori learners and staff in the project and was distributed prior to the hui, to ensure active informed engagement. In addition to this presentation, participants in the workshops were asked to consider and share what had brought them to the doctoral journey, why they had chosen to undertake a doctoral degree, and what they wanted to do with it once they had completed it. The participants were also asked to share their knowledge and experience of what support, whether informal or formal, through programmes and initiatives, was available to them, for both their doctorate and future career development, and what support they would ideally want or need to enable them to plan and prepare for future career development.

This round of hui provided the first phase of data collection but also supported the development of the processes of whakawhanaungatanga and enabled the networking of a specific cohort of MAI Te Kupenga learners across institutions. This was a key feature of regional hui, which fostered multi-institutional approaches, rather than being located solely in a single institution. For MAI doctoral scholars, networking is often limited to their own educational institutions and, as such, these hui provided an opportunity for more cross-institutional engagement, a feature which students acknowledged as being of significant benefit to them. The information gathered in this hui process not only provided data for the research; more significantly, it also enabled the project team to draw upon the needs and aspirations, as articulated by Māori learners, to target more directly the content used to approach the second round of hui.

Hui Two: Dissemination, Feedback and Giveback

The focus of the second round of six regional hui was to share the findings of the information gathered in the first hui round and enable a process of participant validation. These hui provided the project team with the opportunity to workshop with early career MAI scholars and staff to provide an overview of key themes that had emerged and to receive feedback on the research findings. This was achieved through the presentation of

preliminary findings and themes and participants had the opportunity to provide feedback and reflection on the critical elements identified as important for supporting and sponsoring Māori and Indigenous early career academics and researchers. This was originally anticipated as being a two-day hui, but at some sites, due to institutional constraints, as well as the availability of staff and students, the hui were condensed into one day, with the feedback discussion opening the discussions.

PATH: Planning to give back

The second part of the Hui was a planning workshop dedicated to the participants. We incorporated the workshopping of PATH as a planning tool for career development with MAI learners as a way to 'give back' to the participants in a validating way. In line with the Kaupapa Māori principles of manaakitanga and ako we provided the participants with not just an opportunity to provide feedback, but for the research project to facilitate ako and demonstrate manaakitanga to our participants through the use of a planning tool.

PATH is an anagram that stands for *Planning Alternative Tomorrows with Hope* and is a facilitated planning process that originated through the work of Marsha Forest, Jack Pearpoint and John O'Brien within the disability sector in Canada. PATH was first engaged with by Māori through Kataraina Pipi in 2002 (Pipi, 2010). The process undertaken with the PATH planning model is described by Kataraina Pipi (2010) as follows:

> *The PATH planning tool helps individuals, groups, businesses and whānau reflect upon where they are in terms of their current goals and dreams, their uniqueness, attributes and strengths, and their aspirations for the future. It is a tool that is most helpful when people are stuck or in need of an alternative way of viewing what it is that they want to achieve, through pictures or graphics as opposed to words. The PATH's use of symbols and colour to portray hopes and dreams is a powerful medium, particularly for Māori as it provides a picture that can serve as a visual and emotional anchor and evoke positive memories. The 'hope' factor suggests that in order for the plan to be realised, the process of PATH planning needs to generate hope so that there is a 'pull' toward the dream and a level of motivation to inspire the actioning of the plan.* (p. 1)

All participants in the second round of Hui were invited to develop a PATH that highlighted their vision for post-doctoral pathways and aspirations for long-term career planning. A key outcome, as overwhelmingly indicated by participants, was how useful and interesting the PATH tool was for them, as an engaging and creative way of encouraging them to think about their future career goals and aspirations. This process enabled Māori learners and staff to identify, both individually and institutionally, pathways that currently exist or which may need to be enhanced or put in place to achieve positive outcomes as a result of their doctoral journey and to highlight the connection of their research to their wider whānau, hapū, iwi and communities. The planning component of the workshop also enabled the research team to 'give back' to those that participated in the research and as such the outcomes of the planning sessions remained with the participants for their personal and professional use, rather than for the project.

Interviews with Māori academics

Staff working closely with this cohort of students were invited to participate in a range of interviews to gauge the organisational capacity of the institutions that these learners were enrolled with. This provided an opportunity both for the project team to document and for academics to reflect upon what is available in terms of resources, in particular, for staff within the institutions involved. These interviews proved doubly useful as academic staff were able to reflect not only on the resources and support available for Māori doctoral scholars seeking employment within the academy but also on the support they had themselves received as they sought to make their pathway into the academy. This was particularly relevant for a number of the academic staff members who were relatively near the beginning of their academic careers.

The interview and first round of workshop transcripts were read and reviewed by all members of the research team, with several members identifying their own lists of recurrent themes that emerged from the transcripts. Once these initial lists were developed, the team met to discuss and refine the themes, which along with excerpts from the interviews and workshop material, were compiled into a presentation and shared throughout the second round of workshops for feedback and validation from participants. Importantly, the kaupapa Māori principle of Ngā Taonga Tuku Iho is inclusive of the notion that validating Te Reo Māori me ōna Tikanga is pivotal to the analysis of kōrero from the hui and interviews. Aside from 'language', the word reo also refers to 'voice', and it was the voices of the participants that were foregrounded and prioritised in this research; specifically, their voices, experiences, needs and aspirations for achieving success as doctoral scholars.

Summary

Part One of this report provides an overview of the project, and this is largely informed by the success of the MAI doctoral support programme. The contextual background to the project clearly provides the impetus for this research, which is to strengthen the post-doctoral pathways and opportunities for Māori and Indigenous early career scholars. It is important to note that for Māori and Indigenous doctoral scholars and early career researchers, being a part of the MAI network also contributes to a broader movement for the revitalisation and regeneration of Māori and Indigenous knowledge and languages. These students have entered into doctoral programmes through multiple pathways; for example, many are working while undertaking their studies.

Importantly, all participants also see their involvement in the MAI network as a part of an educational strategy to experience success as Māori and Indigenous peoples. This aligns strongly with the kaupapa Māori approach outlined in Part One of the report and with a much broader movement for the assertion of our rights to be and live as Māori and Indigenous nations on our own lands. The MAI Te Kupenga network provides doctoral scholars with an interdisciplinary, multi-site network of Māori and Indigenous students as a mechanism of collective support. It enables connectedness across iwi, Indigenous nations, tertiary institutions, organisations, disciplines and methodological approaches, and strengthens our collective ability for our work to make a difference for our people.

For the past fifteen years, Māori staff at MAI Te Kupenga sites have worked to support Māori and Indigenous students through their doctoral journey. This includes providing a range of opportunities to connect across institutions and to share experiences, alongside the more practical learnings about how to navigate this journey. All of those Māori researchers involved in this project have been involved with MAI since its inception. As such we have been aware for some time of the need to ensure that there are pathways for MAI doctoral scholars beyond doctorate study. In conclusion, this project stems from an aspiration to ensure that Māori and Indigenous doctoral graduates are able to take their research beyond the academy into spaces where they can influence and contribute to changes for our people.

PART TWO: LITERATURE & CONTEXT

2. Pathways for Māori and Indigenous Doctoral Graduates

Introduction

The successful collective effort to accumulate over 500 Māori doctoral graduates in five years, and sustained commitment to further grow the number of Māori doctoral graduates, is a tremendous achievement for Māori, as well as New Zealand. Statistics New Zealand (2013) states that in 2013, 1.8 percent of Māori had doctoral degrees and The Ministry of Education noted 515 Māori enrolments for doctoral study in 2015. With these increases, doctoral education amongst Māori is gradually becoming considered more attainable, with whānau being a part of the journey with relations who have earned a doctorate. It is more likely for Māori and Indigenous doctoral studies to benefit Indigenous communities (Grant, 2010), achieving "*social-justice goals [and] reducing Indigenous disadvantage*" (Barney, 2013, p. 517).

A conscious movement to support Māori and Indigenous doctoral scholars has inspired the development of Indigenous doctoral support programmes in First Nations communities in Canada, Native Hawaiian communities, and Alaska Native communities (Villegas, 2010). The original architect of the MAI programme in Aotearoa, Professor Graham Hingangaroa Smith, was also instrumental, alongside Professor Jo-Ann Archibald, in the establishment of the 'SAGE – Support Aboriginal Graduate Enhancement' network in Canada. Pigeon, Archibald, and Hawkey (2014) note the relationship between the two programmes.

> *SAGE began in British Columbia in 2005 under the guidance of Graham Smith and Jo-ann Archibald. SAGE is the sister program to the New Zealand MAI (Maori and Indigenous) graduate program. The goal of SAGE and the MAI program has been to develop a critical mass of Indigenous master's and doctoral credentialed people who through their research and practice will begin to transform multiple aspects of Indigenous education. SAGE is specific to British Columbia and the MAI program is situated across the north and south islands of New Zealand, and the two programs grew out of the need for support of Indigenous peoples within graduate programs.* (p. 8)

The emergence of a strong cohort of Māori and Indigenous students through the MAI network is exciting for our whānau, hapū, iwi, communities and nations. With such a large number currently enrolled nationwide and the hundreds of Māori who have earned their PhDs over the last decade, there is an expectation that this body of Indigenous academics will make significant contributions in their areas of focus. However, the current situation is that the majority of Māori and Indigenous students face the same circumstances at the end of their doctoral journey; they must consider their pathways forward, with few mechanisms in place to support this process.

A Changing Doctoral Trajectory

On a global scale, the availability of tenured (i.e. permanent) academic positions has not kept pace with the number of doctoral graduates (Cyranoski, Gilbert, Ledford, Nayar, & Yahia, 2011). It is also evident that the typical trajectory from doctoral training to a post-doctoral position to tenure-track faculty or full-time researcher is becoming increasingly less common. Some academics contend that training for a career in the academy is growing less viable and/or desirable, depending on whom one asks (Golde & Dore, 2001; Teitelbaum, 2008; Benderly, 2010). Research has shown that a myriad of factors such as workload expectations, difficulty getting research funding, competition within academia, limited academic job markets in some fields, loss of interest in basic research, and increased interest in other careers all contribute to divergence in the doctoral pipeline (Rice, Sorcinelli, & Austin, 2000; Austin, 2002; Bakken, Byars-Winston, & Wang, 2006; Mason, Goulden, & Frash, 2009).

Ultimately, career pathways for current doctoral graduates are much different from those encountered in past decades. Whereas historically the pipeline to a doctoral career was linear, today it is considered a 'leaky pipeline' characterised by much more divergence as doctoral-trained professionals depart (i.e. leak) from the typical academic track (Fuhrmann et al., 2011). Discussing the career trajectories of PhD biomedical scientists, Fuhrmann et al. (2011) states:

Forty years ago, the career trajectory of PhD-level basic biomedical scientists could be described as a linear pipeline. Trainees moved from doctoral to postdoctoral training, and, ultimately, to tenure-track faculty positions. As the number of trainees has outpaced the availability of academic positions, an increasing number of PhD-trained scientists have pursued paths outside of academia. These scientists are often described as "leaking" from the pipeline. Unfortunately, this metaphor perpetuates the negative perception that scientists who "leak" are outside the norm and represent failures within the system. In fact, today's PhD students and post-doctoral scholars commonly follow diverse career paths. Not only are PhD-trained scientists pursuing research careers beyond academe, but increasing numbers are leaving research altogether. (p. 239)

Figure 1 provides a diagrammatic image of what a 'leaky' pipeline scenario may look like if applied to Māori and Indigenous doctoral scholars and potential pathways in the academy.
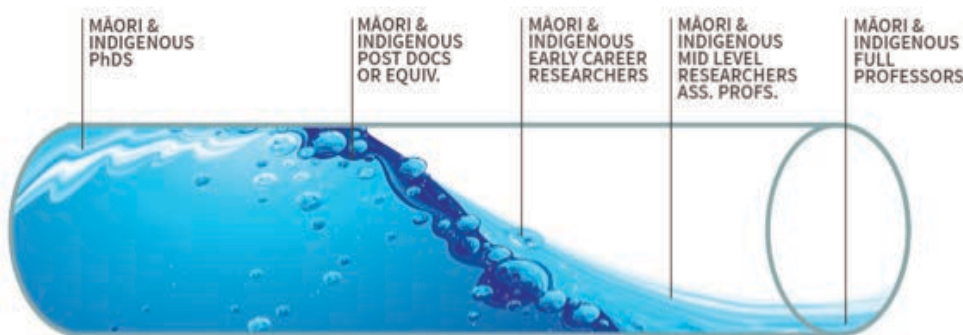
Figure 1: The Pipeline

It is clear from literature related to Māori student experiences in education that the 'leaky pipeline' may fail to provide an analysis of the systemic issues faced by Māori students, whereby Māori student experiences may more adequately be described as barriers and blockages rather than 'leaks'.

The following table provides the numbers of Māori enrolments from Bachelor's to Doctoral degrees from 2005 to 2015. While the numbers increase across the ten-year period, what we see consistently is the decline in numbers between Bachelor's degrees and doctorates.

Type of qualification (Māori Students)	2005	2010	2011	2012	2013	2014	2015
Bachelor's	13,920	16,370	17,200	17,620	17,720	18,155	18,425
Graduate certificates/ diplomas	1,080	1,135	1,025	940	970	970	1,030
Honours and postgraduate certs/dips	1,440	1,970	1,970	2,060	1,985	2,005	2,230
Master's	1,175	1,225	1,235	1,320	1,395	1,425	1,575
PhD	275	450	455	450	485	485	515

Table 1: Māori Participation in Degree Qualifications by Student Enrolments

What is highlighted by these statistics is that less than 2% of Bachelor's-level Māori student enrolments continue on to enrol in a PhD. Importantly, Māori remain underrepresented at 6% of PhDs earned, according to data from the Ministry of Education (2015), with 326 Māori earning a PhD from 2006-2013, compared to 5,266 non-Māori (Ministry of Education, 2015). These figures suggest that Māori students encounter more challenges than Pākehā or non-Māori in earning doctoral degrees in the first instance and, as such, the idea of a doctoral career pipeline is less likely to be applicable to Māori and Indigenous doctoral scholars. This is further compounded by the fact that research topics and methods that empower Indigenous communities and promote self-determining agendas are often marginalised by systems which prioritise the Eurocentric methods of systematic investigation by which research is valued and funded at mainstream universities (L. T. Smith, 2012; Wilson, 2017). Future-proofing includes asking difficult questions such as; how do we make doctoral education more achievable, and what systemic changes are required for Māori and Indigenous students to remain within the tertiary sector through graduate studies to doctoral level study.

Growing Māori and Indigenous Professors

Strong institutionalised support at the undergraduate level and extending into postgraduate education contrasts with the gap doctoral candidates encounter as they forge new research careers, which is arguably one of the most critical points for emerging scholars. Specific to the study of Indigenous higher education, a surge of research on Indigenous student recruitment and university retention has flourished in recent years, comprising a significant body of literature (Shotton, Lowe, & Waterman, 2013; Brayboy, Fann, Castagno, & Solyom, 2012; Devlin, 2009; van der Meer, Scott, & Neha, 2010). This commitment is reflected in the literature and, in practice, with the development of Indigenous student support centres and programmes on many university campuses with high Indigenous student populations. For example, in March 2015, the University of Washington had its grand opening for the "wəɫəbʔaltxʷ" Intellectual House, a longhouse-style facility at the University's Seattle campus. The Intellectual House mission is stated online:

> Intellectual House is a longhouse-style facility on the UW Seattle campus. It provides a multi-service learning and gathering space for American Indian and Alaska Native students, faculty and staff, as well as others from various cultures and communities to come together in a welcoming environment to share knowledge.
> (University of Washington, 2017)

In contrast, Indigenous postgraduate to career pathways and both figurative and physical transformational spaces to facilitate this transition are nearly nonexistent, just as they are for the mainstream population.

The journey to an academic career is characterised by even more difficulty for young Indigenous scholars because there are so few Indigenous role models to whom new graduates can turn for guidance (García, 2000; Stanley, 2006). In addition to teaching, researching and publishing, Indigenous professors are also expected to become experts in the seamless art of role switching. This is because there are simply not enough of them. They are professors, as well as counsellors, brokers, advocates, mentors, cultural advisors, and tribal liaisons (Cross, 1991). In his article, '*Fancy War Dancing on Academe's Glass Ceiling*', Professor Cornel Pewewardy (2013), a Comanche and Kiowa scholar, expounds on the necessity of Indigenous professors as catalysts for growing more Indigenous faculty. He states: *"Indigenous students must see (witness) and interact with Indigenous faculty on campus to introduce them to the possibility of becoming future faculty members"* (p. 141).

Figure 2: Growing Māori &
Indigenous Professors

Mercier, Asmar, and Page (2011) offer additional support through the words of a Māori lecturer: *"The biggest support for Māori academics, undoubtedly, are Māori academics"* (p. 84). Other Indigenous educators have further noted the vital importance of Indigenous faculty and staff to the success of Indigenous students in higher education (CHiXapkaid, 2013; Andersen, Bunda, & Walter, 2008; Alfred, 2004). This is even more applicable at the doctoral level, where building relationships with Faculty staff plays a key role in students' overall satisfaction, time to completion, and career choice (Gardner & Barnes, 2007; Tinto, 1993; Turner & Thompson, 1993). Consequently, if there is a lack of commitment to the employment of Māori and Indigenous academics within the academy, there is a systemic issue that creates a self-perpetuating cycle which impacts directly upon Māori and Indigenous PhD students and professors.

Few Māori and Indigenous doctoral graduates entering the academic ranks results in few Māori and Indigenous professors at all levels, and with few Māori & Indigenous professors to serve as role models in the academy by recruiting, mentoring, supporting, and sponsoring future Māori and Indigenous doctoral graduates, the cycle self-perpetuates. While this grossly oversimplifies the processes and the forces that underlie these interconnected circumstances, it is hoped that readers can draw from this illustration the importance of connection, and that intervention in one area will have impacts on another. The following section describes one such initiative, *The PhD Project*, which is one of the few examples of a dedicated career pathway programme that provides support from the beginning of doctoral study (before the cycle in Figure 2 even starts) through graduation and into faculty positions. Even more relevant is its aim to grow ethnic diversity in the professoriate. The exploration of these interconnected processes is not within the scope of this brief; however, it is an area into which important insight and potential interventions will be gained from Māori and Indigenous doctoral scholars and senior scholars through Te Tātua o Kahukura.

The PhD Project
In its twenty-first year of operation, The PhD Project (TPP) is a non-profit organisation committed to increasing the number of African-Americans, Hispanic-Americans and Native Americans earning PhDs in business-related fields and then transitioning into faculty positions as business professors.[2] Unlike other initiatives, it is not based at any one university: rather, it includes hundreds of university partners that share the vision to build a diverse talent pipeline for business leadership positions. TPP's successful multi-phase outreach starting before PhD enrolment and extending beyond graduation, as well as its peer/alumni support structure are models that can be applied across disciplines. Each year, the TPP programme starts with an all-expenses paid invitation to attend the annual TPP Conference, which is the initial step in linking minority business professionals with business PhD programmes. Over the course of the conference, candidates learn about the benefits of pursuing a business PhD directly from deans, professors, and current minority doctoral scholars. Participants also meet with hundreds of doctoral-granting universities. The anticipated outcome of this initial conference is candidates apply for business PhD programmes with direct guidance and assistance from TPP's network (AACSB, 2014).

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[2] See http://www.phdproject.org for further information.

Following admission into a business PhD programme, the second phase of sustained support commences. Students are required to join one of the five TPP Minority Doctoral Student Associations composed of both their peers and professor mentors (many of whom are TPP alumni) in their respective disciplines of accounting, finance, information systems, management, and marketing. This type of reciprocal and discipline-focused peer and mentor engagement can also be described as a community of practice (Lave & Wenger, 1991), in which both intentional and unintentional learning is taking place to better meet student needs, provide support, and facilitate actions for success. These communities of practice are supported through the *MyPhDNetwork* knowledge sharing site, which includes forums for daily peer support, mentoring, and joint research opportunities for members throughout their doctoral programmes and as they transition into faculty and administration roles. Since TPP started, it has truly grown the next generation of minority business leaders in the United States with more than 940 minority business professors earning their business PhDs with TPP support. Moreover, the completion rate among TPP doctoral scholars is over 90 percent (The PhD Project Network, 2017).

In addition to its unique multi-phase community, which includes a practice model, six annual conferences, an extensive alumni mentorship component, and professional development activities; key factors in TPP's success are partnership and buy-in from universities. The nearly three hundred university partners contribute $2,000-3,000 per year in fees to become a member of TPP. Those universities then receive several important benefits, including unlimited posting of open faculty positions to their database of over fifteen hundred minority doctoral scholars and faculty. Also, minority doctoral scholars at their universities receive travel, hotel, and registration expenses at their respective Doctoral Student Association conference and TPP's annual conference, they receive exhibition space at TPP's university fair where they can network with potential doctoral scholars and faculty, and a directory is made available of all minority faculty and doctoral scholars to be used for faculty recruiting, for example. TPP has become a leading source for business PhD recruitment, retention, and faculty placement in the United States for African Americans, Hispanic Americans, and Native Americans. This initiative offers tremendous insight for the aims of Te Tātua o Kahukura.

Doctoral Career Development Opportunities

Student involvement and professional socialisation, such as joining professional associations, attending conferences and job fairs, and serving on postgraduate student committees all contribute to the establishment of professional goals and success in future careers (Gardner & Barnes, 2007). Perhaps as a reflection of the tight doctoral employment market, many universities have renewed their commitment to enhancing professional socialisation and career development opportunities for their doctoral scholars through the sponsorship of doctoral-focused career fairs, mentoring, and other programming. While one might not typically associate job fairs with doctoral careers, they are playing an increasingly significant role in the doctoral career pipeline by serving as a forum to directly connect doctoral scholars with university professionals and industry recruiters. Some are based at a particular institution, others are narrowed to a specific discipline, and many are much broader in scope and reach. Similarly, many professional conferences host marketplaces and workshops for doctoral scholars, and they remain a critical forum for research dissemination, networking, and career development.

Stanford University, University of California-Berkeley, University of North Carolina, and many other universities in the United States host career fairs specifically for PhD and post-doctoral scholars. PhD-focused career fairs have also gained momentum in Europe. For example, the *PhD Job Fair*[3] based at the University of Leuven (*Katholieke Universiteit Leuven*) is the largest event of its kind in Belgium, attracting over 750 students and 50 companies. Furthermore, the *PhD Talent Career Fair,*[4] sponsored by the Secretary of State for Higher Education and Research, is held in Paris each year for PhD students from all disciplines across France. These include resumé/curriculum vitae workshops, simulated job interviews, and the opportunity for students to briefly pitch their research to potential employers. PhD career fairs provide doctoral scholars with opportunities to talk directly with representatives from companies, research labs, government agencies, NGOs, and other sectors interested in hiring candidates with advanced degrees.

The University of Waikato has an annual career fair, but it is not specifically tailored to the career needs of Māori and Indigenous students or doctoral scholars. This is the case across all New Zealand universities; they host at least one career expo per year, but they are not designed for doctoral scholars. The above examples

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[3] See http://phdjobfair.org/ for more information.

[4] See http://phdtalent.org/ for more information.

of PhD-focused career fairs can be adopted in New Zealand as one means of creating necessary networking opportunities and career links for doctoral scholars. Another forum that could be improved to meet the career needs of doctoral scholars better is the *NZ Uni Career Hub*,[5] which serves as an online clearing house and database for both employers and careers services to promote vacancies to students and graduates. The only university in the country that does not participate in this service is the University of Waikato. Consequently, University of Waikato students and graduates are unable to view and apply for any of the positions advertised. *GradConnection* is a similar website that advertises jobs and internships for university graduates.[6] Both of these websites could be used to support the employment needs of iwi and Māori organisations by matching them with qualified students across the New Zealand tertiary sector. Full participation by the University of Waikato in the NZ Uni Career Hub and further exploration of how these platforms can better meet the needs of Māori organisations and Māori students (both undergraduate and postgraduate) are areas for future action.

Another career development strategy that has been adopted by many universities is building PhD student web pages officially associated with department and faculty websites under a label similar to *PhDs on the Job Market*,[7] which serve to boost students' online research profiles. These webpages give professional exposure and enable PhD students to disseminate their research, awards, and teaching experience as one means of increasing their marketability to prospective employers. University-hosted student webpages of this type are not commonly used in New Zealand, but there is room to implement such practices as part of improving doctoral career pathways for all students. To the same end, university business cards are also useful networking resources for doctoral scholars.

Career Development Opportunities at Conferences

Central to enhancing one's career prospects as a PhD student is delivering research presentations at as many national and international conferences as possible. The value of conference participation spans many areas, including contributing and learning about cutting-edge research in one's field; disseminating one's research to a wide academic audience in order to increase visibility; improving public speaking and presentation skills; elevating one's research profile; and perhaps most important, building a professional network of contacts for future research and employment (Dunn, 2007; Nordham & Gosling, 2007). Additionally, some professional conferences host career fairs, marketplaces, and career development workshops as part of their official programmes targeting doctoral scholars. Other conferences include streams specifically for early career researchers covering topics like the building of a research programme, professional benchmarks, and tips for grant and journal writing.[8]

There is a gap in doctoral career development and early career researcher activities at professional conferences in New Zealand, including Māori and Indigenous research conferences. This highlights an opportunity to support Māori doctoral career pathways through conferences, such as *He Manawa Whenua* hosted by Te Kotahi Research Institute, in a number of possible ways, such as: reducing registration fees; inviting recruiters and careers services across the academy, public, private, and iwi sectors; facilitating dedicated doctoral student streams that focus on professional development and networking; and developing a variety of innovative methods for student research distribution, including posters, one-page research briefs, brochures, and short video clips. Ensuring the affordability of doctoral student conference participation cannot be overstated. Reducing student registration fees and identifying shared student accommodation are both areas for further consideration by all conference organisers. Conference registration fees can become particularly prohibitive for doctoral scholars who are on fixed incomes with limited research funds. This is especially the case for many New Zealand conferences, which charge upwards of $400-500 for student registration.

The number of conferences that provide student travel stipends and scholarships are limited, and much of the research funding that doctoral scholars receive must go to actual field work rather than conference attendance. As such, students rely on competitive external conference funding and when that falls short, must inevitably resort to personal savings. For those with financial savings to contribute towards their education this may not necessarily be a problem, and in fact, it may even be anticipated. However, for many Māori and Indigenous students from low-income backgrounds for whom sheer financial survival through their doctoral studies is a

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[5] See https://nzunicareerhub.ac.nz for more information.

[6] See http://nz.gradconnection.com/ for more information.

[7] See http://sociology.fas.harvard.edu/pages/phds-job-market for more information.

[8] See http://www.isls.org/cscl2015/early.html for more information.

struggle, this can be particularly burdensome and create yet another obstacle in the doctoral career path. An additional best practice in this space is incorporating a sliding scale for registration fees that includes substantially reduced fees for students, retirees, elders, and community members, as well as unemployed researchers. As a case in point, the American Sociological Association charges unemployed sociologists the same reduced registration fee as students, which amounts to $110 USD, for their four-day annual conference.[9] This is a notable practice because professional conferences can also be useful forums for PhDs who are unemployed or who have been out of the research job market for a while.

American Indian Science and Engineering Society STEM Career Fair and Expo
Though it does not specifically target doctoral scholars, the *American Indian Science and Engineering Society* (AISES) has established a very well-attended annual career fair[10] that is highly regarded by universities, Native American tribes, and industry leaders in Science, Technology, Engineering, and Mathematics (STEM). It is an example of a successful career fair hosted as part of a national conference. The AISES Career Fair and Expo has become the premier event for Native American STEM professionals, industry recruiters, and undergraduate and postgraduate students, attracting over 1600 attendees from across the country. Sponsors include 3M, Exxon Mobil, Boeing, NASA, IBM, Microsoft and Intel, amongst others. In addition to the Career Fair and Expo, there is also a resumé workshop where students can edit their resumé/curriculum vitae with guidance from industry recruiters, and workshops to build leadership and professional development skills. The AISES Career Fair and Expo serves as a model for career outreach targeting Native American undergraduate and postgraduate students. It is a reference for the development of similar events in New Zealand targeting Māori undergraduate and postgraduate students in STEM fields and beyond.

International Post-Doctoral Training Opportunities
Career pathways for postgraduate students seeking professions in law, business, and medicine are more institutionalised and diversified than those available to PhD students. Such pathways have established transitions from studying to the career ladder, such as internships, summer legal associate programmes, clerkships, cadetships, and medical residencies, to name a few. These opportunities are typically incorporated into the student's academic programme. In many law schools and business schools, students are expected to participate in summer cadetships and clerkships, often with pay or for academic credit. It is not uncommon for such pathways to lead to an entry-level job offer upon graduation. In contrast, doctoral scholars pursuing a career in the academy are limited to research and teaching assistantships (i.e. tutoring) as stepping-stones to the professoriate. Few entry points exist for recently minted PhDs, especially if one is unsuccessful in obtaining a junior level post as a lecturer or researcher.[11] Such pathways are typically limited to unstable adjunct/contract teaching or post-doctoral positions.

The route from doctorate to post-doctoral training is a pathway that many pursue because it is considered a traditional step into the academy. At its best, post-doctoral training is an opportunity to conduct further research, expand one's skill set, and develop the leadership, mentoring, and management skills necessary to embark on an academic career. It is additionally seen as a time to produce more publications and boost one's curriculum vitae. While the former is an ideal scenario, post-doctoral training is notorious for providing cheap labour for senior researchers and often suffers from a lack of mentorship, structure, and strategic growth for postdocs (Helbing, Verhoef & Wellington, 1998). Longitudinal research in America warns that post-doctoral programmes risk becoming 'holding bays', rather than stepping-stones to academic careers (Nerad & Cerny, 1999). For these reasons, professional development and mentorship components of post-doctoral training are just as important as the hard skills and research experience gained. Internationally, post-doctoral mentorship is an emerging area of growth and commitment on behalf of universities and government research agencies.

For example, any institution applying for post-doctoral funding from the National Science Foundation (NSF) in the United States, one of the largest sources of research funding in the world, is mandated by the U.S. Congress[12] to include a mentorship plan in their grant proposal. The plan must summarise the career development opportunities that a postdoc will receive in a programme.

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[9] See http://www.asanet.org/AM2015/registration-2.cfm for more information.

[10] See http://www.aises.org for more information.

[11] Assistant professor is an entry-level faculty position in North America comparable to a lecturer here in Aotearoa.

[12] Postdoctoral mentoring is mandated by the Creating Opportunities to Meaningfully Promote Excellence in Technology, Education, and Science (COMPETES) Act passed by the United States Congress in 2007.

Post-doctoral support at the university level is also growing, often stemming from collective activism. It is important to note that this type of support is relevant for all early career researchers and not just those in a formal post-doctoral training programme. For example, Stanford University's Office of Postdoctoral Affairs hosts a course called *The Scientific Management Series*[13] to introduce postdocs to laboratory and research management skills that are critical to launching their careers. The series draws on senior faculty and other experts who reflect on their own career journeys. Topics covered include how to find a faculty job; implementation and use of career progress guidelines; negotiation skills; lab, money, and time management; grant writing; and getting published. Feedback from post-doctoral participants has been very positive (McGuigan, 2010). The *National Postdoctoral Association* (NPA) is another useful online resource that provides an accessible mentoring toolkit[14] covering the primary features of a mentoring plan, including professional development; helping the postdoc become a productive and independent researcher; and career development, to provide guidance and resources for identifying and achieving the next career milestone (National Postdoctoral Association, 2015). The NPA toolkit is a tangible resource for early career researcher support and includes the four essential elements of an effective mentoring plan for post-doctoral scholars:

- Self-assessment, including the creation of an individual development plan[15] and completion of a competency checklist;

- Development and matching of relevant activities that are tailored to the needs identified in the self-assessment;

- Regularly scheduled meetings focused on the development of the person, not research; and

- A final evaluation as a tool for improvement.

Perhaps even more important than relying on institutional support is the importance of self-leadership and developing sustainable models of peer support. In addition to the Scientific Management Series, the Stanford Postdoctoral Association developed a programme of three interactive workshops, driven and organised by postdocs themselves, to specifically address career progress plans and self-leadership. The three workshops are entitled: Developing a career progress plan; Interviews and interviewing—how to get what you want; and Managing, motivating, and mentoring your workforce. Critical success factors that emerged from these workshops were the importance of meeting face-to-face and emphasising hands-on group activities rather than passive learning. One exercise from these workshops that is particularly relevant for PhD students and early career researchers alike is framing one's research into the big picture by asking participants to answer three questions: *"What are you working on, why it is important, and who is going to care?"* (McGuigan, 2010). This type of contextual and strategic thinking is what Lambert (2013) also encourages doctoral scholars to do by establishing a research programme for themselves early on, rather than solely focusing on their thesis. Creating a research programme with different, yet interconnected research projects (of which the thesis is but one) helps build a strong academic career foundation. Building self-leadership and peer support were common themes across a spectrum of career development programmes that are important when considering how to develop doctoral career pathways.

Moreover, it is recommended that doctoral scholars professionalise themselves early in their careers, ideally before finishing their degree, and most certainly prior to the transition into a career (Lambert, 2013). Self-leadership is one means of doing so. Four recommendations for encouraging self-leadership amongst emergent scholars were identified through the Stanford Postgraduate Association workshop series:

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[13] See https://postdocs.stanford.edu/events/series/scientific-management-series for more information.

[14] See http://www.nationalpostdoc.org/?MentoringPlans for more information.

[15] See http://myidp.sciencecareers.org/ as an example of a free individual development plan template that is accessible online.

- *Start thinking about career management and make informed choices—create an individual development plan with realistic goals and timelines and take responsibility for your own leadership development;*
- *Establish relationships with good mentors—connect with multiple mentors from diverse backgrounds and skill sets and note the importance of reciprocity in a mentorship relationship and the importance of asking for help;*
- *Find a platform to practice leadership—gain leadership experience by getting involved in a professional or local community society or post-doc organisation; and*
- *Establish a leadership philosophy—develop learning objectives and identify the skills one needs to strengthen.* (McGuigan, 2010, p. 41).

This is an exemplary model of peer support amongst new researchers that can be emulated in other contexts. Such efforts are also picking up in Australia as evidenced by the University of Western Australia's Post-doctoral Mentoring Scheme,[16] which is an 8-month, one-on-one mentoring programme pairing post-doctoral fellows with senior researchers. It is a face-to-face mentoring scheme and the matching process is designed so that mentors and post-doctoral scholars are from different disciplines and fields. The objective of this programme is to provide emerging scholars with strategic and independent advice on career advancement and a range of research options.

Post-Doctoral Training Opportunities for Māori

Formal post-doctoral training is not as common in Aotearoa New Zealand as in the United States, Australia, and Canada. This is an opportunity gap for Māori scholars to explore as part of Te Tātua o Kahukura. While the Health Research Council offers four generous Māori post-doctoral fellowships, described in more detail in the following section, these are restricted to health research only. A multi-disciplinary and multi-institutional Māori and Indigenous post-doctoral fellowship programme, either as part of MAI or as an independent venture, could contribute to developing academic career pathways for Māori and Indigenous PhDs. Furthermore, such an opportunity could foster new and strengthen existing international Indigenous research linkages. Most importantly, it expands MAI's already established Māori and Indigenous student support system by providing continuity of support for emerging academics that is grounded in a Kaupapa Māori research methodology informed by tikanga, te reo, and mātauranga Māori.

The Health Research Council (HRC) sponsors four post-doctoral research fellowships in the field of Māori health for Māori researchers who have recently completed a doctoral degree.[17] These fellowships provide a salary, up to $100,000 in research expenses, a tikanga allowance, and an annual conference allowance for up to four years. They are amongst the most generous postdoctoral fellowships on an international scale as the provision of both a salary and up to $100,000 in research expenses for four years is virtually unheard of. Most post-doctoral fellowships are one to two years in duration and do not include such a generous research budget. In 2016, Ngā Pae o te Māramatanga also created three post-doctoral research fellowships valued at up to $78,615 per year. Elsewhere, several individual universities offer post-doctoral fellowships earmarked for Indigenous students, typically for one to two years, such as the Chancellor's Post-doctoral Fellowship in American Indian Studies at the University of Illinois and the Indigenous Land Management Institute Postdoctoral Fellowship at the University of Saskatchewan. Further investigation into the potential sponsorship of international Indigenous collaborations for Māori students through these types of research schemes is required.

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[16] See http://www.research.uwa.edu.au/staff/rdo/postdocs/mentors/one-on-one for more information.

[17] See http://www.hrc.govt.nz/funding-opportunities/Māori-development for more information.

Summary

This section has provided an overview of the literature that explores pathways for Māori and Indigenous doctoral graduates. Beginning with international and national changes in the traditional doctoral trajectory, this chapter sets the scene by contextualising the phenomenon known as the 'leaky pipeline', and the impact this has on Māori and Indigenous pathways and careers. The literature review suggests that there is a paucity of literature (and programmes or activities) designed to support Māori student transitions from doctoral study to post-doctoral positions that will enable transition into future opportunities for doctoral graduates.

Notwithstanding the leadership of key Māori academics and the initiative of MAI Te Kupenga, purposeful career development activities for Māori doctoral scholars are few and far between. The dearth of literature in this area has seen the wider focus in this chapter on Indigenous initiatives and initiatives for Indigenous doctoral scholars and graduates abroad. In brief, this section presents a scan of doctoral to post-doctoral training opportunities to career pathways; showing the key success elements among these models that can be used to inform the development of a similar system tailored for Māori doctoral scholars.

3. Career Pathways for Māori and Indigenous Students

While women and scholars of colour are slowly scaling the gates of the 'ivory tower', white males still dominate faculty positions in institutions of higher education (Rai & Critzer, 2000). One of the most glaring gaps is for Indigenous peoples, who are largely absent from the ranks of the global professoriate. Māori represent 8 per cent of full-time academic staff in New Zealand tertiary institutions, which includes tutors and teaching assistants (Ministry of Education, 2013). Disaggregated data are presented in Figure 3, which show Māori heavily clustered at the junior level (20 per cent of Lecturers and Senior Tutors are Māori) compared to the few Māori who ascend to senior ranks (only 4 per cent of Professors, Deans, and Heads of School are Māori).[18]
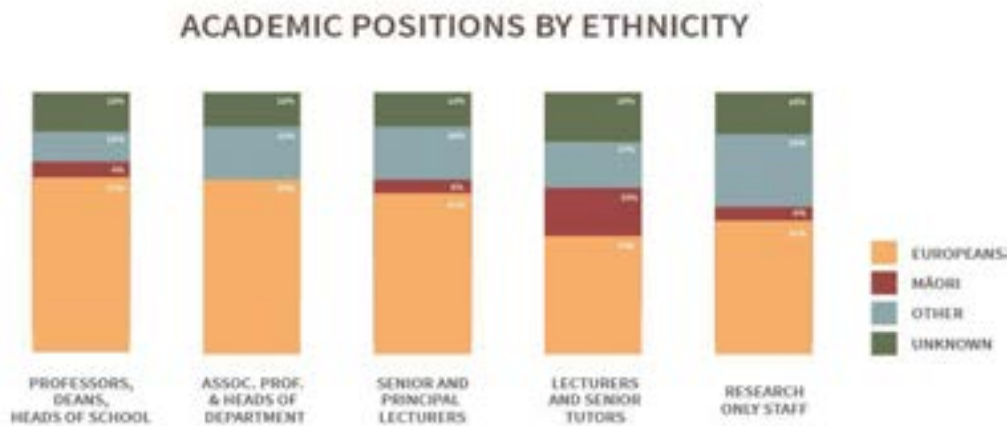

Figure 3: Number of Academic Staff at NZ Tertiary Institutions by Ethnic Group

This signals a critical area of inquiry for Te Tātua o Kahukura, examining not only how to transition Māori into the academy, but also how to facilitate the upward advancement of Māori scholars who are already in the academy. Despite these dismal figures, several postgraduate pathway programmes designed to meet the needs of Indigenous students are models of success. While they do not specifically target doctoral scholars, these programmes still contribute important best practices to the literature on postgraduate to career pathways.

Caring For Our Own Program

One such example is the *Caring For Our Own Program (CO-OP)[19]* at Montana State University. CO-OP is a support programme founded in 1999 to increase the number of qualified Native Americans and Alaska Natives entering the nursing profession. It has changed the face of healthcare in the state of Montana, with CO-OP graduates truly "caring for their own" and working on all seven of Montana's Indian Reservations. Over 70 Native American nurses have graduated from CO-OP since its inception, and as of January 2014 there were thirty-three students currently enrolled at various stages of earning their nursing degree (Cantrell, 2014). CO-OP emerged as a wrap-around suite of services to support Native nursing students through their academic journey and into early careers. Through its partnership with the Indian Health Service (IHS), CO-OP serves as a pipeline for transitioning qualified nurses into IHS facilities on rural reservations. The establishment of shared priorities, institutional commitment, and strong partnerships between Montana State University, the Indian Health Service, and Montana Indian tribes have been critical to the continued success of CO-OP for over fifteen years. The programme just successfully won a $1 million grant from the Indian Health Service to continue its efforts.

Following the completion of their course of study, CO-OP nurses are employed in a healthcare facility on an Indian Reservation, mostly in Montana, for a minimum of two years, as regularly paid nursing staff. There is a clear employment pathway and binding employment agreement to which students must agree prior to starting CO-OP. Further, both personal and academic support frameworks are in place from the outset of the programme.

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[18] Raw data obtained directly from the Ministry of Education in 2013. NB: MoE suppressed the number of Māori Associate Professors and Heads of Department for confidentiality reasons.

[19] See http://www.montana.edu/nanurse/ for more information.

Success factors contributing to student graduation include: financial assistance for tuition and living expenses; childcare provision, as many students are parents of young children; an annual orientation at the beginning of the school year; regular talking circles and the creation of family-like relationships and support networks; tutoring; cultural understanding; encouragement and positive reinforcement that every student is contributing to a collective good; peer mentorship, which matches incoming students with upper division nursing students who can assist in navigating the academic environment; and the additional incentive of a guaranteed job at the end of one's studies.

Indian Leadership Education and Development (ILEAD) Project

The ILEAD Project[20] is another initiative from the Montana University system that focuses on recruitment, retention, and career placement of Native American teachers. ILEAD provides postgraduate training to Native American educators through tailored masters and doctorate programmes in Educational Leadership. Candidates participate in blocks of part-time instruction in order to accommodate full-time teaching and/or school administration. At the end of the programme, in addition to earning either a masters or doctorate, candidates also gain certification as a school principal or superintendent. A key success factor is that candidates are assigned a mentor, who is an experienced administrator of schools with high populations of Native American students, and this individual supports the candidate throughout their academic journey via a combination of face-to-face and virtual meetings. A unique facet of this programme is that after candidates earn their degrees and are placed in a school, mentorship continues through a year-long induction so that individuals are not simply abandoned after graduation; this extended provision of mentorship support through their first year as a school administrator is another critical success factor and serves as a model that can be implemented across disciplines and contexts to support Indigenous postgraduate students in their early career transitions. Upon earning their degree and certification, all participants must agree to serve as administrators in schools with high populations of Native American children for a period of time equal to the length of their education and training (minimum two to four years). Similar to the Caring For Our Own Program, there is a clear employment pathway and binding employment agreement to which candidates must agree prior to starting. If a student fails to meet this minimum service time to Native American children, they are required to pay back the cost of their education to the programme.

Māori and Indigenous Doctoral Cohort

As the cohort of Māori and Indigenous tertiary students gradually grows both domestically and internationally (Bandias, Fuller, & Larkin, 2014; Barney, 2013; Henry, 2007; Kidman, 2007), it is fundamental that there are adequate support processes, structures and facilities in place within tertiary institutions to ensure their success and achievement. Though there is an emerging discourse investigating different aspects of academic achievement for Māori and Indigenous students, the focus has predominantly been on the reasons for the disparities between Indigenous and non-Indigenous students in terms of academic enrolments, attrition rates, completion rates and the time taken to complete tertiary study (Bandias, 2014; Barney, 2013; Chirgwin, 2014). Indigenous engagement and participation in higher tertiary education, though small, is steadily on the rise (Barney, 2013; Grant, 2010; Kidman et al., 2015), with many authors highlighting the benefits this will have on Indigenous communities (Grant, 2010), achieving *social-justice goals [and] reducing Indigenous disadvantage*" (Barney, 2013, p. 517).

Navigating the doctoral journey is a challenge in and of itself, and doing so while negotiating two differing worldviews and knowledge bases can be wearisome. However, this is the experience of many Māori and Indigenous doctoral scholars (Barney, 2013; Chirgwin, 2014; Glynn & Berryman, 2015; Garrod, Kilkenny & Benson Taylor, 2017; McKinley et al., 2011). Often the research topics chosen by Māori and Indigenous doctoral candidates sit across numerous academic disciplines, resulting in a time-consuming process of resolving tensions and meeting both the cultural and academic requirements necessary for doctoral study (Garrod et al, 2017; McKinley et al., 2011). Barney (2013) discusses this further by sharing findings from a project that highlighted the experiences of Indigenous Australian postgraduate students, stating that too often 'Western' knowledge has relegated Indigenous knowledges and discourses to the side-line. For many of the participants in this project, university became a "cross-cultural experience" where they often felt that there was a lack of cultural awareness within their institution, resulting in them struggling to use, interpret and understand unfamiliar research practices, methodologies and epistemologies (Barney, 2013, p. 516).

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[20] See http://www.montana.edu/education/ilead/ for more information.

McKinley et al. (2011) identify this same challenge, drawing upon research conducted with Māori doctoral candidates. The authors state that reconciling Māori knowledge with Western knowledge is far more than merely marrying two worldviews. Rather, the process often "*raises difficult questions about what counts as data, who can have access to it, and whether the implicit meanings can legitimately be made explicit*" leading to "*compromises and the emotional burden of balancing competing allegiances*" (McKinley et al., 2011, pp. 120-121). Glynn and Berryman (2015) also comment on this tension, but state that Māori researchers have the right to not only use their preferred epistemologies, methodologies and Indigenous knowledge – particularly to benefit their whānau and communities – but that they can expect their tertiary institution to provide an environment where this can be done and appropriately supported. They then argue that it is a matter of cultural safety, where Māori doctoral success in the academic world should not have to be at the expense of their culture and the Māori world.

Despite the difficulties that many Māori and Indigenous doctoral scholars or early career scholars face when integrating two worldviews, some authors comment that it remains necessary. West and Usher (2010) claim that indigenised research is one way to liberate Indigenous peoples from the marginalisation and oppression inflicted by colonisation (as cited in Barney, 2013). Rigney (2006) and Nakata (2002, 2006) also support this, noting that the use and support of Indigenous knowledge and methodologies in research promotes the decolonising of tertiary institutions. This may be crucial, considering that many tertiary institutions may not be culturally ready to support Indigenous students and their knowledges (Bin-Salik, 2011, as cited in Chirgwin, 2014), particularly when there has been little or no cultural training for staff, nor have there been appropriate remedies to alleviate any institutional racism that has occurred and may occur again (Chirgwin, 2014).

It is therefore not surprising that numerous authors argue for the implementation of culturally specific training programmes for university staff that promote cultural understanding; the use and teaching of culturally appropriate curricula, epistemologies and pedagogies; the provision of culturally safe spaces; the inclusion of cultural knowledges; and the acknowledgement and appreciation of cultural ways of being and knowing within academia and tertiary institutions (Chirgwin, 2014; Trudgett, 2011; Trudgett, 2014).

Though the literature identified the importance and need for an all-encompassing cultural overhaul within tertiary institutions, there was little discussion on how this might occur. Some authors placed the onus on universities to improve the research environment that Indigenous scholars work in, while others suggested further research to be conducted. However, the experiences of Indigenous early career scholars show the power shift that has yet to happen within western education systems, and the ongoing struggle that early career Indigenous scholars face if they are to remain within the institution. In order for Māori and Indigenous doctoral scholars to thrive, it is fundamental that their culture is supported, nourished and celebrated at every step of the doctoral and academic journey.

Supervision for Māori and Indigenous Doctoral Success

In addition to the aspects of culture that influence the doctoral journey for Māori and Indigenous candidates and early career scholars, appropriate and culturally responsive supervision is another fundamental aspect that influences the cohort's success. Many of the review materials discussed the impact of supervision on the Indigenous doctoral journey, and many core values and principles for good supervision practice emerged. These are discussed below.

In the first instance, a good rapport and trust needs to be established between the supervision team, and then between the supervision team and the Indigenous doctoral candidate (Day, 2007; Henry, 2007; Trudgett, 2014). A candidate's ability to select their supervisory team is beneficial to this process (Day, 2007); however, because of the limited availability of supervisors in specific disciplines this is not always possible (Barney, 2013). Thus, identifying or developing mutual interests is necessary, as is building and maintaining respectful relationships (Glynn & Berryman, 2015). It is from this basis that the candidate and research team are able to negotiate and progress the research project (Day, 2007; Henry, 2007). Unfortunately the mismatch of supervisors and candidates, as well as the lack of involvement of a supervisor, can have detrimental effects on a doctoral research project, and can influence the withdrawal of a student (Day, 2007).

In addition to building strong relationships, another key principle that arose was the need for the supervisor to advocate for their student, build their confidence as an early career scholar and help to develop their voice in academia (Barney, 2013; Day, 2007). In addition to this, supervisors need to be sensitive, aware, prepared for and supportive of any and all cultural matters that may arise throughout the research project (Day, 2007; Henry, 2007; Kidman, 2007; Trudgett, 2014), particularly if the supervision team is non-Indigenous. This includes having prior knowledge of the relevant Indigenous methodologies and pedagogies that Indigenous candidates may prefer, or being open-minded and willing to accept and support these aspects of the research (Day, 2007; McKinley et al., 2011; Wilson, 2017). At times this may also require the supervisor(s) to buffer or intercede with inquiries put forward to the candidate concerning Indigenous issues, but that are not directly relevant to the research project (Barney, 2013). Often this occurs when there is a lack of cultural understanding or a misconception about the Indigenous culture, and candidates are expected, unfairly at times, to explain or clarify the issue (Barney, 2013). Additionally, supervisors – especially non-Indigenous supervisors – should also be open to and encouraging of Indigenous doctoral candidates seeking informal supervision from elders in their community, particularly if their topic concerns Indigenous issues or knowledges (McKinley, 2007). For some Indigenous candidates, maintaining their connection to their families and communities is a measure of success for them, and is often a strong motivation for them to conduct doctoral research (Day & Nolde, 2009). In allowing this, candidates, along with their community, are enabled to take ownership of the research project and use it as a tool to improve their various social, cultural, political or economic realities (Delgado, 2016).

A preferred quality of supervision praised by Indigenous doctoral candidates was the ability of a supervisor to understand them and their multiple responsibilities or commitments outside of their studies, particularly to their families, communities and employers (Kidman, 2007; Day, 2007; Harvey, 2005). Subsequent to this, candidates also appreciated their supervisors understanding, that at times, the doctoral journey could lead to significant emotional upheaval, particularly as some candidates learn of the numerous historical injustices, wrongs or discriminations experienced by their people (McKinley et al., 2011).

Academic Isolation

A reoccurring experience for many Māori and Indigenous doctoral scholars that emerged was the feeling of cultural and social isolation within the academy (Kidman et al., 2015; Barney, 2013; Chirgwin, 2014; Day, 2007). This was due to a number of factors, including: being the only Indigenous doctoral candidate in their discipline (Kidman et al., 2015); the low number of Indigenous candidates conducting doctoral research (Barney, 2013); the minimal number of Indigenous staff in academic or administrative roles at the university (Kidman et al., 2015); being physically isolated on campus (Day, 2007); minimal understanding from their families, having been the first to attend university (Barney, 2013); and the remoteness of many Indigenous communities (Delgado, 2016).

To counteract this isolation, doctoral candidates – perhaps with the help of their supervisors - need to be able to socialise and interact with other Indigenous doctoral candidates and Indigenous staff. Trudgett (2011) proposes the establishing of a national database detailing all Indigenous Australians possessing relevant qualifications. Though this is proposed as an initiative to connect doctoral candidates with suitable supervisors, this could also connect scholars within the same or similar disciplines, and provide a network of support nationwide. This environment would be of huge benefit to Indigenous doctoral candidates, providing a research forum, albeit from a distance or digitally, from which candidates can converse and engage with other early career scholars. However, further investigation would need to be conducted to determine whether this database is able to meet the social and cultural socialisation and affirmation needs of the cohort.

In addition to building or establishing Indigenous networks, Kidman (2007) discusses cluster supervision as a remedy to institutional and cultural isolation. This consists of inviting small groups of doctoral candidates from the same or similar disciplines to meet frequently with a team of supervisors, establishing a peer support environment that allows for simultaneous supervision, and the growing of necessary skills relative to doctoral study (Kidman, 2007). This process is beneficial to senior Indigenous scholars or supervisors who have heavy workloads, but are committed to supervising early career scholars. It should be noted though, that this form of supervision does not replace the one-on-one meetings between candidates and supervisors; rather this is a supplementary measure that connects doctoral candidates with each other and allows them to socialise and share their knowledge at the same time (Kidman, 2007).

Doctoral Mentoring

Mentoring is regarded as a vehicle through which feelings of isolation of Indigenous doctoral scholars could potentially be alleviated. However, very few of the materials specifically focused upon, addressed or determined mentoring for Māori or Indigenous doctoral candidates. Kidman et al. (2015) argue that academic mentors provide "*invaluable systems of professional and disciplinary support*" (p. 52) and are incredibly significant for early career academics. Kidman et.al (2015) note further that academic mentors can provide additional advice, support and guidance for early career scholars, and provide pathways to socialise doctoral scholars within wider academic networks (Kidman et al., 2015).

The term 'mentor' as we know it today originates from the ancient Greeks through Homer's *Odyssey*, in which Ulysses asks Mentor to educate and guide his son in the time of the Trojan War (Roberts, 1999). The practice now permeates across cultures and societies, whereby someone with knowledge, influence, wisdom, and esteem bestows such traits and values on another. Mentors go by many names including coach, teacher, advisor, partner, counsellor, sponsor, guide, and role model, to name a few (Daloz, 1986; Merriam, 1983; National Academy of Sciences, 1997; Ramanan, Phillips, Davis, Silen, & Reede, 2002). With respect to career development, foundational literature considers mentors as individuals with experience and knowledge who are committed to providing upward support and mobility to their protégés (Hunt & Michael, 1983; Kram, 1985). This concept of protégé rather than mentee is common in career development discussions.

The notion of a mentor is similarly grounded in Māori and Indigenous contexts as part of traditional relationship and kinship systems. Specific to Māori, mentorship is often framed within a tuakana-teina relationship, where an older or more expert tuakana helps and guides a younger or less expert teina (Ministry of Education, 2009). This relationship is characterised by reciprocity where both tuakana and teina are teacher and student, mentor and mentee (K. Smith, 2007). There are many different Māori mentoring programmes throughout Aotearoa New Zealand, targeting students, teachers, and professionals alike (Gibson-van Marrewijk, 2005; Ross, 2008; Rua & Nikora, 1999). Existing programmes highlight the importance of positioning Māori values, principles, and practices at their core. Development of 'whānau-like' long-term relationships, attention to the holistic needs of a person, affirming Māori identity, and leadership building as part of a greater call to 'give back' to one's community were identified as good practices for Māori mentoring initiatives (Clarke, 1998; Tahau-Hodges, 2010).

A concept laden with meanings and expectations, mentoring has been used to describe a variety of both formal and informal functions in fields from higher education and youth development to business and crime prevention. While no commonly accepted definition of mentoring has been developed (Speizer, 1981), the universal truth of mentoring is that it is first and foremost about relationships. Mentoring relationships include aspects of help, encouragement, nurturing, support, and guidance (Shaughnessy, 2013). In relation to career pathways, mentoring has been a practice of personal and career development for decades, gathering momentum as a topic of empirical research in the 1970s and 1980s (Kram, 1985; Noe, 1988). It has since occupied a significant role as part of organisational management and career development across sectors (Stead, 1997), including the academy.

Mentoring permeates higher education to the extent that it has been labelled a "*new mantra for education*" (Sundli, 2007, p. 201). Noted as integral to the personal and professional development of students, it plays a critical role in transition and retention pathways for students at all levels, from new entrants to postgraduates. A full literature review on mentoring is not within the scope of this brief; however, it warrants basic exploration, as each of the activities and initiatives discussed in this section embrace mentoring, either formally or informally, in some respect. The following section explores the paradigm shift from mentoring to sponsoring in the literature and provides discussion on its implications for development of pathways for Māori and Indigenous doctoral scholars.

Paradigm Shift from Mentoring to Sponsoring

A paradigm shift in career development from mentorship to sponsorship is building traction. Though often juxtaposed, sponsorship and mentorship are not mutually exclusive. Sponsorship may be a novel approach in practice, but it is also discussed in the literature as an embedded aspect of mentoring. For example, sponsorship is noted as one of the five functions of career development mentoring by Kram (1986), whose early work is some of the most frequently cited in this area. Kram further explains sponsorship as the process whereby

the mentor uses their connections to support their mentee's career advancement. The other five functions are equally important: coaching, which involves transmitting knowledge and providing feedback to improve performance and potential; protection, described as the mentor shielding the mentee when required (i.e. acting as a buffer); exposure, identified as the mentor creating opportunities for and enhancing the visibility of the mentee; and the final career development function is challenging work, where the mentor assigns work that is intended to expand the mentee's knowledge and skillset in specific competencies.

Moving from mentoring to sponsoring can be a natural progression, while others consider it a much more thoughtful effort. In '*Forget a Mentor, Find a Sponsor*', Hewlett (2013) asserts that sponsors invest in their protégés through very deliberate and strategic means. It is a relationship built on reciprocity and sustained on the basis of quid pro quo. Sponsorship prevails within the corporate sector and is considered to be as old as corporations themselves, historically operating as an 'old boys' network (Nayyar, 2006). Enabling access to what was previously a clandestine and exclusive network of sponsors is transforming corporate career development through the expansion of upward mobility. Sponsors invest in protégés, not necessarily due to altruism (although that could be a factor), but primarily because their own careers are positively propelled. According to this line of thinking, a protégé stands on their sponsor's shoulders while concurrently building the sponsor's brand and legacy. This notion of investing one's hard-earned political capital and staking one's credibility on supporting someone else is risky. Such risk, however, is shown to pay off for senior managers because they in turn acquire a reputation for spotting talent and building leaders. Moreover, investing in talent development via sponsorship can directly result in increased earning potential for the sponsor—amounting to an average of over $25,000 according to a 2012 study by Catalyst (Dinolfo, Silva, & Carter, 2012).

Mentoring is credited with preparing people to move up, whereas sponsorship is described as an action-based process catalysing upward career mobility (Fisher, 2012). Across literature and practice, sponsorship is positioned where mentorship falls short; however, this demarcation is secondary to the importance of gleaning the positives from effective programmes in both camps. The need to blend a variety of good practices to develop responsive, effective, culturally grounded, and sustainable pathway support for Māori and Indigenous doctoral candidates remains the ultimate objective. To this end, several sponsorship programmes are identified below. As evidenced by these examples, sponsorship is popular in targeting the advancement of women and minorities in business careers, where a powerful champion proves critical to climbing the corporate ladder.

The Emerging Leaders Development Program (ELDP)[21] is a comprehensive, multidisciplinary professional development programme targeting high-performing minority (ethnic) managers and senior managers. ELDP uses skill-building sessions, self-assessments, 360-degree feedback, and an external professional coach to prepare promising leaders for greater responsibility within Deloitte. Participants explore a curriculum that includes a variety of topics, ranging from effective development strategies, risk-taking, building professional networks, and dealing effectively with potential biases in corporate America. Additionally, each participant is assigned a partner, principal, or director sponsor who commits at least two years to help their protégés drive their own careers by helping them understand how to navigate Deloitte's organisational structure.

Another example of 'sponsoring' within the workplace is *Women Leading Citi*. This 18-month sponsorship programme was launched in 2009 to foster the mobility of high-performing senior women within Citigroup, a global financial company. Participants interested in advancing their careers are nominated by their business leadership. Through *Women Leading Citi*, participants gain opportunities to network and to broaden their leadership skills with a four-person support team: a manager, a human resources partner, a talent professional, and a senior advocate who serves as sponsor. Participants receive in-depth assessments, personal coaching, and leadership workshops and webinars led by global industry experts. Fifty-nine women took part in the initial programme, of whom 70% experienced career advancement over the eighteen months. Data from April 2012 reports showed that 54 women participated in the programme and 36% had experienced career mobility by the end of that year.

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[21] See http://www2.deloitte.com/us/en/pages/about-deloitte/articles/inclusion-leadership-development.html for more information.

A final example is *Women in the Board Room* (WIBR).[22] WIBR is committed to advancing women in their careers and onto corporate boards. Its objective is to connect influential women executives and professionals with the people and tools they need to succeed in business and the boardroom. WIBR's services are mainly network-oriented, including executive and board coaching sessions, seminars, and webinars. This is a pay-for-service network and there is an annual fee to access WIBR's network activities and sponsors. Its board and executive coaching service is done through a corporate sponsor who assesses a participant's skill-set, critiques and improves their board curriculum vitae, and helps individuals launch successful board campaigns. Their 'career-boosting' outreach is done virtually and through in-person events to connect aspiring and current board members throughout the United States, and provides essential knowledge for leadership and corporate board service. They target senior-level executive women, and their framework for service, nation-wide delivery, and outreach, combining virtual and in-person linkages, offers some insight for Te Tātua o Kahukura.

Summary

Part two of this report examines various means, both in the literature and in practice, by which Te Tātua o Kahukura could contribute to stronger career pathway development for Māori and Indigenous doctoral scholars. These range from financial support to peer mentoring, and include self-leadership and improved university research infrastructure. Sponsorship as a framework for doctoral pathway development offers promise, so long as there is an understanding that doctoral candidates do not seek sponsors; rather, they earn sponsors. The sponsorship process must also be based on reciprocity and carefully negotiated power dynamics. Further, the corporate underpinnings of sponsorship need to be disrupted if it is to have any cultural relevance to Māori and Indigenous peoples. Embracing a tuakana-teina type model through a process of holistic and interconnected relationship building and leadership building measures is required.

As Indigenous peoples, our ancestors epitomised what it means to be deliberate. Planning, strategy, and vision were necessary for survival. Their future-proofing efforts are why we are here today and it is from this same depth of insight that Te Tātua o Kahukura springs. Moving beyond the 'accidental' academic as described by Hall (2014), where one stumbles into a career after earning a doctorate, has never been more urgent. The success of the MAI programme in facilitating the completion of over 500 Māori and Indigenous PhDs over the last decade, and the hundreds more currently enrolled, is a call to action for deliberate and sustained development of PhD transition pathways. This brief serves as a foundational scan of existing initiatives and good practices in this space. Clearly evident is the glaring gap in doctoral pathway strategy and implementation for Māori, Indigenous, and mainstream students alike. This reality presents a tremendous opportunity for Te Tātua o Kahukura to develop a truly novel initiative that first and foremost serves the career needs of Māori and Indigenous doctoral scholars, as well as our iwi, hapū, and whānau. It also has the potential to become a revolutionary new framework for how doctoral study is conceived, institutionalised, and valued as part of career pathways for Indigenous peoples globally.

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[22] See http://womenintheboardroom.com/ for more information.

PART THREE: RESEARCH THEMES & FINDINGS

4. The Doctoral Journey

As discussed in the methods section, the first round of workshops provided the opportunity for the team to gather the research data for this project. Early career Māori academics and doctoral scholars were invited to participate in a two-day workshop where they were presented with an overview of the literature in the area as a background for discussion. In addition to this, participants were invited to reflect upon and share, firstly, the primary influences or motivations for undertaking doctoral studies and embarking on a pathway that could lead them to an academic career. Participants were also asked about any mentoring or support programmes, both informal and formal, that they either knew of or had used to assist them in their doctoral and professional journey to date. Finally, participants were encouraged to share and discuss what support or assistance they felt they needed or would ideally like to support them through the final stages of their doctoral studies and in preparation for an academic career. The following sections share the narratives and the themes that emerged from both the students and the staff who participated in the research hui rounds and the interviews.

Commencing the Journey

The reality of Māori and Indigenous early career academics is that they are dynamic and diverse people, with equally diverse pathways that had bought them to the doctoral journey. This was well illustrated in the comments people made around what motivated their decision to pursue their doctorates. Some participants noted that at times the motivating factor wasn't so much about the qualification, but the way in which that particular qualification would change their standing and power within their field of work:

> *"I can remember one woman saying… that she wanted to get the Dr. so she could argue back, that in the work that she was doing advocating for the people she worked with, whether you call them clients or patients that Dr. in front of her name would give her voice different power to argue for them, so she had no intention of going into an academic kind of a career or a scholarship if you like, but she saw that as a way of saying well it means that other people think that my voice counts in a different way." (Waikato, Kaimahi)*

Others mentioned the overwhelming push to carry out research, which was not always because of the topic of research, but due to an ultimate desire to do the work that is needed within their communities, their whānau, their hapū and iwi:

> *"We are all doing these topics and we are really passionate about these topics but also a little bit letting go as well and realising that this whole thing we are doing it for our iwi, we are doing it for our whakapapa, we're doing it for our hapū, sometimes without realising it you end up doing really good jobs for iwi even though it's not your passion but it's still for your iwi so tērā pea it is your passion." (Otago, Tauira)*

The diverse factors that motivated participants to enter into postgraduate studies included encouragement by senior Māori academics to continue their studies, or opportunities to be involved in research projects, which then naturally flowed on to further study and development:

> *"Quite a few of us spoke about the importance of mentors that we've had and the support people that have guided us on the journey even though for most of us at the table, none of us really wanted to do this but here we are." (Waikato/Tāmaki, Tauira)*

> *"One of the things I kept hearing in our kōrero was an option that many of us had fallen into academic spaces, started off in spaces of like feeling inadequate about what we knew and not feeling very validated and just kind of ambling our way through a process where we've ended up where we are." (Waikato/Tāmaki, Tauira)*

Although some participants felt their journeys had not always been intentional, there were a number of comments that showed a definite consciousness about the potential to bring about change inherent in the process of achieving a doctorate. This desire to help effect change within our communities can be bought about in a number of different ways, from raising awareness and understanding about traditional Indigenous knowledge to normalising of Māori attaining doctorates; a highly motivating factor for many of the participants in this study was the ability to make a useful contribution to their families and communities:

> *"We talked about making, normalising post-grad study for our whānau so it just becomes something we can all do as an option, doesn't have to be what you do, but as an option and honouring our original instructions, this is what we are supposed to be doing, and that we can accept that and work with that this is the original instruction, we are here to contribute back to make it matter, to make what we think matter." (Waikato/Tāmaki, Tauira)*

There was also a sense, that in "*going where we are needed, where we are asked to be, whether or not that's our plan" (Waikato/Tāmaki, Tauira)*, that the decisions over where you might be needed were being entrusted to some higher power, or collective understanding that would provide participants with the knowledge and support they needed, when they most needed it. Thus the role of wairua and spirituality as a motivating factor, which directed and supported Māori early career academics onto the pathway, was also acknowledged:

> *"Spirituality played a big part on our table, there were different expressions of how it evolved through us onto pages through us and our kōrero, through us in our expression in art in different ways, we talked about transformation, one of the strong things that came through that I felt was the idea of it not only being an intellectual journey but it was also a healing journey and that idea of healing came through partly through our expression and partly through what we were expressing and that that might create healing of historical trauma and there were lots of examples that came through with that." (Waikato/Tāmaki, Tauira)*

Participants also discussed the ways in which they felt; as Māori and Indigenous doctoral scholars, they represented a somewhat different demographic than non-Māori and Indigenous doctoral scholars. The significance of ageism as a barrier for many mature Māori doctoral scholars was discussed. Some participants attributed these challenges as cultural issues based on a fundamentally different view of the worth and value of our kaumātua and kuia, and the priority in mainstream tertiary institutions on producing working academics:

> *"A lot of scholarships are for full time students and you've got to be under 35, aimed at people who have gone straight through school… we don't fit neatly into those categories so we've got people in that over 50 group where the studylink things have changed… that expectation that there should be employment outcomes when they're already employed, underlying all that is the idea that when you get into your 60s what's the use of doing research, but if you're contributing back to your whānau and hapū that's the age group that has the knowledge that should be documenting it for future generations and can't we use tertiary education for ourselves as Māori in that way. It's very Western focused. It's very mainstream focused, the thinking, the assumptions behind why people are getting an education. I think the pattern for us is you get your first degree so that you can get a job to support your family and then you get tied up with supporting them and then they leave home, you get time to yourself and it's when they've left home and they become independent that you go into graduate studies and by then you're getting close to 50 and suddenly all the support disappears. It's our way of thinking the 60 pluses are the ones that have the knowledge that we want to retain, but then they write you out of your jobs because you are getting too old." (Awanuiārangi, Kaimahi)*

The factor of age also resulted in other variations in the demographic, such as the prevalence of students having children and family responsibilities, including taking care of elderly relatives, and tribal and/or community responsibilities. The overwhelming majority of participants were women; many of the participants already had experience within their own fields and were often returning to study out of a motivation around the kaupapa or project itself. Some participants acknowledged that the need to continue working throughout their doctoral studies provided other difficulties in terms of juggling workload and studies, and finding appropriate sources of funding for their research. These factors were acknowledged as presenting unique circumstances and challenges for Māori and Indigenous doctoral scholars and early career researchers, as these excerpts illustrate:

"It is difficult for Māori to complete a PhD simply because a lot of them are doing that later in life, they're coming back later to do it and then there's a whole bunch of other whānau issues that you've got to worry about as well." (Waikato, Kaimahi)

"There's other ones who are doing the search for their hapū or whānau and the career isn't their primary reason for doing it... they've already got a career and it's their contribution back to their whānau, hapū, that's the reason they're doing it, it's not for career advancement necessarily so that assumption... that institutions have to show employment outcomes is once again trying to make us fit a square peg into a round hole." (Awanuiārangi, Kaimahi)

Even for those who were interested in professional advancement, their achievements and experience within their fields also created points of difference from other students.

"Many of our PhD students are already in high level positions and so they come in here to do their professional development to advance themselves, go up the ranks so they're not like baby students... it's a huge difference." (Awanuiārangi, Kaimahi).

Some participants also mentioned that as a consequence of their experience within their respective fields they had for some time avoided doing their doctoral studies and described themselves as resistant academics. Whatever differences existed between the participants, one of the unifying factors was the overarching focus on research projects that would be transformational, if not for the researchers personally then for their families, their hapū, iwi or the communities they participate in:

"We talked about it fundamentally being about being the change that we want to see within our communities for our whānau and our hapū and our iwi and that was sort of the motivating factor, that the PhD itself is just a platform to far greater things; it's not the thing that defines us and what we do. It's just a small space of time but it's going to hopefully be transformative not only for ourselves but for our people." (Waikato/Tāmaki, Tauira)

Critique of the Pipeline Model

After the presentation of the literature related to pathways for Māori and Indigenous doctoral scholars there was considerable discussion in regard to the conceptualisation of a 'leaky' PhD pipeline. It was clearly noted that any categorisation of Māori and Indigenous early career academics as being the 'leaks in the pipeline' was not an accurate representation of how they saw the evolution of their doctoral and academic journey. The presentation of a linear pipeline through which Māori and Indigenous students would 'flow' failed to cater for the ways in which institutional and systemic processes and practices act as impediments or barriers to a clearly defined movement or transition from being a doctoral student to an academic position. As such, the idea that Māori and Indigenous students 'leak' from the pipeline is grounded in deficit constructions that locate issues of retention with the student.

Participants provided a clear systematic critique of the ways in which academic pipelines are constructed in line with dominant cultural expectations of how students would ideally move through their educational journey. With regard to the linear nature of the 'pipeline' model, this study suggested instead that a circular model embracing fluidity and opportunity to pursue multiple pathways across various sectors, rather than a linear pipeline, may better suit the realities and career aspirations of Māori and Indigenous PhDs.
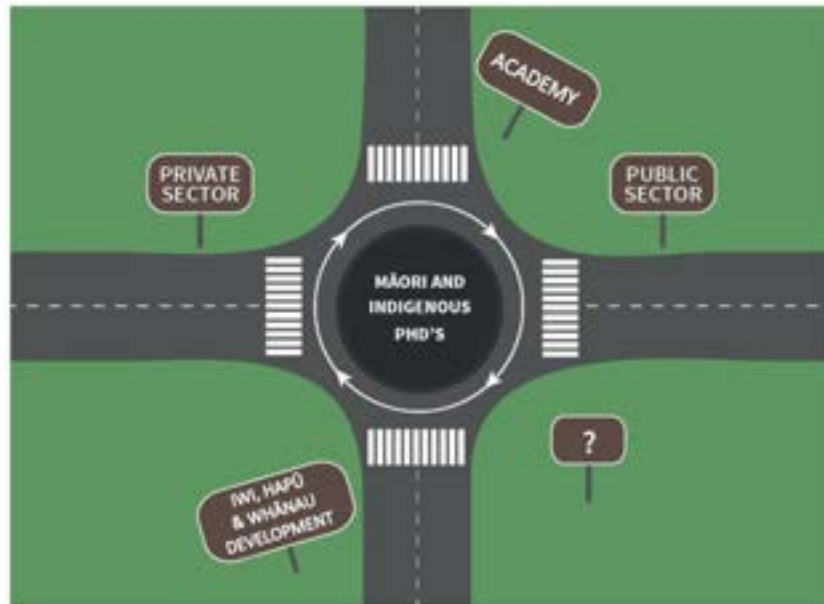
Figure 4: Doctoral Roundabout

The Māori and Indigenous doctoral roundabout illustration in Figure 3 empowers our scholars by placing them in control of which pathway they pursue and when; whether it is the academy, the private or public sectors, or iwi, hapū, and whānau development, among others. It is a model that accommodates the multiple directions in which Māori and Indigenous scholars are pulled and the numerous obligations and opportunities they experience. It acknowledges that while one cannot do everything at once, one can pursue multiple pathways as desired and as needed, if one acts with intention, if support structures are in place, and if doctoral training prepares one to do so. It is a stark departure from the mainstream picture that doctoral scholars are simply floating down a pipeline and going with the flow regardless of where it may lead.

The discussion that was provoked across each of the workshop locations made it clear that the factors that motivate Māori postgraduate students to undertake doctoral studies are diverse, and that many do not envision their ultimate career path as a pipeline leading them into an academic institution. Even for those who have found themselves there, some suggested this was almost 'accidental', while others felt, rather than the process being entirely by accident, it had just taken them a little longer to realise where they were going and why they were doing it:

> *"We also had some of that kōrero around becoming that accidental academic but as the discussion kind of circulated I don't know that it was entirely by accident, like for those of us, there were levels of consciousness in it, so we thought we might of thought at that particular moment that this was the motivating factor for why I was doing this, but then later on in reflection we realised oh actually, that wasn't it, that was part of it, but there was all this other stuff that I wasn't aware was going on until now and so a lot of us also talked about that we might have thought that we had a particular pathway but that other people also had a pathway planned for us and at some point it merged and we weren't all sure when that had happened but then suddenly you would find yourself in a position and go how did this happen, but actually there was strategy and that kind of stuff going on." (Waikato/Tāmaki, Tauira)*

Systemic Issues
Within the workshop many participants who are in Western-based universities talked about interactions within the system that continue to marginalise Māori and Māori theories, methodologies, and more broadly, Māori knowledge. These systemic issues were considered by many to contribute to the idea of the 'leaky pipeline', which when understood in relation to systemic issues is more about blockages and barriers within the education system.

A number of participant discussions centred on the provision of mainstream programmes. Many of the mainstream programmes were felt by participants to be inappropriate or of limited use and benefit. The view that many of the workshops were monocultural and often culturally unsafe was widespread and led to students not attending much of what is provided through their graduate programmes.

> *"Every now and then I cross the driveway over to the mainstream side and go to the doctoral groups there and I've stopped going because I just get tired of trying to justify what I'm doing or when I talk about when I use methodologies and I'm doing a kaupapa Māori methodology, well that sounds really interesting would you tell us, would you do a presentation to us and that, and I'm like nah, I'm not here for that, I don't want to tell you, go and do Leonie's course in Summer School or something like that, I'm actually here in some cases to be fed rather than spreading this out so I don't go to those anymore." (Waikato/Tāmaki, Tauira)*

> *"There are a lot of workshops, like there are heaps of them and with our Māori students we can encourage them to go but a lot of them don't intend to go because it's very Eurocentric." (Massey, Kaimahi)*

> *"I know with our students they might attend one and then they realise that actually isn't even for them in their view, no one's really talking to them and so we know that our people vote with their feet when that happens they pretty well don't go back again unless they can get a mate and then engage in a whole other workshop after the workshop with each other to kind of work out how it relates to how they're doing or what they are doing in their mahi." (Massey, Kaimahi)*

> *"Well none of us have really identified any institution that is solely about encouraging PhDs like all we're talking about here, we've come across individuals who have been all about, like we better get you through this, which is like, so if you don't find those people then what happens to you." (Te Whanganui ā Tara, Kaimahi)*

A number of participants talked about issues of institutional racism and white privilege as being a fundamental issue in regards to Māori and Indigenous doctoral scholars' engagement in western university structures.

> *"The problems actually aren't the students, it's not the Māori kaimahi - it's the institution, and it's not even Pākehā kaimahi - it's whiteness that's the problem. It's not about individual and that's where, with people coming in to the academy, it's learning that stuff and a lot of it's really soul destroying to learn as well because you invest so much of who you are and your discipline and your passion for your discipline and what you do for it and at the end of it the university says "thanks, see ya". That's the kind of moment that I struggle with because it's like we can do everything that's awesome but there's still something that's needed around the kind of institutional racism that keeps its doors closed to Māori graduates, I really struggle with that one I don't know what the answer is I think it's having Māori at senior management table that's a beginning and certainly since we've seen that happening here there have been some changes and there will be more as we go but I don't know." (Te Whanganui ā Tara, Kaimahi)*

> *"I'm working at a colonial institution at the moment and there's something to be said for that because Māori people do save these institutions and it's about changing the culture within the institution but I'd love to see some more independent Māori research facilities where we can conduct our research and we don't have to jump through loops, we can still apply for funding potentially but the government's not to tell us what we research and how we do it." (Massey, Tauira)*

It is important to many Māori students to see themselves reflected in general university programmes. Low attendance of Māori students in university-wide programmes is often noted, which means it takes some courage for MAI doctoral scholars to attend sessions when they are consistently the only Māori or Indigenous person in the room.

"I find at Waikato we've got all this different student support and you're kind of tossing up about which one you're going to go to and you could meet a mentor there if you were really confident but it's very corporate and personally I'm not that way. There's the DWC, Doctoral Writing Conversations but the downside is not many Māori actually attend." (Waikato/Tāmaki, Tauira)

"I think sometimes interacting in some of those groups that often you may be the single Māori person in that seminar, presentation or that particular program, which is ok but sometimes when it comes to the Māori question or the Māori influence in those things then you don't want to have everyone turn around and look at you." (Te Whanganui ā Tara, Kaimahi)

Financial Constraints

In a context of student loans, restrictions on access to student allowances and many Māori students being of a more mature age with wider financial obligations, issues of financial constraints impact many of the MAI cohort, as they explain:

"There was just one thing that I wanted to mention because you know for everyone's voice was about risk, you know the risk of doing a doctorate first of all. You know like that vulnerability and putting your stuff out there but also risk in terms of you know having a research contract or a scholarship that's only going to last this amount of time and then trying to work into that and then you've got whānau to look after and so it's like it's a really risky business and you don't know what's going to happen with your research but you also don't know where's my money coming from. You know, so that sort of pressure that's on us to be able to complete this kind of work cause those pressures are really real and so we talked a bit about that as well." (Waikato/Tāmaki, Tauira)

"I think a lot at graduate level it's all about decreasing the stress levels because they are all smart, they are really smart, capable people who will get to that stage and so what they will need is to decrease their stress levels and get them in a space where they can just focus on work. Financial assistance is huge because that takes away part of the stress levels of how I'm going to pay for this and how am I going to support myself." (Waikato Kaimahi)

"It came down to financial and support which a lot of the students don't have which limits them from advancing forward." (Awanuiārangi, Tauira)

"So you've got a full time job and you're also doing a PhD that in many respects is not conceived of part of your full time job and even if it is then it's just a little part of your full time job so sometimes your respective departments and schools will go out of their way to release you for a period of time but usually that's not enough time to actually get the full work completed." (Waikato Kaimahi)

Their financial issues reflect the very real practical difficulties that undertaking doctoral research involves for Māori and Indigenous doctoral scholars. The comments about funding reflect the very serious stress and pressures that students deal with, and the ways in which they also become a significant barrier to focusing on the research and completing doctoral study. In order for Māori and Indigenous students to complete their doctoral journey there is a need for institutions and associated agencies, including iwi organisations, to consider ways of further supporting this group of scholars.

5. Whanaungatanga: Support Systems

Whanaungatanga relates to the wider relationships and support systems that have been developed both formally and informally for Māori and Indigenous doctoral scholars. Participants talked about the significance of both informal and formal support networks, emphasising the central importance of whānau, hapū, iwi, friends and staff members as integral to students' support systems. There was recognition of the various types of support they were offered through these networks, and a distinction was made not only between the informal and formal sources of assistance, but also between support that was primarily academic in focus and that which was cultural, spiritual, or emotional in nature and support with more practical level, day to day needs. It makes sense that with such diverse needs, the potential types and sources of support would be equally divrse, from babysitting and a shoulder to cry on, to tips on literature reviews, useful apps and academic advice. Our needs are varied and thus the pathways to providing the support Māori and Indigenous doctoral scholars need are equally diverse.

Whānau, Hapū and Iwi

The significance of whānau, hapū, iwi and local communities was repeatedly mentioned as an essential source of support. These sources provided practical and pragmatic support but also filled the equally important cultural, social and spiritual needs participants might not find so easily accessible through more formal institutional programmes:

> *"Sometimes we forget how invaluable that is and that as Māori, grads, we don't belong to universities really we belong to iwi and hapū so that should somewhere hopefully feature or figure in that support process. I was fortunate because I have connections to Tainui so it was at that level and also at a supervisory level and a mentoring level which I was lucky to have a lot of that from Ngāti Porou."* (Waikato Kaimahi)

> *"It's about what these things look like for Māori and for Māori that doesn't necessarily look like something from the institution; for example our main ones, we've got whānau, hapū, iwi, marae, supervisors and peers, and peers take many forms, as do all of these forms really, whānau especially. And we've got wānanga. We are also looking at ideas as well as official programmes."* (Massey, Tauira)

Some participants spoke about their own experiences of whānau support, while others recounted stories shared as common knowledge, of the lengths that whānau would go to, to ensure the success of their whānau members.

> *"[she] talked about her kuia and koroua and her nana and how some nannies would pay ten dollars each week out of their pension so that their moko could go to boarding school, which is a big deal, $10.00 out of their pension."* (Waikato, Tāmaki, Tauira)

> *"We've got like probably the best mentor programme you could have and it's free, I actually owe mine heaps, whānau so within your own, I guess that's not like a formal structure but within your own whānau you all obviously have those people who must of had an influence for all of us to come to where we are so that's a good programme."* (Otago, Tauira)

> *"Whānau have been very important, peers and colleagues just for reassurance that you are on the right path or that you can actually do what you are wanting to do."* (Massey, Tauira)

Participants also talked about mentoring within whānau, hapū and iwi contexts, beyond the official programmes that might be offered within tertiary provider settings. This mentoring was not part of a formal professional role, but was rather based on a personal commitment these individuals had to supporting the success of Māori students and ensuring the intergenerational succession planning was being appropriately taken care of for their community and collective well-being also. One participant shared a story about an iwi-based mentor:

"There was a kaumātua in their iwi who made significant efforts and worked tirelessly to meet with people from their iwi to help them achieve their goals and to connect people. So he would meet them early in the morning, at 6 o'clock in the morning, like while he's having breakfast or meet them in an airport to try and give that, to utilise their ability of having, be that glue to connect people with each other and opportunity, so we called him a 'Super Mentor' and that's from an iwi mentoring perspective." (Te Whanganui ā Tara, Tauira)

"So there's just informal and formal mentoring; informal included whānau, kaumātua, kuia, tamariki, iramutu, siblings, cuzzies, uncles, aunties. Also under informal we had peer mentors, we talked about class cohort, other stuff, co-workers, sharing information, sharing experiences, encouraging each other, borrowing apps, literature, books etc. The formalised mentoring… there are breakfasts, writing retreats, workshops, Facebook page, conference opportunities and the other formal mentoring component was probably supervisors, head of school, other staff, and guest lecturers." (Awanuiārangi, Tauira)

Even in some spaces where there was not a whakapapa or genealogical connection to the community, the cultural imperatives and the need to connect with and contribute to a collective and experience that sense of belonging and manaakitanga was not only evident, but acknowledged as a source of strength. Within the context of Otago University, the staff members' ability to make connections with the local marae and hapū have provided an important culturally safe space for students who may be away from their own 'home' or who might not necessarily have the opportunity to experience that connection in their own tribal location:

"We're really fortunate that we were able to establish a connection with some of the hapū down here, Kāti Huirapa at Puketeraki marae through our papers and through our connections with our supervisors and so that whānau, there was kind of this little wee analogy that they have about being a Kōhanga for students so we come from our own lease back home brought up by our whānau and our aunties and our uncles and our parents and then we come down here and there's kind of, you're kind of disconnected from that whānau element but then you're able to find these places down here that give that same nourishment I guess and nurture so that's kind of that analogy of Puketeraki being a Kōhanga for students and helping to bring us up through that part of our journey." (Otago, Tauira)

One of the important points that can be drawn from these excerpts is the importance for Māori and Indigenous doctoral scholars and early career researchers of not only receiving appropriate academic support, but also acknowledgement that cultural understanding and support is just as important for Māori and Indigenous academics. These are essential components to our well-being and to the formation of strong collegial relationships, the ability to develop trust in one another and build a community of support to help get us through our shared journey.

"[Students name] mentioned going off to reo wānanga and at the end of it being just totally exhausted physically but just pumped up and energised so we were looking at all the different levels that we have and what feeds us and nourishes us and some of them don't look like academic things at all and that's really important." (Massey, Tauira)

Making time and space for involvement in cultural practices, rituals and events and other non-doctoral related activities can often help to provide Māori and Indigenous doctoral scholars and early career academics with the support, energy, motivation and restoration that is needed to progress our research. Indeed, this provides another example of how important informal support systems can come from many diverse places depending on the student, their kaupapa and context, and their own personal needs and preferences.

Ngā Hoa: Student Support Networks
The excerpts from the workshops also demonstrate the significant support that students draw from being around their academic peers. This support is varied in nature, from hints and tips gathered from previous experience to feelings of solidarity and encouragement because you are able to find someone who understands and is sympathetic to what you are going through. Indeed, the emotional support was commented on as some of the most valuable in supporting participants through the low points in the journey.

"It's been discussed already but we often don't get the opportunity to talk about our research, so often being able to talk about it which is with the peers and whānau and stuff too, hapū, iwi it's quite supportive to be able to do that and then you get feedback often too." (Massey, Tauira)

"For me I suppose having a forum where I could discuss aspects of my study but without it being with my supervisor, it was really great to have that support and from someone who had recently experienced those same feelings of self-doubt or frustration, of oh my gosh this is never going to end. It actually makes me feel both better and worse, so definitely someone who could say, oh my gosh yup, completely know where you are coming from." (Te Whanganui ā Tara, Kaimahi)

"We're just all on the same buzz so it's just really good to be around people with the same, going through the same thing and even at different parts of the pathway like just handing in or finished three months ago it's really good just to bounce ideas off each other." (Otago, Tauira)

This notion of having the opportunity to mix and mingle with other academic peers at varying stages of their career development, and even across disciplinary backgrounds, was noted by students as a really positive feature of developing a wide group of friends within forums such as the MAI Te Kupenga programme. Engagement in this way was viewed by participants as helping to broaden their understanding and exposure to different bodies of work and literature that they might not normally be exposed to, but which nonetheless related to their own research. Indeed, the lack of this interdisciplinary collegiality across the wider institutional context was lamented by one participant:

"I don't see the same level of that working happening with students now like they can be on one side of the campus to the other and not know that the other person is actually there, they can be in different disciplines but similar topics and not even know until we get them into a MAI workshop." (Massey, Kaimahi)

MAI Te Kupenga enabled the bringing together of Māori and Indigenous doctoral scholars from any and all stages of the doctoral programme and across all of the schools of study within each institution. The Manu Ao programme, supported by the *Māori Association of Social Scientists* (MASS), was also highlighted as a means by which support and networking has been provided with regularity, and an ability to appropriately network across disciplines and institutions is particularly important for Māori and Indigenous scholars, who often feature as a numerical minority within tertiary institutions, and need to work to build effective and supportive collaborative environments. Such factors inhibit the development of effective relationships amongst colleagues, whether they are early career or established academics and professionals. Again, obstacles of this nature work towards isolating individuals rather than building up the collective and drawing on our combined strengths, expertise and resources.

Ngā Kaimahi: Staff Support

In addition to the informal support offered by whānau, hapū and iwi, peers and colleagues, the next most significant source of informal support was identified as coming from academic staff members, most often supervisors. Participants' comments also indicated the degree to which Māori academic staff members provide a great deal of informal and unofficial support that is not necessarily accounted for in proper university-based programmes:

"Often we are using our own accounts and we'll get told 'you've got x amount left in your account' and if you don't use it by the end of the year it gets absorbed back into the system. So as a group of Māori kaimahi we go 'what are we going to use this money for before they take it back', so we'll have a bit of a brainstorming session and one of those things might be we've got a whole heap of these post grad students lets run something for them. So we will use our own resources, it's not necessarily supported so much from the centre for those kind of things." (Massey, Kaimahi)

"We set up our research excellence group within our school and it's really just what we're doing our-selves so that networks that we have, in trying to set our students up now, who are coming through just out of honours, masters and the first ones coming through into PhD and then post where they're already being offered jobs, lectureships and things like that, much of that's through our own network-ing." (Otago, Kaimahi)

As these excerpts illustrate, many of the initiatives organised by staff and supervisors are not formal, in that they are not officially resourced or endorsed by the institution. Instead, they often come about as a result of the initiatives that individual staff members or small groups organise in response to a specific need, when and where the possibilities can be fitted into existing resources and programmes. Such efforts do a great deal to build effective relationships between students and staff members, as students appreciate and recognise the support that those staff members have offered. This is especially the case where students and early career re-searchers are conscious of the workloads of Māori members of staff:

"We talked a bit about our own Māori tuakana in institutions are bloody busy and trying to get some time with them or even finding them in their office, their workload is very, very heavy. Not only do they have their institutional workload they have all these other layers of pastoral care and support and so you know it sort of links back to what we were saying before about workload and burnout and then collegial and peer support." (Waikato/Tāmaki, Tauira)

"Support infers that someone is going out of their way to do something for somebody else and that it's not a two way street, so I mean everything's a two way street so even though you might call students 'students' and they might be actively defined as students in terms of their enrolment and all the rest of it increasingly I find it actually better to think of them as colleagues, junior colleagues but as colleagues that we are working collaboratively with, so I bring something to the table and they bring something to the table and we all win from their success." (Waikato, Kaimahi)

These reflections illustrate a more collegial approach to the relationships between staff and students, but also serve as a reminder of why it can be hard to make the distinction between where academic staff support shifts from being informal to formal. Although there is much that can be done informally such as sharing informa-tion regarding workshops, conferences, and introducing students to key contacts and professional networks, these connections do not need to be part of formally organised programmes. In many ways though, these 'informal' efforts began to enter into the realm of what participants classified as 'formal support', especially where those activities were undertaken by Supervisors and those in mentoring roles.

Ngā Kaimahi: Supervision

Supervision was one of the most commonly mentioned formal support programmes. Student participants com-mented on their supervision experiences; interestingly most of the students' comments were more focused on their positive experiences. Although it was clear from the discussion there were students with negative super-vision experiences, those students chose not to engage in a heavy critique of their supervisors. The harshest critique of the provision of supervision came from those emerging and established academics who were em-ployed in an institution and who shared their perspectives as both students and as supervisors.

A significant number of comments and reflections spoke directly to supervision experiences. Those partici-pants who had been fortunate enough to have had a supportive and productive relationship with their supervi-sors noted a number of success factors which stood out for them:

"I had my complete A Team, two Māori women who completely loved the same sort of things that I love, we all love the same stuff and that's great, we could have amazing conversations and stuff but they also got my life, they also get who am I, they get my kids, our kids grow up together and all that kind of stuff, they were my complete package so I didn't need, well I didn't feel like I needed any other kind of sponsorship or mentorship and they fulfilled all those roles when I look back on it now I go, oh my god, they did all that stuff, they sponsored me, they took me to the right things, they introduced me to the right people, they did all this stuff so it stuns me that everyone else doesn't have supervisors who do that." (Te Whanganui ā Tara, Kaimahi)

"We've kind of been under people who have taken us to hui and chucked us in for conferences and done all those sorts of things but we know that not everyone in our departments get those different things and so maybe we have an idea of what that support looks like but potentially that could go on to everyone or certain people cause we've all been taken under very good supervisors who have always made sure that we've had those experiences and given us jobs." (Otago, Tauira)

"My supervisor introduced me to other Māori with PhDs and to all the gurus in our faculty which has been good. Put me in unadvertised workshops, but that was all because of a Māori woman who put me with them and she made sure that I was going to be in a safe space and she was the boss so, even bosses can do it not just supervisors." (Te Whanganui ā Tara, Kaimahi)

Significant factors included supervisors providing introductions to specific networks and other academics; supporting students to attend the right conferences; helping to find funding and work; and encouraging or organising opportunities to present and publish. These were all aspects that participants across the institutions and workshops discussed and identified as areas for extra support that went above and beyond assistance and support in planning/researching and writing the doctoral thesis. Sharing information about workshops, introductions, and connections do not have to be part of formally organised programs, and such opportunities can and should be facilitated within a collegial working environment. Participants also noted that the importance of a good relationship with their supervisors also related to feeling as though they cared about them as a person, not simply a student or an enrolment:

"An academic supervisor or maybe even a mentor who was more of a holistic mentor not just concerned about how your PhD is going or being rigid about just having one hour a week or two hours a month meeting with you on your academic studies but someone who actually cared about what's going on in your life and cared about your career, would help you meet the correct people and put you on a good correct pathway." (Te Whanganui ā Tara, Tauira)

The discussion that was generated around supervision provided some interesting insights into whether Māori and Indigenous doctoral scholars and early career researchers need to have supervisors or mentors who are also Māori, in particular around the potential differences associated with Māori supervision as opposed to Pākehā perspectives:

"So the PhD supervisors are just looking at what gets written and how your progress is but the Māori supervision I had was more of a wairua, he mea tiaki wairua, mehemea e pai ana te wairua ka wātea koe ki te noho, ki te tuhi but from the English perspective it was the written thing was the main thing. It [Māori supervision] was more of a holistic approach, you will do well in your supervision if you are doing well in your person. Whereas the PhD side was more you have to just do well in what you're writing and nothing else is important. That was probably the main thing, so have supervision meetings from my masters and pātai tuatahi, pēwhea ana koe, pēwhea ana te whānau, pēwhea ana ngā āhuatanga, wērā mea katoa kātahi ka huri ki te kaupapa, ok, so where are we up to, what are we doing? But that's secondary to how are you doing, whereas from the Pākehā, the PhD perspective it's like okay, what have you got written, where are we going? That's it, nothing, and then if things are delayed it's like, why are they delayed and what's going on? So it's a secondary outlook I guess." (Waikato, Kaimahi)

"For Māori supervision it's not just about straight academic, like that is the difference between a Pākehā school advisor and a Māori school advisor is that the Māori one is also about, yeah I know all her kids and I pick them up from Kōhanga and I have that relationship where as a Pākehā supervisor it's like a straight one hour a week and we talk about PhD and then that's it he has no idea what else is going on outside of my life but my Māori supervisor you know, it's a lot more than just academic supervisor but part of the rest of your life as well." (Te Whanganui ā Tara, Kaimahi)

Some participants considered more deeply the role of Māori supervisors, particularly raising questions about what is appropriate and what may be too much to expect of your supervisor, especially given comments made in regard to the excessive workloads many of our Māori academic staff labour under. In the context of the Kaupapa Māori principles espoused by Graham Smith (1997), supporting whānau by providing support to the whole person, supporting them in all areas that they might need it, mediating those social and economic difficulties, may indeed be appropriate and relevant depending on the nature of your relationship.

There was clear agreement that, on the whole, Māori supervisors brought particular processes to the relationship. The complexities of the supervision process were also evident with comments related to the availability of supervisors and ways in which students sought also to find ways to have complementary supervisors who provided the range of advice that students were seeking.

> *"It doesn't matter whether you are Māori or Pākehā, sometimes you need to have your space and sometimes you need to have more guidance, but I think a lot of Māori supervisors, just from my own personal observations, Māori mentors have been better at seeing that and responding to it. I don't know why that is or whether that's just because maybe they're more open to the nuance of different cultural interaction, the fact that this person is not a robot like everybody else or supervision does not need to occur in some sort of process that you apply across the board to every single student you come across. Maybe Māori just have this innate ability to be able to appreciate when, "oh that fella needs a little bit of time" or 'she needs some space' or 'he needs some more meetings', but then saying that I've seen some pretty poor Māori supervision too where some Māori supervisors and its usually that they've been aloof or they've not been around." (Waikato Kaimahi)*

> *"How our supervisors complement one another so you've got the female and the male role and that's really important from our perspective having a tāne and having a wahine but then also having that academic or that western academic side in relation with our Māori scholarship and how we actually complement one another, so it's not one or the other but it's the interface I guess of both and then that idea of te ao Māori for both of those was yes we are at university in this western institution but we are all Māori and so these kaupapa are supporting us to be Māori in these places." (Otago Kaimahi)*

Indeed, recognition of the inherent need to be safe as Māori within institutions we study at and work in, and the central responsibility of our tertiary institutions to ensure that we are safe as part of their obligations under the Treaty of Waitangi are key to the resolution of these issues (Wilson, 2017). As this participant shared, it is unfortunately still a far too common experience to find non-Māori supervisors with the requisite knowledge from an institutional perspective, but lacking in the cultural and epistemological foundations for that subject knowledge to make sense in context. The consequent conflicts put Māori and Indigenous students in an unsafe cultural space, which is difficult to negotiate, and which Pākehā students are seldom required to face:

> *"There was some Māori content in the same way that quite literally non-Māori can be very knowledgeable about linguistics on the subject of the Māori language, but I didn't really have any member of my supervisory team who could get where I was coming from as a Māori and in fact a big part of the difficulty in constructing my thesis was that disagreement that we had about, you know I would be told, hey you've got to take your Māori hat off, we were discussing this topic and it was just a fundamental difference of opinion because I tried to explain I can't take the hat off cause it's not a hat, you're asking me to take my head off." (Te Whanganui ā Tara Kaimahi)*

If mainstream tertiary institutions are serious about increasing Māori participation and retention rates they must take more seriously the needs of both their Māori staff members and students. It was noted that the limited number of Māori academic staff employed within mainstream universities is simply because the universities choose not to employ them:

> *"We were all part of that 'Ngā Pae' rush of blood to the head back in the early 2000s where we were all saying 500 Māori PhDs and I mean we were all part of that. I lived and breathed that for I don't know how long and one of the sorrows that I have is that we can do that, we can be really proactive but if the institutions aren't shifting then you've got a lot of unemployed highly educated, highly articulate, highly intelligent Māori PhDs and nowhere for them to go. It gets really hard because if the institutions are closing their doors, which increasingly I think they are on Māori, it's kind of like where do those young people go. Those people coming through go and they do find work, but it's kind of like the early promises, we haven't been able to bring them to fruition because the universities aren't changing at the same rate as we need them to." (Te Whanganui ā Tara, Kaimahi)*

Clearly, whatever programmes and initiatives we might be able to develop or put into place will always be limited in their efficacy if the institutions and structures we seek to shift and work within refuse to grow and evolve with us. Thus there is the need to drive home the message that no matter how effective or powerful our initiatives are at bringing about change and development within our people and our communities, there is still a need for systemic, institutional and societal changes in order for real long-term emancipatory transformation to take place.
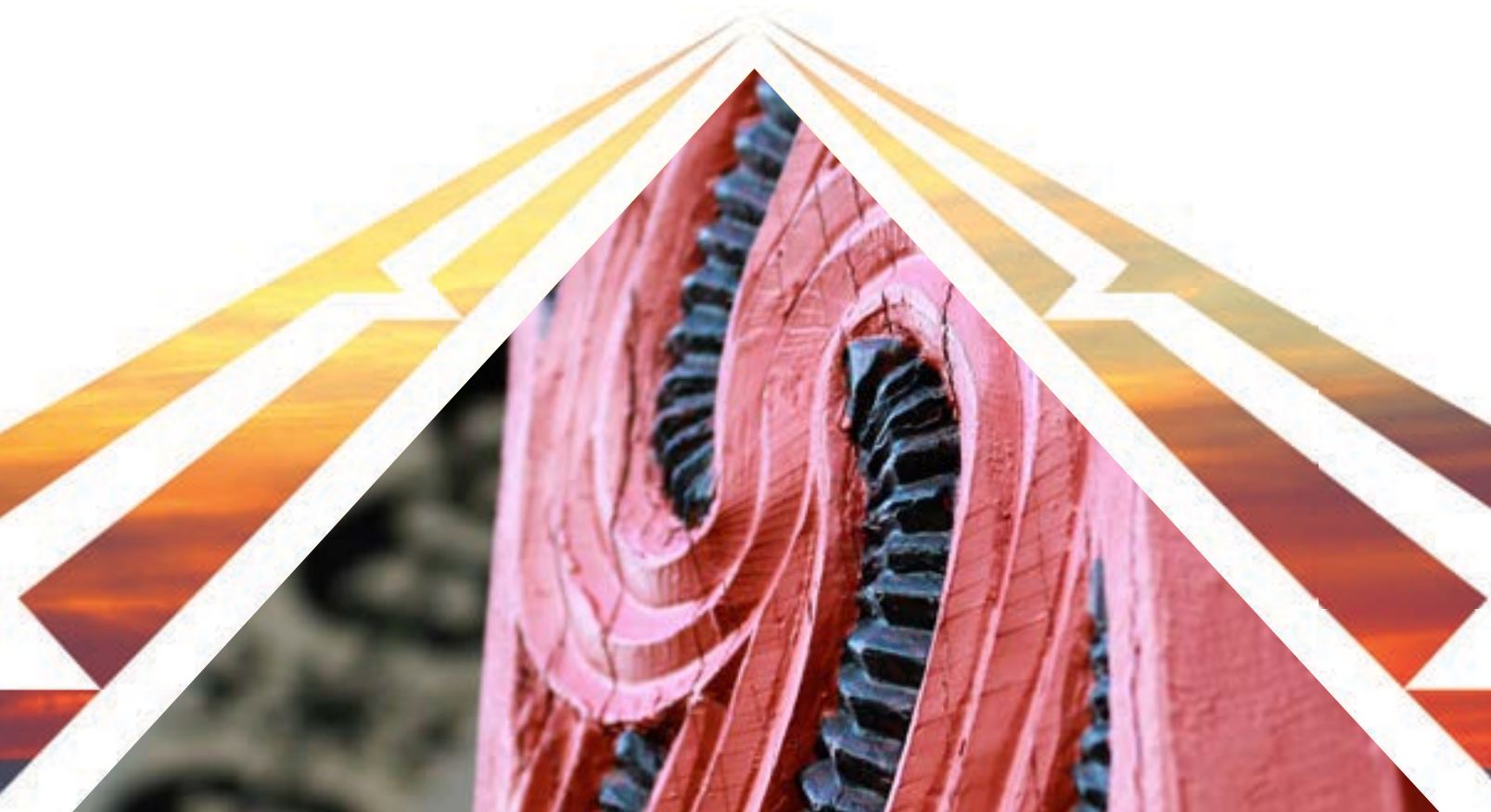
6. Strengthening Māori and Indigenous Post-doctoral Support: Key Elements

As noted at the beginning of this report, the primary aim of Te Tātua o Kahukura is to provide knowledge about the capacity building and career development needs of Māori and Indigenous early career scholars. Early career scholars in this context includes those engaged in or who have recently completed their doctoral studies. It is also to inform the tertiary sector as to the key elements, identified by this particular group of learners and scholars, in the provision of programmes of support that enable students to be supported in decisions and transitions related to their post-doctoral pathways. Within the project, Māori and Indigenous students and staff were asked specifically: what mentoring or support programmes they were aware of, that are available to doctoral scholars; and what they considered to be key success elements in programmes that would support them, both within the doctoral process and in building their capacity for post-doctoral opportunities.

Mentorship

It was clearly noted that having the opportunity to learn from those who have gone before can enable early career scholars to gain insights into the 'rules' of the academy. It can make life much easier to learn from those with more experience and who might be able to help you to avoid the pitfalls along the way, as the following participant explains:

> *"Mentoring is huge because we actually have mentors beyond our supervision for thesis and PhDs and MAs that's just for a particular kaupapa but beyond that every single person I know in the academy or some of them in various ways have good mentors. You need a professional mentor, you need somebody so you don't stuff up and make mistakes because there will be moments when you think oh, I've never done this before, I've never sat on a committee like this before, I've never been in this situation and it would be great if I could go and talk to [a senior academic] or somebody else who has that experience and just get a little bit of insight until you know how should I do this." (Waikato, Kaimahi)*

As the next participant explains, creating a successful academic career can be directly related to your ability to learn the rules, so you can effectively participate in and understand how the system operates:

> *"I try to, as a manager, make them do things that they probably would never of thought they could do at this point and time of their career knowing that if you play the game and learning the game and cause I don't do deficit very well so I'm like you just show them that you're better than them and we can advance this and surprisingly they just think it's normal now because it's just like well ok, you do this, I need you to produce x amount of publications by the end of this year, how do you think you're going to do it, and then we just kind of talk it through, what support do you need, how can I help you, do you think you can work with this person and then you can kill two birds with one stone and they're like, oh, it's a little bit out of their scope but kind of constantly saying you can do this, you can do this, we can do this together and you just do what you need to do and be the academic that I know you can be but I know that's not in everybody else's schools because most people are so isolated or they're so few." (Te Whanganui ā Tara, Kaimahi)*

As in the context of supervision, there was also discussion around the importance of finding the right kind of mentor, who can and will provide the support needed.

> *"Getting responsible mentors you know people that act as mentors in their everyday life cause that's how we operate but getting them to be really conscious then going I'm going to take you to this hui because I am going to introduce you to this person and I'm going to sell, not sell you but you know, promote you until you have the confidence to promote yourself because that is a really important part but where are they going to get that training I think is an important part because as much as its about them doing it I think it helps if they're taught ways of doing it." (Otago, Tauira)*

Within the discussion around mentors, concerns were again raised around the need for more Māori staff in Pākehā institutions to support Māori students. There was a clear preference for having at least one Māori mentor. For those that have come through contexts where there are few Māori staff, there was an acknowledgement that you may choose to have different mentors from different places, for various areas in your life. Consequently, Māori staff spoke about seeking mentors within the Māori community:

"For a lot of Māori those mentors aren't and haven't been Māori because there just hasn't been the critical mass, so for older academics coming through some of their mentors have been Pākehā but having that support… actually having those allies within the institution is really important and if they're not there in the institution having them within communities, so that's within Māori communities, so not your neighbourhood community but with a Māori community, so that you've got people who are there to kind of wrap around their wisdom and knowledge for you and often it is the case that they are not in the academy but the other thing that people have been saying to me is that the thing they take pride in is that they did keep up the fight that they learnt how to do it and they learnt how to do it better." (Te Whanganui ā Tara, Kaimahi)

The need to foster more collaborative environments was identified as a useful step towards creating the kinds of institutions that would naturally and more appropriately mentor and support new researchers and academics as they come through. The competitive nature of the academy, and its focus on individuality, were identified as obstacles to enabling Māori staff and students to more effectively support one another and build capacity across and between the institutions, as this participant illuminates:

"It's almost a dog eat dog competitive thing and so everyone's going on like 'on your marks, get set, go' everyone's got to go out and do their thing, whereas if that were to be a Māori workshop it's not a competitive thing, it's a collaborative thing. How do we do this? Because you don't go to those PBRF and funding workshops and sit down and think how do we work together as a group to achieve this goal. They are all individuals, it's like as an individual researcher and lecturer or senior lecturer or associate professor here are some things to build your individual profile. I go to those things and it looks like everybody's hiding so I need a slight advantage or edge over someone else." (Waikato, Kaimahi)

Importantly, Doctoral scholars in the hui were intentional about planning and already engaging with ideas and aspirations for future pathways, including mentorship, as the following tauira reveals:

"We also started making a statement that we are going to be surrounded by a culture of mentoring because we decided right, when we get there we're going to aspire to be career led, academic led, research and publication led or intellectual creativity we wanted to fill up that space." (Awanuiārangi, Tauira)

The notion of building a 'culture of mentoring', as discussed above, indicates that developing strong networks and support mechanisms is a way of being that is intended to influence and permeate all aspects of the doctoral journey, including providing inspiration and motivation to help tauira continue through to completion, as the next tauira states:

"A thing I brought up was Māori academics are a really good support network. I've been mentored by a lot of great people through Waikato and even though I'm living down here I still feel really well supported. I know also that there's a bit of pressure there because whaea always says to me, 'you've got to get it done'. So I know that I better get it done before I go back here or else we get a bit of a lecture." (Otago, Tauira)

Post-Doctoral Pathways

Both the two rounds of hui and the interviews with staff included exploring ideas and identifying key principles that would best support MAI doctoral scholars (as early career Māori and Indigenous scholars), in planning their post-doctoral pathways. The discussions were framed around key success principles and practices that would enhance the opportunities of MAI doctoral scholars to take their doctoral research expertise and skills into areas of work and community engagement. Furthermore, they would contribute not only to their aspirations but also to the aspirations and needs of the communities they are a part of, whether that be within their disciplinary field, their employment space, or their whānau, hapū, iwi and communities.

Many of those engaged in Te Tātua o Kahukura acknowledged that the doctorate is only one component of their pathway and that in completing their study there was also a need to contribute to both those who follow

after them in the doctoral journey and more broadly to their Māori and Indigenous communities. These reflections are important to understanding the collective obligation and responsibilities that many MAI doctoral scholars hold.

Succession Planning

Considering your role as a 'tauira', or as an example to present and future generations, is fundamental to any process of cultural and intellectual succession planning, as the following staff members and students comment:

> "Appreciate the PhD as just a ticket and that it will not be the be all and end all of your life and it might be the foundation that you build on, like my PhD has got nothing to do with what I do today but it gave me the tools and a lot of it had to do with that mentoring from my supervisor, who was not Māori, didn't even know anything about my topic but just kind of drew out of me all the skills that I needed to learn." (Te Whanganui ā Tara, Kaimahi)

> "We have to get really conscious about this we just can't let it continue to fly the way that it's flying or we're going to be putting the support behind students, our people don't have the time, space or anything to have PhDs not being active so how do we, so I think there are other things, that one thing that I have real interest in is how do we get our new PhD graduates to a place where they're known." (Otago, Kaimahi)

> "I think it's also about building or creating a legacy for those who have yet to come and that inter-generational transformation, you know cause we've got mokopuna that, and so who better to be a mentor to our mokopuna but ourselves…it's about creating and setting the platform for our whānau, our hapū and you know who better to start with, and it's about that giving back to those who came before us and honouring what they did, what they created you know cause we're not here just out of the fact that we're here, I think there are those that opened the pathways for us to be here but yeah that process was just awesome." (Waikato/Tāmaki, Tauira)

Not only did participants discuss a responsibility to past and future generations in their role as 'tauira', but they also shared a desire to use their cultural values to lead them in their career and in their future, more senior roles, as this participant states:

> "When we were talking about successful factors we talked about in general the whole understanding of generosity from a cultural perspective in that there are like for myself I talked about the difference between senior academics that I know that seem to be very self-focused on their own career and pathway versus those that are really interested in the career pathway in advancement of students which for Māori I think is a lot more important because of how much we are trying to gain in terms of numbers of us working in certain positions so I thought that is a really important success factor." (Waikato/Tāmaki, Tauira)

Ngā Taonga Tuku Iho: Cultural Frameworks

Participants referred to a number of tikanga and culturally-based principles, values or approaches as well as whānau, hapū and iwi, which were discussed in detail in the previous section on whanaungatanga and support systems. Participants also identified a number of specific principles from within Kaupapa Māori frameworks, such as ako, whanaungatanga, tuakana-teina, kanohi ki te kanohi, manaakitanga, ako, and hui when discussing appropriate support:

> "We talked about the word mentoring and support in that we were trying to think of how can we frame that in a kaupapa Māori way that we would probably use maybe the word 'ako' and then it sort of changes the hierarchy of being a guru student where ako works mutually beneficial so maybe that's why these ones do work because it goes both ways along, the ako process is more evident in there." (Massey, Tauira)

"With MAI ki Waikato, that consistently we are reminding people that writing about Māori kaupapa is great but being a Māori is about understanding our whakapapa, our reo, our dialect, our maunga, our awa all those sorts of things and they're the sorts of things that are going to keep us safe so they've got to have that and if they don't have it and are not necessarily connected to that in a strong way now or unless they're building towards that in some way but keep reminding them, keep having these things that remind them." (Waikato, Kaimahi)

"The things that we found to make these things successful, these mentoring programmes, through food, is fostering Whanaungatanga, you go to a place you get to eat, you get to chill out, you're comfortable, which means you're not whakamā to talk about your work or to ask questions and I feel like sometimes within departments and with your supervisors you might feel a bit dumb or something like that but if you're in a comfortable environment you're really confident you can talk about things and nut them out a lot easier and also being in the same waka together with like-minded people is really helpful like this, everyone's going through the same thing, you've also got your steerers so you've got the ones who have maybe been through it before that can provide you with guidance, they know what the journey is like… who know what things to provide and really helpful and also who had the relevant skills, so can help you complete your research." (Otago, Tauira)

It was also clear that tikanga practices contributed in significant ways to enabling success in the Māori and Indigenous mentoring and support programmes that were discussed:

"So there's just informal and formal, mentoring informal included whānau, kaumātua, kuia, tamariki, irāmutu, siblings, cuzzies, uncles, aunties. Also under informal we had peer mentors, we talked about class cohort, other stuff, co-workers, sharing information, sharing experiences, encouraging each other, borrowing apps, literature, books etc. The formalised mentoring, there are breakfasts, writing retreats, workshops, Facebook page, conference opportunities and the other formal mentoring component was probably supervisors, head of school, other staff, and guest lecturers." (Awanuiārangi, Tauira)

"Whānau have been very important, peers and colleagues just for reassurance that you are on the right path or that you can actually do what you are wanting to do." (Massey, Tauira)

"It's all about collaboration and whanaungatanga, so we have a real good tuakana-teina theme going on and we just meet up every Monday go through our karakia, collaborate, so share our work with each other and just some of the things around that we think make this a mean as mentorship programme." (Otago, Tauira)

Whanaungatanga and Tuakana-Teina

As with the views shared with regard to experiences within the doctoral journey, whanaungatanga emerged as a critical principle for the post-doctoral journey. Mentoring, when reflected upon within Māori and Indigenous settings, is more than an individual relationship; it is about notions of tuakana-teina and the collective commitment to not only be a recipient of mentoring but to also recognise that the time will come when each of the MAI cohort can 'give back' and take on a tuakana role to provide support.

"It was really important that the culture of mentoring was something that was developed and so the idea of bringing the culture of mentoring together wasn't something that you could just click your fingers and have, it was something that you needed to build through on a marketing approach so it was a kind of a professional brand which people subscribe to in terms of their attitudes" (Awanuiārangi, Tauira)

"Quite a few of us spoke about the importance of mentors that we've had and the support people that have guided us on the journey even though for most of us at the table none of us really wanted to do this but here we are, we're happy to be here." (Waikato/Tāmaki, Tauira)

"We sort of wondered whether for a Māori student or a Māori focus student having a Māori mentor was part of a necessity and whether it had to be within an academic capacity or having someone outside of the academy and what that meant for your development during your PhD." (Te Whanganui ā Tara, Tauira)

"We've got like probably the best mentor programme you could have and it's free, I actually owe mine heaps, whānau so within your own, I guess that's not like a formal structure but within your own whānau you all obviously have those people who must of had an influence for all of us to come to where we are so that's a good programme." (Otago, Tauira)

"Quite a few of us spoke about the importance of mentors that we've had and the support people that have guided us on the journey." (Waikato Tauira)

Part of a tuakana-teina model is the practice of having those people who are willing to go that bit further in providing opportunities beyond the doctoral studies to support MAI students to be in the right places at key points in their journey. As such, tuakana-teina moves beyond a strictly mentoring model to one that is inclusive of elements of sponsorship. Those opportunities may include conferences, or meeting key people within your iwi or your field of work. These activities are more aligned to notions of sponsorship as the tuakana involved will actively provide those spaces to enable capacity building that goes beyond the doctorate.

"We were kind of really lucky we've decided and we've kind of been under people who have taken us to hui and chucked us in for conferences and done all those sorts of things but we know that not everyone in our departments get those different things and so maybe we have an idea of what that support looks like but potentially that could go on to everyone or certain people the post-grads cause we've all been taken under very good supervisors who have always made sure that we've had those experiences given us jobs." (Otago, Tauira)

"An academic supervisor or maybe even a mentor who was more of a holistic mentor not just concerned about how your PhD is going or being rigid about just having one hour a week or two hours a month meeting with you on your academic studies but someone who actually cared about what's going on in your life and cared about your career, would help you meet the correct people and put you on a good correct pathway." (Te Whanganui ā Tara, Tauira)

"One to one relationships rather than having to deal with everyone as a whole, ako Māori - kaupapa based on similar values and beliefs, knowledge transitions, passing on experiences so people that have walked the walk that you are walking now, walking the plank. So pushing out of your comfort zone but knowing that it's going to be ok... kanohi ki te kanohi as opposed to just emailing or texting or whatever, it works. We also talked about aroha and respect and inspiration and innovation so they're constantly able to feed you, feed your mind, your body and your spirit. We talked about trust and how all of this pretty much encapsulates trust so for a mentor/sponsor to be reasonably successful in what they do there has to be an element of trust... how do you trust what they're saying it's vital there's that trust element as well which comes back to, we talked about time and having the time to establish those relationships as well which isn't always, it's not always there sometimes when we're taught through kaupapa Māori research that we need to look, listen and then speak. Sometimes that looking and listening takes a long time because we have to establish those relationships but we get that, as Māori we get that." (Otago, Tauira)

"[Staff member] was identified as a person who used to consciously go out and get Māori students and give them funding to go to conferences so kind of these targeted things that were really helpful actually in terms of setting students up in their study but also for the future, these opportunities then had a flow on effect on conference attendance, exposure to other people, so I think some of this we have spoken about beforehand, access to other people, collectives, like getting together and being a collective and collectively talking about issues was also identified as important." (Massey, Tauira)

"I really value that support and the type of sponsorship like when I wanted to go to a conference, it cost a lot of money and so I sent some emails around like "can anyone help me go, I really want to go" and whaea Leonie helped pay for me to go. So it's something that's always stuck with me and something that makes you feel a bit braver in that journey to progress to higher study." (Otago, Tauira)

What is critical in considering this form of tuakana-teina relationship and approach to capacity building is the conscious connection being made between conference funding and the flow-on impact that can have on opportunities for students through exposure, networking, disseminating research, publications, experience, and confidence. Then from there it actually makes it easier to get access to more funding and greater opportunities.

Hui

One of the significant success factors noted was the consistency in having hui; regular meetings and activities and the conscious allocation of time for whakawhanaungatanga to enable the slow but steady building and development of relationships. As groups continue to meet, the relationships develop and trust is able to build, creating a connection and feeling of belonging and support in the group. This doesn't often occur in university programmes in the same way because they are often organised as one off events to meet a particular need. The focus should rather be on getting together and building relationships, which in turn will give the students further support networks to draw on amongst their colleagues and peers, as they strongly assert in the following kōrero:

"Of course MAI, the positives that we wrote down is it removes isolation, creation of critical mass, sharing of lived experience and regular contact and initiatives to that regularity." (Waikato/Tāmaki, Tauira)

"It's a forum people come in here actually cause it's warmer than the marae and we meet fortnightly and they're all associated with… so we just talk, in a way it's kind of like the 'MAI'… MAI is doing a particular job so the Māori students who are a part of our group they will also be part of the MAI but for as part of our school they come in they talk about what's on top, what's worrying them, what's hassling them, what's going really well, they share information, it's kind of a, a lot of them are homesick and that's not just the ones from overseas that's ones who are coming in from all different areas." (Te Whanganui ā Tara, Kaimahi)

Importantly, some participants noted the importance of having student support workers who are culturally competent and capable of (re)connecting doctoral scholars with their iwi or with the local iwi, via the provision of whakawhanaungatanga opportunities, which the following participants detail:

"I think that inviting people in from, having like a iwi day or even just every now and then inviting some iwi leaders in and having an iwi leader, like we have departmental seminars where we invite different scholars in and… we can invite different iwi leaders in and those can also be again opportunities for those iwi leaders to come in and maybe give a little kōrero bring in some of the people who are from those iwi to hear them and for them to go out and have lunch or to go and do something and create opportunities for them to spend time together, he whakaaro noa." (Waikato, Kaimahi)

"Our kaiāwhina network, so in each department or discipline we have a kaiāwhina and they look after the Māori students within that department; surprisingly a lot of them aren't necessarily Māori but they go off with all the different whānau and they learn about kaupapa Māori and te ao Māori and so they know how to interact with us safely and respectfully which is really cool and it's quite cool because you can talk to them on a personal level so they're a person that, they may be a professor of that department or something and you can just talk to them like one on one, like about how do you find your position, how did you get there, what do you recommend for me, I'm interested in this and this, what do you reckon and stuff like that so that's been really awesome for me." (Otago, Tauira)

For similar reasons the ability of the MAI programme, as one example, to provide a forum to bring together a wide range of doctoral scholars across disciplines and institutions and at differing stages of the doctoral process was noted as particularly useful:

> *"I've seen through the PhD process someone who was so happy and energised in year one is a complete an utter grouch by year three and they don't want to talk to anybody and so they're in business mode or survival mode or whatever you want to call it. Everybody is there at a different space and that's actually good because there's no surprises. When I started out and I saw people in their last year stressing out in that exact place and even said to people I hate you first year PhDs because you guys are so happy I can't wait till you're this year and miserable like me. I remember at the time thinking I'm never going to be like you. That's the good thing I think about having our final completions on retreats with new people because they get to see the reality of what's happening and of course if a person in their last final stages is really in tune which hopefully they are and they turn up to the writing retreat in a really good space, they can use the energy of those first year PhDs to actually give them a little bit of momentum rather than getting down on them and because they're Māori and because you're excited because your kaupapa is about empowering our people and that's what it did to me when I was finishing all the people who were in their first year I thought te ao Māori is in a great place and that really inspired me to finish and I think all of those people being in there from those different bits of me that you get it's a good thing." (Waikato, Kaimahi)*

> *"We just brainstormed the successful parts so we come down to the one to one relationships rather than having to deal with everyone as a whole, ako Māori - kaupapa based on similar values and beliefs, knowledge transitions, passing on experiences so people that have walked the walk that you are walking now, walking the plank. So pushing out of your comfort zone but knowing that it's going to be ok. Kanohi ki te kanohi so being able to, we've led a successful mentoring in sponsoring it also had an element of kanohi ki te kanohi as opposed to just emailing or just texting or whatever, it works. We also talked about aroha and respect and inspiration and innovation so they're constantly able to feed you, feed your mind, your body and your spirit. We talked about trust and how all of this pretty much encapsulates trust so for a mentor sponsor to be reasonable successful in what they do there has to be an element of trust cause if you don't trust them per se you don't really trust, how do you trust what they're saying is vital there's that trust element as well which comes back to, we talked about time and having the time to establish those relationships as well which isn't always, it's not always there sometimes when we're taught through kaupapa Māori research that we need to look, listen and then speak.* Sometimes that looking and listening takes a long time cause we have to establish those relationships but we get that, as Māori we get *that and we've also put teaching back up to ako." (Otago, Tauira)*

> *"I'm in… which is kind of bit isolated… going to the 'MAI ki Waikato' stuff was just awesome because I got to be with other Māori scholars and we could talk." (Waikato, Kaimahi)*

As noted by the above participants, having those opportunities and time to build meaningful relationships through kanohi ki te kanohi-based mentoring and sponsorship led to an increase in trust and confidence as well. Those unable to actively participate in Māori services, such as MAI Te Kupenga, lamented the missed opportunity and said:

> *"What I found was that the confidence that my supervisor had in my abilities wasn't something that I really felt myself and so in those moments of feeling inadequate and insecure where my mates who were participating in programmes like 'MAI ki Pōneke' had that support and therefore were bolstered I kind of floundered, so I'm not a student who really participated in the programmes that were available and I definitely bore the brunt I suppose of that decision." (Te Whanganui ā Tara, Kaimahi)*

Academic Capacity Building

An area commonly identified by Māori staff is capacity building for Māori and Indigenous doctoral scholars to enable them to develop skills and knowledge that would support them moving beyond the doctoral process.

"It's about knowing where they can publish their work and getting up there and being recognised and acknowledged for their work that *they've done because the topics that they are writing about here are pretty unique having access to those areas." (Awanuiārangi, Kaimahi)*

"I suppose if I think about the elements of my job where I feel the most vulnerable I suppose and therefore would appreciate support in building confidence in those areas, I certainly think of preparing work for publication and making sure that the tone's right and those sorts of things, that's something that I would appreciate support with and I don't know what form that might take, I don't whether you know like wānanga and that, it may very well be that this is the precisely sort of thing that MAI is doing at the moment and I just haven't been party to that but yeah so support around publications definitely where I feel vulnerable, also like an opportunity to dry run my conference presentations because I often feel, I am not sure that insecure is the right word, but certainly nervous around the, I haven't kind of built the confidence that what I say and the way that I say it is appropriate for these academic forum." (Te Whanganui ā Tara, Kaimahi)

"I think one of the really awesome things that we could do to build people, help and support people who are transitioning in that postgraduate stage and beyond as professionals is to have continual collaborative writing wānanga and little workshops because that's one of the things I've noticed the amount of people that I talk to, some of them have finished doctorates or are finishing and despite the fact that they have done PhDs they're still not confident writers in that they still need some support." (Waikato Kaimahi)

"I was given that pastoral support but left to my own devices a lot in terms of what I did with my PhD. I think everyone was a bit scared to kind of say anything to me about changing the direction or I didn't get that apprenticeship they didn't ask me to mark any papers or learn the ropes to be an academic and at the time I didn't think that that was much of an issue, but after becoming an academic, I was thinking I wish I had done all of this stuff that I'm learning in the job when I was doing my PhD, I wish my supervisors had helped me to publish rather than just leaving me to do the PhD. I think they probably thought that was the best thing for me to just let me cause I was doing my rugby, let's just let her do that and just try and finish her PhD but actually I wish they had helped me to try and publish." (Massey, Kaimahi)

This final comment is particularly pertinent to this project in that while there had been support from their supervisors, they reflected that there was advice and opportunities they needed that would have helped create a stronger foundation for this participant's academic career. This insight also points to the different needs of different students, and the importance of both students/early career researchers and their supervisors/mentors developing a relationship in which they can share and understand these differences to ensure the flexibility in approach that is needed in each particular instance.

Māori and Indigenous students also identified needing more support, not only to develop their writing abilities, but also to extend their knowledge and understanding of what journals to publish in, what conferences to attend, how to go about drafting funding applications or book proposals, how to apply for promotions, and which committees are worthwhile going on and which ones are less effective ways to employ your time and energy. Again much of the discussion in this area was around finding safe spaces for participants to be able to build their confidence and develop experience.

"We had around this critical support in terms of confidence and building your confidence or nourishing your confidence and others helping you to know what you don't know in a kind way, so I think that's something that's critical that hasn't been mentioned yet." (Otago, Tauira)

There was some acknowledgement that individuals and groups could find ways to support one another in their development, by forming their own small writing groups and engaging in informal conversations with senior colleagues. It was noted that building knowledge and skills was viewed as something that was often supported through informal processes rather than there being specific mechanisms in place.

"I was talking to a couple of friends of mine and different colleagues and they're wanting to boost their portfolio like their publications portfolio… so I was saying to them why don't we just write together, so we write some more collaborative pieces together and some of my colleagues I see that they do that really well, they write collaboratively and as a group they are able to tune out a little bit more." (Waikato Kaimahi)

"We've learnt from a senior academic here, we talked a lot about having to give way to your whakamā, give way to it, just get it out of the way and promote yourself even though we hate the whole you know kumara thing that sometimes." (Otago, Tauira)

MAI Te Kupenga

A key discussion highlighted within the project is the success of the current MAI Te Kupenga programme, and the commitment of the MAI regional coordinators and associated staff to provide quality support and opportunities for MAI students. On a whole, the MAI sites are viewed as operating a programme that works effectively, as it has to some degree a level of independence away from the structures of institutional requirements, and are driven by a passion of Māori staff and students who provide collective support to those working to complete their doctoral study. The positive contribution of MAI Te Kupenga both in terms of its broader contribution, and in providing additional support alongside other Māori support initiatives, was consistently noted.

"I love the MAI programme, I think that was one of the best things that happened in this university." (Kaimahi, Waikato)

"Of course MAI, the positives that we wrote down is it removes isolation, creation of critical mass, sharing of lived experience and regular contact and initiatives to that regularity." (Tauira, Waikato)

"We meet fortnightly and they're all associated with Te Kura Māori so we just talk … MAI is doing a particular job so the Māori students who are a part of our group they will also be part of the MAI but for as part of our school they come in they talk about what's on top, what's worrying them, what's hassling them, what's going really well, they share information." (Kaimahi, Te Whanganui ā Tara)

"There's MAI, which we identified that the success of MAI is around peer mentoring and empowering ourselves to create our own relationships with supports with one another." (Tauira, Tāmaki)

Where Te Tātua o Kahukura is focused on providing insights into ways to enable stronger post-doctoral opportunities for Māori and Indigenous doctoral scholars it was clearly articulated that this must be seen in relation to the existing MAI offerings. The most effective way to develop those opportunities is to utilise the already established networks and processes that have enabled the success of MAI Te Kupenga. Participants identified that the strengths of the MAI Te Kupenga can be found in a number of factors including:

- Māori cultural grounding and approach to supporting doctoral scholars
- Active support and validation of Māori theories and methodologies
- The flexibility of how it is organised by each site to provide specifically for the needs and diverse cir cumstances of their students
- Strong facilitation by Māori staff who have experienced the doctoral journey and are committed to creating opportunities for students to progress their research
- Actively creates networking and sharing opportunities
- Provides writing retreats specifically for MAI doctoral scholars
- Organises a range of workshop and professional development opportunities based within Māori pedagogical processes
- The provision of adequate funding to ensure the success of the programme
- Māori coordinators maintain ongoing links and share opportunities nationally
- The MAI National conference as a national presentation and networking space for both doctoral scholars and supervisors to share across tertiary institution.

A key concern regarding the MAI Te Kupenga programme was the significant change in funding and the disparities that are beginning to appear between each of the MAI sites in terms of access to funding. Until recently the MAI sites were reliant upon the core funding provided by Ngā Pae o Te Māramatanga (NPM). Since the changes in funding allocation and the reduced contribution by NPM, the level of funding support for MAI sites is now dependent upon the contribution by respective institutions. One impact of that is the inability of sites to be as open with resources for those doctoral scholars that are not enrolled within the institution hosting the MAI site. On the other hand, those MAI sites that are funded well by an institution continue to provide support and manaaki for doctoral scholars beyond an individual institution whenever they have the chance to do so.

Creating Pathway Opportunities

What is evident across the literature, the hui and the interviews is that there is a need for post-doctoral pathways for Māori and Indigenous students to be an intentional and deliberate process that requires thought and planning. This needs to be a part of the wider role of those tertiary institutions that are offering doctoral programmes. It is not enough for Māori and Indigenous students to be a part of the MAI Te Kupenga doctoral programme and then to be left to fend for themselves upon completion of the doctorate.

"I always felt like there was no lack of motivation for getting this thing done, it was really just about a lack of opportunity given the many different strands of my work, there was certainly no shortage of reasons to get it done, just done, seemed to be a bit of a shortage of opportunities that's all." (Te Whanganui ā Tara, Kaimahi)

"One of the things that we found is that we all probably wanted to do different things and so we wanted to make sure that there were pathways for all of those different things, so that's why we put them in those different bits, so if we're going into the career corner where we might be wanting to be the CEO of something we were going to be looking for ongoing professional and academic development and ongoing post-doctoral studies, so we knew the sorts of people that we would be wanting to discover for ourselves if we were going that way, one of the things that we saw is that we might actually do all of those things so we might actually start here and then come around and go to there but at least we know the sorts of people we were looking for in terms of support, if we were going into the academic side we'd be wanting to have a high level of academic involvement and support, so what we did is we thought of people who were successful in those areas and thought what would those particular people want because that was quite a good way to think about who would support them, and so if we wanted to be a professor like Linda we decided that we would need mentoring at a national and international level, and so once we'd actually been able to state all of those things we knew the people that we wanted. We wanted to actually institute some scholarships and fellowships in that area there as well. In the research and publication we've got a whole lot of different…" (Awanuiārangi, Tauira)

"That goes back to that sponsorship that you were talking about at the start is us as staff who are doing these research projects, identifying students in supporting and getting them involved in the project, putting them down as AI's and then ensuring that they've got that pathway as well, that getting that experience, because we're not, we suck at that, we are terrible at getting research grants, like we just don't apply for them at all and if we do then they are just the university ones so they're only small project ones; the only person in the last few years who's done that is Poia and so he's bought on a whole lot of post-grads." (Otago, Kaimahi)

"So you can clearly see that you're on a pathway that takes you somewhere or is it just kind of a random collection of and that's where you have to draw on your relationships and the strategies to figure out and navigate your way through as part of finding how you can get through the other side. Funding of course, I think that was a biggie and that's always the biggie, it's always been a biggie, but I think it's even more so and probably more at the doctoral level because of, I mean if we look at the demographics mostly mature students mostly with families and or careers so how do you manage all of that." (Waikato/Tāmaki, Tauira)

"The majority aren't going to be academics and it's not sustainable anyway because there is very few academic positions, so when people are thinking about doing a PhD I'll always ask them why are you

doing it because there is no point, I think it is unethical to continue to encourage students to do PhDs when you don't have a clear pathway forward... I know lots of people that have come out with a PhD and that's it they are by themselves. A lot of people from my cohort never found jobs or they end up tutoring or something because they've were never supported into it." (Waikato, kaimahi)

"We looked at the development of durable networks including international streams of work, this is post-PhD, and the development of an agency that is a conduit that recommends mentors and leads PhD graduates into streams of work. One of the things that we looked at as we wanted our study to make a difference, so our thesis to make a difference, and that was to disseminate the findings nation-ally and internationally. Also to have sponsors, perhaps iwi, perhaps corporate, perhaps government agencies but we wanted networks through those streams as well. We looked at funding and then also looked at ongoing research from the thesis so that you're enlarging that and you're developing projects and it may be that you're writing proposals rather than doing the whole project; out of that we wanted strong tāne, we wanted strong wāhine, we wanted continued cohort support, we wanted pay clarity and we wanted satisfied employment and mostly the whole key to this was thriving whānau and hapū."
(Awanuiārangi, Tauira)

"We provide opportunities through the conferences and bring them into the networks cause that's the way that we were mentored, so it's not lack of resources it's actually the flow through is small for us and in an ideal world we'd want to grow that and the obvious place would be to start at the beginning of the pipeline." (Waikato, Kaimahi)

Discussions with iwi who encouraged the development of this project, also highlighted a need for some sort of process where they are able to identify their own Māori students, those that connect directly to their iwi, as potential researchers and specialists who may have expertise that is needed within our communities, and to progress particular iwi aspirations.

"A lot of people who are going, who have PhDs, are going back to their iwi or their hapū and it's over their head ... So maybe to break that disconnectedness is to getting them to present back to their hapū, or present back to their iwi and having some kind of rā where they can do those kind of things so they know what's going on, and what their nieces or nephews in the whare wānanga [are studying]. We look at it as a Poutama. You climb the ladder but when you get to the top and you have been mentored all the way up, when you get to the top you're going back down and you're teaching and you're implementing and then you are going into another career and you are going back up again so that's how we analysed our mahi." (Awanuiārangi, Tauira)

It is evident across all discussions that creating pathway opportunities is as critical as ensuring that MAI doc-toral scholars have knowledge and information about existing opportunities. Either way, there must be clear support, resources, commitment and planning.

Summary

In Part Three of this report, the narratives and themes that emerged from both the students and the staff that participated in the research hui rounds and interviews were provided. In particular, their responses to two key questions: what mentoring or support programmes were they aware of, that are available to doctoral schol-ars; and what they considered to be key success elements within programmes that would support them, both within the doctoral process and in building their capacity for post-doctoral opportunities, were analysed and organised into themes. Consequently, key elements and concepts such as ako, whanaungatanga, tuakana-teina, kanohi ki te kanohi, hui, manaakitanga, ako, whanaungatanga and tuakana-teina were identified as significant to doctoral and post-doctoral scholars being supported in decisions and transitions related to their post-doctor-al pathways. MAI Te Kupenga also featured in this part of the report as a critical element in the success of a number of participants. The importance of ensuring the validation of tikanga and te reo as cultural frameworks of success was an overall theme with systemic issues such as monoculturalism, a lack of space and opportunity to build meaningful relationships, pathways, and capacity being some of the issues raised and responded to by participants.

7. Conclusion

Creating and filling space, with our ways of knowing and being, within academic institutions, is central to the systemic, institutional and societal changes we seek to make. Indeed, past initiatives such as those led by the Indigenous Research Institute (IRI), Ngā Pae o te Māramatanga and the MAI Te Kupenga network have made great strides in these areas. However, participants in this project highlighted that there remain limited Māori options for support and therefore many are forced to find ways to adjust and adapt to Western institutions in order to be able to more appropriately meet their needs. Holding a vision that creates a culture of mentoring within a tertiary institution is a useful starting point for embedding and expanding Māori support systems, as one participant points out:

> *"I thought our career was supposed to be linear and I was getting worried because mine was all over the place and then when I interviewed them (senior academics) it was like, then this, got a contract here, then that, and actually that made me feel a lot better that it was actually quite normal, that it wasn't unusual." (Waikato, Kaimahi)*

In order to leverage the strengths of the MAI Te Kupenga programme there would need to be resourcing and support provided for the provision of a transition space from doctoral to early career for MAI doctoral scholars, commencing during the final year of study. What is clear is that waiting until submission of the doctoral research is often too late with regard to post-doctoral pathways. Significant factors, including being introduced to specific networks, other academics, supported to attend the right conferences, including assistance finding funding and work, encouraging or organising opportunities to present and publish, are all aspects that participants across the institutions and workshops mentioned they would ideally like extra support with, above and beyond assistance and support in planning/researching and writing the doctorate. However, sharing information about workshops, introductions, and connections doesn't have to be part of formally organised programmes, and such opportunities can and should be facilitated within a collegial working environment.

It was also noted that pathways are not always about career opportunities; for some it is about reconnecting to whānau, hapū and iwi and gaining insights into what is happening in a range of contexts that they may wish to contribute to:

> *"So we came up with a whakataukī, 'Mai i Hawaiki rere auraki puna kāinga', and so one of the messages from that is the acknowledgement of the many trajectories and destinations of PhD students, not just in the direction of academia or of becoming academics. The role of supervisors and mentors and sponsors is to guide and support the journey not pre-determine destinations or for them to expect to individually benefit and also just an acknowledgment that the relationship, the benefits that occur in the relationship between the mentor, the sponsor, the supervisor whoever it is, is in the knowledge that the student will be making huge positive contributions wherever they end up so that notion of puna kāinga, and so this whakataukī is our model for whatever idea you are going to come up with. Mai i Hawaiki rere auraki – which is about the main current, so that representing all the things that we might have in common is that it's a PhD journey… but then puna kāinga and that being that we might end up kāinga as in community over there, or over there, or over here, and that notion of puna that there is many." (Massey, Tauira)*

Both the literature explored for this project and the processes of hui and interviews with Māori and Indigenous doctoral scholars and staff provide us with insights into a range of success elements that can inform how we can strengthen post-doctoral pathways and opportunities for this particular group of early career scholars.

As has been clearly outlined in this report, specifically in Part Three, the research has highlighted several key kaupapa Māori principles as integral to supporting Māori and Indigenous early career scholars. Each of these principles is recommended and proffered here as a strong and necessary foundation for the development of Māori and Indigenous post-doctoral support programmes. They are as follows:

Rangatiratanga	Requires that power and control rest within Māori cultural understandings and practices and that the issues and needs of Māori are the focus and outcome of all research. This principle is also situated within Te Tiriti o Waitangi.
Taonga Tuku Iho	Ensuring the validation of tikanga and te reo as cultural frameworks of success.
Tikanga	Relationships where aroha, respect and manaakitanga (care) are a key foundation.
Whanaungatanga	Maintaining a focus on relationships to ensure networking and maintaining connections.
Ako Māori	Māori pedagogical processes are essential.
Tuakana-Teina	Enables culturally defined relationships that provide a means for knowledge transition, the passing on of experiences and the creation of a cultural framework for supportive relationships.
Kanohi ki te kanohi	A key engagement strategy is face-to-face gatherings, which can then be supported through technology.
Kia piki ake i ngā rauraru o te kāinga	Acknowledges that kaupapa Māori practices and values are able to successfully intervene for the well-being of whānau.

This research has revealed a whole range of success elements that can inform how we strengthen post-doctoral pathways and opportunities for this particular group of early career scholars into the future. Overall, the research clearly states that all programmes and related activities need to be provided based on Māori and Indigenous frameworks, values and pedagogies, while always ensuring that Māori tikanga and te reo are validated. Therefore, we have organised the recommended critical approaches, activities, and learning under the relevant kaupapa Māori principles below:

Rangatiratanga: Requires that power and control rest within Māori cultural understandings and practices and that the issues and needs of Māori are the focus and outcome of all research. This principle is also situated within Te Tiriti o Waitangi.

- A clear articulation of Te Tiriti o Waitangi policies in this area is required to support the development of strong Māori programmes.

- Mainstream institutions must increase Māori academic staffing across all faculties to provide for the needs of Māori and Indigenous students and doctoral scholars.

- Staff at tertiary institutions where Māori and Indigenous doctoral scholars are enrolled or work have a key role in ensuring Māori and Indigenous culture is reflected within their own particular area of responsibility. This works directly against some of the systemic issues raised by participants such as racism and white privilege, for example.

- Mainstream institutions need to develop Kaupapa Māori programmes for Māori and Indigenous doctoral scholars.

- Identifying institutional racism within mainstream institutions is critical to ensuring Māori students have a positive experience in their doctoral and post-doctoral journeys.

- Doctoral and post-doctoral support programmes in mainstream institutions need to be developed in line with the cultural needs of Māori and Indigenous doctoral scholars.

- A commitment to anti-racist approaches in mainstream institutions is essential.

Taonga Tuku Iho: Ensuring the validation of tikanga and te reo as cultural frameworks of success.

- Spaces and events that enable connection between MAI doctoral scholars and Māori and Iwi organisations are crucial.
- Supporting MAI students who are disconnected from hapū and iwi to reconnect through key Māori organisations is important.
- Enduring and meaningful connections with the local marae and hapū need to be made in order to provide a culturally safe space for students who may be away from their own 'home' or who might not necessarily have the opportunity to experience that connection in their own tribal location.
- Clear tikanga practices such as karakia, whakawhanaungatanga, and wānanga are integral to the development of strong Māori programmes.
- Bi-annual Māori and Indigenous graduate showcases or hui enhance connectedness with Iwi and Māori organisations and should be provided by Institutions.

Tikanga: Relationships where aroha, respect and manaakitanga (care) are a key foundation.

- Ensuring regular contact, a consistent timetable of meetings and clarity of purpose is important.
- The development of cohorts which link across institutions will enhance strong and supportive relationships nationally.
- It is critical that MAI doctoral scholars are actively included in academic events and research projects.
- Institutions need to identify mechanisms that facilitate international Indigenous linkages, such as a Māori and Indigenous post-doctoral training programme.
- Active involvement and affirmation of whānau support is integral to all MAI programmes and related activities.

Whanaungatanga: Maintaining a focus on relationships to ensure networking and the maintenance of connections.

- The professional socialisation of doctoral scholars, including professional associations, conferences, and job fairs should be increased.
- Doctoral-focused job fairs and exploration into how existing and new university employment websites, such as NZ Uni Career Hub and GradConnection, can better meet the needs of Māori organisations and students is required.
- Institutions should build doctoral student webpages which are officially associated with departments and faculty websites. For example, the promotion of recent graduates will serve to enhance the online research profile of doctoral scholars and therefore increase opportunities.
- Creating opportunities for academic placements both nationally and internationally is important.
- Introducing opportunities for doctoral scholars to connect with potential employers and organisations related to their field of study is recommended.

Ako Māori: Māori pedagogical processes are essential.

- Providing time and space for Māori and Indigenous scholars to think and plan their post-doctoral pathways is vital.
- Several forms of ako and related concepts such as wānanga, poutama, and whakataukī are integral to the learning and teaching of doctoral and post-doctoral scholars. Wairua inclusive processes were also indicated as being important.
- It is crucial that professional development be provided to supervisors on relevant Indigenous methodologies and pedagogies which Indigenous candidates may prefer. Subsequently, supervisors would be sensitive, aware, prepared for and supportive of, any and all cultural matters that may arise throughout the research project, particularly if the supervision team are non-Indigenous.
- Workshops or wānanga and training for MAI doctoral scholars to apply for international funding should be provided.

Tuakana-Teina: Enables culturally defined relationships that provide a means for knowledge transition, the passing on of experiences and the creation of a cultural framework for supportive relationships.

- It is important that doctoral scholars are engaged in self-leadership skill building, peer support/sponsorship, and group leadership.
- Extending career guidance and support through at least the first year of the employment transition is required so that individuals are not simply abandoned after graduation.
- Mainstream institutions must create opportunities for regular interaction with a range of leading Māori academics and researchers.
- Providing a range of conference opportunities alongside senior academics who will support and promote MAI doctoral scholars is important.

Kanohi ki te kanohi: A key engagement strategy is face-to-face gatherings, which can then be supported through technology.

- A focus on doctoral career trajectories across a variety of sectors, as well as concurrent exploration of personal development pathways is critical to the improvement of post doctoral pathways.
- Professional development workshops focused on post-doctoral planning are required.
- The development of transferable skills that can be applied to any career track, in addition to empirical training should be encouraged.
- Institutions must explore new combinations of virtual and in-person activities and programming.
- Create space, time and events to build relationships with mentors, supervisors and potential sponsors.

Kia piki ake i ngā rauraru o te kāinga: Acknowledges that kaupapa Māori practices and values are able to successfully intervene for the well-being of the whānau.

- Further Māori and Iwi joint scholarships and fellowships with tertiary institutions should be encouraged.
- Financial and bridging support programmes must be provided.
- The allocation of funds is necessary for the provision of doctoral and post-doctoral support.
- Programmes and institutions should enhance doctoral career development and early career researcher activities through activities such as: career fairs, career development workshops, and dedicated student streams at professional conferences in Aotearoa New Zealand. This also requires an examination of measures which reduce conference fees and conference affordability for doctoral scholars.
- A sliding scale for registration fees that includes substantially reduced fees for students as well as unemployed researchers should be incorporated.
- MAI doctoral scholars need to be supported into professional groups and associations.

In conclusion, the focus of this project has been to identify the various needs of Māori and Indigenous doctoral candidates and early career academics to determine how we might best go about addressing those needs. Indeed, while Māori have been focused for some time on building and expanding capacity with our iwi, hapū, whānau and communities, we now find ourselves in a time and space where we must increasingly consider how we might most effectively begin to mobilise the capacity we have been developing to effect the transformation and changes we collectively seek.

This project, *Te Tātua o Kahukura*, has provided insights into the views of Māori doctoral and early career scholars, alongside Māori academic staff, in regard to critical practices that need to be considered by tertiary education institutes for inclusion in both their doctoral and post-doctoral support offerings. While expanding the current depth and breadth of postgraduate support is a priority, equally as important is the development of structured career pathways for Māori postgraduate students after the completion of their studies. For some, those career pathways will lead into the academy, or public and private sectors, but for others, they lead to working for, and within, whānau, hapū, and iwi development. Whatever the pathway, it is clear that academic institutions need to create opportunities that will enhance support programmes and increase Māori participation and success in higher tertiary education and beyond.

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