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NEEDED BUT NOT ALONE

A navigation guide for Māori and Pacific postgraduates in STEM

Tara McAllister[*]
Leilani A Walker[†]
Sereana Naepi[‡]
Rere-No-A-Rangi Pope[§]
Kiri Reihana[‖]
Patricia Hawkins[¶]
Jaye Moors[**]
Ani Kainamu[††]
Alana Alexander[‡‡]
Alana McCambridge[§§]
Georgia Carson[‖‖]
Kane Fleury[¶¶]
Hanareia Ehau-Taumaunu[***]
Kimberley H. Maxwell[†††]
Georgia M Bell[‡‡‡]
Kristie-Lee Thomas[§§§]
Jordan Aria Housiaux[‖‖‖]
Emma Lambert[¶¶¶]
Sangata Kaufononga[****]
Zaramasina L. Clark[††††]
Kate Mauriohooho[‡‡‡‡]
Jasmine Lulani Kaulamatoa[§§§§]
Kirita-Rose Escott[‖‖‖‖]
Kimiora Henare[¶¶¶¶]
Rawiri Keenan[*****]

Charlotte Joy Waikauri Connell[†††††]
Ake (Sally Akevai) Nicholas[‡‡‡‡‡]
Kylie Reiri[§§§§§]
Channell Thoms[||||||||||]
Stephanie Fong[¶¶¶¶¶]
Amy Maslen-Miller[******]
Hannah Rapata[††††††]

* Te Aitanga a Māhaki. Te Manawahoukura, Te Wānanga o Aotearoa, Wellington, New Zealand. Email: Tara.McAllister@twoa.ac.nz
† Whakatōhea. Auckland War Memorial Museum; Auckland University of Technology, Tāmaki Makaurau | Auckland, New Zealand.
‡ Naitasiri. School of Social Sciences, Waipapa Taumata Rau, University of Auckland, Auckland, New Zealand.
§ Ngā Ruahine, Te Āti-Awa, Te Whakatōhea. School of Engineering Computer Science, Te Herenga Waka Victoria University of Wellington, Wellington, New Zealand.
|| Ngāpuhi, Te Rarawa, Te Whakatōhea, Ngai Tūhoe. School of Science, Waikato University, Tauranga, New Zealand.
¶ Ngāpuhi. Independent researcher, Waipū, New Zealand.
** Samoan. Independent researcher, Tāmaki Makaurau | Auckland, New Zealand.
†† Ngāpuhi, Ngāti Kahu ki Whangaroa. BSI—Manaaki Whenua Landcare Research, Ōtepoti | Dunedin, New Zealand.
‡‡ Te Hikutū: Ngāpuhi, Pākehā. Department of Anatomy, School of Biomedical Sciences, University of Otago, Ōtepoti | Dunedin, New Zealand.
§§ Cook Island, Samoan. Centre for Person Centred Research, School of Clinical Sciences, Auckland University of Technology, Auckland, New Zealand.
|||| Ngāti Whakaue, Te Arawa. Malaghan Institute of Medical Research, Te Whanganui-a-Tara | Wellington, New Zealand.
¶¶ Te Ātiawa–Taranaki. Tūhura Otago Museum, Dunedin, New Zealand.
*** Ngāti Uepōhatu, Ngāti Porou, Te Ātiawa, Te Whānau-ā-Apanui. Plant & Food Research Group, Bioeconomy Science Institute, Tāmaki Makaurau | Auckland, New Zealand.
††† Whakatōhea, Te Whānau-ā-Apanui, Ngāti Porou, Ngāitai, Ngāti Tūwharetoa. Rangahauwai Ltd, Brighton, Dunedin, Aotearoa.
‡‡‡ Ngāti Pū, Pare Waikato Pare Hauraki, Ngāti Maniapoto. The New Zealand Institute for Public Health and Forensic Science, Ōtautahi | Christchurch, New Zealand.
§§§ Ngāti Mutunga o Wharekauri, Te Ātiawa. School of Earth and Environment, University of Canterbury, Ōtautahi | Christchurch, Aotearoa
|||||| Ātiawa ki Whakarongotai, Ngāti Toa Rangatira, Ngāti Raukawa, Āti Haunui-a-Pāpārangi. Te Whare Oranga, Te Wānanga o Raukawa, Ōtaki, New Zealand.
¶¶¶ Ngāti Tama, Ngāti Mutunga. School of Nursing, Te Whare Takiura o Manukau, New Zealand.
**** Tongan. University of Waikato, Hamilton, New Zealand.
†††† Tongan/Pālangi. School of Biological Sciences, Faculty of Science, Te Herenga Waka Victoria University of Wellington, Wellington, New Zealand.
‡‡‡‡ Raukawa ki Wharepūhunga, Ngāti Tūwharetoa ki Taupō, Ngāti Maniapoto, Ngāti Māhanga. School of Agriculture and Environment, College of Sciences, Massey University, Palmerston North, New Zealand.
§§§§ Tongan, Pālangi. School of Education, Faculty of Education, Te Herenga Waka Victoria University of Wellington, Wellington, New Zealand.
|||||||| Ngāti Kahungunu ki te Wairoa, Samoan, Palagi. School of Engineering and Computer Science, Faculty of Engineering, Te Herenga Waka Victoria University of Wellington, Wellington, New Zealand.
¶¶¶¶ Te Aupōuri, Te Rarawa. Faculty of Medical and Health Sciences, Waipapa Taumata Rau, University of Auckland, Auckland, New Zealand.
***** Te Ātiawa, Taranaki. Division of Health, University of Waikato, Hamilton, New Zealand.
††††† Uenuku, Ngāti Tama, Tūwharetoa. Department of Exercise Sciences, Faculty of Science, Waipapa Taumata Rau, University of Auckland, Auckland, New Zealand.
‡‡‡‡‡ Ngā Pū Toru, ʻAvaiki Nui. Senior Lecturer in Māori Studies, Te Wānanga o Waipapa, Faculty of Arts and Education, University of Auckland | Waipapa Taumata Rau, Auckland, New Zealand.
§§§§§ Ngāti Kahungunu, Rangitāne, Ngāi Tahu. Independent researcher, Pōneke, New Zealand.
|||||||||| Ngāi Tahu–Ngāti Kurī, Ngāi Tūhoe. Independent researcher, Ōtautahi | Christchurch, New Zealand.
¶¶¶¶¶ Ngā Puhi. Independent researcher, Christchurch, New Zealand.
****** Samoan. Faculty of Medical and Health Sciences, University of Auckland, Auckland, New Zealand.
†††††† Kāi Tahu. Te Manawahoukura, Te Wānanga o Aotearoa, New Zealand.

Abstract

Māori and Pacific researchers are working hard to transform our research system to enable Māori and Pacific postgraduate students to thrive in science, technology, engineering and mathematics (STEM). Yet barriers remain, and each new postgraduate generation inherits evolving challenges and opportunities to navigate. This paper is written for Māori and Pacific people who are about to enter the postgraduate STEM space, recognising that we need our own words to help future students to navigate this journey. It will be challenging at times, but our kōrero shared here highlights that when you find the right people, be authentic to yourself and set boundaries, the journey becomes easier to navigate. This paper operates as a survival guide for Māori and Pacific STEM postgraduates as we continue to hold the doors open to spaces that desperately need you. We look forward to smiling at you from across the room in department meetings.

Keywords

experiences, Māori, Pacific, postgraduates, science

Introduction

Every generation of Māori and Pacific scholars within the academy has contributed to groundbreaking transformation in a rapidly changing academic profession, and each generation has had different experiences (Kidman et al., 2015). The first generation of Māori scholars were not only often the first of their iwi, hapū and whānau to attend university, they then battled within the academy to simply "exist", often becoming the one and only of their discipline creating pathways to follow (Durie, 2005; Ngata & Buck, 1986). Subsequent generations led cultural, political and academic reforms, holding the line as sole Māori researchers in their departments, while challenging colonial paradigms to decolonise not only the institutions but also ourselves, and making space for Indigenous methodologies in science, technology, engineering and mathematics (STEM) (Ruru & Nikora, 2021; L. T. Smith et al., 2016). The current generation of both Māori and Pacific STEM scholars are now more likely to have whānau who have gone to university (Kidman et al., 2015), and are building capacity within the system (with increasing attempts to value Māori STEM researchers and our scholarship) (Povey et al., 2022). Despite this, the university system does not retain many of the Māori and Pacific researchers it invests in. Only 5% and 2% of academics employed in New Zealand are Māori and Pacific, respectively, and these percentages are even lower in science departments (McAllister et al., 2019, 2022; Naepi, 2019).

These scholars now hold a responsibility for wayfinding their positions as valued scientists qualified in Western science, valued scientists qualified in understanding mātauranga and Kaupapa Māori approaches, or valued interspace agents that stand in both worlds (Ruru & Nikora, 2021). It is important to note that people who are knowledgeable in both mātauranga and Western science rarely exist within university STEM departments. This is because mātauranga is often still treated as "less than" or "outside" Western science traditions, by both the academy and non-Indigenous scientists.

However, the current generation of Māori early career scholars are also likely to have substantially more student debt, be subject to financial instability (short, fixed-term contracts), be burdened by heavy leadership responsibility and struggle to access mentorship (due to high demand and not enough capacity in the system), as well as be delayed in starting their own families compared with their senior Māori lecturers and professors (Kidman et al., 2015; Pihama et al., 2019). There is limited literature on strategies and advice for emerging Indigenous scholars, but Staniland et al. (2020) found the key navigation advice of Māori business academics to be "developing a strategy" and "carving up", "carving in comfort" and "carving a purposeful career". This paper offers some guidance to the new generation of early career Māori and Pacific STEM researchers for navigating some of the aforementioned challenges based on the authors' lived experience.

There has been a significant increase in research over the past decade by Māori and Pacific researchers that outlines our experiences in universities (Abraham, 2023; Baice et al., 2021; Funaki, 2023; Kidman 2020; Leenen-Young et al., 2021; McAllister et al., 2020, 2022; Naepi, 2021; Pacific Early Career Researchers Collective et al., 2022; A. Smith et al., 2021; Theodore et al., 2017; Tuiloma & Jones, 2022). Disciplines of STEM are often particularly hostile environments for people who are not cis, able-bodied, white men (Cech, 2022; McAllister et al. 2025).

Consequently, the underrepresentation of Māori and Pacific people in STEM has been documented previously (McAllister et al., 2022; McKinley, 2005; Naepi et al., 2021). While it is important to name and describe the many ways that Māori and Pacific people are excluded from the academy, exploring strategies for survival as Māori and Pacific people is also necessary. Regardless of our collective experiences, we want to remind Māori and Pacific postgraduates that there is space for them in the academy and in STEM: "This is absolutely where you belong" and "There are people that will support you and there are opportunities to make meaningful gains for Māori and Pacific people in science." We have engaged with and conducted science for centuries: "You're standing on the shoulders of all your tīpuna who navigated the largest sea … Science is in you." By simply being here and taking up opportunities as Māori and Pacific postgraduate students in STEM, we are contributing to creating and expanding spaces. Ultimately, by being here in these institutions, we and you are creating space for more Māori and Pacific in STEM: "Do it, you are so needed and wanted", "Don't let the institutions tell you what you can and can't do." It is with these whakaaro in mind that we collated this advice for prospective Māori and Pacific STEM postgraduate students.

Methods

The words of advice in this paper come from a collective of Māori and Pacific past and present postgraduates in STEM and are collated from their responses to the open-ended question "What advice would you give to prospective Māori and/or Pacific students who are looking at beginning postgraduate research in STEM subjects?" This question was delivered as part of an online survey built and delivered using Alchemer as part of the Te Pūnaha Matatini research project Alternative Visions of Science. Details regarding data collection and analysis have been outlined in full by McAllister et al. (2022). In brief, the question addressed in this manuscript is one of 23 questions presented in a survey designed to identify barriers and promising practices experienced by Māori and Pacific postgraduate students in STEM subjects at universities in New Zealand. An analysis of the key challenges faced by students has been outlined by McAllister et al. (2022), and our future work will focus on how existing practices within universities are being used to foster comfort among Māori and Pacific STEM postgraduate students.

Our cohort comprises 29 Māori and Pacific collaborators and co-authors recruited through existing networks, word of mouth and social media to participate in the survey and participate in analysis, writing and editing of manuscripts. These connections were facilitated through online hui, emails and shared documents between 2020 and 2024. All authors had either undertaken postgraduate research in STEM subjects at a New Zealand university or were current postgraduate students. For this commentary, thematic analysis (Braun & Clarke, 2012) was used to identify themes within the data with initial coding completed by Tara McAllister and reviewed by Sereana Naepi and Leilani Walker. All authors and collaborators were invited to write, edit and review this paper to ensure agency over the messaging and content.

From conception to publication, the Alternative Visions of Science project has aligned with Kaupapa Māori research approaches (see L. T. Smith, 2021, for further detail) with the central principle that this work is co-created by a collective of active collaborators. One deviation from McAllister et al. (2022) is our use of "Māori and Pacific" instead of "Indigenous". It was appropriate then to use the term "Indigenous" to connect our other work to international scholarship and to acknowledge our shared connection to Te Moana-nui-a-Kiwa knowledge systems. However, in this case, we wish to speak directly to those who will follow in our footsteps with specificity and familiarity that recognise the whenua and the moana that laps at Aotearoa shores. This paper is both about and for Māori and Pacific postgraduate students in STEM. While we acknowledge that these groupings are broad and diverse, we have chosen to lash our waka or vaka together for the purpose of this paper.

We have included Māori and Pacific together out of necessity—there are so few Māori and Pacific in STEM that it becomes necessary to draw on our connection to Te Moana-nui-a-Kiwa and face the often isolating experience of being a graduate student in STEM together. However, we also wish to acknowledge the tensions in this necessary alliance: Māori and Pacific are not the same. Māori are tangata whenua and come with many different lived experiences and connections to whenua. Pacific is a large heterogeneous group, and Niue, Cook Islands and Tokelau are also part of the wider New Zealand settler state realm (McLean & Quentin-Baxter, 2017). So while this paper provides insights that reflect the here and now of being Māori or Pacific in STEM, as our numbers increase there will be different papers and different advice to be shared.

Results

Below is a thematic analysis of our answers to the question: "What advice would you give to prospective Māori and/or Pacific students who are looking at beginning postgraduate research in STEM subjects?" We explore key survival strategies connecting to themes of whakawhanaungatanga, kia Māori te tū / o oe o le Pasefika moni, set boundaries and mauri tū, mauri ora.

Whakawhanaungatanga—connect with your people

One of the most common pieces of advice received was to find your people and your network. Connect with those people in and associated with your postgraduate institution who provide cultural normality, safety and wellbeing. To survive and succeed you may need to "find the right people in the right places who have the knowledge to support you and can keep you safe" and to "build a support network that will actually provide you with the support you need". Academia and many Pākehā-dominated STEM institutions can be places that drain your energy and knowledge basket, rather than contribute to it. However, as a postgraduate, you will connect with a community of supervisors, peers and mentors who are all different and are potential sources of differing types of support as you navigate STEM. These are the people who understand your research topic, methodology and methods, the research journey, and the STEM system both within your institution and more broadly at the most relevant national and international levels. Today, more and more supportive pan-discipline Māori and Pacific mentors have also formed rōpū to facilitate postgraduate success. Selected examples include groups such as Te Koronga (see *MAI Journal* 2023 Volume 12 Issue 1: Te Koronga Special); MAI (Māori and Indigenous), a postgraduate network managed by Ngā Pae o Te Maramatanga; Te Kūwaha (NIWA's Māori Environmental Research team); Manaaki Taiao (Manaaki Whenua Landcare Research Māori researchers rōpū); Te Ara Pūtaiao (pan-Crown Research Institute Māori network); Puāwai (a postgraduate Māori- and Pasifika-led group based out of Victoria University of Wellington); and Te Rōpū Pūtaiao (Otago University), who provide whakawhanaungatanga and mentoring, and are supported by the Division of Sciences and kaiāwhina who are academic staff from all of the different science departments.

With these resources and communities, you will need to recognise that while some people will have multiple roles in your journey, "they will have limitations, so pick people that will complement each other". At the end of the day, it will often be up to you to build these support networks because "no one can do it alone, and no one should have to". Tuākana that you start connecting with during your studies will continue to support and nurture you as you pursue your career, just as you in turn will fulfil that role for those who follow. Therefore these "connections matter the most".

Choose appropriate supervision

A very common piece of advice for prospective Māori and Pacific postgraduate students is to choose the right supervisor(s). After all, your relationship with your supervisor is central to the success of your research training. We suggest that "before you begin your postgraduate journey, research your potential supervisors" and "be choosy", and there may be circumstances when it is necessary to "pick your supervisor over your topic". It was highlighted that while academics are highly trained experts in their fields, that does not automatically mean they will be great teachers or supervisors. For some, "having present, and supportive supervisors makes a massive difference". Furthermore, as Māori and Pacific students, it is even more critical to find a supervisor who "respects your values and can support you in conducting research that interests you".

You may consider trying to find a "[Māori and Pacific] supervisor on your supervisory team if you can" or "a peer/tuakana/teina network you can tap into". Key characteristics to consider when selecting a supervisor include an understanding of Māori and Pacific worldviews, the use of Kaupapa Māori and Pacific methodologies, and whether they have experience supervising Māori and Pacific students. Furthermore, even if your potential supervisor is supportive in principle, consider whether they are "able and prepared to provide adequate supervision" to you specifically.

Supervisors play a pivotal role in postgraduate experiences. A supervisory team will help you to navigate the unknowns of the university systems and provide guidance and research expertise. If possible (but it is highly improbable that you will), find someone "who knows how to change the system to embrace our needs better" because "unfortunately, there is still racism within institutions and that is an extra battle that [you] do not need". The right supervisors will help clear a path for you and those who come after you, including shielding you from institutional racism. Collaborators stressed the importance of choosing "a supervisor who can ensure you are covered

with a safe korowai around you and your mahi, especially when it involves us and our whānau and that the tikanga around your mahi is tika and pono for our whānau/hapū me ngā iwi".

Speak directly to "potential supervisors [to] find out how they connect with researchers from different backgrounds to themselves" and "don't be afraid to ask questions and talk with potential supervisors about what they can offer you". We also recommend asking "current and previous students of their research group about their experiences". However, it is important to note that while a particular supervisory style might suit some students, it might not suit you. Ideally, you want a supervisor "who supports you and understands you": Do you thrive with more independence? Do you want a supervisor who provides more regular check-ins? Once you have settled on a supervisor, taking an active role in setting reciprocal expectations is also critical. Especially given the ways that our lived experiences often differ from those of other students, it is worth "negotiat[ing] the work dynamic early on, and potentially the power dynamic". Asking questions about how often you will meet and how they are going to support you (e.g., with setting goals and milestones, opportunities for collaborations and presenting, taking leave for whānau emergencies, kaupapa, tangi or personal/mental health days, expectations of working hours) is also helpful. It is also worth keeping an eye out for potential red flags that may suggest a potential supervisor might not be a good fit for you. This could include a supervisor having too many students, having poor communication, being not willing to explore your research interests, having previous students who do not complete their studies, being interested in Indigenous research but not in collaborating with Indigenous academics or engaging directly with hapū or iwi.

While your supervisor is intimately involved in your research and can be a mentor for your project, it is essential that you build support systems outside of that unique and important relationship.

Connecting to mentors

Connecting with Māori and Pacific mentors could be, and often is, incredibly important to thriving during your studies. Mentors can include members of your supervisory team but also other academics, researchers, staff, students or experts both within and outside the university and country who can guide you in your research. Many universities now have dedicated Māori and Pacific STEM mentorship programmes such as the Tuākana Programme (Rewi et al., 2022) at the University of Auckland and Te Rōpū Āwhina at Victoria University (Richardson et al., 2017). We recommend joining these groups while also trying to connect with more senior Māori and Pacific staff. Mentors can be spread across the landscape geographically and can also come from "whānau, local community, in your department and within the wider institution". They often enable a strong sense of belonging within very colonial institutions and are vital in helping guide you through institutional structures on your haerenga. Māori and Pacific mentors can also keep you grounded as "checkpoints" that enable you to "question the value of your work in terms of who it is for".

More senior Māori and Pacific mentors have the experience to help you navigate the institution and signal what possible moves to make next. Because there are so few Māori and Pacific academics in our universities, and even fewer in science departments, sometimes it is not possible to have Māori or Pacific mentors and we must search for other allies. Pākehā and tauiwi academic mentors can also be important advocates through our journeys. They can pick up extra labour to navigate institutional barriers and use their privilege to evoke institutional change. Conversely, Pākehā and tauiwi academics benefit significantly from mentorship of Māori and Pacific tauira as it often brings many opportunities for them to learn and grow.

Even when you are very selective in choosing your mentors and supervisors, problems can arise, requiring you to navigate the choppy seas between mentors. A pebble turned over and over in the awa has its rough edges smoothed. However, sometimes when a person is tumbled around in a colonial institution, their edges can sharpen. It is important to note that the positive, supportive relationships you have with different supervisors, mentors and other allies might not be held between all those different people. In situations in which you are receiving conflicting information, a skill that you develop in the academy is to make the final call yourself. Keep your reasons for why you do your research top of mind and practise listening to your puku. In holding relationships with different people who are no longer able to hold them with each other, we can act as a conduit to weave perspectives and knowledge together and continue to indigenise STEM for smoother sailing of those who follow.

Build a community of support

While guidance from specific mentors is important, also consider who will be "your people" while

you are at university. Although cross-discipline support structures for Māori and Pacific scholars might be present at your institution, not all communities come ready-made. You may need to seek out and build your community of support from both formal and informal structures within the university and institutions, even if it is just a small group of friends you regularly study with.

Building a community is about finding people you can rely on. It is important to find the support you personally need. Often support is available, but sometimes we are too whakamā to ask for it. This can mean talking to the Māori or Pacific coordinator at the university, asking about all the available resources or "finding an Indigenous support network of some kind". Your community is a space for honesty where you can tell them "what sort of support you are going to need, whether that's to stand up for you in meetings, to pass on opportunities or just to be a kind of ear". It is acceptable to search outside of your discipline and institution for connection too: "Even if there is no one else in your discipline, find an arts grad student or anyone," or even consider whether there is a "network that links regions that could get you in contact with other people in your situation". Communities of support, including online communities, exist within and outside of the university environment.

The negative effects of isolation within the academy can be reduced by having strong external networks. These networks could be your wider iwi, hapū, whānau or other communities, and can be in person or online. It is important to continue to have time for your friends and whānau, who were your community before you entered postgraduate studies and will still be there when you finish. Hui and conferences are also great places to find community; meeting and connecting with other Māori and Pacific folks at conferences can often be more important than the content of the conference itself. If you are isolated within your institution, it is vital to maintain these connections, through emails, professional networks such as LinkedIn and kānohi ki te kānohi catch-ups where possible.

It can also be advantageous to have social and peer-to-peer networks that can act as a safe place to share trials and tribulations. Ideally, people within these networks will understand and empathise with the specificity of being a Māori or Pacific postgraduate today, where institutional drivers for inclusion affect how we navigate space daily (McAllister et al., 2022).

Kia Māori te tū / O oe o le Pasefika moni

Another important strategy for thriving as a postgraduate student is to remain steadfast, authentic and unapologetically yourself, which is captured in the essence of the above title in both te reo Māori and Samoan. While being authentic we must be cognisant of the perceived expectation that we speak for all Māori or Pacific people and know everything about the Māori and Pacific worlds (McAllister et al., 2022). It is important "to be strong and stay true to who you are, no matter how uncomfortable it is for the people in the STEM faculty you belong to". Remind yourself, as you progress in your postgraduate degree, that you have every right to be a STEM researcher. Our people have always been and continue to be scientists, researchers and experts, as told in our stories and songs. As you enter your studies, you will need to be fearless, strong and unapologetic, and maintain your mana: "If there is a time where you will need to stand up for your whakaaro, whānau and whakapapa, that will be the time." Don't let "universities define what you can and can't do".

That said, there are many ways to be Māori or Pacific in STEM. Not everyone has to be a disruptor, and remaining steadfast can simply mean existing as a Māori or Pacific scientist, no matter where you are on your haerenga of (re-) connection to your Māoritanga or Pacific identity. There is no one set way to be a Māori or Pacific scientist, and having whakapapa means you are enough. We all navigate what it means to be Māori and Pacific scientists within our own contexts, and for some people that positioning develops and evolves over time. Be proud of who you are as you bring a different worldview, new skills and ideas that are a gift to the institutions we are attempting to navigate. You can counteract feelings of loneliness and isolation by reminding yourself that you are a product of those gone before and an ancestor to those yet to come: "Remember when you feel alone, you are standing on the shoulders of all your tīpuna who navigated the largest sea. Science is in you!"

Set boundaries

It is vital to "set clear boundaries about your time" as many Māori and Pacific postgraduates in STEM end up doing a great deal of extra, often unpaid labour (McAllister et al., 2022): "People will want you to be involved with things like outreach which you will feel like you can't say no to. It's OK to say no; this kaupapa is a long-term journey that we take together. Academia won't be fixed overnight

so if you can't attend the event, it's OK." Māori and Pacific students can also become the "token" fill-in for other inadequate staff members for culturally specific papers, such as mātauranga papers, as well as reviewers for other students, often without equitable compensation. Due to the small pool of Māori and Pacific postgraduates in institutions, we will also "be inundated with requests for teaching, tutoring, guest speaking, facilitating on subjects related to our subject and/or culture, although we may not be experts in these areas". There is a danger here of exploitation, so a supervisor who can help navigate and advise on when to say no is helpful. As a postgraduate student, these requests will often come from more established staff. While some of these requests can contribute to building our CVs and demonstrate excellence, it is important to "say no to things that are asked of you if you are not comfortable or feel overworked. The best success is you succeeding." Remember to be consciously protective of your time, dedicating it to purposes that relate to the success of you and your whānau. Setting boundaries empowers you to have the journey you want in STEM, finding balance between the cultural service you may want to do and the academic work you need to do.

Postgraduates start their journeys at different stages of their lives. You may have no additional responsibilities and can focus solely on your studies, or you may have a family or other commitments to consider when studying: "While our courses were the same as other students' our home lives were simply different. We would study between picking up kids from ECE [early childhood education] and supporting whānau. Studying was one aspect of our busy lives." With this in mind, it is important to treat postgraduate study like a job. Seriously consider whether you can financially support yourself during the study and how much time you can realistically dedicate to studying. Apply for all the scholarships and funding that you are eligible for. If your scholarship stipend or existing funds are not enough to support you and your whānau, you may need to consider working part-time during your studies. Remember this will require your time and energy, and therefore, changing your course to part-time may be more realistic to avoid burnout. Finding work that aligns with your career goals or addresses your wellbeing needs can be beneficial to your overall experience.

Mauri tū, Mauri ora

"My peers were working long hours and I thought I had to too." Another recurring piece of advice was to "take care of yourself and switch off". We stress the importance of looking after yourself because "mental health is a real issue in research, particularly STEM as it is a different way of thinking compared to Te Ao Māori". Seek out the help and support that is available through your networks and communities. Most universities and institutions, for example, have free counselling and health services, which we recommend you take full advantage of throughout your studies. Additionally, by setting expectations with your supervisor, taking breaks will be something encouraged and your wellbeing will be a focus of your time with them. We also acknowledge that many Māori and Pacific postgraduate students also have responsibilities outside of their studies, and fulfilling those commitments is a necessary part of your overall wellbeing. Aim to include activities that promote your physical, spiritual, mental and social wellbeing regularly.

Conclusion

We hope that this paper becomes redundant and that these strategies and theories will not be needed in the coming years. However, while we continue to keep the doors open and work on the wider structural reforms, this advice is necessary to ensure that we survive while institutions prepare themselves to ensure that we thrive. "We are right behind you and we've got your back." Kei ngā kaiarataki pūtaiao o āpōpō, tōminahia te mātauranga, whāia kia tata mai, purutia kia mau, e pikitia ai te panekiretanga o tō maunga tiketike.

Glossary

awa	river, stream, creek
haerenga	journey, trip
hapū	subtribe
hui	meeting, to gather
iwi	tribe, extended kinship group
kaiāwhina	helper, assistant, advocate
kānohi ki te kānohi	face to face, in person
kaupapa	topic, purpose, matter for discussion
Kaupapa Māori	a research approach that is informed by Māori philosophy and principles and is by Māori for Māori
kōrero	account, discourse, conversation
korowai	cloak
mahi	work
mana	prestige, authority, status

Māoritanga	Māoriness, Māori way of life, Māori culture
mātauranga	Māori knowledge systems
mauri tū, mauri ora	A whakataukī that can mean "an active soul is a healthy soul". It is often used to signify that stability and connectivity are essential, for both communities and individuals to thrive and achieve well-being.
moana	ocean
Pākehā	New Zealander of European descent
pono	be true, honest, genuine
puku	stomach
rōpū	goup
tangata whenua	Indigenous people
tangi	funeral
tauira	student
tauiwi	foreigner, non-Māori
teina	less experienced person
Te Moana-nui-a-Kiwa	the Pacific Ocean
tika	to be correct, just and true
tikanga	custom, correct procedure, habit
tīpuna	ancestors
tuakana	expert person
tuākana	expert people
waka/vaka	canoe, vehicle
whakaaro	thought, opinion
whakamā	shame, embarrassment
whakapapa	genealogy
whakawhanaungatanga	a process of establishing relationships
whānau	family
whenua	land

References

Abraham, H. (2023). The dual journey of navigating the "awa of higher education" from a Māori doctoral student's lens. *Rangahau Aranga: AUT Graduate Review*, *2*(1). https://doi.org/p4bh

Baice, T., Naepi, S., Thomsen, P., Muller, K., Leenen-Young, M., Manuela, S., & Sisifa, S. (2021). Developing our voices: Pacific early career academics' journeys in Aotearoa New Zealand. *Journal of New Zealand Studies*, (33), 10–24. https://doi.org/p4bj

Braun, V., & Clarke, V. (2012). *Thematic analysis*. In H. Cooper, P. M. Camic, D. L. Long, A. T. Panter, D. Rindskopf, & K. J. Sher (Eds.), l*APA handbook of research methods in psychology, Vol. 2. Research designs: Quantitative, qualitative, neuropsychological, and biological* (pp. 57–71). American Psychological Association. https://doi.org/gf8893

Cech, E. A. (2022). The intersectional privilege of white able-bodied heterosexual men in STEM. *Science Advances*, *8*(24). https://doi.org/gqcd2w

Durie, M. (2005). *Indigenous higher education. Māori experience in New Zealand: An address to the Australian Indigenous Higher Education Advisory Council*. Indigenous Higher Education Advisory Council. https://www.massey.ac.nz/documents/489/Indigenous_Higher_Education_M_257ori_Experience_in_New_Zealand.pdf

Funaki, H. (2023). *Ngā Manu ā Tāne–the stories of Māori doctoral students in Aotearoa: An ethnographic study* [PhD thesis, Te Herenga Waka—Victoria University of Wellington]. Open Access. https://doi.org/p4bk

Kidman, J. (2020). Whither decolonisation? Indigenous scholars and the problem of inclusion in the neoliberal university. *Journal of Sociology*, *56*(2), 247–262. https://doi.org/gf3bbc

Kidman, J., Chu C., Fernandez S., & Abella I. (2015). *Māori scholars and the university* [Final report]. Victoria University, Wellington, New Zealand. https://maramatanga.devr.net/sites/default/files/project-reports/Kidman%20Chu%20Fernandez%20Abella-%20Maori%20Scholars%20Final%20report%202015.pdf

Leenen-Young, M., Naepi, S., Thomsen, P. S., Fa'avae, D. T. M., Keil, M., & Matapo, J. (2021). "Pillars of the colonial institution are like a knowledge prison": The significance of decolonizing knowledge and pedagogical practice for Pacific early career academics in higher education. *Teaching in Higher Education*, *26*(7–8), 986–1001. https://doi.org/gj7fd5

McAllister, T. G., Kidman, J., Rowley, O., & Theodore, R. F. (2019). Why isn't my professor Māori? A snapshot of the academic workforce in New Zealand universities. *MAI Journal*, *8*(2), 235–249. https://doi.org/ggh5h4

McAllister, T. G., Kokaua, J., Naepi, S., Kidman, J., & Theodore, R. (2020). Glass ceilings in New Zealand universities: Inequities in Māori and Pacific promotions and earnings. *MAI Journal*, *9*(3), 272–285. https://doi.org/gq97

McAllister, T., Naepi, S., Walker, L., Gillon, A., Clark, P., Lambert, E., McCambridge, A. B., Thoms, C. T.,Housiaux, J., Ehau-Taumaunu, H., Connell, C. J. W., Keenan, R., Thomas, K.-L., Maslen-Miller, A., Tupaea, M., Mauriohooho, K., Puli'uvea, C., Rapata, H., Nicholas, S. A., Pope, R., ... Alipia, T. (2022). Seen but unheard: Navigating turbulent waters as Māori and Pacific postgraduate students in STEM. *Journal of the Royal Society of New Zealand*, *52*(Suppl. 1), 116–134. https://doi.org/p4bq

McAllister, T. G., Walker, L. A., Smiles, N. D., Jennings, L., Moggridge, B., Naepi, S., Kamai, B., & Milligan-McClellan, K. (2025). Decolonize scientific institutions, don't just diversify them. *Nature*, *644*(8076), 331–334. https://doi.org/g9wzpw

McKinley, E. (2005). Brown bodies, white coats: Postcolonialism, Maori women and science. *Discourse: Studies in the Cultural Politics of Education*, *26*(4), 481–496. https://doi.org/fr5xrw

McLean, J., & Quentin-Baxter, A. (2017). *This Realm of New Zealand: The sovereign, the governor-general, the crown*. Auckland University Press.

Naepi, S. (2019). Why isn't my professor Pasifika? A snapshot of the academic workforce in New Zealand universities. *MAI Journal*, *8*(2), 219–234. https://doi.org/dh2v

Naepi, S. (2021). Pacific women's experiences working in universities in Aotearoa New Zealand. *Higher Education Research & Development*, *40*(1), 63–74. https://doi.org/gq98

Naepi, S., Wilson, E., Lagos, S., Manuela, S., McAllister, T. G., Kidman, J., Theodore, R., & Kokaua, J. (2021). Where are we now? Patterns of Māori and Pasifika enrolment in the natural and physical science and society and culture fields in Aotearoa New Zealand. *Higher Education Research & Development*, *40*(1), 90–103. https://doi.org/g6kp2w

Ngata, A., & Buck, P. (1986). *Na to hoa aroha, From your dear friend: The correspondence between Sir Apirana Ngata and Sir Peter Buck, 1925–1950* (M. P. K. Sorrenson (Ed.). Auckland University Press

Pacific Early Career Researchers Collective, Allen, J. M. U., Bennett, J. L., Clark, Z. L., Escott, K. R., Fa'avae, D. T. M., Kaulamatoa, J. L., Kaulamatoa, R., Lolohea, T., Porter, M., Pulu, V., Tapuke, S., Ualesi, Y., Withers, S. E., & Woolner, V. H. (2022). Relational and collective excellence: Unfolding the potential of Pacific early career researchers. *Journal of the Royal Society of New Zealand*, *52*(Suppl. 1), 75–91. https://doi.org/p4bt

Pihama, L., Lee-Morgan, J., Smith, L. T., Tiakiwai, S. J., & Seed-Pihama, J. (2019). MAI Te Kupenga: Supporting Māori and Indigenous doctoral scholars within Higher Education. *AlterNative: An International Journal of Indigenous Peoples*, *15*(1), 52–61. https://doi.org/c9ck

Povey, R., Trudgett, M., Page, S., & Coates, S. K. (2022). On the front foot: Indigenous leadership in Aotearoa/New Zealand higher education. *Higher Education Research & Development*, *41*(6), 2048–2063. https://doi.org/gn7scj

Rewi, S., Welford, M., Heke, M., & Dunphy, B. (2022). Taku teina, tōku rangatira. Recruitment, development and retention of Māori and Pasifika in science. *New Zealand Science Review*, *78*(1–4), 45–53. https://doi.org/p4bv

Richardson, L., Clark, Z., Miller, S., Phillips, H., Richardson, K., Tarr, A., & Whānau, T. R. Ā. (2017). Te Rōpū Āwhina: A model for building post-secondary Māori and Pacific STEM capability in Aotearoa/New Zealand. In C. Leggon, & M. Gaines (Eds.), *STEM and social justice: Teaching and learning in diverse settings: A global perspective* (pp. 29–52). https://doi.org/p4bw

Ruru, J., & Nikora, L. W. (2021). *Ngā kete mātauranga. Māori scholars at the research interface*. Otago University Press.

Smith, A., Funaki, H., & MacDonald, L. (2021). Living, breathing settler-colonialism: The reification of settler norms in a common university space. *Higher Education Research & Development*, *40*(1), 132–145. https://doi.org/p4bx

Smith, L. T. (2021). *Decolonizing methodologies: Research and indigenous peoples*. Bloomsbury Publishing. https://doi.org/p4b2

Smith, L. T., Maxwell, T. K., Puke, H., & Temara, P. (2016). Indigenous knowledge, methodology and mayhem: What is the role of methodology in producing Indigenous insights? A discussion from mātauranga Māori. *Knowledge Cultures*, *4*(3), 131–156. https://hdl.handle.net/10289/11493

Staniland, N. A., Harris, C., & Pringle, J. K. (2020). "Fit" for whom? Career strategies of Indigenous (Māori) academics. *Higher Education*, *79*, 589–604. https://doi.org/p4bz

Theodore, R., Gollop, M., Tustin, K., Taylor, N., Kiro, C., Taumoepeau, M., Kokaua, J., Hunter, J., & Poulton, R. (2017). Māori University success: What helps and hinders qualification completion. *AlterNative: An International Journal of Indigenous Peoples*, *13*(2), 122–130. https://doi.org/gddg9n

Tuiloma, M., & Jones, K. L. (2022). The equity I see is different for you and me. *Ethnographic Edge*, *5*(2). https://doi.org/p4b4