

SCOPE
Contemporary Research Topics

work-based learning 6:

November 2024

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RESEARCH IN WORKPLACES IN AN AGE OF DISRUPTION

Jan Hendrik Roodt

Auroras, specifically the aurora borealis (northern lights) and aurora australis (southern lights), are not only awe-inspiring natural phenomena but also hold cultural, scientific, and historical significance. In Norse mythology, the aurora borealis was believed to be the reflection of the armour of the Valkyries – the female warriors who escorted fallen soldiers, chosen by Odin, to Valhalla.

In the South Pacific, especially Aotearoa, the aurora australis is less commonly seen but holds deep cultural meaning. In southern Te Wai Pounamu (the South Island of New Zealand), the Māori name the phenomenon Tahunui-a-rangi or “burning sky.” This imagery evokes the campfires of ancestors who journeyed south, hinting that they will one day return, creating a bridge between those who have gone before and the living.

The works in this 2024 issue of *Scope (Work-based Learning)* similarly seek to make sense of the shifting patterns of social disruption, technological advancements, and workforce dynamics in the workplace. Authors explore their work journeys, telling stories from their experiences as pracademic researchers, and reflecting on the unfolding dynamics of modern workplaces, now in the eye of the mesmerising storm of the technologies, such as Artificial Intelligence and Robotics, associated with the fourth Industrial Revolution (Industry 4.0).

“Packed and ready to venture forth,” writes Leigh Quadling-Miernik in the opening article, capturing the moment of setting out on a research journey. This is the hero’s journey, often chaotic, as information is gathered, patterns emerge, stories are woven, and understanding is forged. Mentors become guiding stars, offering direction and encouragement, especially in the professional practice doctoral space. Martin Andrew, in the following article, delves into the art of mentoring itself, articulating key features that make a difference in work-based doctoral programmes. Through heutagogical methods, Andrew highlights that mentoring success depends on trust, empathy, and critical reflection, shaping candidates into both scholars and professionals. This theme of human-centred learning permeates the issue, underscoring the collaborative nature of work-based learning.

Steve Henry, Nola Tipa, and Peter Apulu, in “Coming Ready or Not: The Potential of Learner-Centricity to Transform the Education System,” argue that modern education must centre around learners, whose evolving needs are reshaping educational frameworks. They advocate for the inclusion of Indigenous knowledge systems, woven into a rich tapestry that informs Education 4.0 (educational approaches required for work in Industry 4.0). They acknowledge the role of AI-powered platforms, which amplify the shift towards self-determined learning, or heutagogy.

Exploring this further, Rachel van Gorp and Glenys Ker examine the impact of AI, especially for neurodiverse learners, in “Artificial Intelligence in Vocational Education: Learning Revolution or Room for Improvement?” While AI promotes autonomy, there is concern about overreliance, which may compromise critical thinking and interpersonal skills. AI, they conclude, has a dual role: offering flexibility for diverse learners but also underscoring the need for human guidance to preserve critical and creative skills.

Successful journeys, like those navigating the night sky, require a map. The first four contributions map the learner's journey, showing how skills develop through mentorship and cultural insight, guided by modern tools. Steve Henry's "A Visual Map of Learner Transformation" presents a transformative tool for adult learners to chart personal and professional growth. This transformation map empowers learners to identify key "aha" moments, lending structure to experiences that are difficult to verbalise, and underscoring learner agency.

Similarly, Rachael Burke's "'I Don't Know if I'm Working Well or Not': How Beginner ECE Teachers from Migrant Backgrounds Negotiate Professional Practice in Aotearoa New Zealand" identifies the unique challenges early childhood educators face, particularly those from migrant backgrounds. Cultural perspectives, autonomy, and professional expectations highlight the need for culturally responsive mentoring, which Burke argues can enrich both educator and learner experiences.

Culture and language, like celestial coordinates, anchor identity. But culture and language are often barriers to expression and understanding. Anthea Fester and Sujani Thrikawala examine these issues for migrant women with small businesses in Aotearoa, especially those with English as an additional language. They discuss barriers, from language comprehension to cultural nuances, that impact business operations. Their findings support policy changes for a more inclusive, supportive environment for migrant entrepreneurs.

These cross-cultural insights find resonance beyond New Zealand. "Adapting to Change: Pedagogical Insights from Chinese Transnational Programmes in Chengdu and Dalian" examines the challenges Chinese Transnational Education programmes face in adapting to online learning. Jeremy Taylor, Martin Andrew, and David Woodward conclude that the use of social media platforms may be leveraged to create collaborative learning environments, especially using the flipped classroom model to engage learners in pre-class preparation. Digital tools and flexible teaching models seem to be the enduring legacy of the pandemic era, necessitating ongoing training for both educators and learners.

Phillip Meek, Woodward, and Taylor bring us back to vocational education's foundational importance in "Assessing the Significance of the Metal Trades Brand as a Viable Career Path for Work-Ready Students." They address an ongoing concern in vocational education: the declining interest among young people in pursuing careers within the metal trades, despite the industry's urgent need for skilled workers. Through surveys and interviews, they reveal a disconnect between students' perceptions of trade careers and the actual opportunities within the field. They argue that contemporary education must not only inform students about vocational pathways but also reshape perceptions to make trade professions appealing and accessible.

In "Transforming Strategic Sustainable Practice on Campus," Marianne Cherrington's work links workplace education with sustainability, advocating for educational institutions to embed these values systematically. Paired with Antonio Seiuli's "E Lutia i Puava ae Mapu i Fagalele," which emphasises cultural and operational cohesion, the two studies demonstrate the resilience inclusive practices can bring to organisations. Seiuli's work, based on Samoan conflict resolution, highlights the role of talanoa (dialogue) and Soālaupule (collective decision-making) in fostering harmony within corporate governance.

In the final contribution, "Riding Waves of Practice," Samuel Mann, Ruth Myers, and Dave Guruge depict practice-based research through eight photographic images within a staged cardboard scene. This visual metaphor explores principles such as reflexivity, transdisciplinarity, and multidimensionality, embodying the research journey's iterative and evolving path of practice based research about wicked social issues. Through the playful visuals, the authors demonstrate how research, learning, and practice become inseparable, showing the adaptability needed to guide researchers through the complexities of real-world professional practice.

Just as aurora patterns illuminate the night sky, the works in this issue offer reflections on the blending of tradition and innovation in professional practice. The cover art, with ancient constellations and auroral swirls alongside satellite trails, symbolises this duality. In glimpsing both past wisdom and future potential, we find ourselves positioned at the nexus of continuity and transformation, primed to adapt within a constantly shifting landscape.

Looking forward to 2025, we invite contributions that capture the ongoing evolution of professional practice identity. We seek research by individuals and teams navigating and evolving their professional selves, seeing these changes as pathways to growth and “becoming.”

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PACKED AND READY TO VENTURE FORTH: THE REFLECTION ON CRUX POINTS IN THE DATA GATHERING STAGE

Leigh Quadling-Miernik

Education and studying on a programme are often compared to a learning journey. There are phrases used frequently to remind us of the development and growth that comes from learning and the fact that, in the bigger scheme of things, it never ends. A life-long learner; on the road to somewhere; reaching a milestone; the ups and downs along the way; the roadblocks we encounter; mapping out the tasks; and finishing successfully; these are but a few phrases that are often stated. Literature on the experiences of doctoral students has focused on the educational journey (Batchelor & Di Napoli, 2006; Cook, 2020; Gravett, 2021), the sense of becoming or evolving (Arnold, 2021; Clark, 2022), and the resilience and persistence of doctorate students (Chamadia & Qureshi, 2021; Javier, 2022).

CONTEXT OF THIS ARTICLE

This article builds from previous articles on the author's doctorate journey and continues the subjective narrative outlined in 2023 (Quadling-Miernik, 2022, 2023). It has a reflective focus which is evidenced by sections within the author's reflective journey. It continues the goal of documenting the author's journey as part of the 'Me Project' in the doctorate and to support future doctoral candidates whose journey perhaps echoes the author's.

Doctorate studies are hugely personalised and individual (Arnold, 2021). The idea of becoming a holder of a doctorate qualification perhaps focuses on the person regardless of the journey taken, while the phrase "the doctorate journey" perhaps focuses on the experiences rather than the change in the person having those experiences. To combine both the changes in the person and the experiences that resulted in the changes is the goal of this article. It discusses critical moments or crux points in the journey that Arnold (2021) names as a series of challenges that transform the person in "a myriad of ways" (p. 82).

The reflective nature of this article is based on the Framework of Reflective Practice (Rolfe et al., 2001). The model has three simple questions: What? So what?; and Now what? The What? becomes the crux point in the journey; the So what? links to the understanding of these crux points in the bigger context, and the Now what? links to actions the author took or the lessons the author learnt.

A LEARNING JOURNEY DESCRIBED AS A SPHERE

Consider the journey in the NZQA Level 1 to 10 framework as an ever-expanding sphere of nine layers, where the core is the start of formal education at primary school, and the sphere's surface holds all the body of knowledge that exists up to Level 9. Now if you put yourself midway between the sphere's centre and its surface, you are at Level 1, when you have started formal external assessments in secondary school. You have only started to span some of the circumference (high school maths terminology = an arc) as you specialise in your favourite subjects along with the required English and Maths. Before Level 1, you had all the basics covered: foundational reading,

writing, and numeracy along with general knowledge of the world and its makeup. By the end of secondary school, at Level 3, you might be spanning less of that arc than when you started, really focusing on the subjects that might support you further at university or the career you are planning. Then university – again reducing the focus and the arc span. In my case, my first degree was in Chemistry, mainly Organic Chemistry. Post-graduate is next; in my case, a master's in Education/eLearning – a smaller arc on that sphere of knowledge. Level 9 is at the sphere's surface, its very edge. Imagine that the Level 9 thesis is making connections between points on the surface to make the surface layer of knowledge stronger. So what is Level 10? Envision the act of stepping outside the boundary of knowledge and creating new knowledge, contributing to the existing body by building more. Level 10 is pushing that sphere wider. A launch off the sphere as an exploration into the unknown.

Exploration, expedition and adventure. These words hark back to the idea of a journey. So imagine, again, the early explorers: Cook, Magellan, Tasman, Amundsen, Livingstone, Shackleton, Hillary and Tensing, and Armstrong. Politics aside, they explored areas that were mostly known or known about by people; to the Indigenous people intimately known, yet unknown to the explorers. All the previously named explorers could not have ventured out without preparation and support, financially, mentally or emotionally. None of them just walked out the door saying, "See you, honey! I'm off to explore. I'm going to find something new." They took their time, planned and unplanned, packed and repacked, perhaps even unpacked. Some may have had maps, complete or partial. Some had training, others did not. They all had built their reputation and skillset for the journey ahead.

Connecting this back to the doctorate, Level 10 research, and my journey so far, I take the data collection as the preparation, and the data analysis as the exploration and discovery. This article spans the preparation time before I opened the door to 2024, waving goodbye to the known. This time spans my first leap from Level 9 into Level 10, at the beginning of 2023 and the year of preparation I have taken getting ready to embark. It covers three crux points encountered and the thoughts and decisions taken on actions at these crossroads in my journey. It is supported by my learning journal entries, which could be compared to a ship's log. These are put in italics here to separate them from literature I have read. And, as always, it has road trip music playing, the soundtrack I have built to get here.

WHAT? – CRUX 1: THE LEAP INTO THE UNKNOWN

The Doctor of Professional Practice has Level 9 and Level 10 components, where Level 9/Course 1 is the *Articulating Practitioner's Research*, 120 credits or approximately 1200 hours of learning, and could be considered the coursework phase of the doctorate. Level 10/Course 2 is the *Practitioner Research Enquiry*, 240 credits or 2,400 learning hours, and is the Research phase. The jump from Level 9 which is on the arc of the sphere, from the known space of knowledge into the vacuum/the unknown space of knowledge started on Day 1, 28 February 2023:

Yesterday was my first mentor meeting in Course 2, although officially I'm not in Course 2 ... we talked about my questions, what did the feedback mean, how can I remember more/better and how can I push beyond level 9 into level 10. This is something I really need to get sorted and work on.*

*At this stage my enrolment in Course 1 was finishing and Course 2's enrolment had yet to start. Officially, on paper, I was not in Course 2 but in my learning journey I was.

16 March 2023:

Yesterday was the first meeting – officially of the next stage. It's amazing how calm I feel. I wonder why? I think it is because I know the steps ahead – I know what to do. I just don't know what will happen. I've set up a new process ...

These journal entries show the enthusiasm I felt and the calmness I had. Little did I know that the year was going to be a year of semi-slogging in my preparation; a year of frustration, a year of annoyance, sometimes procrastination, sometimes high energy and focus. Itching to get onto the journey meant I had to spend a year getting ready.

SO WHAT? – WHAT NOW FOR CRUX 1?

Denicolo et al. (2018) state that undertaking a doctorate or any project that spans several years will mean dealing with uncertainty and becoming comfortable with it. In slight contrast, Arnold (2021) states “doctoral students have a high level of comfort at the beginning of the program” (p. 76) due to the fact that the requirements and expectations of the coursework phase are known and familiar.

Cook (2020) outlines the various tests that must be passed along the way, though this could be considered more about the start of the journey than its duration. Cook further adds that the journey of learning is more than just doing the doctoral degree but expands into gaining an understanding of the academic culture that surrounds the doctoral candidate.

So what did I do, and now what have I learnt to do better?

In reflection, I did nothing but continue onwards. But also in reflection I see that my journey to now mirrors literature. I have dealt with uncertainty; I am still getting comfortable and there are more tests to come. However, I feel my coursework phase was anything but comfortable. In contrast to Arnold (2021), at the end of the first year in the Research phase my journal states, on 27 January 2024:

I reflect on how extraordinarily calm I am compared to my first year. I know how to code and theme. I've got experience. I also know that this coding and theming is next level. But still having knowledge on the actions I have to do is calming, motivating and reassuring. I am not sure when I started I knew I would be doing what I already knew. I think that if I had known I might have been less panicky. But how would I have known back then what I know now?

WHAT? – CRUX 2: LOST IN MY PREPARATION

17 June 2023:

Wow a month – a month of wandering around aimlessly. I feel like I have nothing, nothing recently although I probably have done lots to support my growth So I'm on a plateau and that's apparently normal. I don't feel positive about the plateau. In fact I feel very aimless. The previous 2 years I've had a very set goal but this year I haven't got one that's clear. Obviously the goal is to interview and start analysis but maybe it's not as clear as it should be. I should set the goal and make it clear. I should make a timeframe schedule – then I will feel less aimless and have direction.

Both the 16 March (in crux 1) and 17 June entries allude to new strategies to achieve the plan. What is not seen in the journal is that those strategies were not implemented nor adhered to.

4 April 2023:

Another frustration this week – I thought over the weekend that I need to organise the folder and get a process document sorted. I scribbled things on paper, thought that looks good, opened my DPP folder to find ... I had already done all this last week and everything looks great. So why did I think I needed to do it again?

3 November 2023:

Data collection is a drudge. The motivation to keep focused wanes. I know there is a goal and I know I want to keep going but how does one draw on the internal motivation to trudge through when one has a choice to stop.

SO WHAT? – WHAT NOW FOR CRUX 2?

Arnold (2021) repeats Muskal's statement that "everyone muddles through although some muddle faster than others" (p. 78) and then emphasises that even the best of us muddle, and this process is a way of enlightening us.

Cook (2020) has a chapter called "The Journey's Milestones," again referencing the idea of travel and signposts of how far you have come versus how far you have to go. They emphasise the effort to reach a milestone and the joy of achieving it, as well as adding that no one should underestimate the mahi/work required in the process to reach each milestone within the journey.

Great suggestions for strategies to prioritise for balance and long-term success are discussed by Denicolo et al. (2018). They continue to add that doctoral journeys are often described as linear but, in reality, the experience is varied across time with periods of "increasing confidence interspersed with dramatic dips" (p. 46).

Batchelor and Di Napoli (2006) speak of becoming becalmed; having times of inactivity where the confidence wavers while that inner voice overplays the sense of failure. Ultimately research is considered as "a voyage of vulnerability, part of this vulnerability is to do with being open to finding your own voice through periods of apparent inactivity as well as activity" (p. 14).

So what did I do, and now what have I learnt to do better?

I started seeing the data collection phase as my preparation for the exploration. My journal entry from 8 December 2023 shows this in my reflection after reading the biography of Peter Freuchen (Mitenbuler, 2023), a Danish polar explorer:

I keep thinking about Wanderlust and the "art of exploring." It's like my doctorate journey. I'm exploring the unknown – well actually at this moment I'm just collecting everything I need to explore. Data collection is the equivalent to prep-ing and packing my bags, where prep-ing is the gathering of data through the interviews and packing is the editing, reformatting of the transcript.

I attempted to drown out the negative inner voice and started listening to the voice that was trying to connect points together.

Every session of study starts with opening my Go-to page in my notebook. It outlines what I have done, crossed out, and what the tasks to do today are. It is my way of controlling the muddling, by becoming a map of my next steps so that when I do become lost, I will have the goals to find a way out.

WHAT? – CRUX 3: SELF-DOUBT, CONFIDENCE, AND BELIEF

4 April 2023:

I don't feel panicky because I'm unstoppable. In fact ever since getting into Course 2 I've not felt confused or worried or nervous. Just I feel a huge mountain to climb but I know I can do it ... [but later in the same journal entry] Something that worries me is that those that respond will be proactive people where the people I want in my study are the reluctant ones ...

Yet, only nine days later, on 13 April 2023:

Why do I feel like I am just not grasping what I should do to be what I feel I should be. The words fake and imposter just ring in my head. Is it because I have an image (unconsciously) and I feel I am not of that image?

5 December 2023:

*One of my biggest concerns has been “What could I possibly add to the body of knowledge?” It’s an element of self-doubt. It’s scrawled on Post-it notes in many places. In fact it is only recently I have worked out that I am speaking to teacher educators. – I have an audience. Gee *SIGH I know this! No-one writes without a purpose and an audience.*

SO WHAT? – WHAT NOW FOR CRUX 3?

Stone and Stone (2011) talk about an inner critic – one who criticises and belittles yet is anonymous as an inner voice that developed early, assimilating itself as a natural part of ourselves.

Arnold (2021) states “recognising that the doctoral journey is a remarkable one with an emphasis on you, the student, is important to your success” (p. 82). This statement highlights the journey and the need to focus on yourself perhaps more than the research being done.

Cook (2020) states “possessing a PhD provides evidence of the student’s resilience and persistence” (p. 51). They then outline all the hoops that a doctorate student needs to jump through to be accepted into the community of scholars, from mastery of the subject and critical thinking to “implementing behaviours and standards required to become a scholar,” all leading to the student’s “earning the right to use the title of Doctor” (Cook, 2020, p. 51).

So what did I do, and now what have I learnt to do better?

When the inner critic is loud and taking control, the emotions take over rather than the sensible voice in my head. My solution is to chant the mantra on my visible Post-it note: “Shut the devil on the shoulder up.”

Arnold’s (2021) statement above highlights the journey and the importance of the growth of me rather than the outcome of my studies. By adding entries to my journal, reflecting on the entries and writing articles on my doctorate, I realise that this is all part of the journey, the preparation for the year ahead and for my development as a doctoral student into a doctorate holder. It has been about my growth, not my research.

I have learnt that above all else I have the tenacity to keep going, one tiny step at a time. This is the route I have taken to get to this point, and it has worked so far.

I have learnt that my mentors will steer me right if I get lost. Letting go of my cautiousness and hesitancy in being myself allowed me to trust their guidance, and their belief was perhaps the biggest critical moment in my journey so far.

15 February 2023:

Tonight is the night before my DPP LA presentation where I need to present my proposal. ... I practised my presentation with my mentors. They were happy. I rudely cut Danny off when he wished me good luck saying I don’t need luck, I just need ... and I couldn’t finish my sentence. Hours later I realised – I need their belief, which I have. I need to realise, and I have, that tomorrow is a judgement but it’s a gate they need to open but they won’t open until I am ready for what comes next. I have to go on by myself

and I need to be prepared as much as possible. They are there as a form of my protection. Danny and Martin are behind me as cheerleaders as I approach the gate. They are my supporters, sponsors demonstrating to the gatekeepers they believe in me. So I just need to have their belief, their backing and their support.

OPENING THE DOOR AND VENTURING FORTH

Arnold (2021) says “the preparation for the dissertation is a solo venture” (p. 77), again echoing the vocabulary of journey and exploration. I have completed 14 interviews and, over the Christmas/New Year break of 2023–2024, worked to have them all sorted, all tidy, and all packed into nice folders within easy access when I am in the data analysis stage. I even have a backup paper copy of every transcript. I am not losing my luggage. What else do I need to pack? Here I draw on inspiration from the other great explorers and adventurers and their packing lists (Stafford, 2019).

Explorer and journey	What they packed
Race to the pole	
Scott: 1910–1912 (p. 20)	19 Mongolian ponies with special snowshoes, off-the shelf sport skis, canvas tents, Burberry gabardine jackets, three caterpillar-tracked motor sledges, Fry's chocolate, Heinz baked beans, HMV gramophone, and 35,000 cigars.
Amundsen: 1910–1912 (p. 30)	97 Greenland dogs, snowshoes, snow knives, custom-made, extra-long skis, Swedish designed primus stove, Amundsen designed ski boots, Inuit styled fur coats and long wolfskin boots, 3,000 books, piano, mandolin, Amundsen's biscuits, gramophone, a violin, and one canary.
Mt Everest's first and first solo ascents	
Hillary and Tenzing: 1953 (p. 84)	Goggles, custom-made boots, climbing suit, heavy cotton dress shirt, woollen long john woollen pullover; nylon and cotton tent, sardines, biscuits, tinned apricots, and Kendal mint cake.
Reinhold Messner: 1980 (p. 136)	Titanium ice axe, a custom-made Gore-Tex conch tent, expedition suit, down sleeping bag, and a foam-rubber sleeping mat. Messner carried a backpack of absolute minimum equipment and set up stations on his route. He was the first to ascend solo, without oxygen.
Circumnavigation of the globe	
Nellie Bly: 1889–1890 (p. 14)	One brown leather gripsack, £200 British gold sovereigns and Bank of England notes, silk bodices instead of a heavy-duty woollen overcoat, an ink-stand, pens, pencils and copy paper, Mumm champagne (to present to railway superintendents who fast-tracked her passage), McGinty the monkey (bought in Singapore), a supply of handkerchiefs, one jar of cold cream, three veils, and travelling gowns.
Clarenore Stinnes: by a production car 1927–1929 (p. 52)	Sand ladders, jerrycans, grey flannel breeches, snow chains, dynamite to blast their route, an evening dress, 128 hardboiled eggs for the Ural Mountain crossing, vodka, and Lord (her black Gordon setter).
Sir Ranulph Fiennes: 1979–1982 (p. 126)	Land Rovers, jerrycans, Ski-doo's, rubber boats, a Jack Russell terrier, insulated cardboard huts, and a magnum of champagne.

Table 1. Explorers and their packing lists (adapted from Stafford, 2019).

Of the items packed for exploration, some were the very best of their day, superseded by the technology taken by later explorers on similar adventures. Some items seem obvious and vital to the journey ahead. Some items seem frivolous or expendable for the purpose of the expedition. The items I have packed:

- Transcripts – triple-checked, identifying aspects highlighted and substituted for generic phrases. Filed into folders, neatly arranged. Paper copy filed.
- Coloured Post-it notes, notebooks, highlighters, pens and pencils for the road ahead.
- An inspirational and focused reminder poster of the priorities and sacrifices for the year ahead.
- Verbal promises from family and friends that they will refocus me when I procrastinate, but also will join in the non-study time I allow myself.

Lastly, I packed my road trip playlist, which has not grown beyond three songs. For the entire year of 2023, I had the last song added on repeat. Strangely it played on the radio every morning of a study day. In 2024, I plan to play all three on repeat: “I’m not afraid,” “Unwritten,” and “Unstoppable.”

Leigh Quadling-Miernik is building on her experience in a career of education by taking the Doctor of Professional Practice journey. The journey, soon finishing its fourth year, is looking into professional identity development for tertiary educators. Her passion for creating learning opportunities and the motto “whatever gets to the goal with integrity” are her trusted travel companions.

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FEATURES OF GOOD MENTORING: INSIGHTS FROM PROFESSIONAL PRACTICE DOCTORATE MENTORS

Martin Andrew

INTRODUCTION

In 2024, Otago Polytechnic's Doctor of Professional Practice (DProfPrac) entered its eighth year of delivery. This programme represents the sole practice-led postgraduate work-based learning delivery at Levels 9 and 10 in Aotearoa New Zealand. Derived from the Middlesex model of professional doctorates (Costley, 2010), it is one of an increasing number of such professional doctoral programmes in the United Kingdom, Australia and New Zealand (Robinson, 2018). Otago Polytechnic's DProfPrac differentiates itself through its accommodation of alternative, subversive, and iterative methodologies as appropriate to the form and substance of a candidate's doctoral claim and contribution to knowledge.

This short article can be considered an early-stage enquiry from a broader study investigating distinctive aspects of mentoring, mentor support, and the *ākonga/learner* journey. It nestles within a wider consideration of how mentoring for work-based learners is distinctive from mentoring in other, conventional, doctoral programmes. This involves thinking through the affordances of good mentoring. The socio-political context in 2024 is that of education providers still struggling with how neoliberal processes coexist with the contested ideas of quality assurance and excellence, which I have addressed elsewhere (Andrew, 2024). Here, I ask what lessons the learnings of experienced mentors can teach mentors of professional practice doctoral candidates.

In a Socratic study of the DProfPrac candidature, Goode and Andrew (2021) chart the scope of their mentor/learner journey towards making an original contribution to professional knowing. They begin with an agreed trajectory of the journey and a shared understanding of roles to reduce the apprehension of the power differentials Polkinghorne et al. (2023) identify as significant obstacles. From a programme perspective, these researchers personalise graduate attributes. In working together, the mentor/learner dyad needs to consider:

- the level to which [learners] are self-evaluating and are able to deploy strategies to explore new personal insights;
- their critical understanding of how learning occurs in their workplace and how learning has occurred for them through their career;
- diverse strategies for engaging in work-based learning;
- an analysis of how learning at work has informed their professional identity;
- approaches they use to evaluate knowledge gained from their practice;
- approaches they use to engage with theory relevant for a range of contexts, and apply that theory to practice, and
- how their prior and current learning impacts their ability to design and conduct research projects. (Goode & Andrew, 2021, pp. 21–22)

Within this partial curriculum, the work of the mentor lies in their ability to identify, apply, and leverage these various strategies and approaches into an integrative approach about *becoming* and ultimately *being* a researcher and *belonging to* and *socialising into* a community of practice of future graduates.

LITERATURE

One purpose of this review is to identify features, or affordances, of heutagogy in professional practice doctorates. It then moves on to consider professional identity trajectories, alignments with facilitation and coaching theory, and the methodological and transdisciplinary potential such programmes afford within the heutagogical strategies. Studies of the impact of professional doctoral programmes are emerging (Boud et al., 2021), despite a gap in studies of mentor voices articulating what their work needs to look like from an experiential perspective. Work on good supervisory – as opposed to mentoring – practice has a long history (Polkinghorne et al., 2023) and feeds into this study.

The literature includes studies of mentoring as coaching (Bordogna & Lundgren-Resenterra, 2023) and facilitation (Carpenter & Ker, 2021); critical reflection as practice doctoral pedagogy (Cunningham, 2018), and the value of communities of practice as means of socialisation and belonging for both mentors and learners (Lambrev, 2021). Coaching is “a practice that allows an individual to reflect and gain awareness of who they are and what matters to them in order to make changes in their personal or professional life” (Bordogna & Lundgren-Resenterra, 2023, p. 102), and aligns with the identity focus of the professional doctoral trajectory. All these aspects of supervision facilitate formal and informal critical friendships which characterise organisational and faculty-wide research cultures. The critical friendship is often seen as a good model for the mentoring dyad or sometimes triad (Polkinghorne et al., 2023). The mentor as facilitator of knowing/knowledge and academic and professional socialisation is a key affordance of, or factor in, this programme – and professional doctorates worldwide.

Heutagogy

In addition to facilitating socialisation, applying a learner-determined, heutagogical approach is another differentiating affordance of professional practice (Kenyon & Hase, 2010). This approach combines “existing work practice ... to articulate [learners'] new professional framework of practice” (Mann, 2020, p. 22). This is because self-directed and self-determined approaches fostered through reflective practice are needed within workplaces (Kamenetz, 2010). The types of learning fostered through the heutagogical collaboration on the road to autonomy include double-loop learning, where learners consider the problem and the resulting action and outcomes, as well as “reflecting upon the problem-solving process and how it influences the learner’s own beliefs and actions” (Mann, 2020, p. 26). Reflecting on the learners’ journey towards addressing wicked problems is a key affordance of heutagogy.

Because of this emphasis on heutagogy – pedagogy for adults, professionals, and experts – the self-regulatory, synergistic model of ‘supervision’ identified by Styles and Radloff (2001) serves as a template for the modes of ‘mentoring’ professional practice learners. It pivots on *motivation, beliefs, management strategies, and affect*. It is integral to achieving confidence, independence, and autonomy, supported by an increased grounding in advanced professional practice (Stock, 2011). These, among other aspects, feed into a doctoral learner’s frame of professional practice, which serves as a springboard to their proposed and agreed, potentially change-making or transformative, enquiry. Ideally, doctorates, particularly professional ones, will create individuals who are critical in advancing knowledge and innovation in society, and who make a difference to both economic and social development (Bordogna & Lundgren-Resenterra, 2023).

Linking the learner’s professional experience and understanding to how they learned in practice is a crucial aspect of doctoral mentoring heutagogy. This involves naming and analysing learnings with a critical incident lens, told as a retrospective critical autoethnography. The act of naming begins a process of entering into the world of the metalanguage of research. By first understanding any strengths a professional practitioner brings to their new role as researcher/learner, it is possible to describe their *habitus* as an experienced practitioner at the start of a research enquiry, and to imagine future communities or workplaces where their *habitus* will be that of a thought leader or expert practitioner.

Importantly, acts of collaborative effort and mutual participation characterise the traits of the professional practice mentor identified in the emerging evidence set within this study. Polkinghorne et al. (2023, p. 48) foreground the fact that timely doctoral supervision or mentoring is relational, “a collaborative process which means that the relationship between the supervisor and the doctoral student is of key significance.” Trust, and of course honesty, over time, are key.

Professional identity

Another key feature of professional doctorates is their potential for maximising learners' and mentors' contributions to their professions (Larmer et al., 2019). A focus on professional identity is key. Qualitative studies where the identities of those involved in mentoring are given voice include work by Sambrook et al. (2008) and Styles and Radloff (2001). Such studies in professional practice are still rare, particularly those evoking real-world dilemmas and expressed as praxis (Arnold & Mundy, 2020; Goode & Andrew, 2021) or case studies (Stephenson et al., 2006). A best practice review of supportive techniques across all species of doctorate emerged recently (Polkinghorne et al., 2023). It states that “supervisory support is the foundation upon which a doctoral student can fulfil their future academic, or industrial, career aspirations, and is crucial in terms of establishing the appropriate research culture which underpins their whole student experience” (Polkinghorne et al., 2023, p. 55).

Fostering belonging to future imagined communities is part of the socialisation towards professional identity. Wisker (2001, p. 37) suggests it is part of the supervisor's role “to encourage [learners] to attend appropriate conferences and introduce [them] to others in their field.” In professional practice, learners will already be members of professional bodies and organisations, or will be seeking to become more core members of these communities. They may also seek to internationalise their sense of belonging. Belonging also applies to the gaining of qualifications: belonging to the community of those holding doctorates. Often there are multiple communities, with the key one linked to professional practice within core organisations.

Facilitation and coaching

The work of the mentor is facilitative in nature. Carpenter and Ker (2021) itemise key skills needed by learning facilitators as: relationship building; listening and questioning skills; facilitative (reflective) questioning and connecting, as a coach or counsellor would do, and listening for the “glue” that holds the bits of told life together (p. 34). Thus, the mentor's work overlaps with that of the coach (Bordogna & Lundgren-Resentera, 2023). A coaching-led approach indicates the need for mentors to possess and increase the emotional intelligence, compassion, and empathy necessary for coaching doctoral learners in our age of embracing change with resilience and buffering disruption with critical reflectivity. For learners, then, a coaching approach is shown to strengthen agency, empowering learners to recognise their strengths in times of enhanced crisis.

Methodological possibility in professional practice

Valuable methodologies for presenting professional practice research include autoethnography (Costley & Fulton, 2018), particularly autoethnographic action research (Arnold & Mundy, 2020; Hayes & Fulton, 2014). My interest extends to alternative ways of knowing, including transdisciplinary approaches, design thinking strategies, and emergent methodologies. Hesse-Biber and Leavy (2008, p. 1) write:

Emergent research methods have sprung forth as a result of where we have been, where we are, and where we envision ourselves going in the future ... Therefore, as the social world and our understanding of it have progressed, so too has our repertoire of social research methods.

Being, or potentially being, transdisciplinary is a further affordance of this doctoral programme. As applied to professional practice doctorates, the Otago Polytechnic mentor team understands “transdisciplinarity” as Hoffman et al. (2017) do. The term refers to research that tackles real life problems and addresses their complexity by involving a variety of actors from science and practice to explore and explain these problems from diverse perspectives. What is created is knowledge that is solution-oriented, socially robust, and transferable to both scientific and societal practice (Hoffmann et al., 2017).

Professional practice also understands the potential thetic output as more than a scientific ‘thesis.’ Thesis can be considered a holding pattern word for whatever form the mahi (work, output) needs to take. The ‘thesis’ is often an album of practice performances; the potential of bricolage as a potentially transdisciplinary mode of representing multiple and eclectic practices (Andrew & Karetai, 2022) is upheld, and non-traditional modes of knowing (Stock, 2011) accommodated as artefacts of a particular practice.

The fact that the DProfPrac is designed as – and often plays out as – ‘multiple’ is a further characteristic of the programme. Workplace knowledge, Lester (2011) maintains, moves past immediate contexts of research and opens possibilities of doing, creating, making and writing research in an authentically transdisciplinary space. Lester (2011) reasons that

complex change-oriented issues ... approached with a researching and critically reflective orientation can be a powerful source, not only of contextual insights but of academically and professionally-valid knowledge, giving rise to new concepts, models, theories and critiques as well as different ways of doing things. (p. 279)

Bricolage is a valuable approach in the professional doctorate toolbox for a range of reasons. It aligns with the transdisciplinary turn because it allows the solving of wicked problems among multiple stakeholders (Andrew & Karetai, 2022). Further, bricolage offers an opportunity for multi-perspectival or multi-vocal textuality, and it understands the continually evolving processes and practice of complex real-world problems (Yardley, 2019). Denzin and Lincoln (2011) unveil bricolage as a fresh ethnographic approach in qualitative methodology:

This person is an artist, a quilt maker, a skilled craftsperson, a maker of montages and collages. The interpretive bricoleur can interview; observe; study material culture; think within and beyond visual methods; write poetry, fiction, and autoethnography; construct narratives that tell explanatory stories; use qualitative computer software; do text-based inquiries; [use] focus group interviews; and even engage in applied ethnography and policy formulation. (pp. 681–682)

Collectively, these affordances of the doctorate, and doubtless others that space excludes, contribute to the learner’s desired attainment of autonomy both as a professional practitioner in an extended area of practice and as a researcher.

METHODOLOGY

This article examines the distinctive features of this doctorate through a literature review and a qualitative study involving the re-presentation or restorying of shared and often co-constructed narrative data (Riessman, 2008). I draw here on the pooled shared experience of a small tranche of five mentors, the first participants in a broader project. This data comes from a broader project of mentor *habitus* that is ongoing. The project is ethics-approved by Otago Polytechnic (#87, 2020). Clearly, sample size and self-report are recognised as limitations. Ethical and reflective spaces are afforded by participants’ transcript checking.

Epistemologically, the study sits in the naturalistic and interpretative spaces where stories of experience are shared with a researcher who is a member of the community of mentors – in other words, mentors interviewing mentors (Clandinin & Connelly, 1990). In terms of evidence (data) generation, this study draws from both

collaborative email data (Drake, 2015) and dialogue (Clandinin & Connelly, 1990), including e-meetings recorded with open consent. As a small-scale study, its themes are reached via qualitative content analysis, “a dynamic form of analysis of verbal and visual data that is oriented toward summarising the informational contents of that data” (Sandelowski, 2000, p. 338) rather than staged thematic analysis. Patterns and regularities in the evidence set point to findings under several headings, to which I now turn.

FINDINGS

This section settles on five themes. In addition to elucidating the features of heutagogical mentoring, I examine the relational ambience of the mentoring team – the ‘we’ feeling critical friends create. Fostering autonomy emerges as key, as does tolerance for change. More instrumentally, there is the need for mentors to possess a broad knowledge base.

The features of mentoring

This section begins with guidance from one of the five participant mentors as to the features of their own practice. Their quote mentions core themes that resonate both with the literature above and with the experiences of the other four participants:

- Judgement refers to supporting the learner by careful guidance – meeting the milestones, signposting and referring the learner when they meet the roadblocks of over-reading, underwriting or misdirection.
- Intuition relies on the core skills of listening and observing and checking in on the learner in terms of how they are feeling about their learner experience and progress.
- Compassion is the demonstration of support and empathy for the learner at moments of challenge, overload and stress.
- Expertise is the deployment of subject matter expertise for mutual benefit within the facilitation relationship. (Mentor 2)

Mentor 3 comments on the centrality of treating the learners as experts and professionals, hence the need for leveraging a heutagogical approach among professional equals. The power relationship characteristic of traditional doctorate journeys is replaced by ako-led reciprocity and mutual professional respect.

The components of good mentoring are embodied in the dispositions of the individual mentor and constitute a careful balance of good judgement, attentive intuition, relational compassion, and potential to leverage research and heutagogical expertise.

Relational ambience

Asked to nominate the affordances of successful mentoring in a professional practice doctoral setting, Mentor 3 spoke independently but in thematic alignment with Mentor 2 to describe what I call “relational ambience,” that intangible feeling of being able to ‘vibe’ together with candid trust. “Ambire” is the Latin verb for “to embrace warmly,” but also signals a desire to want something desperately. Mentor 3 stated that mentoring is:

a recognition that the ‘mentee’ is developing in their critical analysis of a certain topic/area. The most important aspect is the *whānaungatanga*—the relationship between the mentor [and the mentee]. The reciprocity of respect from both is also key. A good mentor shows empathy and keeps the space for whatever comes out.

In addition to the relational ambience that *whānaungatanga* brings, Mentor 3 speaks of critical friendship: “One of my doctoral learners speaks constructively with a peer whose methodology and approach overlap ... I feel I am furthering a learning journey that has already started through her peer conversations.”

The affective and relational aspects of mentoring are foregrounded in the evidence set, with a sense of mutual sharing of life's moments (*whānaungatanga*) setting the scene for building trust, and empathy characterising the developing interactional relationship. Mentor 4 echoes this theme: "The mentor needs to understand the psychology of their student, and to find a way of communicating with the students that motivates them and brings out the best in them."

Fostering autonomy

A function of heutagogy is the ideal fostering of researcher autonomy or self-management. This is figured by Mentor 4 in terms of promoting opportunities for critical decision-making: "I'm conscious of holding the space for the learner to make their own decisions about the directions they take in their inquiry." An aspect of autonomy is self-management of timeliness: "I've learned that meeting progress deadlines allows the learner, and me as a mentor, time to review the work done, and to make changes or additions if needed to strengthen the work" (Mentor 4).

Tolerance for change

All five mentors in this pilot sample allude to a mentor's need to be open to changes in a learner's journey. According to their voices, mentors are appreciated for their ability to tolerate the "as-yet-not-known" (Mentor 1); or as Mentor 3 puts it, "those things which emerge, and are not accessible when the learner first proposes a project and predicts its methodological direction." Mentor 4 comments that in traditional PhDs, "what is presented in the approved proposal must be replicated in the final thesis." Also making this contrast, Mentor 1 suggests that doctoral research envisaged as "thetic" [a written thesis] ended up being "multiple," as "a pastiche, a bricolage," because that was the form natural to the collected evidence set.

While COVID has shown the need for resilience and flexibility in project managing mentor and learner journeys, mentors' experience of professional practice journeys amplifies the necessity of tolerance *of* and *for* change. Mentor 1 speaks of the need to "expect the unexpected" and Mentor 2 shares stories of how changes in learners' workplaces or practice bases led to divergence from proposed lines of enquiry and shifted the emphasis of phenomena under investigation. Mentor 2 states: "I needed to support the learner [in pivoting] methodologically and shifting from exploring [phenomenon X] to [phenomenon Y]. This is where I realised the importance of seeing methodologies and areas of enquiry as iterative, not static."

Having a broad base of knowing

Accessing and applying a broad base of knowing and making it accessible is another affordance of good mentoring. Mentor 5 considers their own candidature and her current co-mentors in describing the attributes of a good mentor of work-based doctorates. The following is a paraphrase:

- Having a wide skill set from experience and knowing which skills to draw on to suit different scenarios;
- Understanding different communication styles and learning styles and adapting to the students;
- Being clear on timelines for the project and also managing one's own time;
- Building a deep trust bond over time;
- Encouraging oneself to be endlessly curious;
- Staying in a learning space alongside the student;
- Staying forwards-focused on what can be done now, in place of what might happen, and
- Suggesting upcoming conferences and opportunities to present and share work.

She says, "Mentors need the capacity to see the big picture before the learner does so that they can bring it all together." This comment aligns with that of Mentor 1: "One of my learners is involved in multiple projects at

work all with different approaches and various desired outcomes. I try to represent all of the variance to show [learner's name] how versatile they [the learner] are." Having bricolage as one possible method of evidence presentation enables such professional versatility to be demonstrated.

DISCUSSION

Professional practice journeys are collaborative ventures where the ākonga/learner is the expert in their practice and the mentor presents support and scaffolding to enable the learner to make a claim for self-managed autonomy (Stephenson et al., 2006) and hence doctorateness (Andrew, 2021; Stock, 2011; Yazdani & Shookooh, 2018). Thus, they contribute substantively to their area of endeavour and workplace. The qualities of good judgement, compassion, intuition and subject or methodological expertise emerge as facets of the mentor who may begin to take a learner towards substantial and critically reflexive doctorateness. They are also, I would maintain, affordances of mentoring heutagogy.

The affective factors characterising mentoring are relatively unexplored in contrast to the instrumentalist and process-led facets of supervising. One affective factor, the mentor's need to tolerate change, is both a sign of the times – post-COVID and during the neoliberalist perma-crisis – and a function of professional practice, where iterativeness and recursivity sit well with a transdisciplinary approach. The journey is not the straight line Goode and Andrew (2021) initially hoped, but, partly due to affective factors, fraught with unexpected messiness, as their study demonstrated.

A further point of interest is that outputs within the programme may be multiple rather than the singular thesis, so a portfolio of artefacts held together by strategic bricolage is a possibility.

There is agreement about positive mentoring because all mentors share the discourse of a mentoring community of practice, but also because the mentor group shares practice in a way that matches experienced with less experienced mentors. Thus, that a culture of shared practice, discourse and enterprise is formed; key features of the community of practice in action (Lambrev, 2021).

The extracts presented touch on a range of themes at the intersection of affective factors and Māori values and tikanga. They foreground whānaungatanga as a component of trust and as a characteristic of the shared journey, and ako as a function of the reciprocity that supports the mentor/mentee dyad. Operating well, mentoring dyads develop a natural and empathetic synergy born of trust (Styles & Radloff, 2001). With this synergy comes the shared motivation, both instrumental and integrative, to support the professional doctorate learner to completion. All mentors describe a full and broad skillset revolving around skilled and sensitive communication, a keen eye for timeliness, a capacity for caring, and a sense of foresight or tolerance of the emergent. One mentor speaks of the value of critical peer friendship, and also of regarding the mentor as a critical friend. Learners' desire to belong through their presence at conferences is also mentioned (Polkinghorne et al., 2023).

In professional practice, as the mentor voices emphasise, mentors must record their reflections with discipline and rigour (Andrew, 2021). In addition to reflective capacity, mentors also need big picture thinking; an ability to think holistically as learners' evidence from their projects falls into place.

CONCLUSIONS

The article, grounded in mentor autoethnographies and supported by research about the heutagogical underpinnings of the professional practice doctorate, suggests that our mentoring team's learnings can contribute to a broader understanding of doctoral mentoring. The collective mentors' view is that 'mentoring' is an authentic term for heutagogical strategies that occur during negotiated transdisciplinary professional practice research journeys and that have positive impacts on developing identities. Importantly, 'mentoring' recognises the affordances of coaching (Bordogna & Lundgren-Resentera, 2023) and understands a candidature as being on a co-constructed, facilitated journey (Boud et al., 2021; Carpenter & Ker, 2021). It is about forging and maintaining connection and thereby creating the foundation for ongoing critical reflection while creating an original contribution to self-knowing, professional coming-to-know, and (trans)disciplinary knowledge (Costley, 2010).

Work-based and professional practice doctorates need a fresh understanding of mentoring and its alignment with coaching, an understanding of the value of critical friendship and communities of practice for mentor and learner support, and an openness to a range of iterative and emergent methodologies grounded in the practice journey of the individual. If a mentor is in any way skeptical of such methodologies as autoethnography or bricolage, or of any disruptive technologies such as generative AI, they already belong to yesterday.

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COMING READY OR NOT: THE POTENTIAL OF LEARNER-CENTRICITY TO TRANSFORM THE EDUCATION SYSTEM

Steve Henry, Nola Tipu and Peter Apulu

This article considers how formal education may or may not be forced to transform like information technology. Currently, education is at a pivotal point as it faces unprecedented societal and technological shifts. With the pandemic having accelerated online learning, there is a push to reconsider educational delivery. This article discusses different educational approaches, emphasising student empowerment. It also underscores the significance of incorporating diverse cultural perspectives, including those of Māori and Pasifika peoples. Ultimately, the article calls for education to embrace change and navigate the challenges of the modern world by placing the learner at the centre.

When considering the future of education, Abegglen et al. (2020) suggest there needs to be an acknowledgement of the super-complexity of education in the twenty-first century. They suggest that many educators are continuing with outdated faculty practices and languages that form silos of knowledge into which students need to be inculcated. Not only is this essentially disrespectful, it becomes a preparation for worlds and professional practices that no longer exist. Knowledge generation is changing and the status afforded formal learning institutions is waning amid a proliferation of knowledge that society has to offer. Higher education institutions face a growing number of calls for transparency, competitiveness, and quality which encourage them to improve (and report) their knowledge creation processes (Quarchioni et al., 2020).

Leal Filho et al. (2018) suggest that education is set to transform and follow other industries which have faced disruption and experienced major change. Education and health care have been largely immune to such levels of disruption (Christensen et al., 2017; Walsh, 2020). “We have entered the Transformative Age and, much like the industrial revolution before it, we can expect fundamental shifts in how we live, work and play” (Friday & Halloran, 2020, executive summary). As the institutions of post-secondary education strive to meet the challenges of a profoundly changing world, questions about *shape* and *purpose* gain increasing urgency (Henry & MacPherson, 2019).

The coronavirus pandemic has shown how patterns of disruption can lead to innovation (Eisenstein, 2020), with a rapid shift from campus-based to online learning, and with both learners and staff working from home (Smith, 2020). While there has often been an equally rapid shift back to “business as usual,” this experience provides an opportunity to re-think how formal education is delivered and customised for the individual. The pandemic has “accelerated the shift to new ways of working, new frames, new expectations and new possibilities” (Schwartz, 2021 p. xv). The ability to offer programmes away from campuses in a work-based setting carries much resilience. Many of the apparent certainties of twentieth-century life have been disrupted over the past decade from banking to travel, communication to accommodation. Smith (2020) claims that education delivery has been unchanged for so long, that the *model* has been conflated with the *mission*. Universities comprise 70 of the 85 institutions in the West that have endured in recognisable form since the year 1520 (Kerr, 2001). This stability has bred overconfidence, overpricing, and an overreliance on business models tailored to a physical world (Smith, 2020). The physical world of education delivery appears to be irrevocably changed by digital technologies.

In finding suitable language to discuss these changes, Barber (1992) suggested that the world is increasingly “volatile, uncertain, complex and ambiguous (VUCA).” More recently, anthropologist and futurist Jamais Casico suggests “Brittle, Anxious, Nonlinear and Incomprehensible (BANI)” is more accurate as we face the coming chaos (Casico, 2020). Interesting to note here are the “anxious” and “incomprehensible” components, reminding us that transformational change has cognitive, social and emotional dimensions (Grocott, 2022). Responding to change has led to positionings of education as paradigms of evolution (Moravec, 2008). These paradigms describe Education 1.0 as traditional classroom-based teacher-centred learning; Education 2.0 as classroom-based learning with knowledge from a subject expert, and Education 3.0 as student- or learner-centred and project-based learning. More recently, Education 4.0 has been suggested as personalised and optimised learning with advanced application integration, more in alignment with informal learning (Hussin, 2018). These paradigms of education are aligned with the terms Industry 1.0 to 4.0, reflecting ways of being in business in the world (Kim, 2022; Salmon, 2019). They also reflect the level of control or agency the learner has increasing from Education 1.0 to Education 4.0.

There are pros and cons of each of the paradigms. Education 1.0 and 2.0 have the strong traditions of experts teaching in a pre-planned scaffolded way that they design and deliver. This has enabled education on a mass scale. The campus has become the centre of such delivery. The right to access such education has become a hallmark of modern economies and democracies, with Education 2.0 being the established model of higher education. A weakness of such structures is their inflexibility and brittleness to rapid change, leading to closures or major change during disruption such as the recent COVID-19 pandemic. Such systems were designed for workers in a non-digital age (Kim, 2022). Another weakness is the failure of inclusion for all, especially those not considered ‘normal,’ which is increasingly under scrutiny. Mochizuki and Fadeeva (2010) describe the generally prevalent reductionist approach to learning design that fails to support learners in developing skills and capabilities such as reflexivity to respond to an increasingly complex world.

In New Zealand, the estimated 20 percent of the population who are Indigenous Māori currently have well-documented limited success in formal education (Te Maihāroa et al., 2021; Te Maihāroa & Woodhouse, 2023; Te Pūkenga, 2023). Such learners are considered priority learners in New Zealand’s current vocational education restructure alongside those considered disabled, including the estimated 11 percent of the population who are dyslexic (Styles, 2022).

Historically, in Education 1.0 and 2.0 paradigms, Indigenous knowledge systems were often excluded, a legacy of colonisation that marginalised Māori and Pasifika perspectives and methodologies (Lawson, 2023; Peterson et al., 2023). There are challenges and gaps in acknowledging and utilising Indigenous wisdom in professional practices, suggesting a broader issue of cultural integration (Lawson, 2023). It is time to advocate for transformative educational strategies that include Indigenous methodologies, aiming to improve the success rates of Māori and Pacific students. This will require a re-imagining of diversity, inclusion, and success for sustained transformation (Peterson et al., 2023). Acknowledging and incorporating these rich cultural heritages not only respects but also enhances the effectiveness and relevance of education and professional practices in New Zealand’s culturally diverse society.

A highly impactful shift is in technology which has created the expectation that any product or service will be delivered to the user’s personal device and that the user has the agency to decide where, when, and with whom they engage. This key factor has driven the breakthrough of Education 3.0 where the learner has unprecedented agency to make decisions. The expert educator is now just one voice among many. Recently, the role of the teacher has attracted more scrutiny; there is a clear move to regard the teacher as a mentor-facilitator, focusing on the learner’s learning journey rather than on the content being studied (Hoidn & Reusser, 2020). The linear, scaffolded models of Education 2.0 bend and may break under the pressure of this customised learner journey. The VUCA and BANI world means our previous subject matter experts cannot know everything, leading to an erosion of their prestige. The educator’s role now becomes facilitative and the shift in power is tectonic

compared to the status enjoyed at Education 2.0. Gerstein (2014) cynically re-names the three Rs of Education 1.0 and 2.0, “receive, respond and regurgitate.” The place of the expert remains highly valued when curating suitable knowledge pathways, yet increasingly VUCA and BANI contexts risk the expert becoming impotent as their single discipline may fail to have the answers. The disadvantages of Education 3.0 include a learner placing themselves at the centre of their world when they have a low criticality of their world – an echo chamber amplified by social media. Here, the absence of the expert educator’s voice means there is a fragmented pathway to learn criticality from the perspective of those whose experience is immensely valuable.

As with other sectors of our society, the expectation for services to be online is a strong driver for change towards Education 3.0. Some say it is inevitable (Kim, 2022; Leal Filho et al., 2018). An example can be seen in the rapid emergence of Artificial Intelligence (AI) into the education space. AI has drawn considerable media and academic attention, “tak[ing] the internet by storm” (Mishra, 2023). For example, ChatGPT is a cutting-edge language model that leverages generative AI techniques to provide algorithm-generated conversational responses to question prompts (van Dis et al., 2023). The outputs from generative AI models are almost indistinguishable from human-generated content, as they are trained using nearly everything available on the web. Educators have already taught about disruption in a variety of industries and so, Dwivedi et al. (2023) insightfully ask, why shouldn’t the academic production of knowledge also be disrupted? Zhai (2022) has shown the power of ChatGPT to write academic papers to illustrate disruptive capabilities. It is worth being cautious over language-trained AI before it has a chance to learn from feedback, as it may appear to have the answers yet be limited in its ability to capture and convey experience; or, as Denzin (2013) suggests, language and speech do not mirror experience.

The academic disruption of knowledge is not just caused by technology. Higher education gets criticised for the way it has historically maintained certain forms of privilege and power (Lynch, 2022). There is a need to integrate Māori and Pasifika Indigenous knowledge within New Zealand’s educational frameworks (Lawson, 2023; Peterson et al., 2023). Global discourses around decolonising higher education practice are driving change that seeks to enhance education from voices of the present over voices from the past (Tran, 2021). This is not without challenge in New Zealand. This challenge was summarised by Penetito (2010) who said that “while mainstream institutions use education as a mechanism for cultural control, Māori also use education as a mechanism for cultural revitalisation. This means that the emphasis has taken away the essential purpose of education.”

While the shift to Education 3.0 may be considered a major leap, the paradigm of Education 4.0 is incomprehensible to most. It is no surprise that Education 4.0, where the learner is fully at the centre, is largely absent from formal education institutions because of the incompatibility of the paradigm with Education 2.0. It is worth noting that established conventional practice does not like such transformation; banks do not like bitcoin (Cunha et al., 2021), hotels do not like Airbnb (Zervas et al., 2017), and oil companies do not like Tesla (Lehtinen, 2015). The expert teacher in formal education (1.0 and 2.0) does not like learners being placed at the centre in Education 3.0 and 4.0. The language changes from teacher and student to facilitator-mentor and learner, subtle yet powerful signals of where the agency sits.

Student-centred learning and learner agency are as yet largely misunderstood and undefined in higher education (Hoidn & Klemenčič, 2020; Roodt et al., 2022). Heutagogy, or self-determined learning, is built on three theories: complexity theory, systems thinking, and capability (Hase, 2013). Understanding these theories is a requirement for navigating the VUCA and BANI world. It is the capacity to use one’s competencies (knowledge and skills) in novel circumstances as well as familiar. Transformation and innovation are directly related to a person’s capacity for learning (Grant, 2017). Capable people have justified high self-efficacy, work well in teams, and know how to learn (Hase, 2013). An advantage of Education 4.0 is that it allows learners to respond to a VUCA and BANI world, with the at-work learner and educator-mentor making sense of their practice together.

With the progress of technology and the rise in mobile learning, now more than ever self-directed learning is not just possible, but natural, and almost awkward to *not* use (Heick, 2015). The challenge for higher education is how to embrace this disruption and use it to activate new levels of criticality usually reserved for research 'on' others. These changes seem to be coming, whether we are ready or not.

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ARTIFICIAL INTELLIGENCE IN TERTIARY EDUCATION: LEARNING REVOLUTION OR ROOM FOR IMPROVEMENT?

Rachel van Gorp and Glenys Ker

INTRODUCTION

In the constantly changing landscape of vocational education, the challenging interplay between human learning and artificial intelligence (AI) is reshaping the foundations of how knowledge and skills are acquired. Our collaborative exploration examines the complex relationship between AI and learning in vocational environments. As educators, we have observed the powerful changes taking place in both traditional classroom settings and the increasingly common blended learning models. These shifts have introduced new methods of engagement, expanded access to a wealth of resources, and reshaped how teaching and learning occur. The integration of technology has brought fresh possibilities for creativity and flexibility in teaching and learning, while also encouraging us to rethink traditional approaches. However, these changes also require a careful balance to ensure that learners remain actively involved and connected in meaningful ways as they navigate this changing environment.

In this article, we explore AI's impact on vocational education, considering its impact on learners, while recognising the challenges it brings. To provide real-world insights, one of the authors conducted a survey at Otago Polytechnic (ethics approval number 1009), focusing on neurodiverse learners ($n = 46$) and AI. The survey aimed to explore learners' beliefs, apprehensions, and expectations regarding AI in their learning processes. The results revealed a significant reliance on AI tools for various tasks, including writing, editing, research, and the generation of ideas. Neurodiverse learners reported that AI customisation played a crucial role in addressing their unique needs, with tools being used to improve their academic performance.

These findings provide a foundation for examining AI in vocational education, ensuring that our analysis remains relevant and reflects current learner experiences. As educators, we have observed changes taking place in learning environments. While AI promises to revolutionise the learning experience by offering personalisation, adaptability, and efficiency, it also raises concerns about potential drawbacks such as overdependence, loss of critical thinking skills, and the risk of biased algorithms.

Our focus remains on how AI can continue to develop autonomy, relatedness, and independence, as outlined in Deci and Ryan's (1985, 2008) motivational theory, while maintaining human engagement. These principles underscore the importance of allowing learners to have control over their learning process, fostering connections and collaboration within learning environments, and promoting a sense of self-directedness and empowerment. As we navigate the integration of AI into vocational education, we must ensure that these fundamental elements of motivation and engagement are upheld, facilitating meaningful and fulfilling learning experiences for all individuals involved.

SURVEY

To position our analysis in today's environment, one of the authors of this paper conducted a survey, seeking the perspectives of learners to understand better their beliefs, apprehensions, and expectations regarding AI in the learning process. The synthesis of this survey data provided a valuable foundation for our examination of the relationship between neurodiverse learners and AI. This feedback helped us to shed light on the current situation, offering practical insights and recommendations to ensure that AI is employed in a manner that aligns with the growing needs and aspirations of learners in their ongoing learning as well as prepare them for the workplace of the future.

To gather genuine feedback from learners using AI, the researcher chose to delve into the experiences of neurodiverse learners to find out:

- How AI tools such as Google, Chat GPT, Claude, QuillBot, Gemini, Gencraft, and Dall-E can all support writing and editing tasks.
- The role of AI in research and idea creation.
- The potential benefits of AI personalised for learning.

Feedback from the survey learners reported that the usage of AI tools was beneficial as it assisted them in discovering new information sources, brainstorming ideas, and improving writing skills through personalised feedback for various purposes:

"[It] helped me by showing me different ways to achieve my desired outcome."

"AI could help me to correct my grammar mistakes, and it gives so many new words with the same meaning but different words."

"Even though AI showed me new information, I learned from that and have expanded my own vocabulary."

Learners reported that they used AI to improve the shape of their thoughts, ideas and content, helping them fast-track their work. Examples include:

"Being confident in handing in what I have written."

"It used to take me hours of looking to find what I needed, but now I can ask for starting points, and 9 times out of 10, I can get the work done faster."

Writing and editing

The results indicate that neurodivergent learners often turn to AI tools for writing and editing assistance, utilising them to refine their content and enhance overall writing quality. Learners can talk to the AI, which will appreciate their voice commands or convert spoken words into written text. These ideas can be helpful for learners who have difficulty processing what they hear. AI can point out mistakes and show them how to fix them instantly. This immediate feedback is helpful for learners who need extra support and guidance. AI can also give them personalised tips or suggestions based on their requirements, creating a friendly and supportive learning environment (Mollick & Mollick, 2022).

Research and idea creation

The survey revealed a significant reliance on AI for research, idea creation, and the process of forming a concept or idea, showcasing the flexibility of these tools in supporting neurodiverse learners throughout various stages of their academic projects. Tools such as Grammarly and ChatGPT assist with generating ideas, refining writing quality, and directing assignment hurdles. For example:

“It helps me to think of ways to structure work, new ideas, and different things to add or to use different words.”

“Quillbot’s rephrasing tool helps me see my writing from different angles. It’s like having a second pair of eyes to improve clarity and style from draft to final version.”

Personalised learning

Learning experiences can be personalised by using data to tailor content and feedback to individual learning patterns and knowledge (Boyd et al., 2018). AI tools provide individualised learning support for neurodivergent learners. Users appreciate the flexibility of these tools in addressing their unique needs, emphasising the positive impact AI has on their learning.

Balancing support and independence

The survey revealed the role of AI in the lives of neurodivergent learners, underlining its significance in various tasks such as support for writing and research. While many learners acknowledged the invaluable support provided by AI tools in enabling their academic progress, significant concerns were raised regarding its potential drawbacks.

Among the insights gathered from the survey, some learners expressed concerns about the overreliance on AI, noting its tendency to weaken opportunities for human discussion and connection. Several learners highlighted the importance of engaging in debates and discussions with peers, expressing a desire for more opportunities to interact directly with fellow learners and their educators. This underscores the need for a balanced approach that harnesses AI’s benefits while maintaining opportunities for interpersonal engagement and collaborative learning experiences. Participants also stressed the importance of preserving their own autonomy and ability to deeply and critically think, cautioning against excessive dependence on AI-driven solutions that may restrict individual agency and creativity.

Overall, the survey findings underscore the importance of balancing AI support and fostering independence among neurodiverse learners. By recognising and addressing both the strengths and limitations of AI tools, educators can create inclusive learning environments that empower neurodivergent individuals to thrive academically while also cultivating their autonomy and critical thinking abilities. The findings highlight that neurodivergent learners often turn to AI tools for writing and editing assistance, showcasing their reliance on these technological aids to refine content and improve overall writing quality. The survey underscores the substantial role of AI, demonstrating its flexibility across various stages of academic learning. The adaptability of AI tools in addressing the unique needs of neurodiverse learners is acknowledged, with users expressing appreciation for the positive impact AI has on their academic education.

EXPLORING THE MANY POSSIBILITIES OFFERED BY AI

Personalised learning

AI can adapt teaching and learning programmes to individual strengths and weaknesses, ensuring a more effective learning experience. For example, educators can use data analysis to personalise learning programmes, catering to each learner's unique needs. This involves analysing a learner's performance (through quizzes and assignments, for example) and behaviour (for example, time spent on topics or preferred materials) to identify strengths and weaknesses. These insights allow educators to tailor learning materials (such as articles and tutorials) and activities to target specific areas. This ensures focused skill development as learners receive materials matching their learning styles and difficulty levels adjusted to keep them challenged. Recognising that learners have diverse learning styles and needs, educators can guide them in becoming self-advocates. This means learners will learn to identify their own strengths and weaknesses and collaborate in groups to share their preferred learning processes. Through these interactions, learners can support each other's understanding while also considering the needs of others in group activities. Ultimately, this empowers learners to advocate for their preferred communication styles and processing methods, ensuring success in achieving the desired learning outcomes (Jesse, 2023).

One of the authors of this paper incorporates AI technology in her classroom to accommodate the diverse learning styles of her learners, including those who face challenges such as ADHD and dyslexia. They all receive tailored materials and activities that match their learning styles and challenge levels. The author uses AI platforms to assess individual needs and adapt content as needed, ensuring each learner receives a personalised learning experience, adapting course material and finding practical activities to do in class. Neurodiverse learners may experience information overload, struggle focusing, or difficulty processing information. In class, the author undertakes regular check-ins, provides real-time feedback, and uses AI tools to help track progress and adjust tasks in response to learners' performance. AI-powered tutors can customise learning materials and pace, reducing overload and catering to individual learning styles (Castaño-Calle et al., 2022).

Real-time feedback

AI provides immediate feedback on performance, allowing for quicker learning and skill development. Unlike traditional methods with delayed feedback, AI highlights errors or inefficiencies instantly, allowing learners to adjust their approach immediately, preventing bad habits and reinforcing the correct techniques. This quick feedback loop promotes continuous improvement and mastery. Learners crave quick feedback and rapid turnaround times in today's fast-paced learning environment. This allows them to identify areas for improvement while the information is still fresh. Tools such as ChatGPT can instantly bridge this gap by providing personalised feedback on assignments and exams. This creates a learning cycle where learners can adjust their approach and improve their work, based on the feedback received (Atlas, 2023). Grammarly is an AI-driven writing assistant that provides immediate spelling, grammar, and writing style feedback. As learners write, Grammarly highlights errors and offers suggestions to improve clarity, tone, and readability in real time. This instant feedback helps learners refine their writing skills by improving sentence structure and vocabulary. Beyond basic corrections, Grammarly offers insights into writing style and tone, promoting continuous improvement and making it an important tool for learners aiming to develop their writing abilities. Claude, developed by Anthropic, is an advanced AI assistant that provides detailed feedback. It offers immediate, comprehensive feedback on essays, research proposals, and problem-solving tasks tailored to the learner's level. Claude excels in analysing arguments, suggesting improvements, and fostering critical thinking through constructive feedback. It also adapts its communication style to meet the learner's expertise, making it a valuable tool for deeper learning and academic growth.

Learners receive ongoing insights into their performance, motivating them to keep practising and refining their skills. One of the authors of this paper works with her learners to understand the benefits of AI tools, motivating them to learn from AI and refine their skills continuously. She believes that AI-powered tools like chatbots and virtual assistants offer 24/7 support and information, making learning more accessible. These tools break down barriers by providing constant support and access to resources, empowering learners to fit studies into their busy lives. She incorporates AI-powered chatbots and virtual assistants into their classrooms, ensuring that learners have continuous access to support and resources.

The authors have devised a range of ideas to encourage colleagues and learners to engage actively in self-reflection, problem-solving, and independent analysis. They propose the following:

Learning activities should go beyond AI-provided answers. Design exercises that require learners to analyse information, identify the causes of problems, and develop their own solutions. This encourages independent thinking and problem-solving rather than simply following pre-determined solutions. The aim is to simplify AI's impact on learning while acknowledging its need for improvement. Learning should involve active thinking, not just receiving AI answers. Ker (2017) emphasises the importance of deep reflection for learners to take charge of their learning journey. Instead of depending solely on AI, learners are encouraged to engage in profound and critical reflection on their own life and work experiences, using real-life problems and approaches to solving them. This approach not only enhances their understanding and mastery of subjects but also empowers them to actively shape their future trajectory. By promoting reflective practice over reliance on AI, learners can cultivate critical thinking skills and self-directed growth, drawing insights from past experiences to make informed decisions and drive positive change for the future.

Strategically delay feedback in specific situations. While AI's immediate feedback loop offers benefits, consider delaying it for certain tasks to allow the learners to deal with challenges and attempt solutions independently. Giving one learner we work with, for example, space to process information and sort through problems independently makes her learning more effective and stronger. However, once she has had this time to reflect, AI's prompt feedback can be incredibly helpful in refining her understanding and identifying areas for improvement. This creates a powerful balance between independent learning and targeted guidance.

Shift the focus from “what” to “why.” Do not rely solely on AI error-flagging. Encourage learners to ask why something is wrong and explore the underlying principles involved. This deeper understanding encourages critical thinking skills that go beyond simply identifying errors.

Promote open-ended discussions and collaboration. Assist group work and discussions both in class and online where learners can debate approaches, challenge assumptions, and defend their reasoning. This collaborative environment promotes critical thinking and problem-solving through an exchange of ideas and perspectives.

Introduce scenarios with limited AI support. Present learners with problems where AI support is unavailable or limited. For example, give learners a case study or real-world problem to solve without access to AI tools, such as requiring them to manually analyse data, draft reports, or create problem-solving strategies. This forces them to rely on their own critical thinking skills to analyse situations, identify solutions, and navigate challenges independently.

ADDRESSING LINGERING CONCERNS

Overreliance on AI in educational settings may diminish analytical thinking and the ability to tackle complex challenges, both of which are essential across many professions. While AI offers significant advantages, depending on it too much can impede learners' growth in logical reasoning. Instant access to solutions might lead to passivity, depriving learners of opportunities to fully engage with the material. To address this, the authors suggest that

educators design activities that encourage active participation, self-reflection, and thoughtful analysis. These exercises challenge learners to interpret information and devise their own solutions, fostering deeper thinking and intellectual growth.

Another significant challenge is the risk of bias in AI algorithms, which can create unequal learning opportunities. AI systems can inadvertently recommend different learning paths based on biased training data, potentially disadvantaging learners based on factors like gender or race (Bozkurt, 2023; Mollick & Mollick, 2023). To reduce this risk, training data should be diverse and representative, and algorithms must be regularly monitored for fairness. This oversight can be handled internally or by external experts. Careful management of these factors ensures that AI tools foster equitable learning experiences.

While AI can offer personalised learning and feedback, human interaction remains a crucial component of education, particularly in fostering creativity, innovation, and critical thinking. Human educators provide mentorship, individual guidance and support, which are aspects AI cannot replicate. A balanced approach – using AI for feedback while maintaining strong human oversight – ensures a comprehensive and constant learning experience. Research shows that creativity thrives on human interaction and collaboration, offering insights AI systems currently cannot match (Atlas, 2023; Boyd et al., 2018) For example, in a marketing team, AI might contribute data and analysis, but the human exchange of ideas often leads to breakthrough innovations. Human guidance creates an environment where learners are encouraged to experiment, challenge assumptions, and think creatively, skills that are critical for future success.

The authors say: “Take your time with practical learning! In-class discussions and online analysis of real-world problems build critical thinking, communication, and social intelligence – all essential for navigating the complexities of work.”

CONCLUSION

The integration of AI in vocational education offers many possibilities for personalised learning and efficient feedback. However, educators must carefully guide learners, helping them recognise both the benefits and the limitations of AI. As highlighted in van Gorp’s (2022) master’s thesis, which focused on neurodiversity in vocational education, it is crucial to ensure that AI tools are used to support diverse learners without undermining their ability to think critically or independently. Her research underscores the value of tailored approaches that address individual learning needs while preserving the autonomy of learners.

Educators must emphasise the importance of fostering analytical thinking and self-generated ideas, encouraging learners to use AI as a complement to, rather than a replacement for, their investigative and creative processes. By providing an overview of various AI tools available, educators can empower learners to select the tools that best meet their needs while ensuring the focus remains on developing their own thoughts and work first. This approach, grounded in van Gorp’s (2022) insights, ensures that AI is used to develop the learning experience without restricting personal development or critical thinking.

Rachel van Gorp is an accomplished Principal Lecturer with a wide-ranging background, including experience in banking, personal training, massage therapy, business ownership, mentorship, and volunteering. As a member of the Otago Polytechnic School of Business, Rachel brings a wealth of knowledge and expertise to her undergraduate teaching programmes. Rachel is a dedicated advocate for neurodiverse individuals in vocational education and serves as the chair of the Neurodiversity Community of Practice. She is committed to promoting inclusion and equal opportunities for individuals with diverse learning abilities. Her recent Master of Professional Practice reflects her focus on the essential topic of “Neurodiversity in Vocational Education: Facilitating Success.” With her unique combination of experience, Rachel is able to bring a practical perspective to her teaching, engaging learners in real-world scenarios and helping them to develop the skills they need to succeed in their future careers. Her dedication to the field of vocational education has made her a highly respected member of the academic community, and her commitment to promoting neurodiversity is making a significant impact on the lives of her learners and the wider community.

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A VISUAL MAP OF LEARNER TRANSFORMATION

Steve Henry

The disruptive and changing nature of the world has been described as “Brittle, Anxious, Nonlinear and Incomprehensible (BANI)” by Casico (2020). With such change, there is increased complexity to navigate by those wishing to make sense of and respond to such complexity in professional learning programmes. Transformative learning has been described by Mezirow (2009, p. 22) as “learning that transforms problematic frames of reference to make them more inclusive, discriminating, reflective, open and emotionally able to change.” Transformational learning is in alignment with sensemaking amid complexity.

The development of this map has been driven by a desire to provide ways for experienced professional learners to make sense of and articulate their shifts in practice. This article provides an update on this development, building on work published previously with colleagues (Henry et al., 2019). This article also seeks feedback from readers.

Visual mapping is a powerful research tool as it allows for the creation of rich and reflective data about educational and vocational experiences (Groves, 2022). Such visual maps may be helpful since transformational learning is often difficult to put into words, which is no surprise given the fact that transformational learning is cognitive, embodied, and emotional (Grocott, 2022). I began exploring the mapping of such change five years ago and published with others our preliminary templates and thinking (Henry et al., 2019). Since then, I have been working on doctorate research on transformational learning, which concludes that an impetus for sensemaking is the ‘why’ of transformational learning for experienced adult learners. Learners should create their own map because learner agency is the force and compass for learner transformation (Green, 2022). There is potential for such maps to be used to provide a meta-visual summary of a learning process.

This resource is designed for learners who have just completed their programme, and allows them to generate a transformation map. The tool has four steps, as follows:

1. Name the top five change moments (‘aha’ moments, insights, or realisations) from your learning programme and articulate them as succinctly as possible. When did they occur in the programme? Early, middle or late?
2. To work out the relative importance of these moments, imagine you have 20 tokens to spend across them. If all five were of equal importance, they would receive four tokens each. But you can spend 16 on one and one each on the rest, if you want. How would you allocate the tokens? This gives you the relative importance of each change, which is then represented in the image in Figure 2.
3. Create a table like the one in Figure 1, which is a fictional example of a learner who returned the token allocation against the phase in the programme as per the figure.
4. Draw the named changes according to the example shown in Figures 2 and 3 for a visual map of the transformational narratives occurring in the programme.

Narrative of 'aha' moment or transformation	Number of tokens	Phase in programme
I am no longer an imposter as I belong in my role and am valued	7	Late
I have been changing careers to avoid my unhappiness	5	Late
My leadership practice is unsustainable	4	Early
I put everyone else first	4	Mid
A breakthrough resource	2	Early
	20 TOTAL	

Figure 1. Table of narratives of 'aha' or transformation moments and their relative importance according to the phase in programme.

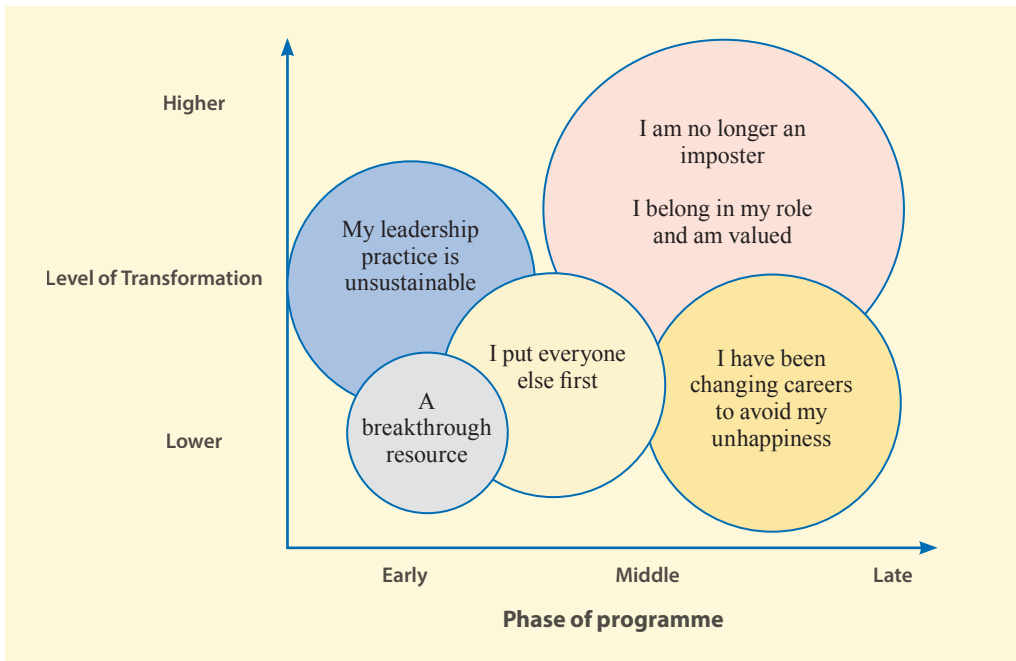


Figure 2. Transformational learning map in a programme for a fictitious learner.

The map provides a visual summary of the narrative change throughout a learning programme. Figure 3 is another map example, which reflects my own learning journey over the past five years in a doctoral programme.

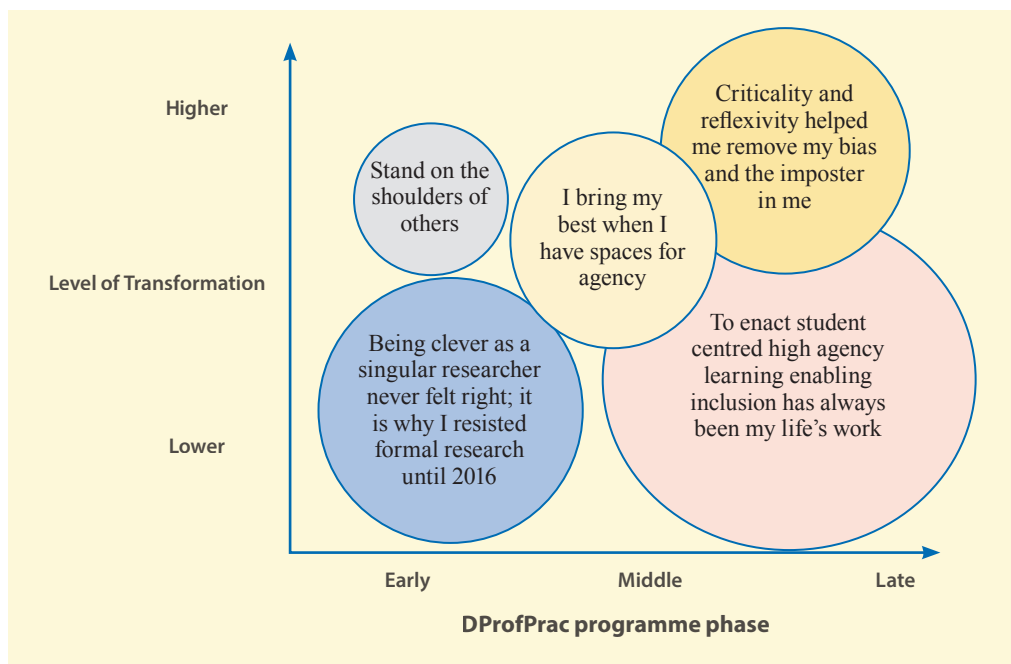


Figure 3. Transformational learning narratives for Steve's doctoral programme.

My experience of constructing this map as a learner enabled me to see the learning from the programme with increased clarity. It will be used in the upcoming assessment of the programme as a distilled summary of the learning. As a result, I see the value of such visual maps for learners.

A research project is planned to map a range of learners across programmes and consider its use. There is potential for the map to be used beyond learning programmes. Perhaps other learning can be mapped, such as the learning from being in a professional role or from spending five years in prison or sailing around the world. The process of creating the map has the potential for learners to activate increased clarity for themselves and for communicating their learning. Ideas to improve this model would be gratefully received to steve.henry@op.ac.nz, please.

Steve Henry is based at Otago Polytechnic's CapableNZ, where he facilitates learners in independent learning pathways. His passion is for learner agency to enable a customised approach that is learner centred. His current doctoral research explores transformational learning in vocational education.

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“I DON’T KNOW IF I’M WORKING WELL OR NOT”: HOW BEGINNER ECE TEACHERS FROM MIGRANT BACKGROUNDS NEGOTIATE PROFESSIONAL PRACTICE IN AOTEAROA NEW ZEALAND

Rachael S. Burke

INTRODUCTION

Aotearoa New Zealand is now recognised as a superdiverse nation (Chan, 2020). Initial teacher education (ITE) programmes reflect this change with increasing numbers of student teachers coming from migrant backgrounds (Rana, 2020). Early childhood centres also serve as spaces where the cultures of home intersect with the culture of the host society (Tobin et al., 2013). While research has been undertaken on the experiences of migrant children and their families in the ECE sector (Chan & Ritchie, 2016; Lees & Ng, 2020; Mitchell & Kamenarac, 2022; Paul, 2015; Shuker & Cherrington, 2016; Takemoto, 2021), few studies have investigated how teachers from migrant background negotiate these tensions. The overarching purpose of this research was to interrogate the “image of the child” (Malaguzzi, 1994) held by early childhood education (ECE) beginner teachers from migrant backgrounds. A key finding of this study was how contrasting images of the child can impact on professional practice, which is significant for these beginner teachers who are negotiating both an unfamiliar cultural context and a new professional role.

The image of the child has been influenced by historical, cultural, political, and social forces (Araujo, 2022; McCartney & Harris, 2014). In Aotearoa New Zealand, European colonial children were originally seen as chattels by their families (McDonald, 1978) in contrast to Māori children who were regarded as taonga or treasures in their community (Salmond, 1991). Children have transitioned from being viewed as passive to having their rights safeguarded by legislation such as UNCROC (United Nations Convention on the Rights of the Child) and recognised as capable and confident learners (Ministry of Education, 2017). The concept of the image of the child acknowledges that the views that teachers hold about children and childhood are influenced by their own cultural backgrounds. This approach also recognises that ideas about ECE are cultural, social, political, and historical constructions (Burke & Duncan, 2015). The lens through which teachers view children can therefore impact decisions around all aspects of the ECE experience, such as curriculum, pedagogy, resources, learning, and interactions (Malaguzzi, 1994).

Our Code, Our Standards (Education Council, 2017) outlines the expectations for professional ECE teachers in Aotearoa New Zealand. A key aspect of these expectations is fostering collaborative relationships with colleagues to enhance both individual and organisational teaching practices. However, this study found that beginner teachers from migrant backgrounds faced a number of challenges to developing professional relationships. This article focuses on three main themes which emerged during analysis of participants’ narratives: conflicting images of the child, contrasting cultural expectations around professional practice, and the need for more guidance or support from a professional mentor. Drawing on participants’ narratives, this article will show how these beginner teachers negotiated tensions around their own culturally constructed ideas about professional ECE practice in Aotearoa New Zealand.

METHODOLOGY

The research project is positioned within a qualitative framework and draws on narrative inquiry to unpack the stories and experiences of 12 beginner teachers from migrant backgrounds. The participants are all teachers who had recently completed their initial teacher training through a New Zealand institute, graduating with either a Master of Teaching (ECE) or Bachelor of Teaching (ECE). At the time of interviewing, all the participants had secured work in the education sector in Aotearoa New Zealand and been working as fully qualified ECE teachers for between four and nine months. Most of the participants were of Chinese and Indian ethnicities (eight Chinese and two Indian) with one from Hong Kong and one from Malaysia. As this study draws on narrative inquiry (Clandinin, 2023), semi-structured interviews of approximately one hour with each of the participants were conducted. Clandinin identifies the relational, continuous and social aspects of lived experience as fundamental to a narrative inquiry approach. This study was approved by the Ethics Committee at the researcher's institute. A list of questions was used to prompt discussion with participants and to loosely guide the interview process. All the interviews were recorded and transcribed by the researcher. Participants were given the opportunity to view their transcript to verify the content and make any changes to their text and were assigned a pseudonym to protect their identity. The data was analysed using a thematic approach (Braun & Clarke, 2021), which is a widely used method in qualitative research. Thematic analysis is "a method for systematically identifying, organizing, and offering insight into patterns of meaning (themes) across a data set" (Braun & Clarke, 2021, p. 27). By looking at significance throughout a data set, thematic analysis enables researchers to perceive and understand collective meanings and experiences, in contrast to identifying unusual or single experiences. Thematic analysis therefore involves recognising commonalities and interpreting the significance of those shared experiences.

THEORETICAL UNDERPINNINGS

Sociocultural theories underpin Te Whāriki, the national early childhood curriculum of Aotearoa New Zealand. These theories recognise that children learn through their interactions and are capable, competent creators of knowledge (Ministry of Education, 2017). One of the core tenets of sociocultural theories is the idea that human development is influenced by social and cultural factors (Bronfenbrenner, 1979). This means that the term 'culture' extends beyond ethnicity to include all the values, understandings, and behaviours associated with the diverse environments encountered by children (Ministry of Education, 2017). Drawing on sociocultural theory, this article considers the way the image of the child held by beginner teachers from migrant backgrounds impacts on their practice. This, in turn, can shape their relationships with families and ECE colleagues and impact outcomes for children.

THE SHIFTING DYNAMICS OF THE EARLY CHILDHOOD WORKPLACE

As Aotearoa New Zealand has come to be classified as superdiverse due to the arrival of migrants, early childhood settings have also become more culturally and linguistically diverse (Chan, 2020; Shuker & Cherrington, 2016). At the same time, Aotearoa New Zealand has also seen a rapid increase in the number of international students enrolling to study ECE at tertiary institutions (Rana, 2020). Despite this increasing multiculturalism there has been minimal research dedicated to teachers originating from migrant backgrounds, as noted by Arndt (2018), Cherrington and Shuker (2012), and Leaupepe (2009). Furthermore, little attention has been paid to how these changing dynamics may be influencing understanding, practices, and retention in the workplace (Gould et al., 2023; Griffiths et al., 2022).

Arndt (2012, 2014, 2018) is one of the few scholars who has written extensively about the experiences of migrant teachers in the early childhood space. She draws on Kristeva's (1991) lens of "foreignness" to argue the power that these 'outsiders' hold to disrupt the workforce, noting that:

Regardless of opportunities for success, Kristeva's hard working foreigners are a disturbance. They disrupt the local comfort and stability, arousing feelings of inadequacy, misfit and uncertainty. By their foreignness, these foreigners call into question the very structure of existing social norms and hierarchies. (Arndt, 2012, p. 26)

Arndt contends that the early childhood context in Aotearoa New Zealand can be conceptualised as an "imagined community" (Anderson, 2006), its boundaries flexible, yet defined and shaped by factors such as teacher qualifications, beliefs, or geographical scope. From this perspective, documents such as the national early childhood curriculum, *Te Whāriki* (Ministry of Education, 2017) and *Our Code, Our Standards* (Education Council, 2017) can be seen as sets of general rules and values which also govern membership to this imagined community. However, as Arndt (2012, p. 27) argues, "the complexities of immigrant otherness, the local social and political climate, and the presence of immigrants with diverse values explode this illusion" of a monolithic community.

Due to Aotearoa New Zealand's largely monocultural workforce, Gould et al. (2023) point out that there is little recognition of cultural diversity, leading to early childhood teachers struggling to promote inclusion, equity and belonging in the sector. Several factors contribute to cultural diversity in ECE in Aotearoa New Zealand, including a significant emphasis on fulfilling bi-cultural responsibilities as outlined in *Te Tiriti o Waitangi* (Arndt, 2012). While recognising that Aotearoa New Zealand is a bi-cultural nation and that learning *te reo Māori* is important, participants in Rana's (2020) study argued that other cultures besides the Māori culture should be recognised. Rana (2020) asserts that there is "a need to celebrate the existence of more cultures beyond the two prominent founding cultures of Aotearoa New Zealand" (p. 7). In their study of the environmental identities of migrant Indian ECE teachers in Aotearoa New Zealand, Rathore, Eames and Kelly-Ware (2020) found that their professional practice was influenced by their cultural backgrounds. Similarly, Kumar (2022) reported that Indo-Fijian teachers' feelings of belonging were enhanced when they felt supported by their colleagues and were encouraged to demonstrate their own cultural and linguistic knowledge. At a micro-level, Rana and Culbreath (2019) drew from their own experiences as tertiary educators, acknowledging that the cultural backgrounds and experiences of both teachers and students influence how pedagogy is carried out in practice.

Robinson and Jones-Diaz (2016) note that discourses of neoconservatism and neoliberalism work together to problematise diversity and difference, as the latter are positioned as challenging Western values and conventions perceived as upholding moral standards in society. They point out that "within this discourse, founded on the cultural binary opposition of us/them, a fear of the Other is maintained and perpetuated" (Robinson & Jones-Diaz, 2016, p. 4). Research has exposed educators' awareness of the prejudice and discrimination that young children can extend towards others different to themselves (Gunn, 2015; Osgood & Robinson, 2019). However, less attention has been paid to how early childhood educators might perpetuate stereotypes that privilege the dominant culture, and how this might impact the well-being of staff in early learning workplaces and their understanding of appropriate practice. Although it is beyond the scope of this article, when cultural assumptions conflict with dominant discourses the ripples can also reverberate out to disrupt children's learning and sense of belonging.

FINDINGS AND DISCUSSION

According to *Our Code, Our Standards* (Education Council, 2017) there are expectations for professional early childhood teachers in Aotearoa New Zealand to collaborate with colleagues to improve teaching practices. With *whanaungatanga* as one of the four underpinning values (Education Council, 2017), relationships lie at the core of ECE, where teachers work in teams unlike in other educational contexts such as the primary, secondary or tertiary sectors. This means that it is crucial to have a common understanding of children to work harmoniously and meet the standards set by the Teaching Council (Education Council, 2017). However, while *Our Code,*

Our Standards mentions the term “relationships” 12 times, “diversity” is only referred to three times, and each of these is in relation to the heritage, language, and culture of learners or families. The complex multicultural identities of teaching staff, who are the main resource for building relationships with learners and families, appear overlooked.

As McLelland (2023) argues, the importance of an emotionally safe climate in early childhood contexts cannot be understated. Therefore, it is vital that beginner teachers are supported to foster strong relationships with their teaching team. Yet, if these “hard working foreigners” (Arndt, 2012, p. 26) disrupt and trouble the ECE workplace when positioned as Other (Robinson & Jones-Diaz, 2016), how can harmonious connections be established? It is commonly assumed that teachers have a natural ability to build strong relationships, but McLaughlin, Aspden and McLachlan (2015) argue that this aspect of their role requires more support and professional direction. From the narratives of participants, this study identified three main challenges to establishing authentic relationships and developing their practice in the ECE workplace: conflicting images of the child, contrasting cultural expectations around professional practice, and a lack of support from colleagues or professional mentors.

Conflicting images of the child

Malaguzzi (1994) asserts that a teacher’s image of a child is shaped by their own childhood encounters, cultural background, social context, personal identity, values, and the educational concepts that they encounter. Tong (2023) has suggested that early childhood teachers should have the opportunity to engage in critical reflection around views on children and the concept of childhood. This means examining how cultural constructions of childhood influence their teaching practice and exploring how these perceptions impact on their role as teachers.

A common image of the child held by participants when they initially arrived in New Zealand was one of dependence and of someone “in need of constant guidance and protection” (Burke, 2024, p. 32), as “Shui” explains:

Te Whāriki ... is very new to us because we have totally different opinions and different views on that part. We think children are really weak and need to be protected and cannot learn, they only know how to play. They just want mess everything and they just want to play as their nature. So, they don't want to learn unless we build a rich environment for them to learn or force them to do it. This is what we thought, but Te Whāriki said that children are born and they are already prepared to learn. (Shui, China)

As Shui articulates, he negotiated his original image of the child to align it more closely with the one outlined in Te Whāriki (Ministry of Education, 2017) which regards children as proficient and having agency (Tong, 2023). All of the participants in this study were graduates of initial teacher education (ITE) programmes. The combination of engaging with socio-cultural theories and workplace practice has deeply impacted on their beliefs, asking them to reconsider their ideas around how children best learn and develop (Burke, 2024).

However, while these beginner teachers may have accepted New Zealand’s dominant child-centred pedagogical approach, there remains anxiety around ensuring that they are respectful to their colleagues, even if certain practices contrast with their own ideology or professional philosophy:

I really want to [advocate for children] sometimes when I see other teachers are not, when it is different, when they have different thoughts, sometimes I feel what should I do? What should we do? Yes, this is challenging I don't want to challenge the others. (“Ling,” Hong Kong)

Early childhood educators’ identity and sense of belonging play a significant role in supporting young children’s well-being. However, as Arndt (2018) has argued, this role is often overlooked in both ECE research and broader

discussions on diversity. She proposes that greater focus should be placed on supporting early childhood teachers to deconstruct their own realities and evolve as professionals.

Contrasting cultural expectations around professional practice

Research suggests that there is a need to support exploration and curiosity in the early learning context, by focusing on how early childhood teachers interpret their own cultural experiences and evolve in the workplace (Arndt, 2018). One of the participants in this study, “Rong,” shared an example of this where he had been directing children to line up as a group each day while he applied their sunblock. He was therefore initially surprised when his mentor advised him to change his practice in order to show more respect for children and their autonomy. The mentor recommended that Rong give the children choice by asking them individually if they would like some sunblock and, if so, whether he could apply it to their bodies. Upholding the mana of children (Ministry of Education, 2017) and valuing their rights (Te One, 2011) are important aspects of New Zealand pedagogical approaches. As he reflected on this event, Rong recognised that his practice was linked to his image of the child as helpless, as well as his experience of authoritarian childrearing practices and Communist ideologies (Liu, 2022):

My mentor and my manager gave me some ideas that are important for my teaching, for example ... they influenced on me that we need to respect children as an individual person, not an object. We need to give them choice and that inspired me, that New Zealand is also a democratic country. (Rong, China)

According to Arndt (2012, p. 29), “diversity is often posited as a ‘problem’, that can be ‘managed’ and overcome by implementing particular strategies and practices.” While Rong’s example stemmed from contrasting pedagogical and ideological approaches, challenges can stem from practical issues, as “Feng” (China) explains: “I think different cultural backgrounds have [created] some problems, especially sometimes my colleagues have no patience for my spoken English.” As Te Whāriki takes a holistic approach, rather than the directive curriculums that participants may be familiar with from their home countries, it can result in confusion about what exactly they should be doing, as “Diu” (China) explains: “For example, if my role is inside, I should set up for next morning and so the teacher will tell me I like your setting up and then the other teacher will tell me that you should do it like this.”

Arndt (2012) identifies the challenge facing teachers who question their ability to nurture children from diverse backgrounds while feeling a lack of nurturance themselves. This can make them uncertain about sharing their own culture as they simultaneously grapple with feelings of detachment from home, and struggle to develop a sense of belonging in their professional team:

I try to ask myself to be patient and thoughtful, reflective, or responsive, to be a responsible and respectful teacher at work so that I can have a sense of belonging and can contribute to what I learned here. I can contribute to my knowledge or my labour here. So, in this aspect I try to fit in with the group, fit in with the other teachers. (“Yuxi,” China)

The moment when one realizes that knowing about someone is not the same as truly understanding them or their cultural traditions marks a critical juncture (Arndt, 2012). As migrant teachers “trouble and disrupt” their workplace, they also long to share their own feelings and experiences within this context. However, “as Kristeva (1991) reminds us, speaking can be scary. As a relational engagement speaking is variously argued, for example, as grounding and characterising identity, as the carrier of familial traditions, and as an emblem of our cultural selves” (Arndt, 2012, p. 30).

Lack of support from colleagues or professional mentors

For beginner teachers, a key person in their few months of practice is their Associate Teacher (AT). According to the Education Review Office (ERO), a government body evaluating quality of education in Aotearoa New Zealand, ATs have a “major part to play in the placement experience and learning of student and newly graduated teachers” (Education Review Office, 2017, p. 18). The primary expectation of an AT is demonstrating effective teaching practice by role modelling, offering coaching and mentoring to new teachers, and delivering constructive feedback. ATs should also cultivate a safe environment that encourages beginner teachers to take risks, experiment with new teaching approaches, and critically reflect (Education Review Office, 2017). Yet, for many of the participants in this study, such support was sorely lacking. As Diu (China) explained, “To be honest, no one in my centre gives me any feedback about my job. I don't know if I'm working well not.”

The connection between early childhood teachers' identity and sense of belonging is crucial for young children's well-being (Arndt, 2018); however this aspect is frequently neglected at a research level, and, this study would argue, at a policy level. There are implications here for staff well-being which also impacts on staff retention rates at a time when the ECE sector is desperate for staff. As “Anjali,” from India, identified, “So, it's poor management, leadership and these things which make it at the end of the day.”

Griffiths et al. (2022) argue that teachers need to feel appreciated and at ease with their identity within their professional environments. They believe that this is achieved by centre leaders fostering collaborative opportunities, allowing the exchange of ideas, questioning existing beliefs, and collectively working together to ensure an inclusive space for diverse teachers. For those participants who were in supportive environments like those described by Griffiths et al. (2022), their experiences were very different to those of their peers: “In the first two or three weeks, I got lots of support from the centre manager and after that I started to get used to the routine” (“Xiang,” China); “We're always advised to speak to our team leader before we bring [conflict] to the team and our team leaders are actually quite seasoned with workplace conflicts. We just be patient and try to understand each other by sharing our culture” (“Mayang,” Malaysia).

IMPLICATIONS FOR PRACTICE

Supporting beginner teachers to connect culture, ideology, and practice

This study proposes that increased focus should be directed towards assisting early childhood teachers from migrant backgrounds to examine and understand their own cultural experiences and journeys as professionals. This is not a process that should be undertaken alone, but one that needs to be nurtured and fostered within the environment of a supportive team of teaching colleagues and mentors. As Deo and Jain (2023) have argued, relational leadership is critical here, to build a positive team culture based around strong relationships. Professional development sessions could be focussed around unpacking implicit cultural assumptions and reflecting on the image of the child held by all staff members.

On a smaller scale, applying a critical cultural lens to teacher practice could be as simple as allocating time during a staff meeting to discuss cultural artefacts brought from home. While the pedagogical value of creating spaces for the stories of diverse children and families through artefacts is recognised (Sammons et al., 2020; Tong & Kumar, 2022), minimal consideration has been afforded to using this approach with teaching teams. Resources such as diversity discussion icebreakers and activities are also freely available online and can be another useful way to conduct conversations around cultural constructions and suppositions. Arndt (2012, p. 29) advises making a concerted effort “to integrate and allow for, rather than to eliminate or homogenise, differences and lead to an overall more meaningful, increased commitment and sensitivity to your realities, and to those of your colleagues.”

Early childhood teachers working in the diverse context of Aotearoa New Zealand are asked to foster, cherish and commemorate the identities of children and their families. However, to achieve this, teachers themselves need to feel a sense of belonging, and to feel that they belong within their early childhood centre (Arndt, 2018). Building and sustaining an inclusive workplace culture is also key to attracting and retaining teachers from diverse backgrounds in the ECE sector (Griffiths et al., 2022). It is important to understand that migrant teachers benefit from the opportunity for their own culture to be recognised and acknowledged. This could form the basis of reflection and discussion for other staff members around certain practices. These teachers can act as a bridge between migrant families and their children, and the centre, as they may understand the thinking behind cultural behaviours. This makes them a valuable resource in Aotearoa New Zealand's increasingly diverse early childhood context.

Avoid universalising difference

Cherrington and Shuker (2012) highlight the importance of engaging with teachers' cultural identity and otherness and how they engage with children, their own, and their peers' cultures. They contend that in addition to embracing cultural differences among teachers, it is important to move away from universalising methods of addressing differences and instead adopt a more culturally inclusive pedagogical approach. Arndt (2018) has argued that being perceived as culturally Other can lead to anxiety and, if teachers from diverse backgrounds are working in an ECE context that favours sameness, this can lead to cultural invisibility. Early childhood settings that frame approaches to diversity as grounded in fairness by treating everyone the same can, therefore, ironically result in perpetuating dominant cultural discourses and normalising the curriculum (Arndt, 2012). However, most migrants in the twenty-first century also maintain close connections with their home countries and uphold their cultural and linguistic heritages while integrating into the host country, and they are heterogeneous in terms of ethnic identity, language, culture and religion (Chan, 2020). Arndt (2014, p. 29) makes a plea "for critical, sensitive, open orientations towards those who are Other, and for teacher orientations to break – rather than perpetuate – cycles of ostracism or levelling, as marginalising practices of exclusion or non recognition."

The need for more guidance or support from a professional mentor

During beginner teachers' initial months of practice, Associate Teachers (ATs) play a pivotal role; however, Vaughan (2023) has recognised the absence of clear expectations and support for ATs or mentors in the early childhood context. In Aotearoa New Zealand, teachers receive a Full Practising Certificate after completing a minimum two-year induction and mentoring programme. During this period, a professional leader, employer, or another approved organisation can verify the teacher's ability to meet the Standards of the Teaching Profession (Education Council, 2017). This means that the AT role in an ECE workplace maybe be filled by a teacher with just two and a half years of experience. The decision to appoint teachers as an AT can therefore depend on centre management (Stover, 2019). As AT leadership plays such a crucial role in the development of beginner teachers, more attention needs to be paid to purposefully cultivating leadership traits in the ECE sector, and motivating ATs and beginner teachers to engage in broader leadership activities (Hendrie & Thynne, 2023).

CONCLUSION

In Aotearoa New Zealand, Te Whāriki (Ministry of Education, 2017) acknowledges cultural diversity and entrusts teachers to enact pedagogy that considers children's cultural knowledge and encompasses diverse ways of knowing, being and doing (Tong & Kumar, 2022). Our Code, Our Standards (Education Council, 2017) expects ECE teachers to foster reciprocal and collaborative relationships with colleagues to strengthen professional teaching practices. However, both these documents espouse the value of enacting cultural diversity within ECE settings. This could present challenges for teachers, unless, as Chan (2011) argues, ECE teachers as frontline

workers manage to authentically implement cultural diversity in their teaching. The illusion of a unitary “imagined community” (Anderson, 2006) is shattered by the complex dynamics of migrant difference within the unique social and political environment of culturally diverse ECE workplaces (Arndt, 2012).

This research has highlighted the significance of examining teachers’ cultural identity and sense of the ‘Other’ in their interactions with their colleagues, arguing that engaging with these ideas can lead to more culturally responsive professional practice, particularly for those from migrant backgrounds who have just began working as emerging ECE educators in Aotearoa New Zealand. This study contributes to the limited analysis that has been carried out in relation to ECE teachers from migrant backgrounds in Aotearoa New Zealand. It hopes to provide guidance for professional leaders and mentors who are supporting beginner teachers, particularly those who come from a migrant background. Collegial discussions about this study could also foster whanaungatanga and improve relationships between beginning ECE teachers and their colleagues.

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CHALLENGES FACING WOMEN WHO ARE SMALL BUSINESS OWNERS AND HAVE ENGLISH AS AN ADDITIONAL LANGUAGE IN THE WAIKATO REGION, NEW ZEALAND: AN EXPLORATIVE INQUIRY

Anthea Fester and Sujani Thrikawala

INTRODUCTION

Globally, there has been an unprecedented increase in migration. Annually, Aotearoa New Zealand accepts a certain quota of migrants under different schemes. Naturally, some of these migrants are women who have English as an additional language (EAL). The challenges that they face are often multi-faceted.

Some substantial research has been conducted in the New Zealand context by Pio (2007) related to the experiences of ethnic entrepreneurs with a particular focus on Indian women. In addition to having to adjust to a new culture, initially, these women also often need to find employment and that becomes a challenge. For several reasons, including the fact that they are not qualified, or their previously acquired qualifications are not recognised in Aotearoa New Zealand, they struggle to find employment. Pio (2007) focuses on the process of the experiences and paths taken by a cohort of Indian women to becoming entrepreneurs/business owners. Pio and Singham (2018) reported on employment and inclusive workspaces connected to diversity and public policy of migrants. These views are echoed in our study, but we explore further aspects of the experiences of women with small businesses. The research reported in this article shifts the focus on migrant smaller business owners in several ways, from that covered by Pio (2007), and Pio and Singham (2018). These include:

- broadening the cohort base to include a wider range of ethnic women.
- offering a solution-based approach that is embedded in transdisciplinarity and is also inclusive of language and cultural challenges within the entrepreneurial space.
- taking the views of the wider stakeholder group connected to these businesswomen into account.
- being more current in terms of the period in which the data was gathered.
- focusing on challenges related to the setting up of the business not the historical process these women faced.

Migrant women frequently decide to start their own businesses, and these businesses are commonly in the service-industry sector such as in hospitality and beauty (Pio, 2007). The work conducted by Pio has also impacted on the development of the DiversityWorks (n.d.) site, which provides work-related information in New Zealand. As a result of the vital role that migrant women who are small business owners (WSBO) have in the business sector, it is important to understand the difficulties they face from their perspective. High up on the list of challenges that they face is their unfamiliarity with systems in New Zealand, along with accessing pertinent information in a timely manner, language challenges, and cultural connections.

The main aim of the overarching research project is: How might we better support EAL background women who are small business owners in Waikato region, Aotearoa New Zealand?

There are several envisioned phases for this project which include:

Phase 1: Gathering data through interviews and a questionnaire from a cohort of EAL migrant and former refugee background women who are small business owners in the Waikato region.

Phase 2: Interviewing some of the business support or supply services accessed by small women business owners who have EAL.

Phase 3: Interviewing a group of applied linguists and English language teachers on potential pragmatic and cultural competence advice to support communication.

Phase 4: Interviewing tangata whenua Tainui representatives and interviewing employees of WSBO with EAL backgrounds.

The key objective and sub-question addressed in this article are: What are the backgrounds of some of these women and what are some of the challenges they face with stakeholders as EAL background WSBO in the Waikato region, Aotearoa New Zealand?

Transdisciplinary theory

Previous research into the experiences of female migrant small business owners who are from EAL backgrounds reveals several specific challenges that they face because of their identity, background and culture. The multi-layered complexity of their situation can create combinatorial challenges that can often appear insurmountable for these businesswomen. Support services offered to these businesswomen have at times attempted to address some of these challenges. However, there does not appear to be a more comprehensive, less time-consuming, and more fruitful way to expedite business matters for these migrant women, who come from diverse backgrounds. With all the complexities associated with this specific cohort, it is reasonable to ascertain that the overarching situation is complex and requires a more inclusive, wraparound service with comprehensive input from various stakeholders.

Using a human-centred transdisciplinary (TDR) approach could provide a way forward to manage what can be identified as a “wicked problem” (Neuhauser, 2018, pp. 31–32). The notion of wicked problems or complex problems are succinctly described by Neuhauser (2018, pp. 31–32), who initially suggests that a potential solution is uncertain, and these problems are “typically heterogeneous, changeable, contextually localized, value-laden, sometimes caused by those charged with addressing them, and difficult to understand and solve.” Fundamentally, the research reported in this article addresses one such complex societal problem. As mentioned above, with the diaspora of people, the problem is likely to become bigger and more complex.

Transdisciplinary research theory and the value of the process and approach has been espoused by several researchers (Klein, 2018; Neuhauser, 2018; Nicolescu, 2014; Pohl & Hirsch Hadorn, 2007). Related literature seems to be largely underpinned by an agreed sense that a TDR approach inherently transcends disciplines and needs to take the views of all key stakeholders into account when trying to address complex societal problems. Notwithstanding the diverse frames proposed by various researchers on the processes, problem framing, structuring, and outcomes approach to TDR, the core underpinning drivers are essentially the same. The focus is on all key stakeholders, the human-centred approach, the iterative process, and the fact that all key stakeholder voices drive the potential solution framework. This study reported here does not lend itself to an exploration of individual TDR researchers’ frameworks.

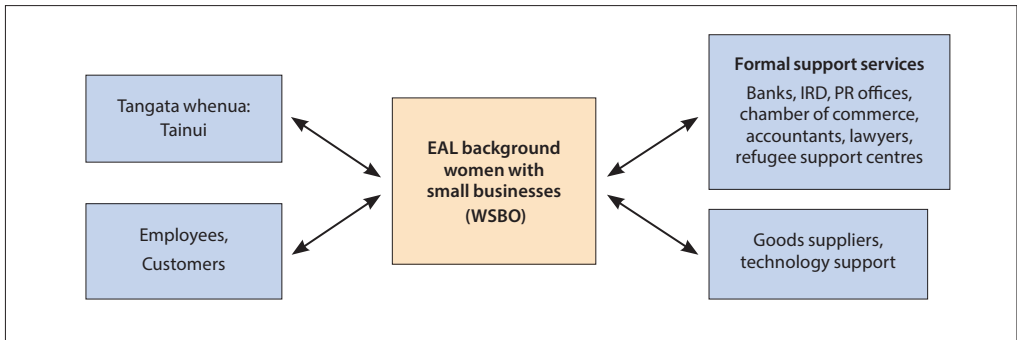


Figure 1. Mind map of EAL background WSBO's key stakeholders.

Having identified the wicked problem and the strengths underlying a TDR approach, there is a need to remain true to the notion of integration by recognising the key stakeholders. In the case of the research project reported in this paper, non-university stakeholders, NGOs, political and governmental spheres and occupational spheres are all pertinent stakeholders (see Figure 1). Their voices are imperative in designing a more suitable multifaceted potential solution for the problematic situations facing these EAL background WSBO.

English as an additional language businesswomen

Entrepreneurship and small start-up firms in a country play a major role in economic development by promoting innovation, productivity and employment (Bosma et al., 2018). Fairlie and Lofstrom (2015) state that often entrepreneurial activities are more prevalent in immigrants. According to cultural theories, the willingness of these businesswomen to take risks is demonstrated as a strong characteristic of migrants and is one of the major factors in strong entrepreneurship (Naudé et al., 2017; Neville et al., 2014; Volery, 2007). In addition, there is a huge push among immigrants to initiate new ventures (Levie, 2007) out of business acumen or as a survival strategy (Portes & Yiu, 2013). These people start new ventures to overcome obstacles that they face in the host country labour market, such as racial and ethnic prejudices, having no experience, accessing limited resources and managing language barriers (Assudani, 2009; Constant & Zimmermann, 2006). The disadvantage theory covers the above-mentioned aspects and also confirms that migrants form their own businesses as that is their only way of living in a new country and it helps to alleviate the barriers they face (Chrysostome, 2010).

Empirical evidence highlights that female-led small businesses in Western economies, such as the United Kingdom and the United States of America, are growing rapidly. Webster and Haandrikman (2017) state that migrant women make a significant contribution to the Swedish small-business community through self-employment, and they have advanced education qualifications compared with self-employed men. However, women in the business world face many barriers and discrimination when compared to their counterparts (Vaccarino et al., 2011). In addition, it has been identified that the migrant women small business owners are not a homogeneous group, and that their problems need to be identified as multifaceted (Fielden & Davidson, 2012). As a result, in most cases, they require more support to conduct their business appropriately. In a study conducted by Davidson et al. (2010) with 40 Black, Asian and Minority Ethnic (BAME) female small-business owners based in northwest England, the cohort encountered difficulties when accessing various types of formal business and financial support, but they had high levels of informal support (emotional/instrumental) through their families. They normally did not use formal business support services such as local councils, banks and other business support services. As a result, the majority of BAME female small-business owners lacked suitable access to resources such as advice, information, guidance, and financial assistance.

In New Zealand, the Office of Ethnic Affairs Research in 2013 noted that migrant women entrepreneurs face the prospect of being discriminated against, mainly based of their ethnicity and religion (Department of Internal Affairs, n.d.). A study conducted by Vaccarino et al. (2011) also illustrates that many Chinese businesswomen in New Zealand tend to be self-employed, largely due to ethnic discrimination. These findings have been confirmed by Wellalage et al. (2023), who state that national culture in a country moderates the relationship between immigration and entrepreneurship. In Davidson et al.'s (2010) study, they found that there is a double negative effect of sexism and racism on these migrant communities. The consequence of this is that they have a low propensity to use mainstream business-advice agencies to improve their businesses. In contrast, Constant (2004, as cited in Harkiolakis et al., 2011) concludes that women select self-employment because of family obligations rather than job-market discrimination or rejection.

In a study conducted by Lee (2005), they observe that many migrant business owners are struggling to communicate in English even though they may have had a proper college education for many years. Also, they have a limited understanding of the services that are provided for ethnic communities. Furthermore, this report highlights the point that recent migrants in ethnic communities in Aotearoa New Zealand have limited social, community and employment networks, and face workplace and community discrimination and stereotyping. The support received by small-business owners in Aotearoa New Zealand is perceived to be minimal or non-existent. In New Zealand, research indicates that Chinese immigrant women who are entrepreneurs require a greater focus on emotional/instrumental support to conduct their businesses (Vaccarino et al., 2011). These barriers are identified as a huge opportunity cost for Aotearoa New Zealand as they erode the beneficial effects that immigrant entrepreneurship can have on the economy (Department of Internal Affairs, n.d.).

Therefore, it is important to investigate these barriers faced by migrants and especially in specific regions in Aotearoa New Zealand. As mentioned above, there has been substantial work done (Pio & Singham, 2018) on migrants as employees and the challenges that they face in Aotearoa, but not necessarily on migrant women as business owners. Addressing these barriers is one of seven population-focused long-term plans sitting under the New Zealand Government's Employment Strategy.

METHODS

The project received ethical approval from the Waikato Institute of Technology (Wintec) Ethics Committee and ensures all participants have anonymity around the data gathered and any publications that might arise out of the research. As mentioned above, the overarching project, in keeping with a TDR approach, will be inclusive of most key stakeholders (see Figure 1). This article reports on some initial findings in the first phase of the research project and includes the first data gathered from a cohort of EAL background WSBO in the Waikato region in Aotearoa New Zealand. It provides feedback on a selected group of aspects covered with the first 18 migrant participants who completed the survey, and the voices of the first eight interviewees who participated in the semi-structured interviews.

Data-collection method

We adopted a mixed research methodology, in keeping with a TDR theoretical approach. This method allows the researchers to explore wicked problems from different perspectives and to incorporate suitable solutions based on an analysis of the findings from the different stakeholders' voices by collecting multiple forms of data (Sieber, 1973).

For the part of the project reported on in this article, participants were selected in two main ways. Some were selected based on an initial sample of convenience with contacts that the researchers had, and then a snowballing effect occurred. In addition, we approached organisations whom we felt might have had contact with EAL businesswomen, such as Shama Ethnic Women's Trust, and asked them to advertise our research project.

The first data-gathering tool was an online survey, administered via a Qualtrics questionnaire. The link to the online survey was disseminated to EAL businesswomen via several options, including through contacts of the researchers in the Waikato region and a request for participants through selected non-government organisations (NGOs). This sample of convenience led to snowballing. The initial online survey was completed by 18 participants who identified as EAL background migrant WSBO in the service industry based in the Waikato region. All the participants answered the questionnaire anonymously and used a nickname to identify themselves for correlation in further analysis. The questions in the survey covered a range of topics, including relevant demographics of the cohort, questions about their business and their prior experiences, and positive and negative experiences dealing with various stakeholders in the New Zealand context. To increase the validity of our study, we developed questions in our online survey based on the prior literature and empirical evidence from other countries.

Following on from the survey, the semi-structured interviews were conducted by one of the researchers and a research assistant who was experienced in conducting interviews. All participants were asked the same questions initially and follow-on questions were posed in response to the interviewees' initial information shared. At times, interviewees inadvertently covered several questions in one response. In that case, the follow-up questions planned were not asked. Cohen et al. (2018, p. 358) suggest that individual interviews such as those conducted in this study provide an "opportunity for gathering in-depth data," are "useful for exploring complex issues," and "can build trust and rapport." As this is a complex problem that the researchers are exploring, the value of conducting individual interviews outweighed the convenience of conducting focus-group discussions; the latter might have seemed more manageable in terms of saving time, but would not have been in terms of trust and rapport building, which are both invaluable for this project. All interviews were recorded and transcribed to ensure participant anonymity.

RESULTS

Participant details

As mentioned above, in the initial phase of the project, 18 businesswomen who identified as EAL background WSBO participated in the survey. The first set of questions related to the participants' demographic details. The data indicated that these businesswomen came from several countries or regions, including Sri Lanka, China, Malaysia, India, South Africa, Latin America, Northern Africa and the Middle East. Of the 18 participants who completed this survey, 16 of them identified as Asian or South Asian, one identified as South African and one as North African Arab. Most of them were aged between 35 and 55 (80 percent) with the rest being over 55 years old.

In the business-related questions, 60 percent of these female business owners have more than 10 years' experience in their specific fields. Participants were also asked about the legal status of their business. Almost half were registered as companies (limited liability), four were sole proprietors, three were in a partnership, and one stated "Other" (see Figure 2). Those that are registered as companies with limited liability mainly choose this status to help them build their businesses without risking their private assets.

For the types of services (see Figure 3), four participants indicated that they were in hospitality, four were in education, two were in restaurants and bars, one was in professional and consultancy services, and five of the respondents indicated that they were in "Other" businesses, which included beautician, hairdressing, massage services, retail, and selling natural gifts. More than 50 percent of the businesses had fewer than five employees in their organisation.

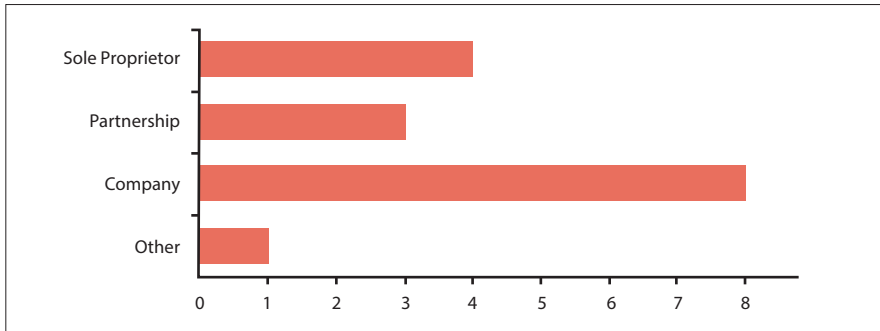


Figure 2. Legal business status of EAL background WSBO.



Figure 3. Types of services provided by EAL background WSBO.

Findings: Three important challenges

Following on from the survey, interviews were conducted with a sample of eight of the migrant EAL background WSBO. Their views are shared here as they relate to the identified specific challenges they face. In this article we wish to highlight three important challenges: English-language ability and processing; ability to understand humour, and sexism and stereotyping. In the survey, participants were asked to evaluate their own English proficiency (see Figure 4): 23 percent indicated that they were “Excellent” in both Listening and Speaking skills while 71 percent indicated that they were “Good” in both those skills. For Writing skills, 29 percent indicated that they were “Excellent” and 53 percent indicated that they were “Good,” and for their Reading skills, 29 percent indicated that they were “Excellent” and 59 percent indicated that they were “Good.” Based on this data, overall, the eight participants rated themselves relatively highly in terms of English-language proficiency.

	Excellent	Good	Average
Writing	29%	53%	18%
Reading	29%	59%	12%
Listening	24%	71%	6%
Speaking	24%	71%	6%

Figure 4. Participants' evaluation of their English-language ability (n = 8).

In the survey, in the overall responses to the question related to language barriers (*Does not having English as a first language pose some problems in your business?*), eight out of the 17 respondents felt that it was not a barrier (Figure 5). When asked whether *English language was a barrier to starting a business in Aotearoa New Zealand* (Figure 6), out of the 17 responses, six indicated *Definitely not*, five *Probably not* and three *Might or might not*. Therefore, most respondents do not consider English language as a barrier for them in setting up a business in New Zealand. These responses suggest an overall positive attitude amongst participants towards starting a business in New Zealand for EAL background businesswomen. On the other hand, the interviews revealed a range of challenges faced by these businesswomen when working with certain stakeholders, such as their suppliers, employees and customers, where communication was often the pivotal challenge. So, several of these identified initial challenges can be related to their English-language ability, processing and ability to understand humour (see Figure 4).

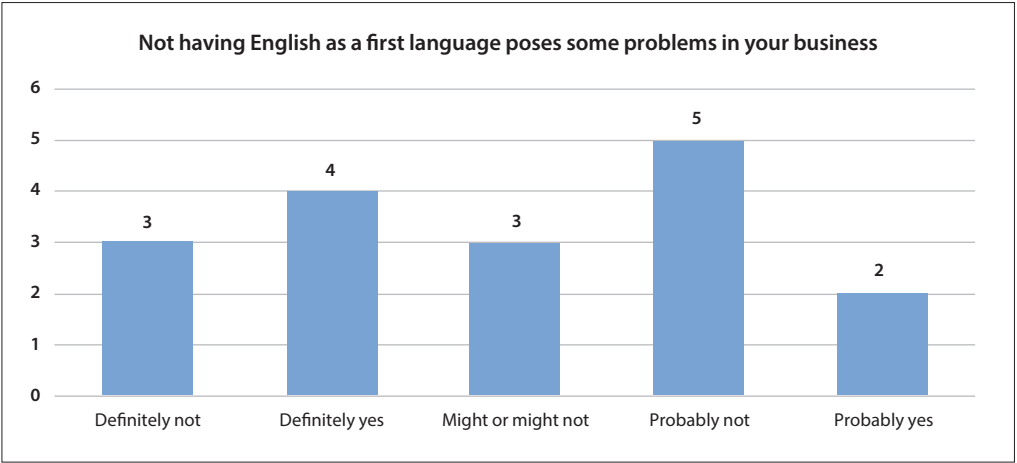


Figure 5. Having EAL poses problems in participants' businesses.

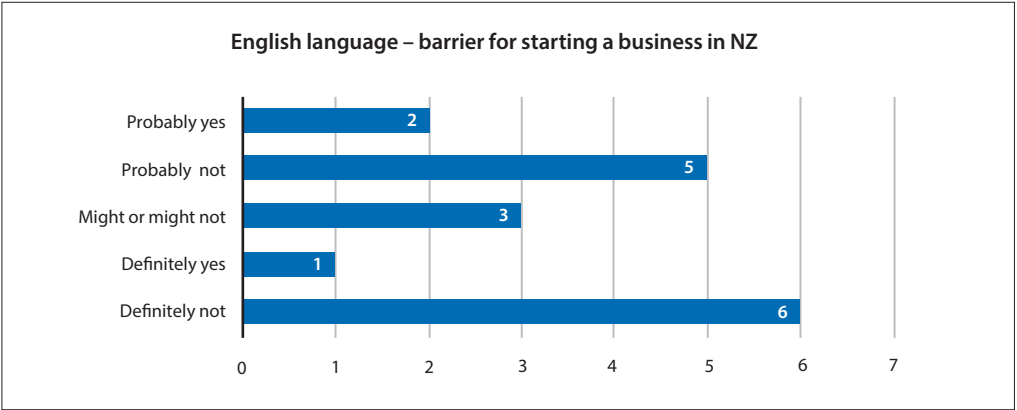


Figure 6. English language as a barrier to starting a new business in New Zealand.

In addition to the language-related challenges or miscommunications, participants were also asked to share some other challenges that they face when conducting their business. Some experiences around sexism between female employers and migrant male employees, racism, and stereotyping from suppliers were shared. Two participants shared experiences of sexism, where they felt migrant male employees were racist and sexist. One participant (P8) stated that when her husband spoke to the male employees they responded, but when she spoke to them, they pretended to not understand and made her repeat herself a few times, even though according to her she knew they understood and even though she owned the business (see Figure 7, sexism challenge).

Nature of challenge	Comments from participants
English ability and processing	<p><i>Is English language a barrier with banks – Yes, definitely, just because, er, when you ... so for banks sometimes they will ask you to prepare a proposal or business plan. We can prepare business plans. You can speak English, but you can't think in English. You can't dream in English. So, when you want to convert that to the language, you will have the difficulty putting your ideas into words. (P2)</i></p> <p><i>Definitely [need high English ability], in early childhood sector. (P1)</i></p> <p><i>[P3 completed a degree where half the qualification was delivered in her home country and half in a New Zealand university – she said that the academic English is different] Actually, I don't think my English is good. I never been to the like test. ... Nowadays even in like supplier or in the bank they also have like Asian people over there right ... it's not, they're not all Kiwi or local, right. So, you can easily find our [language] representative, you know. Like if you really have any special requirements of the language (P3)</i></p> <p><i>I think if people cannot communicate, they cannot think they are a victim, they should go and improve their English because staying here we can. I always tell people don't sit here and say they are victims, go ... and there is a lot of public speaking courses ... because certain words you can use people get offended. (P7)</i></p>
Ability to understand humour: language and cultural barriers	<p><i>[About suppliers] So sometimes, you know, they make a joke, you don't even know they're joking. So it's like that. (P8)</i></p>
Sexism and stereotyping	<p><i>[A migrant female's employers comment about her treatment from migrant male employees] They don't like what I'm saying – "Sorry I can't understand what you saying I can't get it" – and you know, they clearly can understand what you're saying. (P8)</i></p> <p><i>[About suppliers' attitudes] But I mean, there's a kind of set idea that, okay, Chinese, they want something cheap. I mean, it's not that Chinese want something cheap... Like, I mean, like the Asians they need something cheap. What? [It's] not like that. Sorry. We want quality as well. (P4)</i></p>

Figure 7. Nature of participant challenges – Focusing on three key challenges.

The findings shared in this study have important ramifications for all stakeholder groups connected to the EAL background WSBO in the Waikato region, but especially as they relate to proposed improvements to ensure that these women can face reduced challenges when conducting their businesses.

DISCUSSION

In our interviews several participants said that they started their own businesses because they had issues with finding employment in Aotearoa New Zealand. This decision aligns with other research findings which state that EAL women start their businesses to overcome the barriers that they face in their host countries (Assudani, 2009; Constant & Zimmermann, 2006; Chrysostome, 2010; Pio, 2007), such as racial and ethnic prejudices, and language barriers. The challenges identified in Figure 7 that relate to sexism and stereotyping issues also align with the barriers that have been identified in the previously mentioned studies. In the case of this study, the sexism and stereotyping challenges experienced are largely from migrant employees and local suppliers, respectively.

In contrast with Lee (2005), our study reveals that our initial cohort of migrant women business owners feel that they do not have any barriers when communicating in English. The participants in our study came from countries with high literacy rates, including India and Sri Lanka, and most of them had a university education, which ultimately supports them to tackle new ventures. Therefore, it could be presumed that the level of their English speaking, writing, listening and reading skills are appropriate to start a business in Aotearoa New Zealand. As with studies conducted by Webster and Haandrikman (2017) in Sweden, this study illustrates that EAL businesswomen in the Waikato region generally have higher education and are willing to contribute to the New Zealand economy.

Despite the survey responses suggesting that these women rated their proficiency relatively highly in English, there are potential language-related challenges faced by the cohort in this study that were revealed in the interviews. In fact, the interview responses where participants shared more details about their lived experiences, revealed that they did have more challenges with language ability, humour, and culture (see Figure 7). Furthermore, it is worth mentioning that migrant women small-business owners are not a homogeneous group and their barriers to conducting their businesses in other countries may vary from country to country (Fielden & Davidson, 2012).

POTENTIAL SOLUTIONS

As the researchers start to identify potential or partial solutions to the key challenges faced by EAL background WSBO, it has become evident that there needs to be a focus on implementing changes to existing local and national policies to assist with educating key stakeholders in the business sector around the backgrounds and cultures of these businesswomen. Positive and inclusive education could lead to a reduction in discrimination and miscommunication within Aotearoa New Zealand. Without education, the current situation may cause poorer outcomes for the business sector with a resulting negative knock-on effect for society.

Planning a series of workshops targeting different stakeholders, including the businesswomen, could reduce the language and cultural gaps between the women and the other stakeholders. Generally, education around business culture both in New Zealand and in their home countries could be useful. Equality of understanding is essential to recognise that it is not only the businesswomen who have to shift their thinking, but most stakeholders. Some possible movements towards solving the issues identified include developing supplier information booklets on the key ethnic groups. One of the businesswomen who was interviewed suggested that these businesswomen should do courses that are available, such as public-speaking courses. In addition, some of the issues raised were around employees of these businesswomen displaying sexism, so education needs to include stakeholders such as the employees.

FUTURE DIRECTIONS

In the second phase of the study, which is not reported on in this article, we explored the participants' challenges and potential management strategies suggested by a cohort of applied linguists related to pragmatic and cultural competences. Aligning with general trends in English-language proficiency around EAL background WSBs, the participants who rated their English-language proficiency highly were mostly migrants and not from former-refugee backgrounds. Outside of the scope of this article, but pertinent to the bigger research project, further data analysis and studies are underway by the researchers to compare the responses between the two diverse groups of EAL background businesswomen (migrants and former-refugee backgrounds). The prediction is that these further findings will probably display some key dissimilar challenges, especially as these two groups would have had different pathways to establishing a business in the Aotearoa New Zealand business space.

In future research, it is important to discover how these findings can advise or drive practical implementations and policy development. This ongoing research study plans to provide better insight for policy makers, practitioners and key stakeholders, including the Inland Revenue Department, local banks and the local Chamber of Commerce, to support EAL background businesswomen in Aotearoa New Zealand. The intent would be to inform them about providing effective support mechanisms to nourish diverse groups in the business sector in the Aotearoa New Zealand context.

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ADAPTING TO CHANGE: PEDAGOGICAL INSIGHTS FROM CHINESE TRANSNATIONAL PROGRAMMES IN CHENGDU AND DALIAN

Jeremy Taylor, Martin Andrew and David Woodward

INTRODUCTION

As I skated across the icy paths of Dalian during mid-winter, the piercing cold provided an interesting contrast to the uncertainties I had previously encountered in New Zealand. These troubling doubts had been created due to the recent pandemic and not knowing whether I would be able to find the time to be able to travel to China to complete my observations. This moment also marked an important stage of my doctoral research, embarked upon in 2019, which concerned improving my understanding of the evolving practices of Chinese Transnational Education (TNE). Although the weather was frigid, I was still happy that I had finally been able to travel to Chengdu and Dalian, as these cities were the cornerstone of my research project. Chengdu and Dalian are diverse cities making for interesting comparisons. For reference, Chengdu is the capital of Sichuan province and as the crow flies is around 1,800 kilometres from Beijing. Dalian lies much closer to Beijing, being only 460 kilometres from China's capital. Reflecting in the moment, it was surreal to consider that I had finally been able to travel to China, and the recent feelings of melancholy just melted away.

The purpose of this article is to explore the evolving practices and engagement strategies of two Chinese TNE programmes. The specific research question I have addressed is: How have Chinese TNE programmes adapted their teaching practices and learner engagement strategies in response to the COVID-19 pandemic? Making use of my prior TNE experience, this study examines the adaptations made to maintain both educational continuity and quality. My goal throughout the study has been to explore some of the key factors that have led to successful adaptation and to provide insights for how TNE practices can be improved. In writing this article, I have employed an autoethnographic approach, as advocated by Ellis and Bochner (2000), combined with a qualitative descriptive (QD) methodology. My methodological choices have anchored my experiences within the wider academic discourse and have as a result given me a more rigorous position.

The article is enriched by the reflective contributions of my academic mentors, as their insights complement and contrast with my own experiences, delivering an output that is both diverse and connected. These contributions, the first from Martin Andrew and the second from David Woodward, not only triangulate the findings but also emphasise the collaborative nature of doctoral research, reflecting the input of a broader academic team. In many academic disciplines, co-publishing with mentors and supervisors is a common practice. This collaborative effort showcases the rigorous and comprehensive nature of this research. Ethics approval (number 876) was granted in 2022.

BACKGROUND

Transnational education (TNE) commonly refers to educational programmes where learners can be studying in a country different from the one where the awarding institution is based (UNESCO, 2001). Such programmes are a critical component of global education (Naidoo, 2009). A primary motivation for expanding offshore programmes is the pursuit of greater internationalisation and institutional capacity development (Smith, 2010). These types of programmes are not only potential revenue sources for institutions (Smith, 2010), but they also provide opportunities for enhancing institutional brand and reputation (Department for Business, Innovation and Skills, 2013). Notwithstanding these benefits, TNE also requires more extensive research and faces gaps in the exchange of best practices (British Council, 2013; Henderson et al., 2017). In terms of Chinese TNE developments, there is also a growing focus on the quality and outcomes of teaching and learning methods (O'Mahony, 2014). Supporting this argument, Rajaram (2020) stresses the importance of continuous research to address cultural and social challenges faced by Chinese learners in international settings. The COVID-19 pandemic has also precipitated the need for significant reflection on delivery (Bolotov et al., 2022) due to providers having to change their approach (Clerkin et al., 2022).

The COVID-19 pandemic created immense institutional strain, as it required almost instant efforts from educators to move from traditional in-person classroom settings to hybrid teaching approaches. This shift in teaching approach has created both challenges and opportunities in delivering effective education across borders. In both cities, keeping learners engaged while they were studying online was a major challenge. Moving all classes online required educators to become more innovative. As there was limited in-person interaction, it was certainly a tough time for educators to be able to build a sense of community among learners. Nonetheless, I saw evidence that WeChat and other social media tools helped to overcome the loss of in-person interactions. Such tools gave learners a way to connect and collaborate outside of formal classes. As part of these changes, I observed new ways of working, to ensure learning objectives were achieved. Effective technology practices were also an important component in creating effective learning experiences.

Notwithstanding the many negatives associated with the recent pandemic, significant new learning has been taken from the experience and this has led to improved practice. For example, educators have improved their digital literacy skills and assimilated a greater understanding of what is required to work best in hybrid learning environments. Institutions have also been given a roadmap for a future that will increasingly see greater levels of digital learning being implemented (Kapogiannis, 2023).

METHODOLOGY AND METHODS

I selected qualitative description (QD) as the methodology for this study as it offered me an opportunity to integrate the opinions and lived experiences of my participants (Sandelowski, 2000). According to Bradshaw et al. (2017), QD is a valuable research methodology due to its capacity to provide detailed and clear descriptions of real-world phenomena. This method offers researchers considerable flexibility in study design, and opportunities for more nuanced understanding. When employing QD, researchers typically aim to collect fundamental information about the participants, the nature of the event, its setting, and perspectives of those directly involved (Tamayo et al., 2020). Furthermore, QD research projects often integrate the researcher's perspective as a participant, offering a unique angle to explore how the researcher's experiential knowledge in their professional practice can contribute to the study's objectives (Bradshaw et al., 2017). To gather the evidence, I utilised semi-structured interviews and participant observations.

Rubin and Rubin (2012) argue that researchers can gain different perspectives and positions through integrating semi-structured interviews into their study. Such interviews were conducted using Microsoft Teams during the first half of 2023. The 16 participants included two programme managers, six educators and eight learners. All the semi-structured interviews were transcribed through Otter, with participants self-selecting their respective

pseudonyms. This approach aimed not only to preserve anonymity but also to enhance researcher reflexivity (Lahman et al., 2023).

To enhance the study's rigour, I included participant observations. LeCompte and Schensul (2010) contend that observations can reveal the broader context of a scenario, proving especially useful at uncovering underlying processes. In total, I completed eight observations in Chengdu and a further eight observations in Dalian. As depicted in Figure 1, my aim during the observations was to be unobtrusive and document significant events as they happened. As McKechnie (2008) argues, for effective observations to take place, a researcher must aim to document what is happening in front of them as soon as is practical. In terms of upholding rigour during the observations, the writing of analytic memos assisted me in challenging my position encouraging me to become more reflexive in my practice (Linneberg & Korsgaard, 2019; Saldaña, 2016). The important criteria I focused on during every observation included classroom management, engagement techniques, use of technology, and learner participation.

I employed Reflexive Thematic Analysis to evaluate evidence. Reflexive Thematic Analysis involves finding and understanding patterns or themes in qualitative data (Braun & Clarke, 2022). As mentioned by Braun and Clarke (2020), it is a process where the researcher actively creates the themes rather than just discovering them. This back-and-forth approach helps researchers really immerse themselves in the evidence, making sense of both what is there and the deeper ideas behind it (Braun & Clarke, 2019).



Figure 1. A Dalian classroom observation: Analysing pedagogical interactions (Source: Author).

INITIAL RESULTS AND INSIGHTS: A COMBINED APPROACH

Before I arrived in China, some interesting patterns had been revealed in the online interviews. One of the most significant and recurring themes was the extent of disruption learners felt their studies had experienced due to the COVID-19 pandemic. For example, “Leo,” a Dalian learner, espoused a common learner perspective:

I think online courses have many problems. A large part of people don't listen carefully in class. They just stay at home. I think it belongs to the COVID-19 as the world just stopped and we have no idea what to do. I just want to lay on the bed at home.

Leo's opinion needs to be viewed in the context of the difficulties that TNE programmes faced during the COVID-19 pandemic. The constantly evolving pandemic situation necessitated the adoption of online classes as a means for institutions in China to continue their programmes during lockdown periods (Ma & Lee, 2021). The shift to online learning, however, posed ongoing challenges, as institutions had to quickly expand their online offerings. Common challenges identified over this period included technical issues, online classroom management practices, and mixed levels of learner engagement (Friedman, 2020). Interviews with Chengdu and Dalian programme managers also confirmed recurring and broadly similar challenges faced during the pandemic. For example, here "Alexander" shares his intense frustrations about how the pandemic has disrupted institutional teaching efforts:

Obviously, the disruptions relate to students not being able to attend class. That's the biggest one. For our joint programme where we teach in China for the first three years of the programme, our staff have not been able to travel to China. And so it's lost a vital face-to-face component of the programme.

Despite the majority of participants expressing reservations towards an online teaching approach, some participants shared the advantages of leveraging technology for enhanced learning, particularly through the use of WeChat in the classroom. For example, both programme managers were enamoured with how WeChat could be used by both educators and learners. "James," another programme manager, said the following:

I guess, yeah, some of our asynchronous group work is done offline as well. Then, I mean, increasingly, things like WeChat, QQ groups are used as a bit of a community of learners with the teachers involved as well.

WeChat and QQ are both popular Chinese social media platforms developed by Tencent (Negro et al., 2020). WeChat serves as a versatile app integrating messaging, social media, and mobile payment functions, and is widely used in China for personal and business communication (Xue et al., 2021), while QQ is an older platform primarily known for its instant messaging service (Huang et al., 2013).

The sentiment that WeChat could be used in the classroom for a more positive learning experience was shared by both programme managers and learners. For example, "Coco" expressed just how useful WeChat can be for learners, particularly those who may be reluctant to speak up in class: "Of course, if we have any questions, we will send a WeChat to ask the teachers to solve the problem."

The interviews also brought to light the innovative practice of flipped classrooms, and particularly how Chengdu educators utilised this approach in response to the restricted teaching conditions. Educators creating a flipped classroom will typically invert traditional teaching models by delivering instructional content outside of the classroom, often online, and moving homework into the classroom to allow for more personalised instruction (Bishop & Verleger, 2013). Here, James discusses the strategies educators employed to sustain learner engagement throughout the pandemic:

We wanted to make sure that every student was engaged in some way, shape or form. And I think that worked well. And the way we did that was by giving almost kind of a flipped classroom approach where we give the students a lot of reading, we might give them PowerPoint presentations with voiceovers or with a video narration.

With these early perspectives emerging from the interviews, I felt that heading to China to observe teaching practice in situ was not only going to be informative, but would specifically offer interactions between learners and educators and possible changes in practice caused by having had to deliver all prior classes through an online teaching approach. I arrived in China in November 2023 and the Chengdu observations took place first. I have included below an extract from my first Chengdu observation demonstrating just how effective a face-to-face

delivery approach can be. The extract corroborates what had emerged in the interviews about just how much learners value learning together in a physical classroom:

A highly enriching experience for learners was provided where it was evident that learners had achieved the learning outcomes and were interacting constantly with their classmates in a very positive manner. I felt that the positive interaction of learners was a reflection of the high level of trust that had been created in the classroom by Mei.

On observing further classes in Chengdu it was evident that WeChat, as had been mentioned in the interviews, was being used in impactful ways. For example, in my fourth Chengdu observation, I was struck by how WeChat could offer a collective space for learners to overcome learning difficulties and to be a space for online exploration. The following extract represents reflections on my fourth Chengdu observation when “Bill” was covering his recommendation for how learners could work together for a forthcoming assessment task:

Also, another really useful point that Bill shared today was about WeChat and blended learning and how WeChat could be used to create an online community of practice (OCoP) for learners. Specifically, WeChat was mentioned in the class as being a place to review problems and a place to share documents amongst all learners.

An online community of practice (OCoP) is essentially a collective of individuals who engage in sharing and evolving their knowledge, beliefs, and experiences around a shared activity, leveraging technology for communication (Liu, 2012). Social media platforms such as Facebook and WeChat can also promote greater interaction and collaboration among learners, thereby delivering an improved learning experience (Alammary et al., 2014; Miron & Ravid, 2015; Zhang, 2015).

Another important reflection that I documented was how effectively a flipped classroom approach could be used with second language learners. As noted in the interviews, a flipped approach had been used throughout the pandemic. However, with the return to face-to-face delivery, educators were now having to manage the complexities of large groups of eager learners in a lecture room and having to cover difficult concepts in only two 45-minute class periods. Here is an extract from my seventh Chengdu observation where I reflect on the struggles I noted when learners had to deal with technical terms like demographic analysis and bivariate analysis:

As previously noted, it's crucial for learners to have engagement opportunities and for educators to eschew the delivery of information in large blocks of text. A key piece of learning that I took away from this class is that educators need to consider carefully how to deliver an engaging learning experience when they have to deliver large lectures. Understanding and applying English concepts like the data analysis techniques I observed could be a struggle for some learners. I felt that at times the concepts were challenging and maybe having a flipped classroom approach to delivering class could have been helpful. Learners could potentially have undertaken many of these challenging exercises at home and then used the lecture as a place for feedback and creating more of a shared learning experience.

Completing the observations showed me just how important it was for educators to keep learners engaged through using interactive and flexible teaching strategies. Digital tools like WeChat were helpful not just for communication but also for building a sense of community (Xue et al., 2021), which in my experience is a key determinant in successful online learning. Social media platforms such as WeChat offer unique advantages over traditional learner systems, particularly in creating a community and real-time interaction among learners and educators. Given its flexibility and accessibility, WeChat is a helpful tool to help extend the capabilities of learners within Chinese TNE programmes. To go beyond some of the limitations seen with additional Learning Management Systems, WeChat offers considerable promise (Gan & Wang, 2015; Harwit, 2017). Teng and Wang (2021) also mention that, in the context of learning in China, WeChat plays an important role in delivering

successful interactions between educators and learners. Therefore, integrating platforms like WeChat should be considered a key strategy for reflexive practitioners.

Another standout conclusion emerging from the findings was the need for educators to consider a flipped classroom approach. This approach is essential to meet the diverse needs of learners as it allows for a much more comprehensive exploration of topics (Jong, 2023). Sun et al. (2022) also mention that in the post-COVID educational landscape, particularly in TNE programmes where the learning challenges can be even more complex, implementing a flipped classroom model can lead to improved levels of engagement.

Reflecting on what challenges TNE programmes face today, the evidence suggests a need for ongoing support and training for both educators and learners. This support needs to go beyond just technical help to more structured guidance to help educators and learners make better use of the available digital tools. This includes pedagogical guidance on how to effectively integrate the available tools into a teaching and learning context. As Joshi (2023) argues, technology is going to play an increasingly greater role in education, as it can empower learners for the future due to its potential for greater accessibility and inclusivity. Notwithstanding this promising future, training will be necessary if these tools are going to realise their full potential.

Mentor I's contribution

When mentors walk alongside learners in their learning trajectories, they draw on their own autoethnographies and create analogies with their own experience. As a transnational educator in Education both in China and Vietnam, I was able to draw on my own cultural and educational experiences with learners, programmes, curricula, and material environments. This process enabled me to discern alignments with the topic of adapting to educational change. In my own ten years in TNE, up to and including 2023 and the COVID period, I gained a sense of the pressing issues for learners and organisations during times of sociopolitical reform and educational disruption.

My experience-led insights align with Jeremy's key insights about TNE deliveries in Asia: the need for enhanced blended learning models, particularly ones allowing flipped learning and reflective spaces, and the importance of social media (and potentially discussion board spaces) for building community. The teacher is linked indirectly via the sharing of their updated discourse, and the need for tailored support in integrating technology. Since both nations are infused with Confucianist educational culture, despite having contrasting strategies during COVID, disruption foregrounded similar issues. First, after years of positivist domination, the pandemic uncovered the viability of educational research informed by reflection, as demonstrated in a common yet new pedagogy using discussion forums for sharing reflective learnings. Second, with paper resources (which had long been an expected norm) not circulating in classrooms, learners adapted to portable e-tests disseminated via social media and mobile spaces. While not all learners have access to computers (for instance, those in rural or mountainous areas), all are literate in mobile digitisation. E-communities and critical friendships emerged organically from this move to digitisation, and the pedagogical strategy is still used today. Third, the greatest challenge was a lack of technical support, especially in ensuring lecture and conferencing software were fit for purpose in nations where many learners possessed old computers. This problem was addressed by having monitors from the administrative team in the digital classrooms, instructing, problem-shooting, and finding workarounds.

The key findings in this paper echo my own experience in analogous spaces. As a mentor, this fortuitous alignment brings support for and arguably validity to the key findings in this paper. When the experiences of the learner and their mentor fuse in professional practice epistemology, there is a strongly supportive sense of resonance, alignment, and commonality.

Mentor 2's contribution

Participant observations of transnational education programmes in Chengdu and Dalian by Jeremy Taylor provided contextualised data that corroborated his semi-structured online interviews. This qualitative descriptive methodology of observations would not have been possible 12 months earlier, due to COVID-19 restrictions in China. The global pandemic transformed education pedagogy, forcing classrooms online. Jeremy's work clearly indicates that this approach, on its own, does not engage learners to learn. A more learner-centred approach helps to engage learners and the use of tools such as flipped classrooms, WeChat, and training in technology, will assist in this process. Jeremy's use of analytic memos results in a more reflexive practice and provides academic rigour for this reflexive thematic analysis. TNE programmes may be seen as role models for providing the precision and innovation to transform learning, with a flow on effect for pedagogical delivery domestically within Chinese tertiary institutions.

CONCLUSION

This article has shown that TNE programmes need to consider incorporating more flexible and adaptive teaching methods if they want to better meet the needs of their learners. This point is especially pertinent when we consider the impact that COVID-19 has had on practice. Social media platforms like WeChat play an important role in promoting more real-time interactions between educators and learners and therefore should be encouraged as part of any future-facing teaching toolkit.

Another key takeaway from this research is that digital tools and innovative teaching approaches should not be viewed as ephemeral responses to the pandemic but as reflections of broader trends in Chinese TNE. The evidence suggests that these approaches will be increasingly necessary for creating fit-for-purpose learning environments.

As we ponder the future of TNE programmes, it is evident that practices are changing. TNE programmes should be equipping their learners with the necessary skills, knowledge, and adaptability to succeed in a globally connected world. This study provides insights into how to overcome some of the inherent difficulties of an increasingly challenging global education market. If TNE programmes are to remain relevant they must continue to promote innovations in the classroom and be open to greater collaboration.

This journey through the evolving practices of TNE offers countless opportunities for further research, particularly in understanding how the findings could be applied across wider TNE domains.

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ASSESSING THE SIGNIFICANCE OF THE METAL TRADES BRAND AS A VIABLE CAREER PATH FOR WORK-READY STUDENTS

Phillip Meek, David Woodward and Jeremy Taylor

INTRODUCTION

This study originated from my experience as a business owner within the engineering sector, where I encountered a noticeable scarcity of proficient tradespeople specialising in the metal trade. The disruptive effects of the COVID-19 pandemic and subsequent border closures exacerbated this issue, constraining the influx of skilled immigrants, intensifying pressures on employees and employers, and impacting customers.

Over the past decade and a half, my company has observed a troubling decline in the number of young individuals pursuing careers in the metal trades. The aftermath of the 2008 Global Financial Crisis saw major manufacturing firms, traditionally supporters of vocational training through trade apprenticeships, withdraw from the New Zealand and Australian markets. This withdrawal significantly affected the pool of skilled tradespeople available to the metal trade community, catalysing a transformation in the industry's landscape. The inquiry, prompted by conversations among my business colleagues about labour shortages and the belief, through anecdotal evidence, that young people are increasingly reluctant to pursue careers in the metal trades due to a stronger emphasis on university education, serves as a foundation for Madden et al.'s (2022) exploration of pathways for tradespeople entering higher education.

The recruitment of apprentices has emerged as a primary concern among industry peers, underscoring a perceptible disparity between the expectations of school leavers and the requirements of employers. Research in career decision-making, informed by Bandura's Social Cognitive Theory, emphasises the role of knowledge acquisition through the cognitive processing of information (Bandura, 1986). Bandura (1977) demonstrated that self-efficacy, one's belief in one's capabilities, significantly influences career choices and the level of effort invested in them. Lent et al.'s (1999) exploration, "A Social Cognitive View of School-to-Work Transition," recognises that individuals base their career decisions on factors beyond mere interests, prompting a deeper examination of the key drivers influencing career pathways.

Willis (2017) highlighted the stagnant image associated with the metal trades brand, a sentiment shared among Australian and New Zealand engineering business owners, rooted in historical perspectives, knowledge gaps, and societal attitudes. Operating business offices in both countries afforded me the opportunity, as a company director, to assess shared challenges in labour recruitment and associated brand issues. The post-COVID labour market crisis exacerbated existing difficulties in trade recruitment, with one respondent foreseeing an inevitable acceleration of pre-existing challenges.

Prior to embarking on this project, I held the belief that schools should aim to establish a connection between their educational processes and students' eventual employability. While some educators may argue that direct

alignment with employment is not the primary objective of education (Gibbs, 2000), there exists a correlation that employers, including myself, consider when evaluating prospective hires. Basham's (2011) thesis on the role of career education elucidates the distinction between students' perceived needs for informed career decisions and the capabilities of career advisors to meet those needs.

The research underscores the need for schools to align with Dewey's (1916) philosophy of education, stressing real-world connections and community engagement to nurture students' societal contributions and citizenship.

The primary objectives driving this research endeavour were to understand better the challenges confronting the metal trade sector around career pathways and recruitment, thus enhancing my capacity as an employer and business owner, and to advocate more effectively for the resilience of the metal trade industry and the opportunities it offers for personal and professional growth.

METHODOLOGY AND METHOD

For this research, a mixed-method approach was employed, utilising both an online survey and one-on-one interviews to delve into the perceptions of 'work-ready students' concerning the metal trades. In line with Scharfenberg's (2000) insights indicating that there was limited time dedicated by students to career decision-making, a pragmatic strategy was adopted. Initially, a quantitative survey was conducted to establish a foundational understanding. The findings from this survey then guided the formulation of qualitative questions for subsequent one-on-one interviews with participants.

Invitations were extended to 28 high schools in the Otago region, targeting students intending to leave school within the next 12 months. Selection criteria were based on school participation. A dedicated website was developed to address potential resource constraints exacerbated by the post-COVID environment. This platform disseminated information about the research and researcher and provided instructions for research completion. It also facilitated the process with digital consent forms and presented the quantitative survey in both written and video formats. Representatives from engineering businesses, labour hire, and training and vocational pathway providers made up the other cohorts interviewed. Their selection was based on their geographic location around M&M Autopak's two registered offices: the head office in Sydney, Australia, and the New Zealand office in Dunedin.

Groups Surveyed	Australia	New Zealand
Schools invited	*	28
Schools that participated	*	3
Students who took the survey	*	14
Students who interviewed	*	6
Industry interviewed	4	4
Labour hire	1	1

*Due to country-specific ethics requirements, students in Australia could not be interviewed.

Figure 1. Table of participants.

The interviews were a combination of face-to-face meetings or Microsoft Teams meetings (as per the ethics approval for interviewing minors) and recorded transcripts along with personal observations and note taking formed the research data.

Ethical approval for the research was obtained from Otago Polytechnic (approval number 937), with consultation conducted with the Kaitohutohu Office (KTO) to ensure inclusivity and efforts to encourage Māori participation in the research process were duly considered.

FINDINGS

Group I: Qualitative interviews with students

The qualitative interviews were conducted utilising the Microsoft Teams video platform, each lasting between twenty to thirty minutes. The online survey played a crucial role in initiating discussions, providing a solid foundation for conversation. The participating students were willing to engage with the research, offering valuable insights into their perspectives and experiences.

The interviews commenced by exploring the students' involvement in after-school or weekend jobs that their parents did not financially support such as cleaning their rooms or taking out the rubbish. This line of questioning stemmed from employers' observations regarding young individuals' work ethic. The discussion delved into why the students decided to seek or not seek part-time employment (Meek, 2023, p. 32).

Subsequently, attention turned to the sources from which students sought information about careers and career pathways. Social media emerged as the primary source for 38 percent of respondents, followed by school careers advisors and internet searches at 23 percent. Surprisingly, 54 percent of participants had not heard of the website, careers.govt.nz (Meek, 2023, p. 34).

Regarding their plans after completing school, responses varied widely. Some expressed uncertainty but mentioned parental encouragement to pursue a university education, while others confessed to indecision, frequently changing their chosen career paths (Meek, 2023, p. 37).

The role of school career advisors was also explored, revealing limited interactions between students and these advisors. However, the small sample size may have constrained the ability to draw definitive conclusions about the impact of career advisors on students' career progression. Engagement with this research by school careers advisors might have provided additional insights (Meek, 2023, p. 100); however, logistical challenges, compounded by the effects of COVID-19 on the education system, made it impractical to interview them (Meek, 2023, p. 94).

Discussions regarding trade careers were somewhat subdued, with most participants lacking familiarity with metal trade careers. Notably, 69 percent of respondents were unfamiliar with the concept, and 85 percent could not define the term 'Fitter and Turner' when presented with multiple options. Those who were aware of trade careers expressed concerns about societal perceptions, associating them with academic underachievement: "I think all my friends are just very, like, high achievers. I feel like, a lot of people look down on people who go into a trade" (Meek, 2023, p. 37).

Further inquiries into metal trades failed to garner significant interest, underscoring the broader issue of students' limited awareness and understanding of trade careers highlighting a clear gap between students and career advisors.

Group 2: Industry

In the industry-focused research segment, operation managers from eight businesses participated, evenly distributed between my company's two office locations in Sydney and Dunedin. Topics covered included apprenticeships, recruitment strategies, targeting female and Māori/Indigenous individuals, and vocational training. Discussions were initiated among the managers regarding the persistent skills shortage in the field.

Apprenticeships and recruitment

Among the participating companies, there was a lack of uniformity in apprenticeship recruitment approaches, with some relying on personal connections with local organisations such as rugby clubs, schools, and chambers of commerce. Social media platforms like Facebook and LinkedIn were embraced by certain businesses for recruitment purposes, particularly by younger managers. Additionally, one manager leveraged their connection within a training organisation to facilitate apprentice recruitment. Variations were noted in the educational assessments to gauge workforce suitability across the industry. These findings underscored the need for tailored recruitment strategies to bridge the gap between prospective employees and the metal trades.

Female apprentices

The non-profit organisation, Women in Trades (n.d.), states that although women represent half of the population, they account for less than 12 percent of trade jobs in New Zealand. Encouraging young people, particularly women, to pursue trade training is seen by this organisation as essential for meeting the anticipated growth in the trade sector.

The need to assess employers' perspectives on this under-representation of females in the metal trade is widely acknowledged. Employers noted a significant shift in attitudes, moving away from the perception of engineering as solely physically demanding towards recognising individuals' determination to excel in their trade. Vocational trainers highlighted qualities such as attention to detail and precision as beneficial for female apprentices.

While reasons for the low representation of females varied, a common concern was the lack of concerted efforts to educate the public about trade careers. An example cited by an Australian respondent was the Housing Industry Association's promotion of the building sector, highlighting its advantages. However, Australia and New Zealand appeared to lack a similar industry-wide support structure for engineering trades, posing a challenge to raising awareness.

Māori and Indigenous recruitment

Although initially beyond the scope of this study, exploration into Māori recruitment was mirrored in Australia by examining Aboriginal recruitment. Responses varied, with some participants potentially adhering to political correctness. Employers in both countries expressed inclusivity but struggled with stereotypes, particularly in Australia, where stereotypes like 'walkabout' were associated with unreliability among Aboriginal workers. Despite positive dialogues, no active programmes addressing Māori recruitment could be identified among metal trade businesses in New Zealand. The research did not examine whether Māori were under-represented in this industry but explored whether this was a missed opportunity for businesses to recruit from this group.

Vocational training

Responses underscored concerns regarding diluted vocational training. The privatisation of Industry Training Organizations (ITOs) in New Zealand was perceived as contributing to a 'box-ticking' approach, detracting from the apprenticeship experience. Concerns were also raised about allocating funds to new trades training centres,

which are seen as prioritising classrooms over practical training. In Australia, the closures of significant Technical and Further Education (TAFE) colleges resulted in apprentices travelling long distances for relevant education.

Group 3: Labour hire

Insights from labour-hire businesses highlighted the impact of overseas arrivals on labour market trends. The industry faced challenges due to a lack of innovation and an outdated focus on traditional models. Demographics within labour-hire settings revealed a shortage of fresh skilled labour, with employees often retained over five years.

Group 4: Vocational pathway and training organisations

Interviews with vocational pathway organisations revealed a passionate commitment to guiding students into the workforce. Despite frustrations with occasional student disengagement and personal challenges, the rewards of witnessing student achievements were emphasised (Meek, 2023, p. 43). Concerns were raised about the traditional focus on university pathways, with limited recognition of apprenticeships as a valid career path. Challenges included private schools' resistance to vocational pathways and the need for greater focus on post-school career pathways (Meek, 2023, p. 44). These insights underscore ongoing challenges and opportunities within vocational education in both countries.

DISCUSSION

Common threads emerged within each cohort from a diverse sample spanning Australia and New Zealand. Initially, my perspective as a business owner and employer introduced a bias toward colleagues' views regarding the work ethic of young individuals and society's emphasis on tertiary education. However, a broader reassessment of this research unveiled multifaceted challenges, necessitating a more unified approach to drive significant progress.

Schools and students

Although school engagement was anticipated as a pivotal strategy to tackle business challenges, the participation of only three out of 28 schools revealed reluctance among others. This discrepancy, attributed to varying individual principals' views, raises questions about aligning the education system with students' future employability. As cited by one respondent, financial incentives for schools to retain students contributed to a reluctance to promote vocational pathways.

Interactions with principals and career advisors shed light on challenges in recruiting a diverse spectrum of students. Career advisors' limited exposure to vocational opportunities, as noted by Basham (2011), influenced their approach. The perspective of one interviewed teacher underscored the tendency to appoint popular teachers as career advisors, though potentially lacking comprehensive work-life experiences. This underscores the imperative for a cohesive approach to bridge the industry's disconnection from the wider community and reshape societal perceptions toward the metal trade.

Of the three participating schools, only 14 respondents completed the survey, and merely six attended the online interview. Correlating this participation rate with Scharfenberg's (2000) observation that students invest little time in career decisions proved challenging. Factors influencing participation likely included school engagement, the academic versus vocational paradigm, sample selection, the research topic, student engagement with career pathways, and the disruptive impact of COVID-19.

The inconsistent connection between schools and industry and vocational initiatives often frustrates providers and educators striving to guide students toward viable career options. Respondents expressed frustration with the gatekeeper mentality of principals, with some schools exhibiting an open-arms policy while others adamantly resisted external influence. Societal protectionism over students was noted, impeding their exposure to vital life skills and experiences crucial for making informed career choices. The perpetual tug-of-war between prioritising university education over vocational pathways further complicated the landscape, with financial incentives often steering students toward university.

Māori recruitment

While Māori participants engaged in the survey, interviews with Māori students were hindered by a reliance on faculty members and a lack of clear outreach strategies for Māori communities. Business respondents highlighted a general absence of historical links between businesses and Māori communities. Employers acknowledging the suitability of the metal trade for Māori emphasised its stability and provision of valuable skills. Madden et al.'s (2022) findings, revealing a reluctance among Māori to move away from their whānau for study, prompted efforts to instil confidence through initiatives such as introducing a whānau navigator.

CONCLUSION AND RECOMMENDATIONS

A mixed method approach of surveys and interviews was employed to establish the views of school students and industry, including labour hire and tertiary providers. Difficulties with gaining access to students at school, combined with COVID-19, were barriers to gaining a more representative sample of views from secondary learners. However, from the limited feedback, it was evident that secondary students were not encouraged into the metal trades industry because of the perception that “a lot of people look down on people who go into a trade,” combined with the reluctance of schools to let students leave school early because it puts pressure on the schools' bottom line.

Traditionally, vocational educators and industry recruiters have relied heavily on schools as the primary conduit for reaching students, assuming schools are the default hub for information dissemination. However, the evident disconnect between schools and external stakeholders calls for re-evaluating this approach. Variations in school leadership significantly impact vocational pathways, necessitating a shift away from default engagement with schools.

Research indicates that 60 percent of students now utilise social media and search engines for career-related information. From a student perspective, it seems the metal trade brand is poorly understood. Portraying viable career options to school students through social media may provide opportunities, but with the banning of cell phones in schools, this approach may be less effective. Other alternatives may include targeting youth groups such as cadets, scouting, sports clubs, video gaming clubs, local iwi groups, and the like. It is clear from an industry perspective that recruitment into the metal trades is an ongoing struggle and that the metal trade brand needs to be invigorated.

To effectively reach this demographic, establishing a national body partially funded by the Provincial Growth Fund (PGF) and supported by industry memberships emerges as a promising alternative. This body would serve as a proactive advocate for the metal trades industry, portraying it as a field abundant with opportunities, highly skilled, and environmentally conscious. The saying, “You cannot be what you cannot see,” encapsulates this need for such an industry body to overcome existing perceptions.

Members of this national body would benefit from a range of services, including business support, career services, insurance, legal advice, and safety planning. The body's responsibilities would extend to industry

advocacy through public campaigns, media exposure, and support for qualifications. Additionally, events and awards, such as Trade Olympics and initiatives promoting environmental sustainability, would further enhance the industry's reputation for excellence.

The national body would represent the metal trades across various media platforms, aiming to alter community awareness, celebrate achievements, engage with government bodies, showcase innovation, and establish a globally recognised brand.

While the national body model has proven successful in other industries, the unique characteristics of small, independent businesses in the metal trades may lead to a gradual adoption of such initiatives.

Recognising the pivotal role of social media in students' career decisions, the national body would need a targeted strategy for engagement. Learning from successful local initiatives, such as the Southland and Otago Regional Engineering Collective (SOREC, 2018), would provide valuable insights into building a sustainable national body.

Establishing a national metal trades body to represent and advocate for the metal trade industry and change the brand's perception would be a novel approach for the metal trades. This approach, adopted by the engineering industry, shows the importance of bringing a dispersed metal trade industry together and championing the brand, having far reaching benefits, not the least of which may be to channel young people into training, apprenticeships, and career pathways.

The significant awareness gap surrounding the metal trades industry underscores the necessity for a concerted effort to inform and educate students, parents, and communities. A proactive approach involving industry, schools, and government programs is essential to dispelling misconceptions and showcasing the rewarding opportunities within the metal trades. The transition from passive acknowledgment to active engagement in advocating for the metal trade industry reflects the commitment required to shape its future positively.

Reflecting on my journey spanning over 40 years and considering the profound impact of my upbringing on my worldview and sense of self-efficacy, I am reminded of the powerful influence that both knowledge and relationships have had on my life. This sentiment underscores the empowerment that learning and connecting with others bring. Drawing from my experiences as a tradesman, employer, and managing director of an engineering company, this research has instilled in me a sense of duty to share accumulated knowledge with the next generation.

The role of schools, often akin to a political football, presents constant challenges for principals striving to navigate societal shifts and the added pressures of COVID-19. Historically, the struggle for pathway providers and researchers to connect with students through schools has been apparent. Reflecting on the vulnerability of schools' direction regarding vocational pathways, the suggestion arises that the industry may bypass schools and engage directly with students, parents, and whānau through social media.

While the metal trades industry may initially face challenges in achieving cohesion, the success of other trade-based organisations provides a viable pathway forward for its survival. Emphasising the significance of manufacturing, Emeritus Professor at the University of Technology, Sydney, Roy Green (2015), underscores the employment impact of trade engineers in Australia and highlights their fundamental role in supporting the modern economy.

In addressing the challenges and opportunities identified within the metal trades sector, this work has addressed a significant gap impacting the industry. Key insights from the project demonstrate that a closer collaboration between industry and schools could significantly enhance the attractiveness and effectiveness of metal trades as a future career path. Another key takeaway from the findings is that providing learners with experience can create a situation where a workforce becomes not only technically skilled but is also more adaptable to the changing demands of industry. Moreover, building stronger partnerships between schools and industry

stakeholders cannot be overstated. This ongoing collaboration could potentially lead to the development a curriculum that becomes more aligned with what the industry in practice needs. Such an approach would ensure that learners are more equipped with the skills and knowledge employers value most, compared with making assumptions about what employers might need from a future workforce. Additionally, by involving industry earlier in the process, learners could gain real-time access to mentorship and networking opportunities, leading to improved employment prospects.

In conclusion, this work has shown that addressing the identified challenges will require a complex approach that combines innovative educational strategies, strong industry-academia partnerships, and consideration of fast-evolving technology. By adopting these strategies, invested stakeholders can ensure that the metal trade sector remains a vibrant and appealing career choice for future participants.

Looking ahead, the metal trades and associated manufacturing industry are primed for automation and advanced technology. Embracing technology and innovative manufacturing models will contribute to future job opportunities and the evolution of the industry.

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TRANSFORMING STRATEGIC SUSTAINABLE PRACTICE ON CAMPUS

Marianne Cherrington

INTRODUCTION

A huge corpus of scholarly research at Otago Polytechnic (OP) relates to Sustainable Practice and their leadership in the field. This article is a summary of the author's work towards achieving a Master of Professional Practice with distinction from Otago Polytechnic, contextualising Sustainable Practice for Otago Polytechnic Auckland International Campus (OPAIC).

Fundamental to this new undertaking was an examination of what 'Sustainable Practice' actually means, as a definition is not given by OP. Instead, every OP college discovered then articulated what sustainable practice meant to their field of study, compiled in *A Simple Pledge: Towards Sustainable Practice* (Mann & Elwood, 2009, p. 4). The products of this difficult organisational undertaking were inherited by the Auckland campus, with elements of sustainable practice embedded in every paper, qualification, and field of study.

Otago Polytechnic articulated the Strategic Objectives for Sustainable Practice (SOSP) as an actionable mandate for sustainability initiatives on campus. They are expressed in a variety of ways at OP (Mann, 2011). The SOSP needed contextual articulation for the Auckland campus. The aims were:

SOSP 1: to develop sustainable practitioners;

SOSP 2: to model evidence-based sustainable practice in our operations;

SOSP 3: to encourage communities and businesses to embed sustainable practice, and

SOSP 4: to ensure our actions benefit our communities.

Notice that the first two SOSP are internal; they let us play in the safe confines of our walls. SOSP 3 and 4 require an outward vision!

OPAIC sought to activate the SOSP strategically, as a tactical, intentional plan on our campus beset by pandemic lockdowns and the loss of international students. The author stated to our Board that sustainability was our competitive advantage, and that our four SOSPs could be leveraged. However, the existing work undertaken by OP on Sustainable Practice was buried in documentation at OPAIC. Awakening and activating all four SOSP at OPAIC would require a strategic, planned transformation of Sustainable Practice on our campus and beyond.

A sustainability strategy

Over 21 months, seven Campus Sustainability Initiatives (CSI) (Figure 1) were initiated, evolved, and leveraged within and around the curriculum, then refined with pragmatic action research to augment campus capabilities. Data on CSI implementation would be evaluated to refine iterations of the CSI towards success. The work scaffolded the Strategic Objectives for Sustainable Practice and crafted a vision of sustainable development, led experientially by staff and students.

This article summarises key components and phases for delivery of strategic sustainable practice at OPAIC to mid-2022. It tells the story of transformational change, from definitions and hidden curricula to the creation of a sustainable practitioner ethos, ultimately evolving to a culture of sustainability evidenced beyond our campus. The framework can serve as a basis for delivering sustainable practice in virtually any organisation, especially if used with the concluding recommendations.

This Advanced Negotiated Work-Based Learning Project was born out of a presentation to the Board of Otago Polytechnic Auckland International Campus (OPAIC) on 30 September 2020. Six months after New Zealand's border closed initially due to COVID-19, it was apparent that international students would not return in the foreseeable future and our campus was in jeopardy. The context was volatile, uncertain, complex, and ambiguous (VUCA) (Worley & Jules, 2020). Patterns and practices seemed full noise, with huge data limitations; but organisational capability and potential arise from internal data and data-driven decisions (Cherrington et al., 2019c, 2019d). Gathering resources and nous would be our sole option until borders reopened to international students, our only customers.

Beyond sustainability as our competitive advantage, organisational boards were now liable for climate change risk (Institute of Directors, 2021). Leadership and organisational direction from boards are imperative in terms of climate action, regardless of climate change naysayers. That got our board talking. Additionally, I stated that our Strategic Objectives for Sustainable Practice could be leveraged as a point of difference and opportunity in a competitive higher education market, ready once New Zealand borders reopened. As I was the sole Principal Lecturer with responsibility for Sustainability Competency Leadership, our board asked me to begin the task. I immediately piloted seven OPAIC Campus Sustainability Initiatives that could be mapped to SOSIP, as seen in Figure 1.

- A. **Campus Sustainability Workshops (CSW):** Campus-wide participation and engagement in new sustainability learning and initiatives to foster embedded sustainability in learning and teaching.
- B. **Student Research Forums (SRF):** Highlighting assessment research/expertise and promoting critical thinking, learner capability, scholarly research, and interdepartmental practice.
- C. **Sustainability Industry Open Days (SIOD):** Highlighting sustainability as interdisciplinary, nascent knowledge required for employment and pragmatic industry currency.
- D. **Wānanga Kairangahau (WK):** Student Researchers Workshops to leverage student research for publication, presentation, and as a next step from SRF/SIOD for graduating students.
- E. **Campus Journal Submissions (CJS):** Kick-start OPAIC co-researching/co-publishing outputs on campus as an extension to off-campus submissions and linking to industry research.
- F. **Student Sustainability Projects (SSP):** Interdepartmental research and/or assessment-link projects in order to model agile process, management, and construction project management.
- G. **Projects for Sustainable Operations (PSO):** To model evidence-based sustainable practice in operations on and off campus, encouraging communities and businesses to embed sustainable practice.

Figure 1. Seven OPAIC Campus Sustainability Initiatives (CSI).

LEVERAGING OTAGO POLYTECHNIC'S LEAD IN SUSTAINABLE PRACTICE

OPAIC was facing an existential threat, but Otago Polytechnic has long been a leader in sustainability education and research (McGirr, 2018) using the United Nations Sustainable Development Goals (UN SDGs) (United Nations, 2021) as a framework (Henry & Forbes, 2017). The Otago Polytechnic Sustainable Practice Strategic Framework (SPSF) upholds the training of sustainable practitioners of all cultures (Cherrington et al., 2020a, 2020b; Otago Polytechnic, 2014) to challenge existing practices and developing sustainable ways of operating.

Sustainable practitioners are able to apply frameworks of sustainable practice (ecological, social, political and economic) (Zhukov & Cherrington, 2020) to the “context of their industry or field of study, to challenge existing practices and develop more sustainable ways of operating” (Ker, 2017, p. 112; Wu & Shen, 2016). Otago Polytechnic is committed to provide students with learning opportunities that hold sustainable practice amongst their key values and to become sustainable practitioners in our own right.

Such capabilities are in demand; it is unequivocal that human activities are heating our climate in rapid, intensifying, and unprecedented ways (Arias et al., 2021; Manate & Cherrington, 2021) with enduring, irreversible repercussions (AghaKouchak et al., 2020). Creating a culture of sustainability is vital for Otago Polytechnic Auckland International Campus (OPAIC). “The evidence is irrefutable ... we see the warning signs in every context” (Masson-Delmotte, 2021, p. 1). Our international campus must think globally and act locally. Boards are addressing climate change via risk and liability (Lawrence et al., 2020). Today, climate risk must be assessed in financial reporting, which requires action now (Cherrington, 2019, 2020; Ministry for the Environment, 2019).

INCULCATING SEVEN CAMPUS SUSTAINABILITY INITIATIVES

A OPAIC Sustainability Strategy was sought, but was not getting traction (Cokins, 2009; Pfeffer & Sutton, 2000). The pilot initiatives, however, were gaining in momentum and popularity with students (Connor et al., 2021). Experientially, a bottom-up approach could win over key members of staff to infiltrate various campus departments, eventually swaying naysayers (Cherrington, 2020; Ganeshan et al., 2021). A quality improvement approach using Plan > Do > Check > Act (PDCA) (Deming, 2018) began the refinement and evolution of the seven CSI initiatives using research ethics approval (AIC85). Each term, an iteration of the CSI was assessed using a variety of methods for improvement with action research (Zuber-Skenitt, 1993):

- participation and output metrics for CSI from participation tasks or work submitted;
- stakeholder CSI feedback summaries using ethical feedback questionnaires;
- reflective commentary to assess CSI opportunities to improve sustainability practice, and
- reflexivity analysis, especially in examining underlying assumptions for successful outcomes.

The quality of experiential practice on campus continually improved via the OPAIC learning and teaching team (Shephard, 2010). Utilising workshops, peer review, self-reflection, and observation with Kolb's Experiential Learning Cycle became a source of learning and development (Kolb, 1984; Kolb & Kolb, 2005). Change can evolve through planned, term-wise initiatives that begin with concrete experience, followed by reflective observation, along with abstract conceptualisation that leads to active experimentation (Cherrington et al., 2022a, 2022b).

Sustainable practice evolved practically via new learning on campus (Greenwood, 2007). The aim was to transform practice within OPAIC in pragmatic, observable ways (Cokins, 2009). There are ‘ways of being’ that distinctly underpin the learning culture at OPAIC, notably continual improvement through reflection and an experiential learning approach. Cultural shifts are most likely to be successful when they leverage organisational strengths and respect the positive cultural milieu that already exists. The OPAIC Applied Management department is the largest and lends itself to collaboration on sustainability with the IT and construction departments. Management is a broad subject and can often lead to transformational change, using a solid base of scholarly research co-publication.

Continual observation of sustainable initiatives and, notably, water-cooler conversations, were powerful tools to shift situations and actions in the conversational environment. They became occasions on which to listen for the sustainable future of our organisation, as per the Transdisciplinarity tenets (Cowley, 2021; Nicolescu, 2002, 2010) and Leadership Corollaries (Zaffron & Logan, 2009).

Barriers to the SOSP were never the focus. Instead, informal coalitions (Rodgers, 2007) were made that gave credibility to the skill and expertise within our campus, and inspired action that valued diverse fields of experience synergistically. A new future for sustainable practice, highly relevant to our existing and evolving culture, was articulated. Conversations and future-based language transformed how sustainable practice occurred at OPAIC. Campus Sustainability Initiatives would evolve organically to enact sustainable practice in and through the institution. New narratives arose in our organisation in an unthreatening and very beneficial manner. By acknowledging drivers for change, understanding was created and versions of the sustainability story that aligned with the SOSP and initiatives were enabled to inculcate sustainable practice.

FROM INTERNAL TO EXTERNAL SUSTAINABLE PRACTITIONERS

Ultimately, organisational transformation is required for true sustainable development. A strategic approach with interdisciplinary engagement requires a 'learning organisation' culture, adept at innovating via new processes and technologies (Airehrou et al., 2020). The skills and capabilities of sustainable practitioners will be in demand as an asset in every aspect of business, in every industry and sector. We must think critically and creatively, so as to realise the future we want (United Nations, 2015).

The question became: how can OPAIC transform from the internal SOSP 1 and 2 towards external SOSP 3 and 4? The aims were:

1. to implement OPAIC Campus Sustainability Initiatives (CSI) (Figure 1) to activate the SOSP;
2. to use performance metrics, stakeholder feedback and reflection/reflexivity to assess CSI, and
3. to evolve CSI, so as to transform from a marked focus on SOSP 1 and 2 towards SOSP 3 and 4.

Four distinct cycles (plus an initial pilot term) were evaluated in this project, as shown in Figure 2. After a full year (five terms) of CSI (a pilot and four iterative improvement cycles) from term five 2020 through to term four 2021, the cycles were used to gauge transformation from SOSP 1 and 2 to SOSP 3 and 4. After each cycle, metrics, feedback, reflection, and reflexivity were evaluated, and lessons learned to modify and inform a new research cycle. At the start of 2022, synergies exploded and peers were activating sustainability initiatives, building upon, and expanding CSI initiatives.

The Campus Sustainability Initiatives evolved and advanced, transforming sustainable practice via the maturing progression of all the SOSP. By the end of the fourth full iterative cycle in June 2022, Sustainable Practitioners had developed:

- via Wānanga Kairangahau (WK) to a novel Advanced Wānanga Kairangahau (AWK) creating professional student researchers;
- via Campus Journal Submissions (CSJ) for co-publication, with nine accepted submissions by cycle 3 and another nine by cycle 4;
- via Sustainability Industry Open Days (SIOD), where postgraduate students presented research toward five co-publications;
- via online, lockdown Campus Sustainability Workshops (CSW), expanding to a full Campus-wide Sustainability Week (CSWk);
- via Student Research Forums (SRF), where our best students presented top project-/subject-embedded sustainability research;

- via Student Sustainability Projects (SSP) as IT Sustainability apps and project-based emissions modelling research for OPAIC;
- via Projects for Sustainable Operations (PSO) evolved to Green Office Toitū (GOT) focusing sustainability projects (GOM, 2016).



Figure 2. The seven OPAIC Campus Sustainability Initiatives (CSI) progressed in four cycles (plus pilot).

OPAIC's inaugural Campus Sustainability Week ensured change was consolidated. The concepts were planned and actioned for a future vision:

- sustainable practitioners who developed capabilities to confidently present their applied research;
- communications to ensure our actions benefited our communities (rather than 'green-blushing' or 'greenwashing');
- innovating for impact to encourage communities and businesses to embed sustainable practice, and
- climate action that evidences sustainable practice in our operations to be a role model for others.

SOSP 1 and 2 transformed to SOSP 3 and 4 as a community and business (Flint, 2012). Sustainable practice came from resourced initiatives:

- The inaugural Smart Aotearoa – Sustainable Development (SASD) event that is transforming SOSP 3, as OPAIC takes sustainable practice to businesses, communities, and tertiary providers (SASD, n.d.).
- GOT sustainability projects, particularly the keen focus on activated communications in sustainability via social media posts; 'success story' communications activate SOSP 4 and link to employability via sustainable practice (Bredenkamp et al., 2022).
- The new OPAIC research journal, *Rere Āwhio – Journal of Applied Research and Practice*, which had multiple publications.

The seven Campus Sustainability Initiatives were not created by accident, but by design, and stemmed from our latent capability to amplify research and access our only internal research funding source, which the author was awarded in 2019. Note that the seven CSI generally reinforce each other. Within a year, CSWk, WKA, *Rere Āwhio* and GOT had been created, largely the responsibility of others, culminating to the fully externalised SASD on 30 November 2022 (Figure 3).

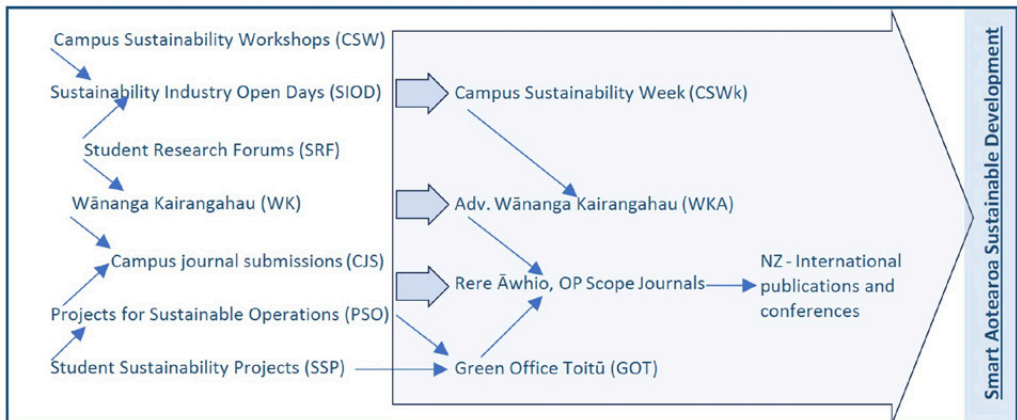


Figure 3. The seven Campus Sustainability Initiatives (CSI) progressed to CSWk, WKA, Rere Āwhio, GOT then SASD.

Notice that each of the SOSP has a different intent. SOSP 1 was to develop sustainable practitioners. OPAIC papers already had sustainability in learning objectives or as indicative content. SRF and SIOD are incentives to elevate student assessment research on campus to build capabilities and create a student research community on campus. WK and WKA led to CJS in Rere Āwhio and Scope, a safe first start for student co-publication.

SOSP 2 is to model evidence-based sustainable practice in our operations. PSO are interdepartmental, funded research projects on campus. GOT formalised aspects of PSO with students completing, reporting and presenting campus sustainability projects.

SOSP 3 encourages communities and businesses to embed sustainable practice. At first, SOSP 3 was only fulfilled via student co-publication and lecturer research submissions, but Smart Aotearoa – Sustainable Development took elements of SSP outside of OPAIC with interdepartmental specialised on-campus co-research projects. This was transformational, as SASD fulfils SOSP 3 by:

- connecting OPAIC Sustainable Practice with companies, small businesses, and public organisations to share knowledge and scaffold learning, linking industry problems with applied research.
- involving OPAIC with communities of sustainable practitioners such as tertiary institutions and primary and secondary schools, in Auckland, throughout New Zealand, and overseas.
- linking business/applied management with nascent technology via sustainable development, just as Technology forums do, but on a grander scale.
- ensuring a bicultural and Pasifika focus, with a three-fold focus: a SASD submission component, a school and research component, and a UN SDG and Best Idea component.

Smart Aotearoa – Sustainable Development will continue each year and build our networks and connections in business and our various communities. It is not difficult to envision the on-campus buzz it will create, that will radiate outward to international 'countries of origin,' further igniting ideas in sustainable development. This has happened before with masters' projects that have been trialed upon the student's return home, but SASD can escalate such opportunities with opportunities that can only be imagined currently.

SOSP 4 is to ensure our actions benefit our communities. CSW created a project-based learning product based on all SOSP (Sugita et al., 2022) designed to help any student progress SOSP within their course of study. GOT and PSO, when linked to research outputs via WK, WKA, and CJS ensure our action input into peer reviewed journals and conferences for community benefit.

Smart Aotearoa – Sustainable Development will reverse the WK / WKA / CJS processes by taking SASD submissions in six categories and offering them for publication in *Rere Āwhio* and *Scope*. It closes the loop to ensure that our ideas, research and innovations inter-relate with businesses, organisations and other learning institutions in New Zealand and internationally. It formalises SOSP 3 and validates SOSP 4 by creating an event and forum for sustainable development (and thus, sustainable practice) to be showcased and connected to industry, technology and real-world challenges of climate action.

Our 'ways of being' at OPAIC as sustainable practitioners via SOSP will be tested in a crucible of new expertise and enthusiasts in sustainable development. To be worthy, we must ensure our actions benefit our communities. We cannot green-wash our way to SASD, but we can use green communications to elevate our sustainable practice, and to externalise sustainable practice.

Sustainable practice was transformed at OPAIC campus. Sustainability initiatives were activated, refined, and grown to inculcate a culture of sustainability on campus and beyond, embedded in all that we do (Klemenčič, 2017; Voß & Kemp, 2006). It ensued organically, by plan, with existing resources, and was instigated by a principal lecturer responsible for Sustainability Competency Leadership, drilling down on "What do we value?," "What do we want?," and "What do we have?" to create quarterly micro-strategies that were remarkably successful (Logan & Fischer-Wright, 2009). Organisational transformation evolved from those who rallied around the Campus Sustainability Initiatives and those who were similarly inspired by a more sustainable future, even in a context of VUCA disruption (Wals & Benavot, 2017).

By developing sustainable practitioners at all levels and fields of study, work-based learning projects evolved interdepartmentally to broaden sustainability leadership on campus and beyond. In particular, the IT department created unique collaborations with the Applied Management department (Naviza et al., 2021) and the scope for taking data-focused organisations to the next level began to open up; inter-departmental projects from linked and multi-sources exploited data knowledge discovery (Cherrington et al., 2019a, 2019b). Such projects amplified contribution to leadership on campus and in our sector and stimulated transformative practice for productive improvement on campus.

As New Zealand organisations work to build literacy on their climate journey, OPAIC is in the unique position of having embedded sustainability at its core, activating SOSP through Wānanga Kairangahau, Green Office Toitū and Smart Aotearoa – Sustainable Development. These undertakings were taken on by various OPAIC staff, interdepartmentally. We spread our capabilities and began to contribute to social media communications.

The transformative work was given an OPAIC Staff Excellence in Sustainable Practice award. A principal lecturer in Business Management has responsibility for developing sustainable practitioners, but sustainable practice has permeated the campus. This project grew awareness and created directed action within strategic objectives; the sustainability torch was passed on. This experience was used in another industry organisation to provide a successful seven-figure funding application for a pragmatic and researched sustainable initiative. The established Strategic Objectives for Sustainable Practice can work in any organisation that seeks to be profitable and sustainable (United Nations General Assembly, 1987). Indeed, the SOSP can be used in any learning organisation to create an ever-evolving, assured sustainability pathway, including essential CO₂ reduction targets (United Nations, 2012), because the SOSP are backed by years of practice and scholarly research.

ORGANISATIONAL RECOMMENDATIONS

The SOSP can be used to create a stepped, iterative, and evolving platform for organisations to achieve sustainable practice. Delivering Strategic Sustainable Practice within organisations should be reflected upon in three ways (Institute of Directors, 2015):

1. by the Board, Executive Leadership Team, and senior managers (motivations, mandates and resourcing cannot be assumed);
2. alongside Strategic planning – sustainability is complex, dynamic, and needs ongoing review, and
3. via Professional practice, with topic forums on the climate journey (Now to net zero, 2022).

Boards, ELT and senior managers are now choosing sustainable, professional practice for agility and resilience due to stakeholder and global demands (Cherrington, 2020c), to balance risk, and embrace and leverage growing opportunities with external organisations, communities and businesses. However, for boards, the liability and policy imperatives are skewed heavily towards emissions mitigation (Climate Change Commission, 2021). There are many lessons to be learned from others' experience in various industries. Board members need their 'aha moment' to get make the climate challenge real for their organisation (Financial Stability Board, 2019).

The Institute of Directors (IoD) notes that climate change has been a top-five-issue for directors yearly since 2018 (Institute of Directors, December 2021). Climate action is a key leadership theme, and a very real opportunity for powerful, forceful action (Institute of Directors, Summer 2022–2023). The IoD hosts the Climate Governance Initiative national chapter, Chapter Zero New Zealand, whose mission is to mobilise, connect, educate, and equip directors to make climate-smart governance decisions (Preston, 2023). Chapter Zero membership is free for directors. The IoD submission on Climate-related Disclosures for the External Reporting Board (XRB) includes (Institute of Directors, 2022):

- support for the XRB's development of the climate-related disclosure standards, aiding meaningful reporting with Strategy and Metrics and Targets sections to drive strategic thinking and change.
- recognition that some entities disclosure limitations and staged, pragmatic implementation; directors can build capability with Chapter Zero New Zealand and Institute of Directors training.
- comment that costs of the disclosures are consistent with the benefits delivered from them (Financial Sector (Climate-related Disclosures and Other Matters) Amendment Act, 2021).

A longer-term focus on value, rather than just profits, is needed due to rising compliance and costs. Climate emissions reduction and adaptation affect policy, strategy and risk, as well as opportunities. It is not straightforward what to measure, monitor, and publish but transparency is essential. Currently, most boards need advisors. The true intent of the board is inferred by the resourcing given or withheld. Boards can and should make a true difference (Now to net zero, 2022), by shifting their perspective:

- from business as usual to deliberate and targeted actions with integrated thinking and reporting;
- from climate change risk to measured emissions reductions and adaptation risks;
- from short-term funding and quarterly earnings to longer-term value delivery with sustainability, and
- from risk and uncertainty to consideration and actioning of opportunities (Now to net Zero, 2022).

Strategic plans must deal with uncertainties and steer a way forward by positioning for opportunities. A good strategic plan can be back-casted with a knowledgeable advisor. A starting point is an understanding and assessment of organisational risks including transitioning to zero carbon and physical changes relating to sustainability.

Note that unrestricted thinking can transform operations. A dynamic strategy, business model and operations plan can help organisations adapt quickly to build resilience and reduce the impact of future disruptions (Suarez & Montes, 2020). Boards are embedding sustainability in operating models, systems and processes to future-

proof sustainability reports (Carter et al., 2022) with suppliers, partners and customers (Institute of Directors, December 2022, p. 77).

The work is never-ending. Boards are realising that a focus on carbon mitigation and sustainability then requires work on issues such as diversity, equality, flexibility in the new world of work, and diverse labour markets (Cherrington et al., 2021a, 2022b)

The power of using the UN SDGs as a sustainability framework helps to support this broader inter-related view of how we do business in a global sense, while still acknowledging powerful motivations for integrating regional approaches. In New Zealand, the te Ao Māori perspective cannot be ignored. Even the celebration of Matariki as a national holiday for the first time in 2022 exposes the integrated yet regional approach that organisations in Aotearoa, New Zealand should take. “For most institutions, improving their understanding of mātauranga Māori is an important strategic aim that can help guide their decision-making, management, and monitoring procedures (Whaanga et al., 2020, p. 44).

We must all become more aware and proficient at the what and how of our inevitable climate journey. Boards of directors, executive leadership teams and managers must grow their climate-related literacy; expertise in sustainability is sporadic in organisations and must be embedded (Now to net zero, 2022).

In the labour market, skilled workers capable of sustainable practice are in very hot demand. Champions of sustainable practice can specialise in carbon reduction or specific areas of sustainability. They can make meaningful impacts using skilful communications with informal conversations and coalitions to inspire greater sustainable practice as an essential to the future of organisations.

CONCLUSIONS

This article summaries how pragmatic action research can create transformational change within an organisation (French, 2009; Mitchell, 2018), and a mindset of sustainable practice for climate action, even in an era of disruption. Sustainable Practice at OPAIC had been a learning objective or just a suggested topic in a subject paper. The seven OPAIC Campus Sustainability Initiatives (Figure 1) evolved to Campus Sustainability Week, Advanced Wānanga Kairangahau (scholarly co-publication and conference presentations), a dedicated OPAIC hardcopy journal publication and Green Office Toitū. Smart Aotearoa – Sustainable Development took those in-house initiatives and the conference concept outside of our campus. Strategic sustainable practice was transformed!

By leveraging a foundation of sustainability provided by Otago Polytechnic active scholarship, a clearly articulated competitive advantage for OPAIC was crafted as a strategic investment in innovation and technology (Cherrington et al., 2020d, 2020e, 2020f), based on the imperative to address increasing, irrefutable risk from climate change (Institute of Directors, March 2022).

There is a real opportunity for organisations to be leads in Education for Sustainability to contribute to global sustainability (Australian Research Institute in Education for Sustainability, 2009). Genuine climate action means educating the next generation of sustainable practitioners in any field, industry, sector, or organisation graduates choose to engage in (Stevenson et al., 2017), but any claims of sustainability must have real substance that communicates authentically (Szabo & Webster, 2021).

Sustainability is the way organisations will ‘do business’ in the future. It is almost inconceivable that educators would not lead and model sustainable practice, and demonstrate sustainable development. It is a context and a core graduate capability (McGirr, 2019) that can activate climate action, which is globally impactful (World Economic Forum, 2020).

This change initiative began with the vision to contribute to the transformation of sustainable practice at OPAIC from a mandate seemingly lost in paperwork (Mann, 2011). My goal was to instigate sustainable practice using internal initiatives, toward a new external focus. The impact was the activation of Strategic Objectives for Sustainable Practice (SOSP) using reflection and transformational change, to inculcate a culture of sustainable practice and sustainable development, and that can work in any organisation. Because what is the point of learning, teaching, and building a business if it is unsustainable?

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E LUTIA I PUAVA AE MAPU I FAGALELE

Antonio Seiuli

E lutia i puava ae mapu i fagalele is a Samoan proverb that comes from sailing. Sail through Puava Point, where the sea is rough and turbulent, before reaching the calm waters of Fagalele Bay.

INTRODUCTION

COVID-19's impact has been significant and far-reaching. It caused disruptions and changed how we did business, worked, and interacted within our communities. The pandemic caused disruptions in production, exports, and both air and road travel. Several businesses in New Zealand were forced to close their doors, while some industries lost business locally, regionally, and nationally. Industries like hospitality and tourism lost business overnight (Kalemli-Ozcan et al., 2020). Some have recovered, and some have never been able to open again or restart their businesses.

The turbulent Puava Point in our organisation was undoubtedly the COVID-19 global pandemic. The organisation was considered an essential service, so staff and shareholders felt they were expected to work. Whilst it was not compulsory for everyone, over ninety-five percent of the staff and shareholders decided to stay at work. The added stress came about as everyone worked in isolation from one another. Not being able to have social interaction in the workspace and not being able to socialise outside work created a mental challenge for many of the shareholders and staff.

Several shareholders had families abroad while they were working in New Zealand. The lockdown meant they could not travel home to see their loved ones. Most of them decided to work and provide essential services to the community, and by doing this exposed themselves to the risk of contracting the virus.

COVID disruption brought many issues in organisations to the fore (Hossain et al., 2023). During COVID, roles shifted, and decisions were often made in haste to ensure survival. As the pandemic dissipated, many systems and organisational dynamics did not revert to their previous ways of acting. It is well known that this dynamic contributed to the difficulties faced by organisations (Kalemli-Ozcan et al., 2020).

In this article, my focus is on the disruption in the New Zealand passenger service industry and how I used a Samoan indigenous knowledge system to communicate, attempt to make sense of the situation, and bring about sustainable and positive change.

BACKGROUND

"DT-45 Ltd" (I anonymised all names in the research) is a locally owned and operated passenger service business established in the 1940s during World War II. While in wartime women managed the day-to-day operations, the board of directors was predominantly male. At that time, three similar companies existed in the city. Following the war, returning servicemen joined DT-45 Ltd and decided to merge the three companies into one entity. In 1965, the company was formally registered as a limited liability company amidst strict regulation by the central government.

To ensure transparency and accountability, the company holds an Annual General Meeting (AGM), where shareholders and the board of directors review the company's performance. During these meetings, shareholders can ask the board questions and receive updates on the company's progress.

The board of directors for DT-45 is composed of five members, all elected from among the shareholders. To maintain continuity and fresh perspectives, the board operates on a rotation system: three of the five directors are up for re-election at one AGM, while the remaining two face re-election at the next. To be eligible for nomination as a director, a shareholder must have been with the company for at least two years. This governance structure ensures that the company remains responsive to its shareholders while allowing for regular input and oversight from experienced members.

Over the years, DT-45 Ltd has been a pillar of stability and employment within the community. Its rich history has fostered a culture of trust, integrity, and loyalty among shareholders, friends, and associates in the industry. Key to its success are long-standing shareholders who have dedicated three decades to the company, many of whom have surpassed retirement age yet remain actively involved in both the company and their communities.

One such shareholder is "Mr. 179." Aware of my successful ventures in the industry, he approached me for assistance in revitalising DT-45 Ltd. Given my positive rapport with the company's staff and stakeholders, Mr. 179 extended an invitation to a directors' meeting in 2021. This gathering occurred amidst the widespread impact of COVID-19, which was significantly affecting businesses, communities, and families nationwide. During this tumultuous period, DT-45 Ltd faced substantial internal conflicts that threatened its financial stability.

MY FIRST MEETING

Upon my arrival, I inadvertently entered the building from the rear, which led me directly to a corridor and into the boardroom. Inside, I encountered three gentlemen of foreign nationalities along with a local kaumātua (Māori elder), "Mr. 115." Mr. 115 greeted me in te reo Māori, expressing curiosity about my presence. As a competent speaker of te reo Māori, I responded in kind, and after we exchanged a hongi (traditional greeting), I explained that I was there at the request of Mr. 179 for a meeting with the board. After greeting the other gentlemen, they escorted me out through the opposite exit.

Outside, I found myself in a tense atmosphere where shareholders were visibly angry and aggressive. Mr. 115, sharing in their frustration, conveyed a strong sense of urgency for change, warning of serious consequences if their concerns were not addressed. Speaking for the group, he was just as passionate as the shareholders themselves. I greeted the group, and Mr. 115 explained to them why I was there. He then turned back to me and said, "I trust you will do the right thing, as long as it takes," adding, "Ka whaiwahi tonu ake" (the struggle continues). We exchanged a hongi and a hug before they departed.

After they left, I returned to the boardroom, where I found four directors along with Mr. 179. The directors appeared visibly unsettled but remained resolute. When questioned about the commotion outside, I assured them that the encounter had been peaceful, a statement which Mr. 179 confirmed, noting the calm departure of Mr. 115 and the shareholders.

The conflict

Informed by Mr. 179 of recent upheavals within the company, including the resignation of the general manager and subsequent board dismissals and appointments, I attended the meeting unaware of the ongoing power struggle. The presence of irate shareholders indicated a potentially volatile situation, contrasting with the unexpected peaceful resolution initiated by Mr. 115.

It became evident that the company faced multifaceted conflicts, including internal disputes between directors and shareholders as well as staff grievances. Additionally, external conflicts with governmental bodies exacerbated the company's challenges. Despite the directors' admission that they had unsuccessfully sought a manager, they extended the offer of general manager to me based on the events unfolding upon my arrival. I accepted the role for three specific reasons:

- The trust and belief of shareholders like Mr. 179 and Mr. 115, who were not directors but had faith in my abilities, served as a compelling mandate for me to step up and undertake the role of general manager. Their confidence in my capacity to rescue the business from impending failure provided the impetus I needed to accept the challenge.
- Recognising numerous opportunities to apply my leadership skills, I envisioned instigating transformative changes to foster growth within the company, nurture its personnel, enhance my professional development, and restore order amidst chaos.
- The unfolding dynamic when I arrived, and my cultural position, seemed to indicate that I could use my cultural knowledge to effect the required changes.

UNDERSTANDING THE CONTEXT AND GATHERING DATA – TALANOA

My initial approach involved engaging in talanoa, a traditional Pacific Islander form of conversation, to gather insights from various stakeholders. Talanoa is broad and multidimensional but inclusive of different interpretations (Vaiotei, 2013–2014). Pacific people's beliefs and values are expressed through cultural practices, which help Pacific people connect with their identity (Cammock et al., 2021). They help people acknowledge their responsibilities and foster a sense of belonging. Even though participants were non-Pacific, using talanoa to communicate and connect provided a platform that aided in the process.

Through dialogue with directors, it became evident that the organisation harboured divergent factions. Talanoa served as a pivotal tool, affording me the chance to delve into individual shareholders' perspectives and converse with leaders of dissenting groups, thereby gaining comprehensive insights.

Understanding the sentiments of in-house staff was crucial. Informal discussions revealed their predicament amidst the conflict between directors and shareholders, underscored by prevalent mistrust. To ensure unbiased information, I prioritised establishing trust among staff, shareholders, and directors during the talanoa sessions.

Direct engagement facilitated the acquisition of firsthand information, minimising the risk of distortion or misinterpretation. I observed instances where individuals merely echoed others' opinions, emphasising the importance of fostering an environment conducive to authentic expression and individual ownership of experiences during the talanoa process.

Through talanoa, we navigated discussions on technology, uncovering diverse perspectives and concerns. While some advocated for technological advancement, others expressed apprehension, highlighting the need for inclusive decision-making and effective communication.

THE METHOD OF HARVESTING INSIGHT AND DEALING WITH COMPLEXITY – SOĀLAUPULE

Recognising the complexity of the conflicts within the organisation, I considered a Soālaupule approach rather than solely relying on talanoa. Each individual and dissenting group I engaged with expressed strong opinions on various aspects of the business, forming the basis for developing questions for our Soālaupulega (noun or subject) sessions.

Soālaupule in practice

Soālaupule serves as a platform where shareholders, directors, and staff can share their stories and experiences through the art of oratory, creating a relaxed and friendly atmosphere much like the Samoan tradition of *fōfōla le fālā* (rolling out the mat). The word Soālaupule itself is composed of three words: “soa,” meaning to partner or share; “lau,” meaning your or yours; and “pule,” meaning mandate or authority. While *talanoa* often begins with casual conversations about everyday topics like sports or weather, Soālaupule delves deeper, addressing more serious concerns and recognising each participant as an authority on the issues at hand.

Adhering to cultural norms, I approached the meeting with humility, avoiding the presumption of possessing all the solutions. Entering through the back door, customary in my culture, signified respect for the host’s authority, fostering a sacred connection between participants.

Soālaupulega, rooted in relational collective decision making and social dynamics intrinsic to Samoan culture, allowed shareholders and staff to voice their concerns authentically, fostering empathy and trust. This trust facilitated open and honest dialogue, enabling me to categorise and address their concerns effectively, laying the groundwork for our succession plan.

Insights from staff

Conducting a Soālaupulega (council meeting) with staff unveiled a plethora of issues. Concerns ranged from conflicts of interest and favouritism to instances of gender-based bullying and professional misconduct. These issues, whether personal or rooted in workplace politics, posed significant challenges due to varying perspectives among staff members. Discussions revealed divergent views on topics such as staff safety, responsibilities, and boundaries, with many attributing the escalation of conflicts to events dating back to 2019, exacerbated by the onset of the COVID-19 pandemic.

Senior staff expressed feeling undervalued by directors and shareholders despite their dedication, which was especially evident during the pandemic. Instances of staff voluntarily working additional hours and shifts underscored their commitment to maintaining essential services. However, confusion arose from unclear leadership, with directors involving themselves in day-to-day operations without clear directives. Inconsistencies in communication and perceived favouritism further strained relations between staff and directors.

Generational disparities in work ethics added another layer of complexity. Staff members spanning Baby Boomers, Generation X, and Millennials brought unique perspectives to the table, influencing the approach to resolving conflicts. Despite these differences, common interests emerged during the Soālaupulega, including a shared emphasis on work safety, job security, and a desire for recognition and appreciation within the organisation.

Staff demonstrated a commitment to the company’s success and expressed eagerness to contribute their ideas. Their willingness to engage in constructive dialogue highlighted the potential for collaboration in addressing organisational challenges.

Dissenting group leaders

The organisation was divided into three distinct groups, each representing different shareholder demographics and interests. Group 1 was predominantly comprised of immigrants sharing a common religious belief, with some local supporters aligned with their cause. Conversely, Group 2 was comprised mainly of European New Zealand men, many of whom held senior positions within the organisation. Group 3, led by individuals like Mr. 179, consisted of immigrants from minority groups and a few locals who remained independent of Group 1 and Group 2, instead advocating for cooperation between the factions and serving as voices of reason within the organisation.

Group 3 posited that the company's challenges were rooted in government policies and deregulation, which facilitated the influx of culturally diverse individuals into the transport industry. The resulting mix of backgrounds introduced varying work ethics and cultures, diverging from the norms familiar to many longstanding shareholders within the company.

Organisational landscape

Upon my initial involvement, the management structure appeared convoluted, with no designated operational manager and the board chairman assuming managerial responsibilities. Addressing this issue became a primary focus, particularly as I transitioned into the managerial role from that of the chairman. A pervasive lack of trust between staff and management, compounded by internal uncertainties, further complicated the organisational landscape.

Governance documents

The organisation operated under four key documents governing its affairs. The Constitution established fundamental rules guiding share issuance, director appointments, and associated obligations. Complementing this, the Facility Supply Agreement (FSA) delineated mutual obligations between the organisation and individual shareholders, outlining rights and responsibilities. The operational rules provided a comprehensive framework for conducting core business activities, detailing processes and procedures alongside associated consequences for non-compliance. Disseminated to all shareholders, these rules clarified expectations and established accountability.

Finally, the Health and Safety (H&S) protocols were codified to ensure adherence to safety standards, safeguarding shareholders and service users. Health and safety protocols were designed in accordance with the Health and Safety at Work Act 2015. This Act is the principal piece of legislation defining the statutory obligations of New Zealand businesses in relation to the safety and welfare of their employees ("Health and Safety at Work Act 2015", 2024). Violations of H&S guidelines incurred penalties, reinforcing compliance within the organisation.

Impact of culture and governance

The conflict within the organisation was influenced by diverse cultural, linguistic, political, and religious perspectives, reflecting the composition of the board, which comprised 75 percent mixed foreign nationals and 25 percent New Zealand European locals. Interactions with board members underscored their varying interpretations of governance documents, shaped by their respective backgrounds. Some directors, hailing from less democratic nations, exhibited authoritarian leadership styles, which were evident in their approach to rule interpretation and enforcement. These cultural nuances compounded existing tensions, contributing to the organisational discord.

Conflict resolution approaches

I chose Soālaupulega as a conflict resolution approach because it creates a safe counselling space where everyone – shareholders, staff members, and directors – has equal status and can voice their opinions. It was crucial that everyone felt heard and that the resolution was something all parties could agree on.

By contrast, my personal experience with conflict resolution has been through a more Western approach, where a mediator facilitated the process. While I appreciated this method at the time, and it was successful in both cases, such a system often creates winners and losers. Though effective in the short term, I now realise that this approach could have prolonged conflict and potentially harmed the business in the long run. I also realised I needed to understand conflict resolution in a new way (Wallensteen, 2019).

OUTCOMES

During a challenging period at the company, I drew on insights from Soālaupulega to create a comprehensive plan and timeline, involving two key teams: shareholders and in-house staff. As general manager, I emphasised clear communication by sending weekly newsletters to keep all stakeholders informed of our progress. This coordinated effort, backed by the approval of the board of directors, also relied on the vital involvement of the company's accountant and lawyer, both of whom had been excluded during the conflict. Their expertise was crucial for the plan's success and, with their support, we worked toward resolving the issues effectively.

We started by addressing the technological landscape. Despite past investments, changes in industry dynamics rendered our existing technology outdated and inadequate. Recognising this, we committed to upgrading our technology to align with evolving industry standards.

Soālaupule provided a platform for participants to reflect on two key questions: What if our current plan fails? Who else might hold the information we need? This approach encouraged individuals to explore alternative solutions, fostering self-development and empowerment for all involved. By inviting external experts, we gained fresh perspectives and fostered trust among stakeholders, eliminating biases and enhancing the credibility of proposed solutions, especially with the support of Mr. 179.

In addressing operational rules and compliance, talanoa proved effective in eliciting candid discussions, although some challenges arose with irrelevant contributions. Despite these challenges, talanoa revealed diverse perspectives and levels of understanding, highlighting the need for careful discernment in separating pertinent issues from tangential ones.

Through Soālaupulega, we witnessed the resilience of individuals driven by a sense of purpose and supported by external networks. These insights led to a consensus on the importance of prompt decisions regarding technology and management structures, acknowledging the competitive landscape's impact. Non-compliance with regulations posed significant risks, including potential penalties from the New Zealand Transport Agency (NZTA), underlining the imperative for adherence.

Moving forward, the combined use of talanoa and Soālaupule facilitated the formulation and implementation of an action plan, ensuring timely interventions to avert organisational collapse. While talanoa provided initial insights over three months, the ongoing process remained essential for sustained progress, culminating in resolutions that safeguarded the organisation's future. This collaborative approach, guided by insights from Soālaupulega, enabled us to delineate a clear path forward, bridging divides between directors and shareholders and focusing on common areas of concern. Through continued dialogue and action, we remain committed to addressing challenges and fostering sustainable growth.

CONCLUSION

Soālaupule facilitated a comprehensive exchange of perspectives, fostering a collective commitment to implementing our plan. This collaborative endeavour, spanning eighteen months, was made possible through my approach, rooted in Samoan values such as alofa (love), fa'aaloalo (respect), lotomualalo (humility), and tautua (service). From a traditional Samoan perspective, these qualities are necessary for any leader to learn to be effective in their roles. It is learning by doing. One of my grandfather's words of wisdom always echoes in my ears: "Ia e iloa tautua muamua, o ina e te iloa ai le fa'aaloalo, alofa, saili malo, saili manuia mo lou lumanai." This means: at first you learn to serve, that is where you will learn to respect and gain respect, to care, to love, and to serve with humility.

Alofa was exemplified through inclusivity, dedicating time to engage in talanoa sessions and ensuring everyone had a voice. This commitment to service, or tautua, was a demonstration of respect for the staff and shareholders' efforts to safeguard their business. Humility, or lotomaulalo, guided our interactions as suggestions were offered and considered with mutual respect.

Through this process, we established operational procedures that have transformed our financial standing and enhanced the functionality of our technology. Our collective efforts have propelled the organisation towards profitability and stability, a testament to the efficacy of Soālaupule and the enduring values it embodies. We may have found our Fagalele Bay, where the waters are calm and the sense of serenity is upon us, but we know there will always be another storm for us to navigate.

Our challenge is not to be complacent. We must learn to listen to one another to ensure that our plan remains active and sustainable. We must learn to listen and look out for new challenges that will continue to grow our organisation. We must learn to adapt to changes. "We read the signs, we become more adaptable to change, we see more possibilities than were evident [at] first" (Spiller et al., 2015, p. 142).

Antonio Seiuli is of Samoan descent and is also known by his Samoan chiefly titles of Masoe and Pui-pui-fatu. Antonio has previous experience in social work and as a social entrepreneur in Ōtepoti, Dunedin. His previous work has been about using sustainable practices and capacity building. Antonio is currently studying towards a Master of Professional Practice, part-time with Otago Polytechnic.

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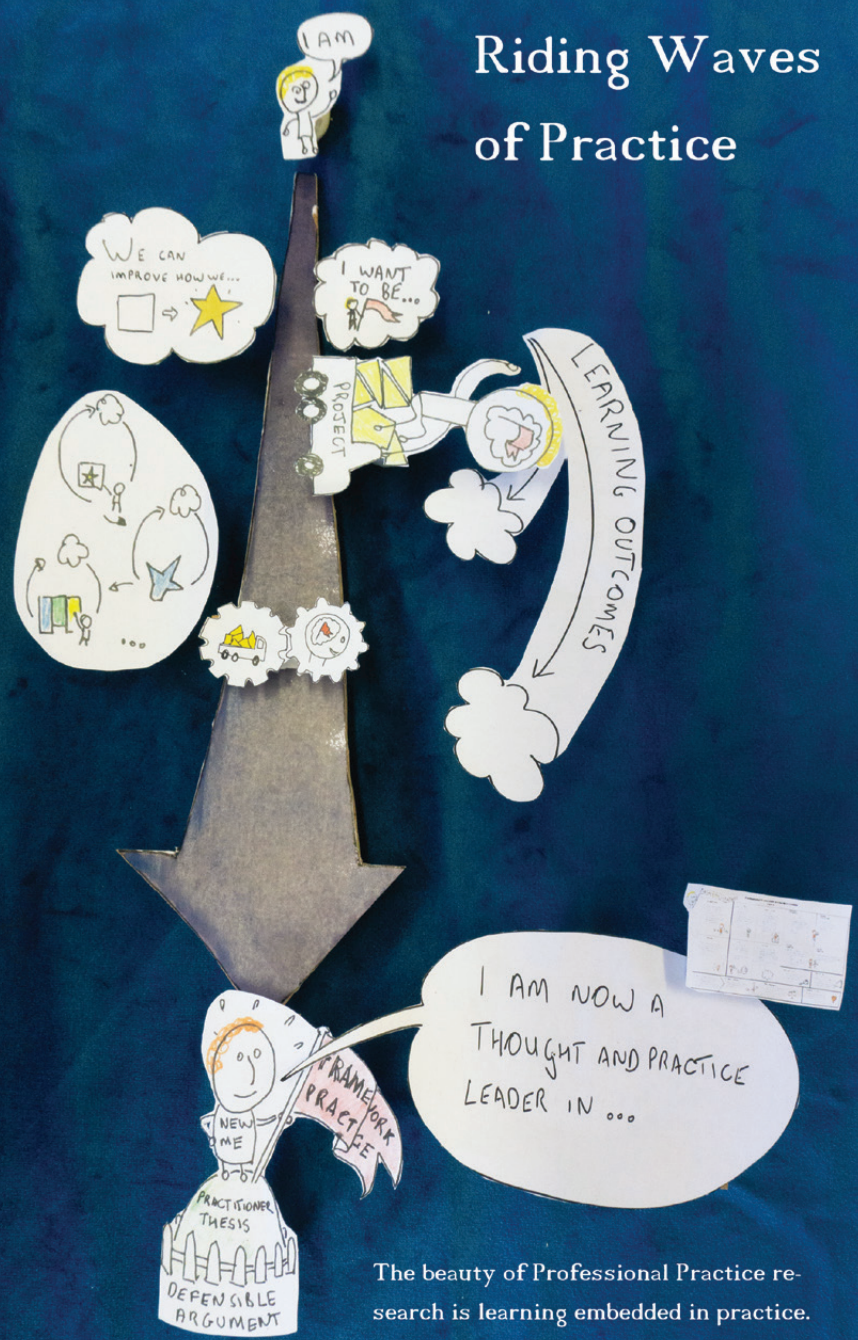
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RIDING WAVES OF PRACTICE

Samuel Mann, Ruth Myers and Dave Guruge

“Riding Waves of Practice” is a visual collaboration comprising of eight scenes built with cardboard boxes, paper, fabric, and assorted joining materials and printed and painted imagery and text. Together, the scenes are shared here in a set of photographic images that aims to provide an adventure for the viewer navigating the scenes as they explore differently staged spaces and details. We celebrate the dynamic nature of practice research in progress through embracing the provisional. This adventure both plays with the navigational challenges and uncharted waters of professional practice research and introduces the reader to key aspects of our research in developing guiding frameworks.

Riding Waves of Practice



The beauty of Professional Practice research is learning embedded in practice.

But some of the best learning opportunities...

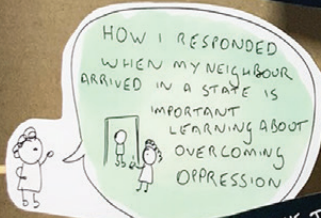
...are stories that can't be told.



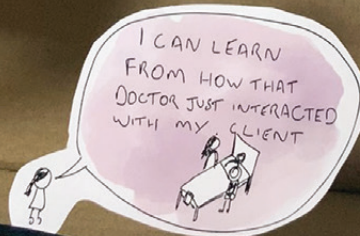
* MISOLYMPY IN JOB INTERVIEWS IS NOT RECOGNISED AS A PROBLEM, AND RESEARCH IS LEGALLY FRAUGHT



THE INTERVIEWS I WANTED WERE WASHED AWAY, NOW IT'S IN THE MOMENT OF SURVIVING AND GOING



* I CAN'T TELL THAT STORY, IT'S NOT MINE TO TELL, AND ANYWAY, NO-ONE WOULD BELIEVE IT



TREATING PEOPLE LIKE A MACHINE, BUT I AM UNABLE TO GET CONSENT FROM MY CLIENT.

In the swamp of practice, research convention often falters, or relies on constraining and isolating the topic so that it loses the essence of practice.

Surfing on the edge of chaos we often need to
develop our own methods -

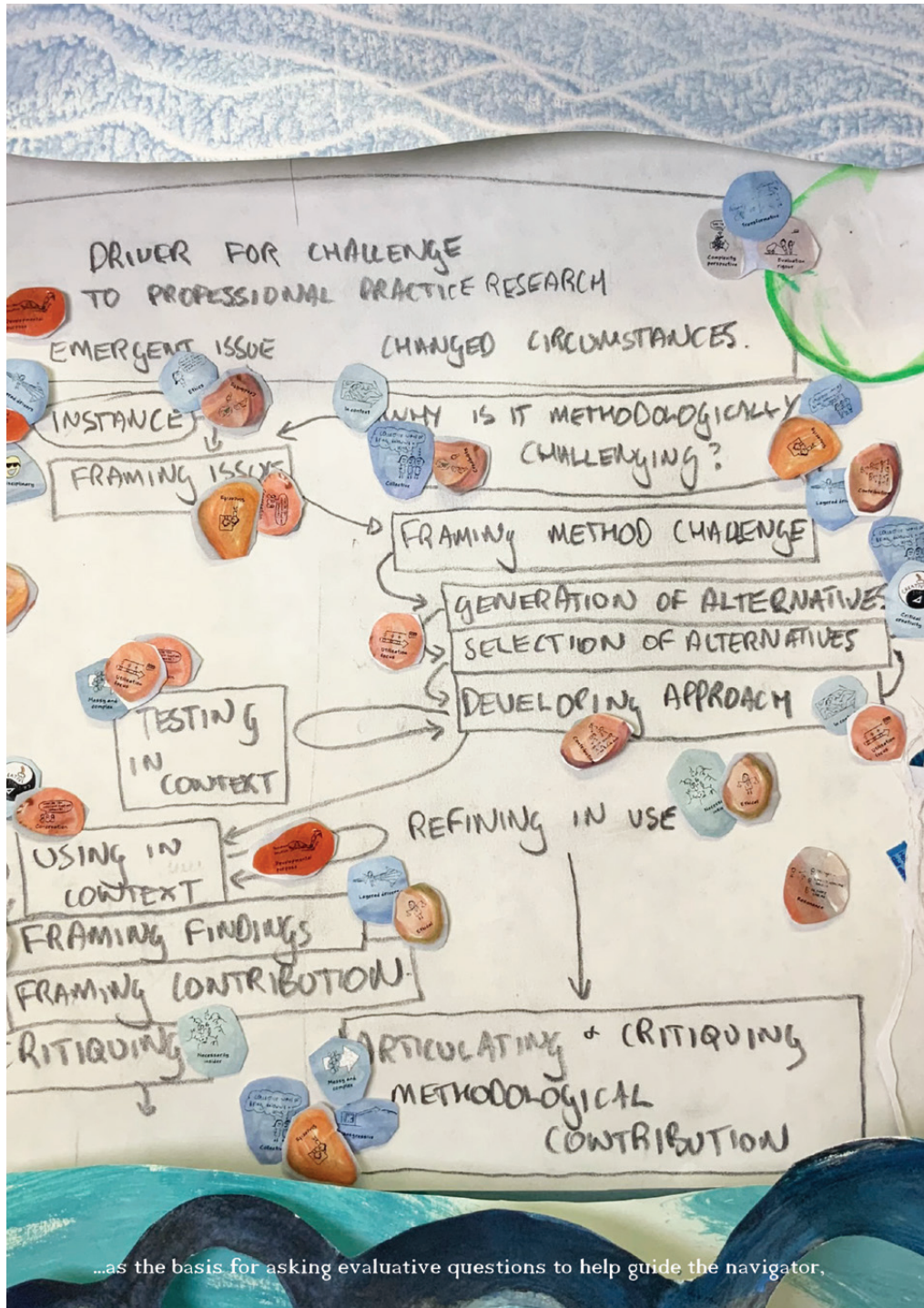


BEING THE QUESTION IN ITS COMPLEXITY NEEDS A GUIDING FRAMEWORK

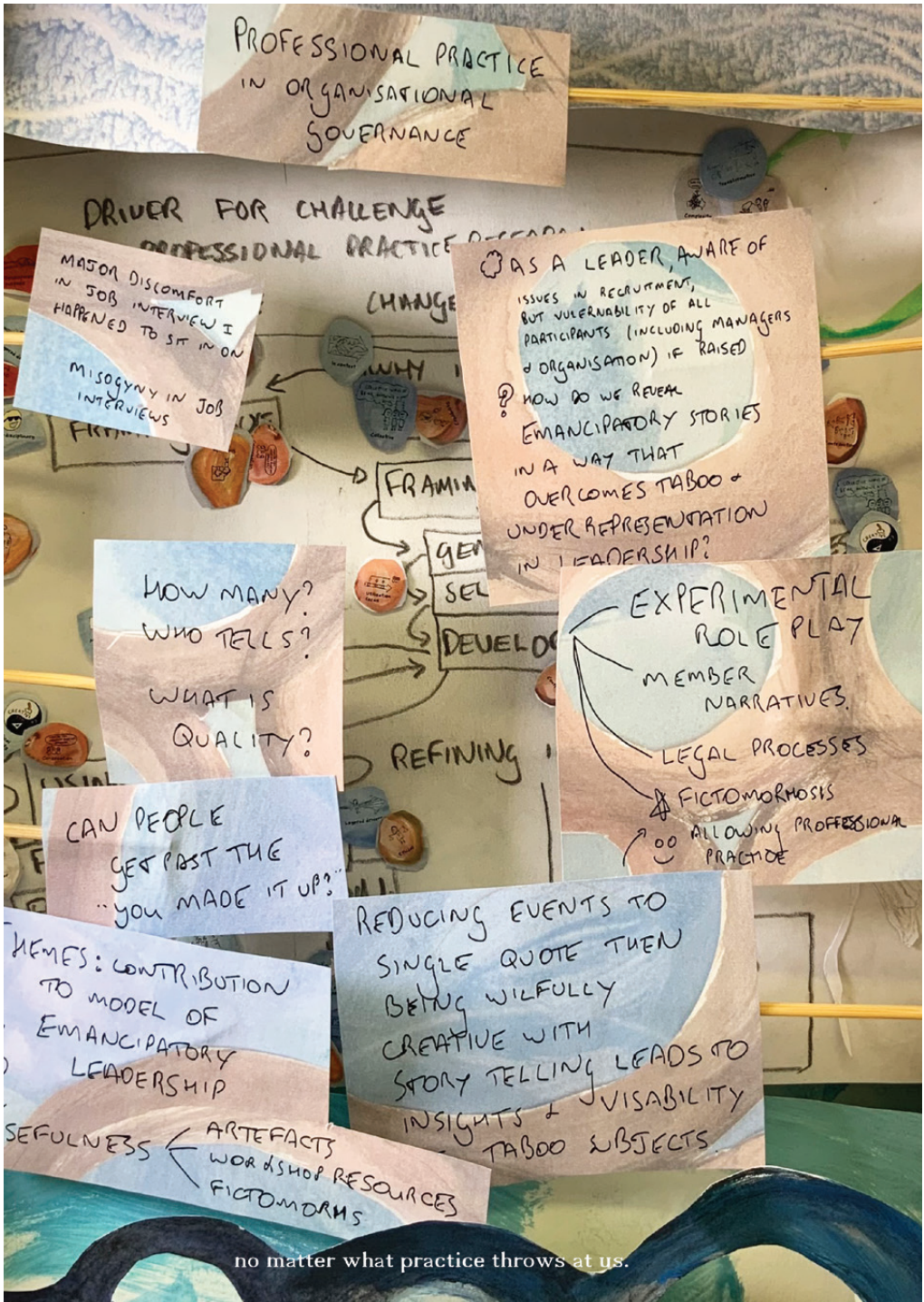
to find our own ways in uncharted seas.







...as the basis for asking evaluative questions to help guide the navigator,





ACCESSIBLE VERSION OF RIDING WAVES OF PRACTICE

This paper consists of eight pages. Each page contains a single image, filling the page. Each page has a small block of text with six to 37 words overlaying the image. The images are all colour photographs of paper and cutouts arranged in cardboard boxes in the style of a child's play theatre.

Image 1:

The first image is titled **"Riding Waves of Practice."** Paper shapes are cutouts lifted (by hidden plasticine) from a blue velvet background. The shapes are arranged vertically around a large blue-grey arrow which expands horizontally.

At the top of the arrow, a hand-drawn smiling stick figure has a speech bubble reading, "I am." This figure, along with all the figures on this page, has curly yellow hair. It is not explicit, but this image represents a Review of Learning within professional practice research.

Below this figure, on the right of the large arrow, a cloud-shape contains a figure holding a small red flag. Their speech-bubble text reads, "I want to be a" Level with this figure but on the left of the centre arrow, a cloud contains a drawing of a square with a small arrow to a yellow star. The text reads: "We can improve how we" These two statements are the aspirational statements in the Learning Agreement.

At the bottom of the centre arrow, a larger figure with a shirt reading, "New me" smiles and holds a red flag with the text, "Framework of Practice." The figure is standing on a green hill labelled "Practitioner Thesis," surrounded by a picket fence labelled "Defensible Argument." A large speech bubble reading "I am now ..." is beside a grid representing a canvas for articulating the Professional Framework of Practice.

Between the aspirational statements – "we can improve ..." and "I want to be ..." – and the end-game elements are several more paper shapes. On the right is a long arrow leading from the aspirational framework cloud to near the Professional Framework of Practice. This arrow is labelled "Learning Outcomes" with two smaller arrows leading to small thought clouds.

Driving vertically down the centre arrow is a utility truck labelled "project" carrying yellow triangles (components of a star) with a figure perched on top (presumably driving like Mr Bean on his mini). This figure has a brain-shape on their head that contains a small framework of practice flag. The head and learning outcome clouds are aligned such that the implied movement would result in the figure consuming the learning outcome clouds.

On the left of the centre arrow, there are three circles, each with arrows indicating that they are cycles of processes. At the top of each is a thought cloud (the same as the learning outcomes cloud), with an arrow leading to a small figure carrying out actions: giving a presentation on the vision of a yellow star, working on a half-completed blue star, and pointing to a bar graph of different colours. These action-based research cycles have arrows between them, and an ellipsis indicates the possibility of more.

Between the learning outcomes side (right) and the action side (left) are two meshed gears. One has the star-laden truck, the other the figure with the learning outcome-hungry brain. These two cogs demonstrate the required integration of the two aspects of professional practice research.

The text at the bottom of the page reads: **"The beauty of Professional Practice research is learning embedded in practice."**

Image 2:

The second image is of a cut-away cardboard box. The box is perhaps 30cm high by 15cm wide. It is roughly cut at the top with blue sky above. The text at the top reads, "**But some of the best learning opportunities ...**" in white, while the text "... **are stories that can't be told**" is in black. This white and black pairing continues on the image with four sets of images on white backgrounds (smeared with a hint of water colour), each accompanied by a rectangular black strip positioned as if the story in the sketch was being censored (we decided to have only a hint of this so the stories would be readable). Each pair of story sketch and censor strip are held in place by bamboo skewers protruding from the edge of the box/stage. Each story sketch shows a figure (all different this time) with a speech bubble containing a sketch and some text. The sketch is the situation, the text is the story that can't be told, and the strip is the barrier to that telling.

The top-most sketch contains a figure with a speech bubble containing a sketch of a figure sitting at a table being interviewed by three other figures. One of the interviewers is saying, "You'll obviously need help, being a woman." The accompanying censor text reads, "*Misogyny in job interviews is not recognised as a problem, and research is legally fraught." (Spoiler alert: this situation is explored more in image 7).

The second pair of story and censor text again has a figure with a speech bubble containing an internal sketch and story. This time, two people are sitting on a roof of their partially submerged home. The text reads: "We sat on the roof waiting to be rescued, talking about education," and, "Then we couldn't talk at all, for a very long time." The black strip of censor text reads, "*The interviews I intended were washed away, now it's in the moment of surviving and doing" (Mann & Karetai, 2023a, 2023b, 2023c, 2024a, 2024b).

The third story/censor pair has a figure and speech bubble which contains a figure welcoming another figure through a door with a cup of tea. The text with this story says: "How I responded when my neighbour arrived in a state is important learning about overcoming oppression." The censor text reads, "*I can't tell that story, it's not mine to tell, and anyway, no-one would believe it" (Karetai, 2021).

The last situation is shown by a figure standing by an occupied hospital bed along with another figure. The story reads, "I can learn from how that doctor just interacted with my client." The censor text reads, "*Treating people like a machine, but I am unable to get consent from my client."

The typed text at the bottom of the page reads, "In the swamp of practice, research convention often falters, or relies on constraining and isolating the topic so that it loses the essence of practice."

Image 3:

The background for this page is a blue-green sea roughly painted, overlain with barely visible transparencies of circles and shapes seen elsewhere in the paper. In the middle third of the page, and lifted from the sea (it was balanced on blobs of plasticine) is a paper cutout oval with a spiralling arrow. On the main part of the oval are layered cutouts of dark blue circles, a large arrow with sketched black circles, and a blue speech bubble. Around the oval, a faint line of pencilled text reads, "**Keeping the question in its complexity needs a guiding framework.**"

Towards the top of the page the sea is overlain with text stating, "**Surfing on the edge of chaos we often need to develop our own methods**" and, at the bottom of the page, "**to find our own way in uncharted seas.**"

Image 4:

This is a seascape of cutout waves, each painted with different blues and greens and various techniques – sponged, wax resist, and others. On the waves are small sketches, each labelled and representing different aspects of professional practice. There are 14 principles drawing from Costley (2018) shown:

1. In context: a figure relaxes on an arrow containing organically intertwined arrows.
2. Innovation niche: a collection of triangles with a depressed figure becomes a star with a child swinging off one arm and a figure waving a flag (reminiscent of the professional framework of practice flags from image 1).
3. Reflexive: a figure smiles at their reflection in a mirror.
4. Multidimensional: two sets of nested arrows point in different directions.
5. Transformative: a figure with a circle says, "I am a ..." and leads to a larger figure standing beside a star saying, "I am now...."
6. Layered drivers: expanding arrows lead into and away from a figure.
7. Transdisciplinary: a smiling yellow face with sunglasses beside (very small!) images of a single circle (disciplinary), linked circles (interdisciplinary), venn diagram circles (multidisciplinary), and a new circle (new-disciplinary).
8. Critical creativity: a ying and yang representation with "Creative" in white and "Critique" in black. The Creative side has a rainbow ending in a cloud, while the Critique has a set square.
9. Ethics: a person with long hair and a hand to their face pondering, "How are my practice and research making the world a better place?"
10. Necessarily insider: leafy plants loosely circle a group of four people who are interacting with each other and the environment.
11. Meaningful coherence: interconnected circling loops joins four points together in an endlessly intertwined and rhizomatic way.
12. Transgressive: a caged window with broken bars and an arrow bursting out of the opening and turning into a bird flying.
13. Collective: three people standing together smiling, arms around each other saying "collective ways of being, knowing, and doing."
14. Messy and Complex: an arrow covered in faint scribbly lines with the mid-section interrupted by and made up of complex swirling lines.

At the bottom of this page are the words, "**We turn to Principles of Professional Practice ...**"

Image 5:

This image is a seaside scene with a rocky island in the middle. Sixteen rocks painted in reds, browns, oranges, and purples, with some green and grey, cover the island and move down on to blue choppy waves and yellow sand. A mound of grey sand at the bottom of the image has the words, "... and to measures of research quality"

Each of the 16 rocks has the name and sketch of a quality criteria drawn from Tracy (2010) and Patton (2015):

1. Developmental purpose: an arrow curves down then up. Inside the arrow are graph-like bumps. The top line of the arrow which dips and raises is labelled "development," the inner row of graph-like bumps, "evaluation," and, where the arrow turns upwards, "transformation."
2. Innovation niche: a person is sitting with head in hands looking at a pile of broken pieces of a star. An arrow below points to a whole star, with a person swinging feet in the air from one point of the star and, on another point, a person standing waving a flag.
3. Utilisation focus: A straight arrow has a row of three circles evenly spaced along it. Above each circle is an arrow to another shape. The first shape is a circle, the next a square, and then a triangle. The circle, square and triangle are joined together by a line which has an arrow on the end pointing to three different people.
4. Credibility: two people face each other smiling. One has a speech bubble containing wiggly lines indicating text. The other person has a speech bubble with a drawing of the first person and their speech bubble, stamped with a green tick (Tracy, 2010).
5. Meaningful coherence: rhizomatic circling loops join four points together in an endlessly intertwined way.
6. Rich rigour: a flower with four curvy arrows moving upwards and outwards in widening directions.
7. Complexity Perspective: an arrow has its midsection made up of swirling complexity squiggles. A surfer, standing on a surfboard with arms in the air, is at the top of these wiggly lines, saying "surf the chaos."
8. Resonance: a smiling person looks at a point splitting into three arrows to three people. One person says, "yes, I get it." Another says, "finally, someone said it," and the third person says, "oh, that's like me."
9. Worthy topic: two people, one short-haired and one long, stand some distance from each other, both saying at the same time, "That's interesting."
10. Timely feedback: five arrows track along two bumps, up and over the first bump, under the dip, back up towards the top of the second bump, and coming down into the final dip where the line turns into three dotted lines spreading outwards, moving up, straight ahead and down. The arrows represent timely information-based interventions guiding the development; finally, at a three-way crossroads, more information is needed.
11. Ethical: a smiling person with a heart on their torso, arms out to either side, balanced, and holding balanced scales in each hand.
12. Evaluation rigour: two people are facing opposite directions. A curly haired person, slightly in front, has their arm stretched out holding up a large rock, looking at a smaller rock underneath it. The person slightly further away with long hair is pointing towards a rock in the distance sitting flat on the ground.
13. Sincerity: a person smiling at their reflection in the mirror.
14. Co-creation: three people with different hair and body shapes. The person on the left has a speech bubble stretching over all three, asking, "What do you think the questions should be?"
15. Contribution: a triangle or tree of 15 people, starting with one person, joined by arrows to two people, then four people, then eight people.
16. Systems Thinking: a square with two arrows, one going up to a smaller square and the other extending then pointing down. One person is holding a magnifying glass over the lower arrow (which distorts in the lens). Beside them is another person saying, "focus on the relationships."

Image 6:

This page has a hand-drawn flow diagram on it, with 17 aspects of a process, each the basis for evaluative/guiding questions.

On the top edge of the page are some wavy lines and at the base, some blue looping curves and light blue brush marks link to other water-like imagery on the other pages. Sprinkled over the page are small versions of the Professional Practice Principles and Quality Criteria (blueish bubbles from the waves of Professional Practice Principles, and brownish rocks from the isle of Quality Criteria). The text along the bottom reads, "... **as the basis for asking evaluative questions to help guide the Navigator.**"

At the top is text reading, "Driver for challenge to professional practice research." Then directly below on the left is the text, "Emergent Issue," and, on the right, "Changed Circumstances" – these head two columns.

On the left below Emergent Issue is "instance," and, below that, "framing issue."

On the right under Changed Circumstances, is: why is it methodologically challenging? An arrow links back from this question to instance and framing issue on the left.

"Framing issue" on the left is connected by an arrow to "framing method challenge" on the right. Stacked directly below framing method challenge, are "generation of alternatives," "selection of alternatives," and "developing approach."

To the left, and with an arrow looping between developing approach is "testing in context."

Below testing in context, one after the other, are, "using in context," "framing findings," "framing contribution," and "critiquing."

A curved arrow starting at "using in context" loops over to the right to "Refining in Use," and then curves back to "using in context."

An arrow stretches directly down from "refining in use" and another from "critiquing" to "articulating and critiquing methodological contribution."

Image 7:

This is the same scene as the previous image, but with overlaid pieces of handwritten text printed on organic imagery, each held by a stick protruding from sides of the box. The page represents an example of the application of the approach to a story that can't be told – that of misogyny in job interviews from the first page. The left hand side again represents the development of understanding in context, and the right illustrates the development of a novel method – in this case Dave Guruge's "fictomorphosis."

The Driver for challenge to professional practice research is, "Professional practice in organizational governance."

The Emergent issue and Instance are, "Major discomfort in job interview I happened to sit in on."

The Framing issue is "Misogyny in job interviews."

Changed Circumstances, Why is it methodologically challenging, Framing method challenge, and Generation of alternatives are: "As a leader, aware of issues in recruitment, but vulnerability of all participants, (including managers and organization) if raised," and the question, "how do we reveal emancipatory stories in a way that overcomes taboo and underrepresentation in leadership?"

Selection of alternatives and Developing approach have four lines indicate the following four options: "Experimental role play," "member narratives," "legal processes," and "fictomorphosis," which has a star beside it and a smiley face, and the words "allowing professional practice."

Testing in context has, "How many?", "Who tells?", and "What is quality?"

Using in context is "Can people get past the 'You made it up?'"

Framing findings, framing contribution and critiquing are "Themes, contribution to model of emancipatory leadership," and "usefulness" pointing to three items: "artifacts," "workshop resources," and "fictomorphs."

Articulating and critiquing methodological contribution is "Reducing events to single quote, then being wilfully creative with story telling leads to insights and visibility of taboo subjects" (fictomorphosis).

Writing along the bottom of the image says, "**No matter what practice throws at us.**"

Image 8:

The final image is a large colourful wave, made of many smaller waves and flows, forming, layering and swirling within it. Each of these contains a piece of text which fits organically into its own wavy segment or swirl of colour (blues, ochres, reds, oranges and browns). These interconnect with each other to form the large wave.

The wave has been divided into two parts and sits in front of further shapes and swirls of similar, but textless, waves, and some sea-like blue patterns.

The wave base is formed by interconnecting professional practice principles and quality criteria:

System	Ethical
Worthy topic	Timely
Critical creativity	Transgressive
Reflective	Co-created
Collective	Sincerity
Layered drivers	Rich rigour
Complex	Multidimensional
Evaluative rigour	Messy
Necessarily insider	Transgressive
Transdisciplinary	Transformative
Meaning coherence	Contribution
Resonance	Developmental purpose

Above the base are the crest and top curl of the wave, made of many smaller ones folding and layering around each other, each containing an aspect of process that informs evaluative/guiding questions based upon the professional practice principles and quality criteria swirling below:

Emergent issue	Generation of alternatives
Framing issue	Testing
Theoretical underpinnings	Selecting
Method challenge	Developing
Dynamic context	Refining methods
Critiquing methods	Framing findings
Use in context	Critiquing framing
Methodological contribution	Issue contribution

Curling along the topline of the big wave are the words, "**So that practice, research and learning can become inseparable.**"

The overlain text on all the pages can be read as a single tale of adventure:

RIDING WAVES OF PRACTICE

The beauty of Professional Practice research is learning embedded in practice. But some of the best learning opportunities are stories that can't be told. In the swamp of practice, research convention often falters, or relies on constraining and isolating the topic so that it loses the essence of practice. Surfing on the edge of chaos we often need to develop our own methods – to find our own way in uncharted seas. We turn to Principles of Professional Practice, and measures of research quality, as the basis for asking evaluative questions to help guide the Navigator no matter what practice throws at us, so that practice, research and learning can become inseparable.

Samuel Mann (Professor, CapableNZ, Otago Polytechnic) is a geographer and computer scientist whose focus is making a positive difference through professional practice. He developed the role of the sustainable practitioner, the Sustainable Lens, and the Transformation Mindset. He led the development of the Doctor of Professional Practice. When not working, he is probably swimming in open water.

Ruth Myers is a facilitator at CapableNZ and an artist living by a beautiful wild beach in Dunedin. She has research interests in performativity, body, technologies, place, sustainability, care, ethics, play, practice based/led research, professional practice, and autoethnography.

Dave Guruge is a management practitioner with over 20 years of experience. He is currently pursuing a Doctor of Professional Practice at Otago Polytechnic. His research interests are in organisational ethnography, sustainability, and post-qualitative research.

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GUIDELINES FOR CONTRIBUTORS

Submissions for *Scope (Work-based Learning)* should be sent by 30 April for review and potential inclusion in the annual issue to: henk.roodt@op.ac.nz; rachel.mcnamara@op.ac.nz

Scope (Work-based Learning) 7 theme: The dynamic transformations of identity in professional practice. Amidst the rapid changes reshaping our workspaces, we invite you to contribute your valuable insights to explore the ongoing evolution of professional practice identity. The 2025 issue seeks to investigate how individuals actively engage with and evolve their identities in response to, and in driving, change, viewing these shifts as opportunities for growth and professional “becoming.”

All submissions will be peer reviewed. Peer review comments will be sent to all submitters in due course, with details concerning the possible reworking of documents where relevant. All submissions must include disclosure of whether and how AI was used in writing the work. All final decisions concerning publication of submissions will reside with the Editors. Opinions published are those of the authors and not necessarily subscribed to by the Editors or Otago Polytechnic.

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Mātauranga Māori is a significant component of Aotearoa/New Zealand's heritage, and sharing mātauranga Māori facilitates inter-cultural dialogue and understanding that is in the national interest. However, we recognise that the originating Māori community and/or individual has the primary interest as kaitiaki over the mātauranga and we are therefore committed to ensuring that the sharing, promotion and innovation based on mātauranga Māori respects and enhances its cultural and spiritual integrity, as well as that of the originating community and/or individual.

Submission formats include: editorials, articles, perspectives, essays, research notes and work in progress. Other formats will also be considered.

High standards of writing, proofreading and adherence to consistency through the APA referencing style are expected. For more information, please refer to the APA Publication Manual, 7th edition and consult prior issues for examples. A short biography of no more than 50 words as well as title; details concerning institutional position and affiliation (where relevant); contact information (postal, email and telephone number) and ORCID number should be provided on a cover sheet, with all such information withheld from the body of the submission. Low resolution images with full captions should be inserted into texts to indicate where they would be preferred, while high resolution images should be sent separately. Enquiries about future submissions can be directed to henk.roodt@op.ac.nz.

