A MĀORI MODERN LEARNING ENVIRONMENT: KO TE AKĀ PŪKAEA KIA ITA, KO TE AKĀ PŪKAEA KIA EKE!

PROFESSOR JENNY LEE-MORGAN
DR JO MANE
JOANNE GALLAGHER
RUIA APERAHAMA

Resilience in the workplace and community

ABSTRACT

This Kaupapa Māori research project investigates the ways that two Māori-medium pathways (bilingual and immersion) work together in a newly built Flexible Learning Space (FLS) to progress te reo Māori and the aspirations of whānau. This paper introduces the project that proposes the notion of the Māori Modern Learning Environment (MMLE). Funded by Teaching Learning Research Initiative (TLRI), this two-year project is still in progress with the project only being at an early stage. The researchers are currently exploring how 'space' is understood and utilised by Māori teachers, students and whānau of two Māori-medium pathways, within the wider English-medium primary-school context. This pūrākau (case-study) project takes a strengths-based approach, and is based on the experiences, pedagogies and potential of Te Akā Pūkaea, at Newton Central School. The two whānau groups and Māori-medium pathways at the centre of the study are: Te Uru Karaka (immersion) and Te Awahou (bilingual). This research is intended to respond to the call from Stewart and Benade (2020) to 'spatial biculturalism' as we theorise 'space' from a Kaupapa Māori lens. Hence, the project is titled "A Māori Modern Learning Environment: Ko te Akā Pūkaea Kia Ita, Ko te Akā Pūkaea Kia Eke!".

KEYWORDS

Kaupapa Māori research, Flexible Learning Space, Māori Modern Learning Environment, te reo Māori learning, bilingual language learning, immersion language learning

INTRODUCTION

More than ever before there is a growing appreciation of Māori language in Aotearoa (Nelson, 2018; Olsen-Reeder, 2017; Haar et al., 2019; Rewi & Rewi, 2015). Māori language classes for adults are oversubscribed (Māori Television, 2018; Roy, 2018), as Māori and non-Māori alike want to learn te reo as part of our national cultural heritage (Lee-Morgan et al., 2019). In the schooling sector, the normalisation of te reo has seen what Higgins and Rewi (2014) have termed a 'right shift'. The ZePA model uses the term right-shifting to describe the progression of language use towards normalisation, and highlights levels of awareness and different stages of language use (from left to right) that progress between zero use, passive use and active use (Higgins & Rewi, 2014).

This (right) shift is evident in the marked increase in the number of schools teaching, and students learning, te reo Māori (Murphy et al., 2019). We note that Māori student learning of te reo has increased to 21% over the past decade (2008 to 2018), while non-Māori students learning the language in the same time period was more than double that, at 47% (Murphy et al., 2019, p. 29). An increased shift towards learning te reo Māori is further exemplified in the small but growing number of predominantly Pākehā schools (including private schools) making te reo Māori a compulsory part of their curriculum, i.e., King's College, Auckland; Christ's College, Christchurch; and Wellington Girls' College (Lee-Morgan et al., 2019). While the uptake of Māori language is positive and a purposeful part of the Crown's Maihi Karauna, Māori Language Revitalisation Strategy (Te Puni Kōkiri, 2019), an increase in interest was further exemplified in the number of organisations celebrating Te Wiki o Te Reo Māori in 2021. This article asks: What is the response of schools to address the growing numbers wanting to learn te reo Māori? Given we are in the first phase of our two-year research project, we discuss here the 'shifts' in education that provide context to this research, and help locate and frame the project's research question: How does a Māori Modern Learning

Environment successfully facilitate dual Māori-medium (immersion and bilingual) pathways that respond to learner and whānau aspirations in an English-medium primary school?

Schooling is also experiencing what Benade (2019) describes as a 'spatial turn,' as the Ministry of Education (MoE) builds new (non-traditional) facilities, referred to as Innovative Learning Environments (ILEs), Flexible Learning Spaces (FLSs), Modern Learning Environments (MLEs), and more recently described as Quality Learning Spaces (QLSs) (Stewart & Benade, 2020). In 2011, the Ministry of Education, following international trends, issued the directive that all newly built schools (and classrooms) be designed as ILEs with FLS (Bradbeer et al., 2017). Accordingly, 'space' is seen to play an important role in teaching and learning. Principals and teachers want 'space' to "embody their pedagogical beliefs in the day-to-day practices of schools" (Bradbeer et al., 2017, p. 1). What does this mean for Māori learners, and their whānau? How do Modern Learning Environments support Māori educational aspirations? What do Modern Learning Environments mean spatially for Māori-medium learners in English-medium schools?

This paper introduces the two-year research project in progress, funded by Teaching Learning Research Initiative (TLRI), titled "A Māori Modern Learning Environment: Ko te Akā Pūkaea Kia Ita, Ko te Akā Pūkaea Kia Eke!" and based in an MLE within Newton Central School, an English-medium school in Tāmaki Makaurau Auckland. Our research project is specifically interested in the implications of these 'shifts' for Māori-medium pathways in English-medium schools. Notably, the focus of this project is concerned with Māori-medium education (Levels 1 and 2) situated within a mainstream schooling setting.

With an emphasis on 'right shift' also having the potential to further normalise te reo Māori in educational settings, the term 'spatial turn' also accentuates the growing demand for creating te reo Māori spaces in schooling. As this research project is located within the context of a Modern Learning Environment, this article explores, at the initial stage of the project, the intersection of these two movements: Māori language normalisation and the Modern Learning Environments. We therefore suggest an extension to the notion of the Modern Learning Environment to what we have called a Māori Modern Learning Environment (MMLE).

METHODOLOGY: KAUPAPA MĀORI RESEARCH

Kaupapa Māori research is clearly located as part of the wider struggle by Māori communities to seek ways in which to contribute to transformative change in the wider framework of self-determination, decolonisation and social justice (Pihama, 2015, 2010; Smith, 2012; Smith, 2015). The history of te reo Māori and education is characterised by colonial oppression, Māori resistance and, importantly, the struggle for 'space,' thus resulting in Kaupapa Māori educational initiatives that emerged in the early 1980s, beginning with the movement of Te Kōhanga Reo (Nepe, 1991; Pihama, 2015; Smith, 2004, 1997; Smith, 2012). With this said, it is therefore pragmatic that Kaupapa Māori methodology is applied in this study, in acknowledging the legacy of transformational change that has accumulated over several decades in making Māori 'space' in education settings.

Kaupapa Māori research centres not only on te reo, tikanga and mātauranga Māori, but on Māori aspirations and experiences that are cognisant of our diverse realities (Bishop, 2005; Pihama, 2015; Smith, 2012). In foregrounding Māori epistemological and ontological constructs in research, Kaupapa Māori methodology is inherently political, and often referred to as the decolonising dimension of the research. In this regard, Linda Tuhiwai Smith (2012) reiterates, "Decolonization … is about centring our concerns and world views and then coming to know and understand theory and research from our own perspectives and for our own purposes" (p. 39). In this study, Kaupapa Māori methodology offers a new way to investigate, analyse and contribute to the discussion about Modern Learning Environments for Māori, or to what we refer to as Māori Modern Learning Environments (MMLEs).

Kaupapa Māori frames and structures our thinking and approaches to research; it affects all dimensions from the research question to the analysis. This includes the ways in which the whānau, kura and community will engage with and participate in this research. In our project, working collaboratively with the whānau and kura is critical if Kaupapa Māori research is to successfully contribute to transformative outcomes for our Māori learners, whānau and

communities. This research approach also draws on a community-based participatory research (CBPR) approach (Ferreira & Grendron, 2011), whereby the whānau, kura and community are all part of the research process.

This inclusive dimension of the research also adheres to the TLRI approach that "researcher–practitioner partnerships should be integral to the design of the project" (Teaching and Learning Research Initiative, 2020, p. 2). Acknowledging the process of ako (Lee, 2008), and the knowledge, expertise and mātauranga that each of the groups and people will bring to the project as we learn from each other, this research will actively engage learners, whānau and the kura in the research process. For example, wānanga (Smith et al., 2019) will be used as one of the methods that enables co-creation opportunities across the groups to participate in research activities, including the analysis.

Similarly, as Kaupapa Māori researchers we expect to teach and learn from each other throughout the research process. As Māori we are cognisant of the whānau, hapū and iwi connections between us that strengthen our relationships together and with whānau of the kura. Each of the researchers has a particular set of knowledge, skills and experience that come together in this project. While each member of the research team is a competent te reo Māori speaker, critical to this research is the appointment of teacher Ruia Aperahama (school-based researcher) to the research team. Ruia brings a high level of te reo and tikanga expertise, and a wealth of mātauranga Māori to this project. Together, our team can confidently enact and implement practices that uphold mana tāngata, mana o te reo and mātauranga Māori in all aspects of this project. Acutely aware of the ethics inherent in Kaupapa Māori work, we also understand our cultural roles and responsibilities (as mātua, whaea, tuākana, tēina, wāhine, tāne, etc.), as well as the nature of the knowledge itself, and to whom it belongs. In this research, the whānau and kura have agreed and are proud to be named as the 'case' and tell their stories. Similarly, individual participants will have the choice whether to be named or have anonymity.

This Kaupapa Māori project takes a strengths-based approach and is premised on the idea that "te reo Māori has been revitalised" (Higgins & Rewi, 2014, p. 30) as te reo Māori continues to be utilised inter- and intra-generationally within whānau, hapū, iwi and communities throughout Aotearoa today. Positioning our research in this way is aligned to the aforementioned ZePA theory of language change (Higgins & Rewi, 2014), and rejects a deficit approach. Rather, this Kaupapa Māori case-study-type research seeks to interrogate what Lightfoot (1983) refers to as the 'good' story (or school). Such an approach understands and accepts that inherent in any 'goodness' are always weaknesses; the 'story,' however, focuses more on how a school and its community responds, solves and rises to these challenges. This case-study project (Stake, 2005), based on Te Akā Pūkaea, at Newton Central School, will therefore relay a deeply contextual story that highlights the complexities as well as revealing the success and strategies of this Māori Modern Learning Environment.

A pūrākau method

Pūrākau is a Kaupapa Māori approach to narrative inquiry that foregrounds the pedagogical intent of stories, while supporting Māori cultural norms and worldviews. This Kaupapa Māori research project will utilise a pūrākau methodological approach to investigate and analyse the Māori Modern Learning Environment of Te Akā Pūkaea, at Newton Central School. In this project, a pūrākau method (Lee, 2008; Lee-Morgan, 2019) directly relates to the objective of providing an in-depth pūrākau (case-study) of Te Akā Pūkaea as a Māori Modern Learning Environment that facilitates dual Māori-medium pathways. As well as assisting with developing success indicators within a Māori Modern Learning Environment, the project will further identify key Māori pedagogies that enhance Māori language and educational development for all learners (in both pathways).

Here a pūrākau method will be utilised in a similar way to case-study inquiry. While Te Akā Pūkaea constitutes the 'case' (Stake, 2005), a pūrākau methodology acknowledges the multiplicity of stories amongst the various groups involved in Te Akā Pūkaea, as well as the diversity of stories within the groups themselves. Within a pūrākau approach, these stories represent the range of experiences and lived realities of our contemporary Māori lives, and a much richer and real case from which to understand the success and potential of a Māori Modern Learning Environment. The pūrākau, like a case study, will reveal the greater socio-historical and political schooling context

in which Te Akā Pūkaea is located, as well as the way in which it operates and is experienced by teachers, learners and their whānau, and the broader school community of Te Akā Pūkaea today. At its heart, this pūrākau gives voice to Māori learner, teacher and whānau experiences, harnessing their respective ideas and aspirations in culturally relevant and responsive ways. In doing so, the pūrākau will document and analyse the stories of Te Akā Pūkaea as a Māori Modern Learning Environment that resonates with Māori learners, whānau and community.

Interviews

This qualitative project involves individual and focus-group interviews with learners, whānau, teachers, the Principal, the Board of Trustees (BoT) and the wider school (n = 40). Haawera and Herewini (2020) point out the importance of student voice in this under-researched area where it is considered that tamariki (and learners) are at the centre of the whānau and success. The participants will include learners, teachers, Principal and senior management, whānau members, Board of Trustees and key community stakeholders. As previously stated, it will be important to gather the stories, perspectives and insights of a range of people who are involved with Te Akā Pūkaea to create a rich and layered pedagogical depiction of the strengths, weaknesses and opportunities of Māori-medium pathways in this Māori Modern Learning Environment.

Wānanga

Wānanga is another method that is used in the research context as a 'thought space' (Smith et al., 2019) to discuss, analyse and in this case co-create the pūrākau, and contribute to the analysis. Several wānanga will be held with participants and stakeholders, i.e., learners, whānau, teachers and staff, to think deeply into the initial findings, to co-create pūrākau and contribute to the analysis. Wānanga enables an active participation in the research process in culturally appropriate ways and will be structured according to the themes that arise.

Analysis and writing

Alongside the wānanga, the research team will regularly come together to collectively analyse data to identify, craft and develop the pūrākau and other findings. The expertise of each of the research members will ensure the findings are academically and practically grounded and, most importantly, serve the whānau of Te Akā Pūkaea and Newton Central School.

Literature review

An important part of building the foundation of the research project is the completion of an in-depth literature review that situates the experience of immersion and bilingual programmes in an English-medium school. In terms of how teachers negotiate and use space in teaching, the literature discusses Māori notions of space, place and time as distinctive from Western concepts of space (Wilson, 2013; Paewai, 2013). Emphasis for this study is both about the physical environment and its impact on teaching and learning and student experiences; as well as a shift from traditional Western learning and teaching practices to a more facilitated, co-constructive teaching and learning style. In creating indigenous spaces (Kiddle et al., 2018) within education, this study recognises that all too often Māori realities remain situated in colonised spaces (Pihama et al., 2002; Wilson, 2013; Paewai, 2013).

The literature review found that there is a distinct lack of research on the involvement and participation of Māori in Modern Learning Environments (Edmonds, 2021; Hunia et al., 2018), thus further reinforcing the dire need for research specific to the experiences of students, kura staff, whānau and communities within Māori Modern Learning Environments. A lack of expediency on the part of the Ministry of Education in catering for the growth of Māori-medium pathways is further indicated in the literature. Despite recommendations made by the Waitangi Tribunal for specific targets to retain ākonga in Māori-medium education and to improve the quality of Māori-medium education to bolster whānau confidence in choosing MME pathways for their tamariki (Waitangi Tribunal, 2011, cited Hunia et al., 2018, p. 8), government inaction is cited as a key barrier. While the government had stated its intent

to strengthen and grow the Māori-medium sector (Ministry of Education, 2010) this inaction inhibited the growth of MME so that Māori medium has not been accessible to many whānau (Hunia et al., 2018, p. 8). Hunia et al. (2018) report there to have been little research done in relation to Māori pedagogy and other education innovations in MME. Despite the lack of research and literature on the impact of MME, Edmonds (2021) found that the research that has been undertaken indicates that MMEs are successful learning environments.

The scarcity of literature specific to MMLE and FLS in Māori-medium settings is a key reflection of the lack of research in these developments. As we explore the literature, we are reminded of the struggle that Māori face, in not only creating spaces where culture, language and identity count (Nepe, 1991; Smith, 1997; Smith, 2012; Bishop & Glynn, 1999; Pihama et al), but furthermore in the decolonising of educational settings (Hutchings et al., 2012).

DISCUSSION

Given we are in the first phase of this research, we discuss here the 'shifts' in education that provide context to this research, and help locate and frame the research question: How does a Māori Modern Learning Environment successfully facilitate dual Māori-medium (immersion and bilingual) pathways that respond to learner and whānau aspirations in an English-medium primary school?

Māori language in English-medium schools

It is widely recognised that Kaupapa Māori education has played a critical role in the revitalisation of Māori language in Aotearoa (Trinick et al., 2020). Kōhanga Reo, Kura Kaupapa Māori and Wharekura have been at the forefront of this movement since the first Kōhanga Reo opened with much success in 1982 (Martin, 2012, 2014; McKinley, 2000; Ministry of Education, 2010; Poutu, 2007; Tocker, 2002). However, Māori language remains in a critical and threatened state for many whānau, hapū, iwi and communities (Ministry for Social Development, 2016; Trinick et al., 2020). With 97% of Māori learners in English-medium schools (Stats NZ, 2017), we remain reliant on Māori-language teaching and Māori-medium pathways to provide access and opportunities to our students. Murphy et al. (2019) emphasise that Māori language in English-medium schools is vitally important and highly dependent on school leadership, teachers, resources and language programmes. While their evaluation of 11 English-medium schools found that these schools are making a "critical contribution to the revitalisation of Māori language" (Murphy et al., 2019, p. 7), bilingual or rumaki units within English-medium schools were out of scope. Despite the continued call by Māori whānau, hapū, iwi and communities for better access to Māori language (and culture) in schools over many decades (Hutchings et al., 2012), there is still a dearth of research about Māori-medium pathways in English-medium schools.

Māori-medium education and Modern Learning Environments (MLEs)

In our initial literature-scoping search, we only found two articles directly related to Māori and Modern Learning Environments. The first, titled "Teacher inquiry in a Māori-medium Modern Learning Environment" (Haawera & Herewini, 2020), focuses on a very small teacher-led inquiry approach to pāngarau (maths) in a Māori-medium learning setting within a Modern Learning Environment, or what is referred to as Puna Mātauranga Kiritoa (PMT). The study reports that kaiako in these spaces became more collaborative in their planning, pedagogy and assessment practices than they had been in single-cell classrooms, and that ākonga enjoyed having more choice and more collaboration as peers (in mixed-ability groups). Haawera and Herewini conclude: "Continued research in this area is essential if we are sincere about a PMT approach. PMT is one such example of a [Māori-medium] kura growing and evolving. Research needs to continue to capture future iterations" (p. 47).

The second article, by Stewart and Benade (2020), argues that, notwithstanding the equity discourse with a focus on student outcomes in terms of Modern Learning Environments (which can easily become assimilatory), there are no Māori-centred perspectives related to the Modern Learning Environment reforms. To this end, they suggest the term 'spatial biculturalism' is a way to highlight the responsibilities of education to Te Tiriti o Waitangi and the rights of Māori, to ensure Modern Learning Environments take account of Māori ways of teaching, learning and living. They

state, "Current school building policy in Aotearoa NZ presents opportunities to work towards realising the goals of educational biculturalism, as part of Māori political aspirations for Māori futures more generally. These are matters of intense interest and significance for education researchers" (p. 129). The only research they cite as an example of research related to Māori culture and school buildings in English-medium schools is the TLRI research previously led by the Principal Investigator of this project, Jenny Lee-Morgan, about marae-a-kura (school marae). This project also builds on the work about school marae (Lee & Selwyn, 2010; Lee, 2012; Lee-Morgan, 2016) as an ancient innovation and flexible teaching space introduced into English-medium schools in the late 1970s.

Modern Learning Environments (MLEs)

There is a small but growing body of literature about Modern Learning Environments in Aotearoa (Benade, 2019; Bradbeer et al., 2017; Wall, 2014), including the perspectives of students and teachers (Mackey et al., 2017; Pratt & Trewern, 2011), and the ongoing debate about whether Modern Learning Environments facilitate the most effective learning and teaching conditions (Abiss, 2015). From 2013 to 2017, the Ministry of Education spent $747.7 million to build, and in some cases maintain, 19 new Innovative Learning Environment schools (Gattey, 2018). In the local Kahui Ako area where the research (and research team) is located, each of the English-medium schools with Māori-medium pathways have opened new Modern Learning Environment buildings in the past two years: 2018, Te Akā Pūkaea, Newton Central Primary School; 2020, Waitītiko, Pasadena Intermediate; and 2020, Waiōrea, Western Springs College.

Despite the Flexible Learning Space builds and the growing literature about Modern Learning Environments in Aotearoa, the lack of research and policy about Māori engagement with and participation in Modern Learning Environments stands out. One related Ministry of Education report, "Modern learning environments to support priority learners" (Wall, 2014) makes the following point in relation to Māori language:

> Where Te Reo Māori or Pasifika languages are offered within a particular learning space, the location of this space signals the value accorded to the language. It is important, therefore, that consideration is given to integrating the space with other learning spaces, and of adorning the space to demonstrate the value placed on language. While existing schools will have space restrictions on their sites, a Māori or Pasifika learning space should be placed in a location that reflects the mana of the language. (p. 31)

Integrating 'language space' presents inherent challenges for Māori-medium (immersion) education in an English-medium school when the space is shared with other programmes or classes. Furthermore, the 'mana of the language' in a Modern Learning Environment must mean more than just the adornment and location of the space. The Ministry of Education report "Maui whakakau kura whakakau: The impact of physical design on Māori and Pasifika outcomes" (Wall, 2016) that followed two years later did not extend this idea any further but acknowledged that the current guidelines for Flexible Learning Spaces "will not themselves be sufficient to create a physical environment that fully meets the principles laid out in Te Aho Matua [the founding document for Kura Kaupapa Māori]. Likewise, these guidelines will not fully address the special character of Kura ā-Iwi" (p. 12). The lack of guidelines and/or understanding as it relates to Māori, let alone Māori-medium pathways in English-medium schools, is clear.

Te Akā Pūkaea, Newton Central School

Te Akā Pūkaea, opened in 2018, is the new Flexible Learning Space that features both the reo rumaki unit, Te Uru Karaka (established in 1997), and the bilingual unit, Te Awahou (established in 2005), at Newton Central School in central Auckland. Te Akā Pūkaea is indicative, too, of the growing interest and acceptance of te reo Māori in wider society. Te Akā Pūkaea brings together two Māori-medium teaching pathways and represents a new pathway for Māori-medium education in English-medium schools. This Māori Modern Learning Environment pathway has not been previously researched and offers new possibilities for English-medium schools. Newton Central School recognises the unique opportunity, and celebrated the opportunity at the opening:

> Both Te Awahou unit and Te Uru Karaka unit continue to operate well-attended programmes at Newton School, but at the beginning of 2018 we have the opportunity to create a new pedagogy that honours and reflects Te Tiriti o Waitangi, Mana Whenua, Ngā Mātāwaka, and the diverse community of Newton Central. This opportunity stems from the provision of a new Māori-medium building that will accommodate both Te Awahou and Te Uru Karaka units. (2018)

There are currently 95 students within the dual Māori-medium pathways of Te Akā Pūkaea: 46 students from Years 1 to 6 in Te Awahou (the bilingual pathway), and 49 students in Te Uru Karaka (the immersion pathway). There are six to nine Te Akā Pūkaea staff in total; Erina Henare is the lead teacher of Te Akā Pūkaea.

CONCLUSION

Research that better understands and supports the development, practice and potential of Māori Modern Learning Environments (MMLE) is critical. It is timely and important that this research not only responds to Māori teachers and learners but promotes access to te reo and tikanga Māori in schooling. This is evident from the initial literature about Modern Learning Environments that gives context to this study, which states that although the built environment may be fundamentally different, the quality of Modern Learning Environment will be determined by the people (especially the teachers) who use the space. While, ultimately, the aspiration is that Flexible Learning Spaces will facilitate 'new' pedagogies to enhance better teaching and learning, Hattie et al. (2015) argue that "changing the shape of the buildings does not lead to teachers teaching differently" (quoted in Page & Davis, 2016, p. 9). Accordingly, Benade (2019) argues that "FLS offers pedagogical opportunities and innovative practices not (easily) possible in a single-cell space" (p. 59). He further suggests these spaces afford more opportunities for student agency, personalised learning, innovative and integrated curriculum practices, inquiry-based approaches and new assessment strategies (Benade, 2019).

Given Māori have historically not been served well in traditional classroom settings, due to both structural and cultural constraints embedded in the education and schooling system (Bishop & Berryman, 2006; Marks, 1984; McFarlane, 2004; Smith, 1997), if little else changes beyond the physical space, this will be a wasted opportunity. The Ministry of Education (Wall, 2014) points out: "The physical environment can only support cultural inclusivity to the extent to which this is also reflected in effective teacher–student relationships and culturally responsive pedagogies" (p. 5). To this end, Māori Modern Learning Environments are interested in the ways Māori understand both space and pedagogies in schools. Stewart and Benade (2020) are pertinent in asking: "How do schools with Māori identities use FLS to support tikanga, and how can FLS in Māori schools honour the local environment and Indigenous knowledge with educational practice? How might the experiences of Māori schools inform learning environments theory and practice more generally?" (p. 131).

A Kaupapa Māori project of this kind is long overdue, as whānau and schools continue to grapple with the best pathways to support Māori-language learning in mainstream schools. Due to a lack of information and research available, each whānau and school often struggles to get it 'right' – often at huge cost to whānau and school, and sometimes impacting on student experiences and outcomes. In a society that is now more accepting and encouraging of te reo Māori, and a schooling context that is focused on building Flexible Learning Spaces, it is critical that these sorts of research projects are undertaken. Therefore, it is intended that this research project will not only be of benefit to the whānau of Newton Central School, but also to the local Kāhui Ako. The Kāhui Ako o Waitematā includes six Māori-medium pathways in English-medium schools, called Te Reo o te Matā – made up of Newton Central School, Pasadena Intermediate, Westmere Primary, Waiōrea Western Springs College, Freemans Bay Primary, and Kōwhai Intermediate. This research will contribute to Māori-medium education, both locally and nationally. With close involvement with Te Reo o te Matā, Ruia Aperahama notes in Auckland alone there are approximately 3000 students enrolled in Māori-medium schooling pathways, and of this number approximately two thirds (2000) of students are in rumaki or reo rua units within English-medium schools. However, there is currently no formal representation or collective nationwide voice of reo rumaki and reo rua in English-medium schools. To this end, a group called Ngā Herenga Reo, representing all rumaki units in the Auckland region, has

recently been formed. According to Ruia Aperahama and the Principal of Newton Central School, Riki Teteina, this research will make a valuable contribution to this rōpū.

With the lack of research in this area, and the need to contribute to the two broad drivers that contextualise this project (Māori-language learning and MLEs), this Kaupapa Māori study is primarily concerned with understanding and contributing to the theories and pedagogies that have developed in this Māori Modern Learning Environment to support Māori-medium pathways. We are less concerned with the measurement of language acquisition per se, but rather with the ways in which MMLEs can respond to and fulfil the aspirations of Māori learners and their whānau. While Māori-language policy and planning issues are important in any language-learning endeavour and will be a part of the research, they are not the key foci here.

In storying pūrākau case studies across all participant voices, this research will provide a rich narrative in the context of Te Akā Pukāea whānau, capturing the specificities related to the experiences of whānau, kaiako, management, boards of trustees and students. These pūrākau will provide insights involving both successes and barriers to establishing Māori-medium pathways within mainstream education settings that will be relevant to other schools with MLEs who are looking to be more culturally responsive to Māori. Such an approach does not aim to provide research generalisability as such, but seeks to portray and acknowledge the particularities of the case, and is conscious, too, of the expression of tino rangatiratanga by whānau. The intention is that the pūrākau will provide a case study or exemplar for others to engage with and determine the best approach for themselves in their specific context and circumstances. Finally, this research is intended to respond to the call from Stewart and Benade (2020) to 'spatial biculturalism' as we theorise 'space' from a Kaupapa Māori lens. Hence, the project's title: "A Māori Modern Learning Environment: Ko te Akā Pūkaea Kia Ita, Ko te Akā Pūkaea Kia Eke!".

GLOSSARY

ako	to learn
ākonga	learner/s
iwi	tribe
kaiako	teacher
Kaupapa Māori	Māori approach
kura	school, place of learning
mana	prestige, power, authority
mana tangata	power and status accrued through personal leadership, mana of people
mana whenua	land authority, kin group that has held continuous occupation of lands
Māori	Indigenous people of Aotearoa
matauranga	knowledge
matua	parent/s
matāwaka	kin groups, tribe, clan, race

pūrākau	story, storytelling
tāne	man
teina	younger sibling/peer
Te Kohanga Reo	The Language Nest, Māori-led early childhood settings
te reo Māori	the Māori language
Te Tiriti o Waitangi	The Treaty of Waitangi
tikanga	cultural protocols, lore
tuakana	older sibling/peer
wahine	woman
wānanga	place of learning
whānau	family

ACKNOWLEDGEMENTS

REFERENCES

Abbiss, J. (2015). Future-oriented learning, innovative learning environments and curriculum: What's the buzz. *Curriculum Matters*, *11*, 1–9. https://doi.org/10.18296/cm.0001

Benade, L. (2019). Flexible Learning Spaces: Inclusive by design? *New Zealand Journal of Education Studies*, *54*(1), 53–68. https://doi.org/10.1007/s40841-019-00127-2

Bishop, R. (2005). Freeing ourselves from neo colonial domination in research: A kaupapa Māori approach to creating knowledge. In N. K. Denzin & Y. S Lincoln (Eds.), *The Sage handbook of qualitative research* (3rd ed., pp. 109–138). Sage Publications Inc.

Bishop, R., & Berryman, M. (2006). *Culture speaks: Cultural relationships and classroom learning*. Huia

Bishop R., & Glynn, T. (1999). *Culture counts: Changing power relations in education*. Dunmore Press.

Bradbeer, C., Mahat, M., Byers, T., Cleveland, B., Kvan, T., & Imms, W. (2017). The state of play concerning New Zealand's transition to innovative learning environments: Preliminary results from phase one of the ILETC project. *Journal of Educational Leadership Policy and Practice*, *32*(1), 22–38. http://hdl.handle.net/11343/214377

Edmonds, K. (2021). *Final report*. Nga Pae o te Maramatanga, New Zealand's Māori Centre of Research Excellence.

Ferreira, M. P., & Grendron, F. (2011). Community-based participatory research with traditional and indigenous communities of the Americas: Historical context and future directions. *International Journal of Critical Pedagogy*, *3*(3), 153–168. http://digitalcommons.wayne.edu/nfsfrp/2

Gattey, M. (2018, May 2). How modern learning environments work, and what parents' options are. *Stuff*. https://www.stuff.co.nz/national/education/103557339/how-modern-learningenvironments-Work-and-what-parents-options-are

Haawera, N., & Herewini, L. (2020). Teacher inquiry in a Māori-Medium Modern Learning Environment. *Set: Research Information for Teachers*, *1*, 42–48.

Haar, J., Ka'ai, T., Ravenswood, K., & Smith, T. (2019). *Ki te tahatū o te rangi: Normalising te reo Māori across non-traditional Māori language domains*. Te Taura Whiri i Te Reo Māori.

Hattie, J., Masters, D., & Birch, K. (2015). *Visible learning into action: International case studies of impact*. Routledge.

Higgins, R., & Rewi, P. (2014). ZePA-right-shifting: Reorientation towards normalisation. In R. Higgins, P. Rewi, & V. Olsen-Reeder (Eds.), *The value of the Māori language: Te hua o te reo Māori* (pp. 7–32). Huia.

Hunia, M., Keane, B., Bright, N., Potter, H., Hammond, K., & Ainsley, R. (2018). *Tautokona te reo: The wellbeing of te reo Māori in kura and schools*. New Zealand Centre of Educational Research.

Hutchings, J., Barnes, A., Taupo, K., Bright, N., Pihama, L. & Lee., J. (2012). *Kia puawaitia ngā tumanako: Critical issues for whānau in education*. New Zealand Council for Educational Research.

Kiddle, R., Stewart, L. P., & O'Brien, K. (2018). *Our voices: Indigeneity and architecture*. Oro Editions.

Lawrence, S. L. (1983). *The good high school: Portraits of character and culture*. Basic Books.

Lee, J. (2008). *Ako: Pūrākau of Māori teachers' work in secondary schools* [Doctoral dissertation]. The University of Auckland. http://www.rangahau.co.nz/assets/lee_J/leej2008_phd.pdf

Lee-Morgan, J. (2016). Marae-ā-kura: A culturally specific decolonising strategy. In J. Hutchings & J. Lee (Eds.), *Decolonisation in Aotearoa: Education, research and practice*. NZCER Press.

Lee-Morgan, J. (2019). From the inside out. In J. Archibald, J. Lee-Morgan, & J. De Santolo (Eds.), *Decolonizing research: Indigenous storywork as methodology*. Zed Books.

Lee, J. B. J. (2012). Marae a-kura: Tracing the birth of marae in schools. *Set: Research information for teachers*, *2*, 3–11. http://www.nzcer.org.nz/nzcerpress/set/articles/marae- kura-tracing-birth-marae-schools

Lee, J. & Selwyn, C. (2010). *Oho ake: Rehu Marae, Ngā Puna o Waiōrea*. Rautaki Ltd.

Lee-Morgan, J., Muller, M., Seed-Pihama, J., & Skipper, H. (2019). *Tukua ki te ao: Progressing the normalisation of te reo Māori in organisations*. Te Kotahi Research Institute. https://indd.adobe.com/view/c5593e27-2630-49f6-9386-4f0dc351030f

Mackey, J., Reilly, N., Fletcher, J., & Jansen, C. (2017). What do teachers and leaders have to say about co-teaching in flexible learning spaces? *Journal of Educational Leadership, Policy and Practice*, *32*(1), 97–110. https://doi.org/10.21307/jelpp-2017-009

Māori Television. (2018, August 6). *PM's baby will speak Māori and English*. https://www.teaomaori.news/pms-baby-will-speak-maori-and-english

Marks, M. (1984). The frustrations of being a Māori language teacher. In R. Walker (Ed.), *Proceedings of Ngā Tumanaako: Māori Educational Development Conference, Turangawaewae Marae, 23–25 March 1984* (p. 43). Centre for Continuing Education, The University of Auckland.

Martin, J. (2012). He kura huna – Māori expressions of educational success. *Te Kaharoa*, *5*(1), 109–118. https://doi.org/10.24135/tekaharoa.v5i1.99

Martin, J. (2014). *He kura-hāpainga, he kura-waka, he kura-kōrero, he kura-huna, he kura-kura* [Unpublished PhD thesis]. The University of Auckland.

McFarlane, A. H. (2004). *Kia hiwa ra! Listen to culture: Māori students' plea to educators*. New Zealand Council for Educational Research.

McKinley, S. (2000). *Māori parents and education: Ko ngā mātua Māori me te mātauranga*. New Zealand Council for Educational Research (NZCER).

Ministry of Education. (2010). *Te piko o te māhuri: The key attributes of successful Kura Kaupapa Māori*.

Ministry for Social Development. (2016). *The Social Report 2016: Te pūrongo oranga tangata*. http://socialreport.msd.govt.nz/cultural-identity/Māori-languagespeakers.html

Murphy, H., Reid D., Patrick, A., & Bradman L. (2019). *Whakanuia te reo kia ora: Evaluation of te reo Māori in English-medium compulsory education*. Te Taura Whiri i Te Reo Māori.

Nelson, M. (2018). *Reo Māori, Pākehā voices: The bilingual land our hearts know is possible*. Prepared for Te Taura Whiri i Te Reo Māori. https://thehub.swa.govt.nz/resources/reo-maori-pakeha-voices-the-bilingual-land-our-hears-know-is-possible/

Nepe, T. (1991). *Te toi huarewa tipuna: Kaupapa Māori, an educational intervention system* [Master's thesis]. The University of Auckland. https://researchspace.auckland.ac.nz/handle/2292/3066

Newton Central School. (2018). *Tāingakawa: Opening of the new learning environment Newton Central School. Overview for Mana Whenua*.

Olsen-Reeder, V. (2017). He kaupapa reo Māori – he kaupapa Māori? In V. Olsen-Reeder, J. Hutchings & R. Higgins (Eds.), *Te ahu o te reo Māori: Reflecting on research to understand the well-being of te reo Māori* (pp. 77–92). Victoria University Press.

Paewai, R. (2013). *The education goal of Māori succeeding 'as Māori': The case of time* [Master's thesis]. The University of Auckland. http://hdl.handle.net/2292/20617

Page, A., & Davis, A. (2016). The alignment of innovative learning environments and inclusive education: How effective is the new learning environment in meeting the needs of special education learners? *Teachers' Work*, *13*(2), 81–98. https://ojs.aut.ac.nz/teachers-work/article/download/79/122/

Pihama, L. (2010). Kaupapa Māori theory: Transforming theory in Aotearoa. *He Pukenga Kōrero: A Journal of Māori Studies*, *9*(2), 5–14. https://www.waikato.ac.nz/__data/assets/pdf_file/0009/339885/Kaupapa-Rangahau-A-Reader_2nd-Edition.pdf

Pihama, L. (2015). *Kaupapa Māori theory: Transforming theory in Aotearoa*. Te Kotahi Research Institute, University of Waikato.

Pihama, L., Cram, F., & Walker, S. (2002). Creating methodological space: A literature review of kaupapa Māori research. *Canadian Journal of Native Education*, *26*(1), 30–43. https://www.researchgate.net/publication/234647374_Creating_Methodological_Space_A_Literature_Review_of_Kaupapa_Maori_Research

Poutu, H. (2007). *Te wheko a te pīrere* [Unpublished master's thesis]. Massey University.

Pratt, K., & Trewern, A. (2011). Students' experiences of flexible learning options: What can they tell us about what they need for success? *Computers in New Zealand Schools: Learning, Leading, Technology*, *23*(2), 137–152.

Rewi, T., & Rewi, P. (2015). The ZePA model of Māori language revitalisation: Key considerations for empowering indigenous language educators, students and communities. In J. Reyhner, J. Martin, L. Lockard, & W. S. Gilbert (Eds.), *Honoring our elders: Culturally appropriate approaches for teaching indigenous students* (pp. 136–153). Northern Arizona University.

Roy, Eleanor Ainge. (2018, July 28). Māori has gone mainstream: The resurgence of New Zealand's Te Reo language. *The Guardian*. https://www.theguardian.com/world/2018/jul/28/google-disney-maori-new-zealand

Smith, G. H. (1997). *The development of Kaupapa Māori: Theory and praxis* [Doctoral dissertation]. The University of Auckland. https://researchspace.auckland.ac.nz/handle/2292/623

Smith, G. H. (2004). Mai i te maramatanga, ki te putanga mai o te tahuritanga: From conscientization to transformation. *Educational Perspectives*, *37*(1), 46–52. https://www.semanticscholar.org/paper/Vol37%231-Mai-i-te-Maramatanga%2C-ki-te-Putanga-Mai-o-Smith/bcf83ff24320506c17ed39d05735561cf984b7bd

Smith, G. H. (2015). The dialectic relation of theory and practice in the development of Kaupapa Māori Praxis. In L. Pihama, S. J. Tiakiwai & K. Southey (Eds.), *Kaupapa rangahau: A reader* (pp. 17–28). Te Kotahi Research Institute, University of Waikato.

Smith, L. T. (2012). *Decolonizing methodologies: Research and indigenous peoples*. Zed Books.

Smith, L., Pihama, L., Cameron, N., Mataki, T., Morgan, H., & Te Nana, R. (2019). Thought space wānanga: A kaupapa Māori decolonizing approach to research translation. *Genealogy*, *3*(4), 74. https://doi.org/10.3390/genealogy3040074

Stake, R. E. (2005). Qualitative case studies. In N. K. Denzin & Y. S. Lincoln (Eds.), *The Sage handbook of qualitative research* (3rd ed., pp. 443–466). Sage Publications Inc.

Stats NZ. (2017). *Māori language in education. NZ Social Indicators*. http://archive.stats.govt.nz/browse_for_stats/snapshots-of-nz/nz-socialindicators/Home/Culture%20and%20identity/Māori-lang-educ.aspx

Stewart, G., & Benade, L. (2020). Spatial biculturalism for schools in Aotearoa New Zealand. *New Zealand Journal of Educational Studies*, *55*, 129–131. https://doi.org/10.1007/s40841-020-00169-x

Teaching and Learning Research Initiative. (2020). *Puka tono: Full proposal. Information and guidance*. http://www.tlri.org.nz/sites/default/files/pages/TLRI%20Full%20Proposal%20guidance%202021_web_0.pdf

Te Puni Kōkiri. (2019). *Maihi Karauna: The Crown's strategy for Māori language revitalisation 2019–2023*.

Tocker, K. (2002). *He hua pai ta te Kura Kaupapa Māori* [Unpublished master's thesis]. The University of Auckland.

Trinick, T., May, S., & Lemon, R. (2020). *Language planning and policy: Factors that impact successful language planning and policy*. Te Puna Wānanga, The University of Auckland.

Wall, G. (2014). *Māui whakakau, kura whakakau – Modern learning environments to support priority learners*. https://www.education.govt.nz/assets/Documents/Primary-Secondary/Property/Design/Flexible-learning-spaces/FLS-Maui-whakakau-kura-whakakau.pdf

Wall, G. (2016). *Māui whakakau, kura whakakau. The impact of physical design on Māori and Pasifika outcomes*. https://www.education.govt.nz/assets/Documents/Primary-Secondary/Property/Design/Flexible-learning-spaces/FLS-The-impact-of-physical-design-on-student-outcomes.pdf

Wilson, R. (2013). *Occupying Māori architectural time reconstructing the architectural process through Māori interpretations of space* [Unpublished master's thesis]. Victoria University of Wellington.

AUTHORS

Professor Jenny Lee-Morgan (Ngāti Mahuta, Te Ahiwaru) is the Director of Ngā Wai ā Te Tūī, Māori and Indigenous Research Centre, Te Whare Wānanga o Wairaka, Tāmaki Makaurau, Aotearoa, and has a PhD in education. In 2016 she was given Te Tohu Pae Tawhiti Award in recognition of high-quality research and significant contribution to the Māori education sector by the New Zealand Association for Research in Education.

Dr Jo Mane (Ngāpuhi) is a researcher for Ngā Wai ā Te Tūī, Māori and Indigenous Research Centre, Te Whare Wānanga o Wairaka, Tāmaki Makaurau, Aotearoa, and has a PhD in education. Jo's key research interests are with Kaupapa Māori research, community development, Māori education and Māori development.

Joanne Gallagher (Te Aupōuri, Ngāti Whātua ki Kaipara) is a Project Manager at Ngā Wai a Te Tūī, Te Whare Wānanga o Wairaka, Tāmaki Makaurau, Aotearoa.

Ruia Aperahama (Ngāti Kuri, Te Aupōuri) is a school-based researcher at Newton Central School, Tāmaki Makaurau, Aotearoa.