



Kōrero Mai: Kaiako Experiences of Synchronous Online Teaching and Learning in New Zealand

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Abstract

Online teaching and learning programmes allow ākonga who live in isolated areas, or who have differing learning requirements, to study by distance. Maintaining student engagement in the online environment is an important aspect. This article explores how kaiako (teachers) can engage their ākonga (students) better in online environments. The article has a particular emphasis on supporting Māori learners, who represent 25% of the New Zealand school population. Five kaiako were interviewed about their experience of teaching New Zealand secondary school students online. The study found that the kaiako had some awareness of bicultural values and practices, but lacked confidence in embedding it in their online teaching, which was limited to synchronous timetabled sessions with some communication by text and email. The time provided for online students was considerably less than for the secondary students in traditional classrooms.

Keywords: online learning; secondary schools; bicultural practices; kaiako; ākonga; tuaka-teina; Te Reo Māori; language learning

Introduction

Online learning

The place where students learn is not necessarily within the traditional four walls of a classroom. Learning by distance provides alternatives for many students. In 2020 and 2021, responses by governments (e.g., lockdowns and social restrictions) to the COVID-19 pandemic have meant that online methods of teaching have become the foremost way for remote learning for all sectors of education—both in New Zealand, and internationally (Doucet et al., 2020). Looking ahead, in a world where a pandemic has led to immense changes in society, teaching and learning in schooling could be delivered with hybrid models that include online and face-to-face in-person instruction. The future of hybrid teaching has been a key focus in education, especially as there is a possibility of further school closures due to lockdown measures.

Tracey and Richey (2005) have defined distance education as “educational programs in which students and the instructor are separated by place and often time . . .” (Tracey & Richey, 2005, p. 17). Although online learning may be perceived as innovative, it is not a new development. Innovations such as the development of pens, paper, books, and the mail system have made distance education accessible since the 19th century. From its inception in 1922, The New Zealand Correspondence School was predicated on a distance learning model (Bewley, 1996). Distance learning occurs when the teacher and student are not working together at the same

physical site. Early distance learning was supported by radio broadcasts to support mail lessons. Since the advent of The Technical Correspondence School, which was established in 1946 to provide resettlement training for returned service personnel after World War II, New Zealand has become a leader in distance learning (Seelig et al., 2019). However, distance education has undergone dramatic change since 1946. Teachers have employed online technology tools such as conferencing, Messenger, email, chat, live video, and forums. The strategy that arouses the most interest is simultaneous interaction between teachers and students. (Menezes & Rodrigues-Junior, 2009). The way online learning is facilitated has been influenced by changing educational values and philosophies.

Distance education has been known by many names, including “distance learning”, “open education”, “networked learning”, and “online learning”. Regardless of the term, these types of distance education share some common attributes. They provide a structured learning experience in which engagement can take place away from the educational institution, in the comfort of one’s home or workplace; and the experience can lead to degrees or other academic credentials (Tracey & Richey, 2005). Print-based correspondence schools were some of the first institutions to offer distance education. In Europe’s pre-industrial era, education was primarily available to only males of privilege, but the advent of correspondence in the 1920s made education accessible to the rest of the population. In a short time, correspondence education became a worldwide phenomenon (Tracey & Richey, 2005). As technology developed, so too did the methods employed by correspondence providers.

The invention of the spark transmitter led quickly to the adoption of radio as a medium of communication for The New Zealand Correspondence School. It was, and in some countries still is, used to support print-based correspondence materials. Technology continued to develop and, in the 1950s, television broadcasts were used for New Zealand secondary school credit courses. The development of satellite television in the 1960s provided access to more remote students. The high-fidelity era produced stereo, transistor radios, and cassette tape players. Further technological developments produced video cassettes, CDs, and DVDs. Computers, laptops, iPads and smart phones now provide distance students with two-way synchronous communication if they have wifi or broadband capability. To enable schools to embrace technology, the Ministry of Education was charged with making e-learning more accessible by increasing investment in information and communication technology (ICT) and ultra-fast broadband for schools (Ministry of Education, 2021a). However, schools providing hardware in the form of laptops and tablet computers was also a significant feature of support for distance learning.

Since 1922, distance learning in New Zealand has been provided by Te Kura (Te Aho o te Kura Pounamu), formerly known as The Correspondence School. In 2008 Te Kura began digitising resources so they could provide services through a digital online network rather than pen, paper, and post. Barbour and Bennett (2013) suggest that technological developments were supported by the Ministry of Education’s e-learning strategy (Ministry of Education, 2006). This helped pave the way for establishing distance education by groups such as CASAtch in Canterbury, OtagoNet in the Otago region, and FarNet in the far north of the North Island. These three regional networks eventually became the VLN (Virtual Learning Network). The VLN enabled schools with limited subject resources, skills, and expertise to offer a broader curriculum choice to students by using online synchronous technology.

Teachers and online learning

Although it is argued that online communication lacks the paralinguistic features of *kanohi ki te kanohi* (face-to-face) interaction (Menezes & Rodrigues-Junior, 2009), language teachers have realised the potential of online technologies, and have instinctively been at the forefront of

integrating these technologies in their teaching and learning programmes. The concept of whānau and the pedagogical philosophy advocated by Smith (1995) explains that Māori values and practices derived from whānau are used as teaching and learning pedagogies. Core values such as manaakitanga (sharing and caring), aroha (respect), and whakaiti (humility) are common features of kura kaupapa Māori. Cooperative teaching and learning concepts such as tuakana (elder) and teina (younger), derived from whānau obligations in which older siblings teach and care for their younger siblings, are normalised aspects of the pedagogy. The use of collaborative activities provides a culturally appropriate environment in which cooperative and collective attitudes and values can be practised. Sharing knowledge, respecting and tolerating the knowledge and world views of others, consensus discussion, and decision-making are primary examples of cooperative and collaborative pedagogies in action (Smith, 1995). Teachers of second languages employ these pedagogies to raise their students' levels of proficiency and communicative competence in their target language.

Māori students

Māori (the indigenous people of New Zealand) are a significant percentage of secondary students in New Zealand schools. Recent figures from the New Zealand Ministry of Education (2021b) report that “New Zealand European” is the dominant ethnic group (48%), with Māori (25%), Asian (14%), Pasifika (10%). There is a range of other ethnic backgrounds. The affirmative focus on providing a culturally inclusive bicultural education system in New Zealand emphasises Māori values (see Ministry of Education, 2009, 2015). For example, the Ka Awatea study, which reported successful accounts of Māori secondary school leavers (Macfarlane et al., 2014), found four replenishing mātauranga (educational) themes. Firstly, mana motuhake (whānau identity, attitudes, and values) was an affirmative context of Māori identity through which students connected significantly with their Māori culture. In addition, the behaviour of the student in wider society was reinforced by Māori values such as manaakitanga (reciprocal hospitality and respect between individuals or groups) and māhaki (being inoffensive, humble, and tolerant). Secondly, there is mana tū (a sense of courage and resilience). Successful Māori students in the study had positive self-efficacy and self-concepts, had high expectations, and enjoyed physical, emotional, and spiritual wellbeing. Mana ūkaipo (a sense of place) was also evident and, when learning related to relevant and meaningful contexts, this strengthened the understanding and learning for successful Māori rangatahi school leavers. Finally, mana tangatarua (a sense of being able to navigate between two worlds), was apparent. Mana tangatarua supports many Māori living in the two worlds of 21st century New Zealand. For these Māori secondary students, academic success did not come at the expense of their Māori identity.

The research in this article focuses on how kaiako can create more engaging online synchronous language classes for distance secondary school ākonga (students). Particular attention is paid to the New Zealand primary and secondary school demographics, which show that 25% of students are Māori (Ministry of Education, 2021b).

Review of the literature

Te taha tinana (physical wellbeing) is one of the cornerstones of Durie's (1994) Te Whare Tapa Whā strategy for Māori health. Durie highlighted the important role of metaphor in the Māori language to illustrate concepts and ideas. In the context of this research, ako (teaching and learning) aligns with Durie's notion of te taha tinana because this is how the kaiako (teacher) brings their programme to life. Good teaching practice requires a number of elements to be effective, including culturally responsive pedagogy, effective use of resources, and an appropriate environment that encourages ākonga engagement and achievement. Culturally responsive practices respond to and acknowledge the cultural background and languages of the learner by incorporating them within culturally and contextually relevant teaching content. One

example is the use of te reo Māori words that are common to both kaiako and ākonga. The word “ako” (reciprocity) is used as the foundation for their relationship as teacher–student to reflect the notion of reciprocal learning.

Macfarlane (2004) describes ako as reciprocity in teaching and learning. That description suggests that the status of kaiako and ākonga are interchangeable. According to Moorfield (2003), ako is “to learn, study, instruct, teach, advise”. The two notions of teaching and learning are therefore implicit in the single word of ako. The Education Council of New Zealand (2017) also supports Macfarlane’s idea that ako means teachers need to take responsibility for their own learning, and that of Māori learners. Teaching and learning can equate to schooling, but can also describe learning that takes place at home or away from school. Education is not confined to inside the classroom walls; nor is it solely the domain of kaiako.

The importance of having a safe learning environment, Māori being allowed to be Māori and have kanohi ki te kanohi (face-to-face interactions) (New Zealand Council for Educational Research, 2004), is the physical manifestation of te taha tinana. Palmer (2002) described how having a fully functioning body, transformation through life cycles, and pursuit of good health are key indicators of te taha tinana. Tiakiwai and Tiakiwai (2010) recognised the importance of establishing a suitable e-learning environment. Specifically, issues of time, space, and place—as well as the integration of e-learning into classroom teaching and learning practice—needed careful consideration. Students adapted quickly to the new learning environment and often took greater responsibility for their learning (Tiakiwai & Tiakiwai, 2010). The design of the tools was identified as playing a major role in facilitating engagement with e-learning at all levels. Influential factors in e-tool design and development include differences in how language and symbols are used—these can increase the difficulty of transferring knowledge forms into digital concepts. The reliability, availability, accessibility, and cost-effectiveness of the technological infrastructure affected the ability of schools, classrooms, teachers, and students to use tools effectively. Additionally, unreliable technology increases teachers’ workloads, particularly within the wharekura (Māori-medium secondary schools). Moreover, in wharekura all classes required a supervising teacher—placing an additional burden on kura (schools) that were already facing staffing shortages (Waiti, 2005).

Digital divide

Economically disadvantaged students frequently do not have computers or iPads in their homes or, if they do, they may be scarce—especially when large families are competing for computer time. Furthermore, the digital divide affects students who live with the unstable internet connections that often occur in rural areas—and even in some densely populated urban areas that have “black spots” of unreliable connectivity. A study of New Zealand and German primary and secondary school teachers and principals who were coping with online learning during the lockdowns enforced during the COVID-19 pandemic, found a need for specific skills to support learning in online environments (Fletcher et al., 2021). In both of these countries, the scarcity of access to online learning resources was due to poor connectivity or lack of time available to use computers. Students in less well-off contexts were more liable to be obstructed by online resource problems. Similarly, Evans et al. (2020), found that the home environments of some students was often noisy; siblings using the same space hampered learning.

Theoretical perspective

“He Awa Whiria: Braided Rivers”, developed by Macfarlane et al. (2015), uses the metaphor of the braided rivers of the Canterbury region. He Awa Whiria acknowledges that there are two epistemologies at play in New Zealand. The first is mātauranga Māori (the body of knowledge originating from Māori ancestors, including the Māori world view and perspectives) and the

second is western knowledge. Each has mana, integrity, and legitimacy. Like a braided river, there are points where those two epistemologies agree and converge. There also areas where they differ and diverge. Digital technology is a point at which western technology and mātauranga Māori can converge to enhance outcomes for Māori. The developments of digital technology in the late 20th century and current 21st century are recent realisations of those rākau ā te Pākehā (tools and opportunities). Tā Apirana Ngata, whose hapū included Te Whānau-a-Te Ao, Ngāti Rangī, Te Whānau-a-Karūai, and Ngāti Rākaioa, was born in Te Araroa on the east coast of the North Island in 1874. Tā Apirana Ngata (Ngata, n.d.) conceived the notion of this convergence of western knowledge and mātauranga Māori in his statement:

E tipu e rea mō ngā rā o tō ao, Ko tō ringa ki ngā rākau a te Pākehā, Hei ora mō te tinana, Ko tō ngākau ki ngā taonga a ō tīpuna Māori, Hei tikitiki mō tō māhunga, Ko tō wairua ki tō atua, nāna nei ngā mea katoa.

Grow and branch forth for the days destined to you, Your hands to the tools of the Pākehā [non Māori people] for the welfare of your body, Your heart to the treasures of your ancestors as adornments for your brow, Your spirit to God, who made all things.

Macfarlane et al. (2015) have built on this metaphor with their theoretical perspective (described above) which captures the essence of the braided rivers.

Methodology

This research sought to explore how teachers can create more engaging online synchronous language classes for distance secondary and tertiary students of te reo Māori. Qualitative research was selected because it provides an opportunity for research participants to express their personal feelings, emotions, thoughts, perspectives, and insights. This allows for the personal qualities of research participants to be integrated with the data. Furthermore, Denzin and Lincoln (2005) described qualitative research as the study of things in their natural environment, to understand events or trends in terms of the meaning people bring to them.

In a focus-group interview, participants can interact and discuss topics presented by the researcher. The aim is to gain a collective viewpoint rather than an individual perspective. This is supported by Cohen et al. (2011, p. 436) who state: “. . . the reliance is on the interaction within the group . . . yielding a collective rather than individual view”. Focus-group interviews are valuable for gathering data on attitudes, values, and opinions; for empowering participants to speak in their own words; and for encouraging groups rather than individuals to voice their opinions and examine attitudes and beliefs (Willis et al., 2016). Group processes can help people to explore and clarify their views in ways that would be less accessible in one-on-one interviews (Kitzinger, 1995). Focus-group interviews enable research participants to use the energy generated by the group to invigorate and stimulate an atmosphere in which issues and topics can be discussed openly, and opinions can be expressed without researcher interference. Differences of opinion are more important than consensus. Research participants may be able to tell stories or make jokes during the collegial atmosphere of focus-group interviews, which may be more difficult in a one-on-one interview (Carter & Henderson, 2005).

Participants and the focus-group interview

The focus group comprised six kaiako who were delivering synchronous online programmes for secondary schools in New Zealand. They all taught at a mid-socioeconomic rural secondary school that delivered online teaching and learning programmes to secondary schools nationwide. Their ages ranged from 30 to 40 years. The subjects offered online were nominated by the school leaders to meet the needs of all ākonga, particularly those who wanted to access subjects that were not core subjects within their individual secondary school programme. The subject areas of

the kaiako varied widely but included English, art history, and accounting. The rationale for conducting a focus-group discussion was to encourage the kaiako participants to verbalise their opinions and beliefs freely. This would allow deeper exploration of what they perceived to be the factors that kaiako could use to create more engaging online synchronous language classes for distance ākonga of te reo Māori. The focus-group interview was semi-structured to allow the kaiako participants to interact with each other—thereby stimulating engaging discussion and debate. In preparation for the individual interviews, kaiako participants were sent copies of the interview schedule a fortnight before the interviews took place. Questions enquired about the kaiako experiences in engaging their online ākonga, successful strategies for engagement, and issues or challenges they may have experienced when teaching in online environments. The focus-group interview was audio-recorded and later transcribed. The transcriptions were sent back to the research participants for checking.

Table 1 shows that all of the focus-group participants were teaching in the secondary sector. They were all classroom kaiako for more than 10 years, and had taught online for at least 2 years. The most experienced kaiako had been teaching in an online environment for 5 years.

Table 1 The six focus-group participants

Name	Age range	Online teaching experience	Kaiako/ākonga	Sector
Pīwaiwaka	30-40	3 years	Kaiako	Secondary
Pūkeko	30-40	3 years	Kaiako	Secondary
Kākāpō	30-40	2 years	Kaiako	Secondary
Kea	30-40	4 years	Kaiako	Secondary
Kākā	30-40	5 years	Kaiako	Secondary
Tūī	30-40	5 years	Kaiako	Secondary

Data analysis

The approach used to analyse the data was underpinned by the grounded theory coding framework espoused by Charmaz (2014). Charmaz advocates at least two main phases of coding: initial and focused. The initial phase involves the naming of each word line, or segment of data. During the initial coding phase, Charmaz (2014, p. 116) suggested that the researcher should continually ask themselves the following questions: “What is this data a study of? What do the data suggest? From whose point of view? What theoretical category does this specific datum indicate?”

During the focused phase the researcher collates the most frequently recurring initial codes “. . . to sort, synthesise, integrate, and organise large amounts of data (Charmaz, 2014, p. 113). Charmaz (2014) explained that focused codes appear more frequently among the initial codes, or have more significance. Focused coding speeds up the analysis process without sacrificing the detail. This type of coding consolidates and refines the initial coding while emphasising the themes that are most important to the researcher.

Findings

The secondary school kaiako taught a variety of secondary school subjects using a synchronous online platform to ākonga in schools throughout Aotearoa New Zealand. Thus, an opportunity for synchronous online classes was provided for ākonga who wanted to study a subject that was not offered in their school. Although these kaiako had 10 to 20 years of classroom experience,

they had been involved in the synchronous online delivery of secondary school subjects for only 2 to 5 years. These participants were leaders in their subject areas and were selected by the school principals to teach the online synchronous subjects due to their specific subject expertise, plus their ability to facilitate online learning in an effective and supportive manner. None of these kaiako were Māori.

Each kaiako was given a pseudonym. The names chosen for the focus-group participants are taken from “Ngā manu o te wao nui a Tāne” (the birds of the great forest of Tāne Nui ā Rangi). The names also reflect some of the characteristics of the research participants. For example, Pīwaiwaka was a fidgety person who couldn’t sit still for long, and Kākā was quite a loud participant who liked to chatter. The names chosen for the focus-group participants also weave their contributions into the overall theme of Tāne Nui ā Rangi and his ascent to the heavens.

At the time of the interview Kākā and Tūi had been teaching in an online synchronous community for 5 years, Kea for 4 years, Pūkeko and Pīwaiwaka for 3 years, and Kākāpō for 2 years. The themes that emerged from the focus-group interviews were the types of technologies used by kaiako; the challenges and advantages; establishing relationships in an online synchronous environment; and wairuatanga and whakawhanaungatanga: knowing your learners.

Digital technology used by kaiako

All of the kaiako used the same digital platform to deliver programmes because this was the technology preferred by their school networks. Each kaiako has a 1-hour timetabled class per week with their ākonga from around New Zealand. Google Hangouts allowed members to initiate or participate in text, voice or video chats—one-to-one or in a group. Google Hangouts is similar to Skype but allows more people to enter the “classroom” at the same time. Kaiako were also able to see all of the ākonga in a Hangouts community.

Google Hangouts has a virtual classroom that enables kaiako and ākonga to interact collaboratively, no matter where the ākonga are in New Zealand, as long as there is internet connectivity. Kākā confirmed that Hangouts has a chat column down the side of the screen, which was useful for ākonga whose audio was not working. They could keep up the discussion because other ākonga used the chat function to update them, and they could use the chat box to ask and answer questions of each other or the kaiako.

Ākonga and kaiako also used other digital platforms to communicate. For example, they used Google Drive to keep track of ākonga progress. If ākonga and kaiako were on Google Drive at the same time, kaiako could monitor what the ākonga were doing, what they had done, and when they did it. Kea stated: “I happened to be on live at the same time and they were doing the work and I was doing the work . . . and I could see when they’d done what”. Kaiako also used Google Communities for online communication with their ākonga.

Pīwaiwaka shared that the ākonga had other tasks to do during the week and used Google Communities to contact each other or the kaiako. Pīwaiwaka found that Google Communities were groups created on specific topics to engage other users who had a special interest in that topic.

Pīwaiwaka:

I think it is great and really enjoy using Google Communities because it provides a forum for anyone with an interest in the topic we’re researching or discussing to enter and contribute to the conversation. My students actually see how the topic is relevant and used in practice out there in the wider community and not just confined to classroom theory.

The kaiako set up Google Communities so they could support their ākongā with the weekly tasks that they needed to complete before their next synchronous online meeting. This enabled ākongā and kaiako to ask and answer questions, catch up, and generally discuss the tasks when time allowed. Google Communities provides a platform on which kaiako can upload resources, content, information, and blogs, or comment on anything related to the ākongā's tasks. Kea said that Google Communities provided a fantastic opportunity for collaboration. Kākāpō added that having access to Google Communities helped their online community to bond, connect, form closer relationships, and remain in contact in the same way that Facebook does for many people.

According to Tūi, kaiako did not use Facebook for teaching. However, some of their ākongā started their own Facebook pages to maintain contact with each other. Tūi continued that kaiako were not part of the ākongā Facebook communities and they actively discouraged the ākongā from using this platform for study.

Tūi:

I actively discourage my students from using Facebook for study purposes. The main reason is that anybody can access Facebook pages even if they're not a member of it. Security is really important.

Facebook was better suited to "socialising" and strengthening relationships, especially between those who had not met each other face to face. Facebook also allowed ākongā to freely discuss the content or anything to do with the course without the supervision of the kaiako. One example cited by Tūi was that some of the ākongā were finding the course difficult but were too embarrassed to tell the kaiako. One of the ākongā from Tūi's school was able to pass that message on, and Tūi was able to adjust the teaching accordingly.

Tūi:

I wasn't aware that one of my students didn't understand the content that I was teaching. However, after they had spoken on their Facebook page, one of their friends informed me privately that xxxx was too embarrassed to ask. I was able to clarify the misunderstanding as a normal part of my teaching without drawing attention to that particular person.

Pūkeko elaborated that kaiako used email and text to communicate with their ākongā. Kaiako and ākongā could send and receive texts and emails instantaneously, because everyone had smartphones. Most recipients of texts and emails responded almost immediately. This was important when there was a need to clarify content or information about the course. Texts and emails were sent to an individual or the groups of people concerned. The one important boundary the kaiako put in place was that they could be contacted or would respond to texts and emails only during certain hours and on certain days. This was generally not an issue for most ākongā.

Pūkeko:

She [student] might email a lot . . . so you get a text and you can read it and you can respond or not in your own time and emails are a similar extension to that. You know the students won't often pick up the phone if I ring, but if I email and it's written down so I've got a record of it, they've got a record of it. They can have a think about it. If it's not convenient right now they can email me back the next day or the day after or I can say that email I sent you on the 15th March, the information's there but here it is again . . . so email is really handy for us cos our students have a lot of anxiety. They don't want to talk to someone they've never met.

Challenges and positives

One of the most challenging aspects of synchronous online teaching for Kākā was that the kaiako dominated the class by talking too much. This reduced the ability or opportunity for ākonga to interact and therefore reduced the effectiveness of the class. This was quite an issue in a class that met for only 1 hour a week. Kākā was acutely aware that they tended to dominate the online session and was trying to address this issue.

Kākā:

I know that my teaching of the online class is quite different to the way I teach my face-to-face classes. My online classes are much more teacher-centred as I have so much to teach and very little time . . . to teach it.

Both Tūi and Pīwaiwaka agreed with Kākā's assertion and recognised that they might also be dominating their classes. They say that this often occurs out of concern for their ākonga's progress, which is often difficult to gauge with only one contact hour per week.

Tūi:

I find I do tend to do a lot more talking teaching in a synchronous class than I do in my face-to-face classes. I feel the need to clarify and explain myself a lot more as I only get this once-a-week opportunity to see my class, unlike my face to facers who I see at least three times a week.

To address this challenge, the kaiako understood that they needed to use all of the digital platforms available (e.g., text and email) to keep closer tabs on their ākonga. Google Hangouts sessions addressed this issue to a certain degree, but usually only the ākonga who were on top of their work were proactive in providing evidence of their progress.

Tūi:

I find Google Hangouts allows me some of the extra time I need with my online students. Although I encourage all of my students to join our Google Hangout sessions, it is often the ones who are up to date who use the opportunity. They're more than likely wanting clarification that they're on the right track or not. It is not until it is getting closer to the due date of the assessment that others tend to join us.

Google Communities also allowed kaiako to go online and comment on ākonga work. Pīwaiwaka clarified this when she said, "We need to use all of the tools at our disposal to ensure our ākonga are on track, including Hangouts, texts, email and other mediums that technology provides."

Notwithstanding this, technology is not infallible and can actually create some challenges. For example, kaiako experienced the instability of the infrastructure that supports the digital technology in some schools and the lack of appropriate hardware for accessing the online network. Pūkeko stated that some ākonga had not been able to join Google Hangouts classes because they were unable to get online.

Pūkeko:

One school, for example, very early on at the start of the school year, was so disorganised that their online students did not even have access to a computer, let alone their own space from which they could have class with me. My students used their initiative and borrowed a laptop from one of their friends and had class in their common room. We could see other students in the background moving about, eating their lunch etc. It was not very good at all especially for my students' learning. I had to personally address the issue with the school before they realised that there was an issue and finally resolved it.

In another instance Kākāpō had ākongā whose schools had blocked access to some websites and this caused accessibility issues to Google Hangouts and Google Communities.

Kākāpō:

This particular school had blocked the students' access to certain sites, as most schools do. However, their policy also included the very sites that my students needed to access to engage online in my subject.

Tūi related a story about some of their ākongā whose school initially provided them with a computer without video capability, and then replaced that with a computer with video, but no microphone.

However, most of the software, hardware, and infrastructure issues were resolved and the ākongā were able to access the 1-hour online synchronous classes when required and with the right equipment. Pūkeko stated that an unexpected challenge had been that it seemed to take longer to get through content online than in face-to-face classes. This can be particularly difficult for ākongā who are the only ones in their school studying their subject in an online community. Pūkeko suggested that the courses should be run over 2 years rather than one, because good time management is an issue for some ākongā.

Pūkeko:

I have a couple of "lone rangers" in my course; students who are the only individuals in their schools taking my subject. They tend to need a bit more time and support than the others as they do not have anyone to talk or discuss things with other than us in our 1-hour weekly online meetings.

Kākā supported this observation, explaining that online learning requires ākongā to take much more agency and responsibility for their learning than they might in face-to-face classes. For example, their face-to-face classes were allocated revision time which was not necessarily available to online ākongā. The online ākongā were allocated only 1 hour per week of time to interact with the kaiako, in contrast with their face-to-face classes at their schools, which allowed at least 3 hours per week of contact time. Kākā commented: "My online students have to take more responsibility for their learning as I do not have the same amount of time to spend with them as I do with my on-campus students." However, Pīwaiwaka responded that the flexibility to manage their time was an advantage; ākongā who did take agency and responsibility were able to focus on what was important for their learning, and tended to achieve good results. Those ākongā were able to personalise the course to suit their needs.

Pīwaiwaka:

Online learning does require the students to be self-starters who can work independently. They only have a limited amount of contact time online with us each week and need to find time around their other subjects to complete the work for me.

Tūi added that another positive aspect of the online synchronous delivery was that the subjects were optional. Therefore, the ākongā who opted into this type of learning were usually interested in the subject. Tūi continued, saying that the kaiako responsibility in this case was to deliver content and the ākongā were free to interpret that in a context that suited them. This provided a mechanism for ākongā "buy in" which stimulated more interest and focus in the subject area.

Tui:

There is a certain type of student who opts for online learning. They are most often in my opinion, highly motivated over-achievers. They already understand that choosing to study a subject online will require more enthusiastic energy than what they require for their on-campus learning.

Another positive aspect of this online learning was that ākongā were able to draw from their learning in other subjects at their own schools to assist them with their online study.

Kākāpō:

One of the many pearls of wisdom I offer all of my students, not just my online ones, are that they need to draw from the things they already know to help them understand the new stuff. All pieces of information and learning can be connected.

Kākā added that ākongā in their subject area were more successful in their internal assessments than the externals.

Kea:

The students nowadays are so much more aware of the number of credits they need to gain their NCEA (national exams) credits for Levels 1 to 3. Many of them rely on achieving their NCEA by accumulating internal credits alone, and once they've done that they have no need to sit any external exams.

However, Pūkeko added that most of the ākongā that studied their subject needed the external credits to gain university entrance. They had to be studious and motivated. Pūkeko hoped that the ākongā's online grades would equate with the face-to-face ākongā in their class.

Relationships

Kākā mentioned that their school encouraged everyone to learn and recite their mihi (their personal background in te reo Māori) when introducing themselves. All of the kaiako implemented this philosophy in a variety of ways in their online programmes. Tūi said that for the first task of their online class everyone had to produce a pictorial collage titled "Who am I?"

Tūi:

I ask my students to prepare a pictorial collage as a way of introducing themselves to the rest of the cohort and myself. I see it as a visual/virtual mihi. The students can include anything they like in it and I encourage them to tell us about their interests and hobbies as well as their whānau.

Kākā agreed, saying that they did something similar in an introductory class called 'This is me', which helped the kaiako to learn something about the ākongā. All of the kaiako agreed that the teacher-student relationship was important. Kea stated that the ākongā with whom they had a strong relationship seemed to produce work of a higher standard than those with whom the relationship was less substantive.

Kea:

It is my experience that the students that I have gotten to know really well and have a strong connection with tend to produce high-quality work. They are also really enthusiastic about the subject I teach so that combination of connection to both myself and the subject seems to be a really important ingredient for the production of quality work.

However, all kaiako still found it difficult to really get to know their ākongā. Pūkeko and Kākāpō agreed, saying getting to know the ākongā well was a challenge.

Pūkeko:

. . . I suppose because I have taught face-to-face classes for the majority of my career [and] I am still having difficulty working out the best strategy to get to know my students, or to form a relationship with them.

Pīwaiwaka strongly supported Pūkeko's assertion and considered that it was more difficult to establish meaningful relationships with online ākongā than with their on-campus ākongā, stating: "I would say it [establishing relationships] is harder online. I feel like even at the end of the year I don't really get to know them as a person." Pūkeko agreed with Kākā but added that it also helped if the students had added information to their profile: "I often look at their profiles to give me a better idea of who my students are." Kea said that there were some opportunities to have an informal chat and get to know ākongā better, especially while you waited for all of the ākongā to join the class—adding that: "I quite often have to wait before everyone is online. That gives me an opportunity to have off-the-record chats with the students and I can get to know them better." Kākāpō said that the more interaction you had with the ākongā the better you got to know them. As an example, Kākāpō said: ". . . last year I had a lot of hangouts with two individuals and I got to know them very well." Kākā confirmed Kākāpō's statement, saying that she organised a weekend field trip with her group of ākongā. There were the same permission, health and safety and risk analysis issues as there were for on-campus ākongā. This was a way of getting to know not only the ākongā, but also their parents really well. Their relationship was founded on a basis of faith and mutual respect to the point where some of the ākongā were comfortable addressing her by her first name. Kākā was also comfortable with being called by her first name as the relationship between kaiako and online ākongā from that between kaiako and on-campus ākongā was different.

Kākā:

I encourage the students to call me by my first name as I believe it promotes a better teaching and learning relationship in my online classes. I also use other forms of technology to maintain contact with my students, texting being one of them. I think texting between the kaiako and their ākongā requires a different type of relationship, a more social relationship which engenders more familiarity.

Even with a more familiar relationship it can be difficult to determine the mood or demeanour of ākongā in an online situation.

Pīwaiwaka:

Sometimes the students can be obscured from view and not engaging and the nuance that is easily discernible in face-to-face situations is often not so obvious online. Other ākongā choose to retreat or fade into the background and that makes it difficult to get a feel for their mood or that something else may be going on for them.

There may be other distractions for the students as well.

Kākāpō:

[In] one of my classes the students were obviously in the Year 13 common room as there were other ākongā wandering around and microwaves pinging in the background. The physical environment, activity and community just made it more difficult to develop let alone strengthen our relationship.

However, the strength of the relationship depended entirely on the level of communication between kaiako and ākongā.

Kea:

The relationship relies on how much the ākongā are willing to share with you. Communication is a two-way thing. Sometimes I get to know my students really well but it all depends on how much they tell you about themselves, what's going on for them and that sort of small but important talk.

Relationships can also be strengthened by good communication between the kaiako and the ākongā support/liaison person (known as the ED) at the school.

Pīwaiwaka:

The ED is responsible for ensuring that the students are keeping up to date with their online work and assisting with any difficulties the students might be experiencing. They can then resolve the issue in school or involve the teacher if necessary. The ED is also often privy to information which the kaiako is not, and can bring the situation into context for the kaiako.

Kaiako stated that using the internal assessments was also a good avenue for getting to know their ākongā better.

Pīwaiwaka:

One of the internal assessments provided a perfect opportunity to analyse the written work submitted by the students. I was able to advise them about their writing style and how it could be adapted to suit the upcoming internal assessment. This positive feed-forward helped to strengthen the relationship between the student and myself. Internal assessment is a way to acknowledge students' strengths and weaknesses, which I believe also helps to strengthen the relationship.

Kaiako often took the opportunity to remain online after the scheduled class time to discuss their feedback with those ākongā who wished to do so.

Pūkeko:

This one-on-one time is very rewarding as teachers can give personalised help to individuals which the whole cohort may not necessarily require or benefit from. This time also provides teachers with an opportunity to catch up with individual ākongā with whom they need to discuss progress or lack of progress. I think that this one-on-one time also helps to foster trust and nurture our online relationship.

Wairuatanga and whakawhanaungatanga: Knowing your learners

Engaging in Māori tikanga (Māori customary practices or behaviour) that explicitly acknowledges and transparently addresses the values that determine relationships and pedagogy is critical for the success of Māori ākongā. When applying tikanga to online learning in school, the six kaiako in this research agreed that although relationships in a synchronous online community were just as important as in face-to-face classes, they weren't necessarily one of the foci of their classes. When prompted, the kaiako were able to use Māori words to describe the way in which they had developed their relationship with their ākongā. The kaiako were familiar with the Ministry of Education document "Tātaiako" (Ministry of Education, 2011) and its five cultural competencies for teachers. These competencies are whanaungatanga (relationships with students, school and community, with high expectations); wānanga (communication, problem-solving, and innovation); ako (practice in classroom and beyond); manaakitanga (values of integrity, trust, sincerity, and equity); and tangata whenuatanga (place-based, sociocultural

awareness and knowledge). “Tātaiako” provides a strong guide for kaiako and their schools to facilitate positive and supportive relationships and to personalise learning with Māori learners, so they can enjoy success as Māori. However, although the teachers were aware of these competencies, they were not necessarily sure how they implemented them in their online teaching and learning programmes.

1. Whanaungatanga

Whanaungatanga (relationship building) was by far the competency with which kaiako were most familiar because they were aware of the importance of relationships in their teaching and learning, and there was quite a tangible aspect to it in that they could actually see and hear whanaungatanga in action.

Pūkeko:

As I understand whanaungatanga, it is about relationship building, so it is easy to integrate into my programmes. It is built on the mihi which we all do at the start of the year. Whanaungatanga is an integral part of any teaching and learning programme in our school, so it is just an extension into the online classes.

2. Wānanga

When prompted further, the kaiako agreed that wānanga (forums for discussion) and ako were inherent in their teaching and learning. They identified wānanga as the discussion and dialogue that took place in their classes. This was another very visible competency which, after a bit of probing by the researcher, kaiako were able to identify as being a critical part of their teaching and learning programmes.

Kākā:

I encourage wānanga or group discussion. It is a great way to learn about what my students know and what they do not understand. It is also a very good way for the students and I [to get] to know each other and how they think as individuals. I think wānanga helps develop whanaungatanga or the group to bond or come together. They're confident to express themselves amongst their peers.

3. Ako

Ako was also clearly visible, but much of the online teaching programmes were didactic or kaiako-centred rather than ākongā-centred or reciprocal. Programmes were didactic to ensure that kaiako could cover the content they felt needed to be taught for the ākongā to succeed in their NCEA achievement standards.

Pūkeko:

I understand ako as reciprocal learning, which means opportunities to learn from one another. That does not only mean the students learning from me as the teacher, but also me learning from them and them learning from each other. While I do try to encourage and use ako in my online teaching as much and as often as possible, as previously stated time is limited [and] much of my teaching is teacher-centred. I find it is the only way I can get through the content to ensure the students are ready for their NCEA exams.

4. Manaakitanga

For most of the kaiako, manaakitanga was much less obvious because they spent only 1 hour per week online with their ākongā. Generally, the pastoral care and manaakitanga aspects of their online teaching and learning programmes were the responsibility of the ākongā's host schools. In some cases, the kaiako took responsibility for the manaakitanga of their ākongā if their issue related to their online programme. For example, Kākā took her ākongā on a field trip.

Kaka:

The time and effort required to organise the trip was well worth it in the end. The students had time to bond better in a face-to-face experience, which helped achieve the learning goals that I had set.

The kaiako felt, in general, that manaakitanga was linked to whanaungatanga although they were not entirely clear as to how each of the competencies or values were connected to wairuatanga.

Kea:

I think manaakitanga or caring is important in building whanaungatanga or relationships. I think that it also has a role in creating wairuatanga, which for me is more about creating a safe atmosphere or learning environment where everyone can have and voice their own opinions without fear. I'm not sure that wairuatanga is meant in that way but that is how I would interpret it.

5. Tangata whenuatanga

After much discussion, the kaiako unanimously conceded that the tātaiako competencies of manaakitanga, combined with tangata whenuatanga, provided a foundation for wairuatanga. Manaakitanga, Pūkeko stated: “. . . provided the ethic of care which included psychological, physical, social and spiritual wellbeing of . . . ākongā. Tangata whenuatanga provided an ethic of care which was culturally appropriate.” On reflection, the kaiako acknowledged that while they had considered the psychological, physical, and social needs of the ākongā, they had explicitly avoided delving into their spiritual needs.

Tūi:

I think that because our schools are supposed to be secular and that my general understanding of wairua has to do with religion, I tend to avoid or even not consider spirituality in my teaching and learning programmes—whether they are face to face or online. I don't want to face a backlash from parents.

Kea thought that spiritual needs of the ākongā were intimately linked to the social and emotional needs of their ākongā. The kaiako had assumed the host schools were providing for the spiritual and emotional needs of the ākongā, and they did not recognise emotional and spiritual needs as their responsibility. Kaiako did, however, admit that it appeared that when there was a strong sense of whanaungatanga amongst the ākongā, the online interaction was better. The kaiako therefore decided that whanaungatanga was a key element in ensuring that the emotional and spiritual needs of the ākongā were well catered for in the learning environment.

Conclusions

It was evident in this research that much of the teaching was kaiako-centred, rather than ākongā-centered or reciprocal. When prompted, the kaiako had some awareness of the five tātaiako competencies and other values to support Māori learners embedded in many New Zealand Ministry of Education publications (see, for example, Ministry of Education, 2009, 2015; Education Council of New Zealand, 2017), but they were not confident in how to embed this in their online teaching. Further professional development in this area is critical. We contend that the Ministry of Education or other external agencies that are charged with funding or informing excellence in education should target extra sustained professional development funding to secondary schools where online learning is situated. The focus would be to ensure that Māori tikanga, as expressed in “tātaiako”, is explicitly actioned. A safety net of agencies such as the Education Review Office (government inspectorate of schools) and local iwi (tribe) can support and guide the principal and their leadership team as they use this supplementary funding to

improve outcomes for all learners, but particularly Māori. The benefits accruing from this, we contend, would begin to address the competencies teachers are charged with demonstrating as they seek to continue their teacher registration. This, in turn, would have a positive effect on the success of Māori learning as Māori.

There was less time available for online delivery than for face-to-face teaching, which raises the question of whether online students are being marginalised by having less teacher contact. The online teaching was synchronous, which meant that students needed to adhere to the timetable. We strongly contend that teachers video-record online teaching sessions (e.g., with Zoom). This would provide more flexibility for students who could not attend the timetabled session, and give them an opportunity to revisit the teaching and revise learning. Google Hangouts was the primary means of communication with students for the more structured online teaching, but kaiako reflected that they tended to dominate the discourse more in this form of online teaching than they did when teaching in person in the traditional classroom setting. They used emails and texts to connect with ākonga on a more personal level, and to develop a rapport with individuals.

This article highlights that in New Zealand secondary schools, where 85% of students are Māori, online learning has become standard practice. This is particularly the case for students who select a curriculum area that is not offered at their home school. Students who live in more remote areas, or whose choices are limited to online learning, use this mode to undertake their secondary schooling. It's critical that delivery of online learning by kaiako is culturally responsive and uses contextually relevant pedagogical practices underpinned by bicultural values. These are clearly articulated in Ministry of Education documents (see, for example, Ministry of Education, 2009, 2015; Education Council of New Zealand, 2017). Furthermore, the advent of the global COVID-19 pandemic, which has challenged the very notion of what schooling looks like and how it can be delivered, has made it even more pressing to enhance the delivery of online teaching and learning. Never, in recent history, has the call for developing hybrid models of schooling been so apparent. Harris and Jones (2020) propose that COVID-19 has irreversibly changed school leadership and how teaching and learning occur, with crisis and change management skills now being essential for all school leaders. We call for further research in this area to build and strengthen opportunities for all learners, but particularly for Māori students who have been marginalised in schooling for decades.

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