

**Apple in Kura (AKE) in Te Tai Tokerau:**

**A Kaupapa Māori Evaluation of Digital Capability and**

**Kaiako Practice**

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## **He Karakia Timatanga**

Manawa mai te mauri nuku

Manawa mai te rangi

Ko te mauri kei au

He mauri tipua

Ka pakaru mai te pō

Tau mai te mauri

Haumi e, hui e, taiki e!

*Gather the life force of the earth*

*Gather the life force of the sky*

*The life force within us is powerful*

*And shatters all darkness*

*It settles all within me*

*Bind it, come together, it is done!*

### **Foreword: Digital confidence through culture and community**

I have been invited to introduce this report in recognition of my work in Indigenous and Pacific research and my commitment to educational equity (Enari et al., 2024, 2025). It is a privilege to offer this Foreword as the kaupapa of Apple in Kura aligns with my belief in culturally grounded learning, community leadership, and digital empowerment for Indigenous learners and their teachers (Enari & Faleolo, 2021; Enari & Matapo, 2020; Fa'avae et al., 2022; Matapo & Enari, 2021).

Across Aotearoa and the world, educators are navigating rapid shifts in digital capability expectations while working to uphold cultural identity, relational practice, and place-based learning (Enari & Faleolo, 2021). In regions where infrastructure is limited and resources are stretched, these pressures are magnified. The initiative examined in this evaluation attends to these realities with intention and care. It recognises that when educators have access to meaningful digital learning opportunities, young people benefit through increased confidence, creativity, and future-focused pathways.

This report offers an account of a programme delivered in complex and high-need educational settings. This evaluation demonstrates careful methodology, clarity of insight, and thoughtful reflection. Rather than simply reviewing technical training, it considers the deeper human and relational dimensions of teaching and learning. The strength of this work sits in its balance of evidence, practice insight, and ethical responsibility.

Much of my research explores Indigenous knowledge, digital futures, and the lived realities of our communities within education systems. I recognise the importance of initiatives that value teachers, listen to students, and build capability from within. Digital learning can only be transformational when it honours the cultural, social, and linguistic contexts of the learners and teachers it serves. These report findings show that such an approach is not only possible, but effective.

I acknowledge the evaluation team for their diligence and integrity. I also acknowledge the teachers, leaders, and communities who participated. Their voices illuminate the transformative potential of technology when paired with relational teaching practices, strong pedagogy, and sustained professional support. This partnership between Apple and Te Pūkenga has enabled good progress and reflects a shared commitment to equity and opportunity.

I encourage readers to approach this report with openness and a forward-looking mindset. It offers valuable learning for educators, system leaders, policy makers and partners who are working to strengthen digital capability in ways that honour identity and community. These insights will continue to influence conversations about how we prepare our young people for futures that require technical confidence, cultural grounding, and collective responsibility.

Lefaoali'i Associate Professor Dion Enari

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## **Executive Summary**

This evaluation examines the effectiveness of the Apple in Kura: Kaiako Professional Learning and Development (PLD) programme delivered across 11 kura in Te Tai Tokerau through a partnership between Apple and Te Pūkenga. This initiative responds to persistent inequities in Māori participation in the digital technology sector and the limited availability of culturally responsive digital education in regional schools. Phase one of the Apple in Kura evaluation (survey n=15, interviews n=7), completed in 2024 across Kura Kaupapa Māori in Tāmaki Makaurau, established the programme's initial success in enhancing kaiako digital fluency and informed the design and delivery of this second phase in Te Tai Tokerau.

Māori remain significantly underrepresented in Aotearoa New Zealand's technology workforce, a pattern linked to restricted digital infrastructure, resource disparities, and a shortage of educators with specialist digital capability. These inequities are amplified in Te Tai Tokerau, where many kura face socioeconomic disadvantage and limited access to sustained professional learning. Through the Apple and Te Pūkenga partnership, the Kaiako PLD programme aimed to strengthen kaiako capability in digital education, enhance culturally grounded pedagogy, and improve equity of access for Māori learners. Forty-eight kaiako from 11 kura in Te Tai Tokerau participated in the PLD delivered through the Apple and Te Pūkenga partnership. Māori learners comprised an average of 93% of enrolments across these kura, with three schools comprising 100% ākonga Māori.

This evaluation was guided by a Kaupapa Māori Evaluation (KME) framework. Data were gathered through a qualitative survey (n=30) and semi-structured interviews (n=8), including one with a principal. Reflexive thematic analysis (Braun & Clarke, 2019) identified patterns relating to digital confidence, pedagogy, leadership, and cultural responsiveness.

Pseudonyms based on native birds were used to protect confidentiality while symbolising Māori metaphors of learning and communication.

## **Key Findings**

### ***Improved digital confidence***

Mean self-assessed digital competence among kaiako increased from 2.6 to 3.9 on a five-point scale, indicating substantial growth. Most kaiako entered the programme without prior structured digital PLD, confirming that the initiative addressed a clear capability gap.

### ***Transformation in professional practice***

Kaiako integrated iPads and Apple applications such as *iMovie*, *Keynote*, and *GarageBand* into classroom projects connected to Māori contexts including Matariki and Te Matatini. Kaiako reported more efficient planning, greater ākonga engagement, and new approaches to assessment. Ākonga were more motivated, focused, and confident to experiment with creative expression, particularly when activities drew on Māori narratives, language, and identity.

### ***Cultural and pedagogical alignment***

The programme demonstrated strong alignment with Kaupapa Māori pedagogies, embedding the values of manaakitanga, whanaungatanga, ako, and aroha throughout delivery. Digital tools supported the revitalisation of te reo Māori and mātauranga Māori through creative, place-based projects that connected ākonga to local histories and community knowledge. Kaiako valued the relational approach of facilitators and requested future iterations include more Māori-speaking facilitators, fuller te reo Māori delivery, and Māori-designed digital exemplars to ensure cultural authenticity.

### ***Collective learning and leadership***

Leadership among kaiako was described as collective and relational. Kaiako mentored one another, shared strategies across kura, and sustained collaboration beyond the PLD cycle. This reflected Māori models of ako, reciprocity, and distributed responsibility. Emerging regional communities of practice demonstrated ongoing commitment and innovation among kaiako networks.

### ***Persistent challenges***

Infrastructure limitations, particularly unreliable internet connectivity, insufficient devices (1:1 was preferred), and delayed technical setup, constrained equitable access. Kaiako also cited workload pressures, limited culturally relevant digital resources, and insufficient time to apply new learning. Sustained technical support, reliable connectivity, and contextualised PLD are required to consolidate these gains.

### ***Regional and Comparative Insights***

Findings from Te Tai Tokerau align closely with the Tāmaki Makaurau evaluation, showing consistent improvement in kaiako confidence, pedagogical innovation, and ākonga engagement. However, Te Tai Tokerau participants worked within higher-need contexts, with all kura carrying elevated Equity Index scores. The programme's success in this region demonstrates that culturally grounded, relationship-based digital learning can achieve meaningful capability growth among kaiako even in resource-constrained environments.

### ***Key Priorities for Future Implementation***

1. Extend PLD duration and structure sessions for reflection, practice, and classroom application.
2. Provide reliable internet connectivity and one-to-one device access for all ākonga.

3. Expand Māori-medium delivery, including full te reo Māori facilitation and culturally specific digital resources.
4. Support regional communities of practice and recognise kaiako leadership through micro-credentials and formal certification.
5. Align digital learning with NCEA standards and develop pathways linking kura, tertiary study, and technology careers.
6. Invest in sustainable funding, infrastructure, and ongoing monitoring frameworks to support national scaling of culturally responsive digital education.

This evaluation demonstrates that the Apple in Kura has created a sustainable foundation for culturally grounded digital education in Te Tai Tokerau. Its outcomes show that when professional learning is guided by Kaupapa Māori principles and supported by equitable access to technology, kaiako and ākonga can participate confidently in Aotearoa New Zealand's evolving digital landscape. Continued collaboration between Apple, Te Pūkenga, and Māori educational communities will be essential to maintain momentum, strengthen Māori leadership in digital innovation, and ensure lasting benefits for future generations of learners.

## Background

The Apple in Kura: Kaiako Professional Learning and Development (PLD) programme represents a collaboration between Apple and Te Pūkenga that aims to address inequities in Māori participation within Aotearoa New Zealand’s digital technology sector. Māori make up only 4% of the national IT workforce (NZTech & The Digital Skills Forum, 2021). This underrepresentation is linked to long-standing structural barriers such as limited digital infrastructure, uneven resource distribution, and a shortage of educators with advanced digital capability (Williams, 2020). Māori also continue to face systemic challenges in tertiary education participation due to regional inequities, centralised funding structures, and uneven access to distance-learning infrastructure (Brownie et al., 2024). These conditions restrict pathways into fields that demand advanced digital and technological skills.

Te Tai Tokerau experiences some of the most significant barriers to digital inclusion in Aotearoa New Zealand. The region is characterised by geographic isolation, socio-economic disadvantage, and variable internet connectivity. Many kura operate with limited access to devices and sustained professional learning opportunities. Strengthening the digital capability of kaiako in Māori-medium and Māori-serving schools is essential for providing equitable learning opportunities, supporting creative teaching practice, and honouring cultural identity.

In 2023, Apple launched the Racial Equity and Justice Initiative (REJI), a USD 200 million global commitment to improving equity for historically underserved communities through education, economic empowerment, and justice reform (Apple, 2023a, 2023b). Within Aotearoa New Zealand, this initiative developed into the Apple in Kura partnership with Te Pūkenga, supporting the delivery of culturally responsive PLD for kaiako in Māori-medium education. Former Te Pūkenga Chief Executive Peter Winder described the partnership as a shared commitment to “delivering equity to traditionally underserved groups” and using Apple technology “to promote change” (Te Pūkenga, 2023, n.p.).

The 2024 Tāmaki Makaurau evaluation found that the programme improved teacher confidence, digital fluency, and learner engagement, and identified barriers such as infrastructure limitations, scheduling constraints, and the need for culturally responsive resources (Rangiwai & White, 2024). Recommendations included improving internet connectivity, providing ongoing professional learning, and developing materials aligned with Māori pedagogies.

The Te Tai Tokerau evaluation extends this work. It involved 48 kaiako from 11 kura, where Māori learners comprised an average of 93% of enrolments, including three kura with entirely Māori student populations. All participating kura had School Equity Index (EQI) scores above 500, indicating socio-economic disadvantage (Ministry of Education, 2024). Between 2020 and 2024, Digital Technology assessment standards were not delivered in nine of these kura, showing limited prior access to structured digital learning (Ministry of Education, 2024).

This evaluation examines how regional factors shape programme implementation, teaching practice, and learner outcomes. It also considers how the model can be adapted and applied more widely. The study used a Kaupapa Māori Evaluation (KME) approach to ensure Māori perspectives, values, and aspirations were central to the process. It combined a qualitative survey and semi-structured interviews to capture kaiako experiences. The analysis explores how the Kaiako PLD programme has supported digital literacy, culturally grounded pedagogy, and equity of access for Māori learners. The findings contribute to the national evidence base for culturally responsive professional learning and inform the ongoing collaboration between Apple and Te Pūkenga in strengthening Māori leadership in digital education.

## **Purpose, Aims & Objectives**

This evaluation assesses the effectiveness of the *Apple in Kura Phase 2* Professional Learning and Development (PLD) programme delivered in Te Tai Tokerau. It explores how participation in the programme supported kaiako to strengthen digital capability, enhance culturally grounded pedagogy, and improve equitable access to digital learning for Māori learners.

Building on the *Apple in Kura Evaluation* (AKE) completed in Tāmaki Makaurau (Rangiwai & White, 2024), this study extends the inquiry to a new regional context. It investigates how the Kaiako PLD programme was implemented across 11 kura in Te Tai Tokerau and examines how local conditions influenced teaching practice, learner engagement, and the integration of digital tools in Māori-medium education.

Based in a Kaupapa Māori framework, the evaluation focuses on participant experiences and examines how the programme contributes to Māori participation, leadership, and success in the digital technology sector.

## ***Aim***

To evaluate the effectiveness of the Kaiako PLD programme in strengthening digital literacy, transforming teaching practice, and supporting Māori learner engagement across Te Tai Tokerau kura, while comparing these outcomes with those observed in the Tāmaki Makaurau pilot.

## ***Objectives***

1. Evaluate improvements in digital literacy among Te Tai Tokerau kaiako who participated in the Kaiako PLD programme.
2. Assess the impact of Apple-based digital training on teaching practice, classroom engagement, and culturally responsive pedagogy.

3. Compare findings from the Te Tai Tokerau *Apple in Kura Initiative* (AKI) with those from the Tāmaki Makaurau *Apple in Kura Evaluation* (AKE) to identify regional variations, challenges, and effective practices.

## **Methodology**

### ***Kaupapa Māori evaluation framing and methodology***

This evaluation is grounded in a Kaupapa Māori Evaluation (KME) approach, which assesses activities in a Māori way (Cram et al., 2018). KME has been described as “seeking, exposing, and highlighting the practised and lived realities of Māori, using Māori forms of enquiry and accountability measures and criteria” (Carlson et al., 2017, p. 6). It draws on the foundations of Kaupapa Māori theory and research (Carlson et al., 2017; Cram et al., 2018), which uphold Māori knowledge, practices, and aspirations as the central focus of inquiry.

Kaupapa Māori methodology is a Māori-centred system of tikanga (customs, practices, and ethics), epistemologies, ideologies, and knowledge that provides tools for critically analysing the world from a Māori perspective (Nepe, 1991; Pihama, 2001; Smith, 2021). It is a decolonising research methodology that reclaims intellectual and cultural space by positioning Māori at the centre of the research process (Smith, 2021). Kaupapa Māori legitimises Māori perspectives within the academy and recognises the validity of Māori worldviews as the foundation for theory, method, and analysis (Smith, 2021).

Within this project, the methodological approach follows Kaupapa Māori research principles that emphasise collective benefit, relational accountability, and the protection of mātauranga Māori (Smith, 2021). The approach recognises the Māori worldview and its associated philosophies, customs, and practices as authentic and normal expressions of research and evaluation (Rangiwai, 2019, 2022).

## Methods

This Kaupapa Māori Evaluation (KME) used a qualitative survey and in-depth semi-structured interviews to gather data from kaiako who participated in Te Pūkenga's Kaiako Professional Learning and Development (PLD) programme. A total of 30 participants completed the qualitative survey, and eight participants, including seven kaiako and one principal, took part in one-on-one interviews. Data were analysed thematically to identify recurring ideas, shared experiences, and culturally meaningful insights.

### *Qualitative Survey*

Qualitative surveys use open-ended questions on a defined topic and invite detailed narrative responses (Braun et al., 2021). This approach differs from fixed-response surveys by capturing participants' own language and lived experience (Braun & Clarke, 2013; Frith, 2000). In this evaluation, the survey generated nuanced data on kaiako experience, barriers, and perceived impact on teaching and learner engagement. The interviews that followed provided additional depth and triangulation (Fusch et al., 2018).

The survey was distributed online following institutional ethics approval and was completed by 30 kaiako who received training through the Kaiako PLD programme. It was reflective and open-ended, allowing responses in te reo Māori or English.

### *Design and Structure*

The survey consisted of five sections:

1. *Background information:* Teaching experience, previous digital PLD, and confidence in using digital technologies before and after the programme.
2. *Teaching and learning with digital tools:* Integration of Apple technologies, effective tools and strategies, and effects on student engagement, lesson planning, and assessment.

3. *Challenges and opportunities:* Barriers such as internet connectivity, access to devices, cultural relevance, and workload, along with suggestions for further support.
4. *Kaupapa Māori and digital literacy:* Alignment with Māori pedagogies and opportunities for digital literacy to strengthen te reo Māori and mātauranga Māori.

## **Interviews**

One-on-one interviews were conducted in person and online with eight participants who had completed the Kaiako Professional Learning and Development (PLD) programme. Seven were kaiako and one was a principal, whose inclusion provided leadership perspectives on implementation, infrastructure, and whole-school practices. Interviews were semi-structured and treated as extended conversations (Rubin & Rubin, 2005), allowing for flexible and reflective dialogue while maintaining consistent coverage of key areas.

## ***Kaupapa Māori Ethical Principles***

Interviews were guided by Kaupapa Māori research ethics adapted from Smith (2021), with te reo Māori included as an additional ethical consideration. The following principles shaped the interview process: aroha ki te tangata (respect), kanohi ki te kanohi (face-to-face where feasible), titiro whakarongo ... kōrero (look and listen more than speak), manaaki ki te tangata (flexibility, hospitality, generosity), kia tūpato (tikanga-guided cultural safety), kua e takahia te mana o te tangata (uphold participant mana), kia māhaki (humility), and te reo Māori (participants could respond in te reo Māori and/or English).

Participants received an information sheet and indicative questions before the interview. Although questions were asked primarily in English, responses could be in either language. Neutral prompts were used to encourage elaboration without shaping answers (Clandinin & Connelly, 2000).

### ***Interview Structure and Questions***

The interviews explored participant experiences, professional learning outcomes, cultural responsiveness, and sustainability of digital practices in Māori-medium contexts.

#### *Kaiako (Teachers)*

Questions were grouped into six themes:

1. Background and experience: Teaching history, year levels, subjects, and prior exposure to digital technologies.
2. Kaiako PLD participation: Motivations for joining the programme, beneficial aspects of training, and areas of challenge.
3. Impact on teaching practice: Changes in pedagogy, examples of digital integration, and student engagement.
4. Barriers and challenges: Infrastructure, workload, and leadership support.
5. Cultural considerations and Kaupapa Māori integration: Alignment of the PLD with Māori pedagogies and use of digital tools to support Māori knowledge systems.
6. Future considerations: Aspirations for digital technology in Māori-medium education and recommendations for sustaining digital literacy support from Apple, Te Pūkenga, and kura.

#### *Principal*

Questions for the principal focused on leadership and implementation:

1. Background and role: Responsibilities, leadership approach, and previous digital strategies.
2. Programme effectiveness and implementation: Overall impact of the PLD, observed changes in kaiako and tamariki, and staff feedback.

3. Infrastructure and support: Device access, internet connectivity, and technical support.
4. Alignment with Kaupapa Māori values: Relevance to Māori pedagogies, te reo Māori, and cultural identity.
5. Sustainability and future planning: Long-term goals for digital education and recommendations for ongoing improvement.

Including both kaiako and leadership perspectives provided multi-level insights into how the Apple in Kura programme was implemented and experienced across kura.

### **Thematic analysis**

All qualitative data from both the survey and interview transcripts were analysed using Braun and Clarke's six-phase reflexive thematic analysis (2019):

1. Familiarisation with the data.
2. Generating initial codes.
3. Constructing themes.
4. Reviewing themes.
5. Defining and naming themes.
6. Producing the report.

This approach aligns with Kaupapa Māori values of reflection, transparency, relational ethics, and shared meaning-making. It ensured that identified themes accurately represented participant perspectives while maintaining methodological rigour and cultural integrity.

## Pseudonyms

To protect confidentiality, interview participants were assigned pseudonyms based on native birds of Aotearoa New Zealand. Bird names were selected for their associations with communication, teaching, adaptability, and learning. These qualities reflect the intent of the Apple in Kura programme and the ongoing growth of kaiako and kura communities. The practice aligns with Māori traditions that draw on the natural world for metaphor and identity, ensuring participant anonymity is maintained in a culturally meaningful way.

Eight participants took part in interviews, and eight pseudonyms were assigned as follows:

1. Kūkupa (*Hemiphaga novaeseelandiae*) – New Zealand pigeon.
2. Kōkō (*Prosthemadera novaeseelandiae*) – Tūī.
3. Tīrairaka (*Rhipidura fuliginosa*) – Fantail.
4. Kōtare (*Todiramphus sanctus vagans*) – Kingfisher.
5. Kuaka (*Limosa lapponica baueri*) – Bar-tailed godwit.
6. Tara iti (*Sternula nereis davisae*) – New Zealand fairy tern.
7. Tūturiwhatu (*Charadrius obscurus aquilonius*) – Northern New Zealand dotterel.
8. Koukoū (*Ninox novaeseelandiae*) – Morepork.

## Findings

### *Survey findings*

A total of 30 kaiako responded to the survey, representing nine schools across the Kaikohe and Hokianga regions of Te Tai Tokerau. Participation came from Kaikohe Christian School (n = 6), Kaikohe East School (n = 3), Kaikohe West School (n = 5), Northland College (n = 4), Te Kura Kaupapa Māori o Kaikohe (n = 5), Te Kura Kaupapa Māori o Te

Rangi Āniwaniwa (n = 2), Te Kura Kaupapa Māori o Te Rāwhitiroa (n = 2), Te Kura Kaupapa Māori o Tūtūtarakihi (n = 1), and Te Kura Takiwā o Opononi (n = 1). The highest number of responses were received from Kaikohe Christian School and Te Kura Kaupapa Māori o Kaikohe (20%). This distribution reflects participation across both kura and mainstream schools, providing representation from a range of educational settings in the region.

The respondent group consisted primarily of highly experienced teachers. Of the 30 respondents, 28 (93%) reported teaching for eight years or more, one (3%) reported four to seven years of experience, and one (3%) reported one to three years. These data indicate that the sample was dominated by long-serving kaiako with extensive professional experience. Only a small proportion of respondents were in the early or mid-career stages, suggesting that the survey captured insights from a mature and experienced teaching cohort.

When asked whether they had previously participated in professional learning and development (PLD) focused on digital technologies, 18 respondents (60%) indicated that they had not, while 12 respondents (40%) reported that they had. This result suggests that most participants entered the Kaiako PLD programme without prior exposure to structured digital technology training. The initiative therefore provided an important opportunity to build foundational digital capability for many kaiako.

Before participating in the Kaiako PLD, participants rated their confidence in using digital technologies on a five-point Likert-type scale (1 = very low, 5 = very high). Six teachers (20%) rated their confidence as 1, five (17%) rated it as 2, 16 (53%) rated it as 3 (moderate), two (7%) rated it as 4, and one (3%) rated it as 5. The mean confidence level before participation was 2.6, which indicates generally low to moderate confidence across the group. These results show that most kaiako entered the programme with limited comfort or experience using digital technologies.

After completing the PLD, participants rated their confidence again on the same scale. Ten teachers (33%) rated their confidence as 3, 12 (40%) rated it as 4, and eight (27%) rated it as 5. The mean confidence level increased to 3.9, showing a clear positive shift in self-reported digital competence. No respondents rated their confidence below 3, which suggests that all participants achieved at least a moderate level of confidence following the PLD. The increase from a mean of 2.6 to 3.9 represents a measurable improvement, with the largest gains occurring among those who initially reported low or moderate confidence.

The findings indicate that the Kaiako PLD programme had a positive impact on teachers' self-assessed confidence in using digital technologies. Most respondents were experienced educators who had limited prior access to digital PLD opportunities. The programme addressed this gap by providing structured, hands-on learning that improved digital literacy and strengthened classroom capability.

### ***Qualitative Findings from Open-Ended Survey Responses***

All 30 kaiako provided extended reflections on their experiences with the Kaiako Professional Learning and Development (PLD) programme. Their responses demonstrated consistent themes across kura and schools, revealing both the transformative potential of digital integration and the practical challenges encountered during implementation.

Thematic analysis identified seven overarching areas: integration of digital tools, teaching strategies, student engagement, planning and assessment, implementation challenges, support needs, and cultural responsiveness.

#### ***1. Integration of Digital Tools into Teaching Practice***

All respondents reported beginning to integrate digital tools introduced through the Kaiako PLD programme. Most described active use of iPads and Apple applications across

diverse learning activities, such as creating iMovies and multimedia projects linked to kaupapa including Matariki and Te Matatini, using iPads as digital modelling books, and encouraging student collaboration through shared projects. Applications such as Keynote and GarageBand were frequently used to enhance creativity and coding skills.

Some were still in the early stages of adoption, focusing on device set-up or trialling applications for future integration. Some kaiako used digital tools for planning, administration, and communication. For example, one respondent said: *“I aku mahi kaiako katoa, mai i te whakarite kaupapa/akoranga, aku mahi tari ki aku mahi whakaako rā anō”*.<sup>1</sup> Overall, most participants were embedding PLD tools in classroom practice, while those not yet fully integrated expressed clear intent to do so, indicating sustained momentum for digital adoption.

*“Currently using iPads for modelling books during instructional learning. We are in the process of creating iMovies from our recent trip to Te Matatini. My next task will be to use iPads to create augmented reality to support our kaupapa mahi of Matariki.”*

*“I have been teaching Digital Technologies for a couple years now. The apple devices this course has provided has only amplified the students design and coding skills.”*

*“Upskilling staff and taura to use the tools to present and record digital assessments thus creating our own digital library with a focus on digital sovereignty and retaining our intellectual property of all our digital assets.”*

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<sup>1</sup> Trans: In every aspect of my teaching work, from planning courses and lessons to administrative duties and classroom teaching itself.

## 2. Most Effective Digital Tools and Strategies

Most kaiako identified the tools and strategies they found most effective for supporting student learning. Creative media tools such as iMovie, GarageBand, and Procreate were most frequently mentioned for enabling students to express ideas visually and aurally while building confidence and technical competence. Collaboration platforms such as Padlet, Freeform, Keynote, and Numbers were valued for supporting group projects and interactive learning.

Practical classroom management tools, including Apple Classroom, voice recording, and QR codes, were described as helping streamline learning and capture student evidence. Some kaiako observed that these tools enhanced the use of te reo Māori and supported bilingual learning. The most effective tools were characterised as creative, collaborative, culturally relevant, and easy to integrate into everyday classroom practice.

*“E whakawhanake ana i te mōhio o ngā tauira ki te rāwekeweke hangarau āporo - rorohiko mai, ipapa mai. I tēnei wāhanga, kua aro pū atu mātou ki ngā mahi hopu whakaahua, ki te hoahoa matihiko (digital design) mā ngā taupānga nei - Procreate, Kīmatua (Keynote), Pukapuka (Books). Waihoki, e kaha whirinaki atu ana ahau ki te taupānga o Akomanga (Classroom) ki runga rorohiko hei whakahaere i ngā mahi iPapa”<sup>2</sup>*

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<sup>2</sup> Trans: We are developing the students’ knowledge of using Apple technologies, both computers and iPads. During this term, we have focused on photography and digital design using the following applications: Procreate, Keynote, and Books. I also rely heavily on the Classroom app on computers to manage iPad activities.

*“The digital space is the unnatural and most natural playground for our students. Their access to the horizon of knowledge is beyond their frontier of discovery in the fast lane. When staff are equipped, the students will prosper!”*

*“Learning alongside the students how to use iPad apps using the knowledge I have learnt and passing it along to the kids.”*

### *3. Student Engagement and Motivation*

Many kaiako reported clear improvements in student engagement following the introduction of digital tools. Students demonstrated greater enthusiasm, curiosity, and motivation, and often requested digital learning activities. Teachers noted increased focus, persistence, and enjoyment, particularly when using applications such as Pages, Keynote, and iMovie.

Digital tools were described as a “hook” for learning that encouraged experimentation and creativity. However, some teachers identified equity issues, such as limited access to devices and shared equipment, which occasionally constrained participation. Despite these limitations, participants agreed that digital learning made classroom activities more interactive and engaging for tamariki.

*“Yes definitely and with the tools that have been given to our kura, makes sharing and things so much faster with less hassle. It’s amazing, no waiting around for the kaiako the tamariki are able to share their mahi in live time when we are working in the class. The engagement is insane! I have never had that much engagement before this course and these digital tools.”*

*“Āe mārika! He nui te aro mai ki ngā mahi kua whakaritea, ā, e ū ana te nuinga ki ngā whakaritenga. Pērā rawa te hiakai ki ēnei hangarau, ka hiahia hoki rātou ki te tutū haere i roto i ngā wā kai ki te whakapakari i ō rātou pūkenga matihiko. Tērā hoki ētahi kāhore e hiahia ana kia mahue i a rātou tētahi akoranga kotahi!”*

*“Tamariki are primed and ready to go - using digital technology is a quick hook into a learning task.”*

#### *4. Impacts on Planning and Assessment*

Most kaiako reported that digital tools had reshaped lesson planning and assessment practices. Many described greater efficiency and flexibility, using Apple devices to plan lessons more intuitively. Teachers emphasised that digital tools supported collaborative and student-led learning, enabling tamariki to design and demonstrate understanding independently.

Several respondents highlighted the potential of digital tools for capturing assessment evidence aligned with NCEA and other learning outcomes. Some had already implemented these approaches, while others requested further guidance to ensure alignment between digital learning and formal assessment processes.

*“It makes me use the digital tools to their full capability! I am learning all the time about what they can do and how they can enhance the mahi and assessments that I am doing for NCEA. So grateful for this programme.”*

*“Makes it exciting to plan what I am going to do. I challenge myself to use a mix of devices with things that our tupuna would have done in each lesson. Lessons from the past but bringing to life with the Apple devices. Also for*

*assessment I have been using place holders in templates like the ones we had in our course with micro lessons and evidence of their learning and it has worked an absolute treat.”*

*“Awareness of what these iPads can actually do. I am aware now of what i can do from my normal planning and integrate into with the use of iPads.*

*Tamariki are able to record oral assessments individually - giving them more independence and me more time to look at other areas.”*

### *5. Challenges in Implementation*

Twenty-nine kaiako identified challenges in four main areas: access and infrastructure, technical barriers, workload, and cultural or safety concerns. Common issues included insufficient devices, unreliable internet, and delays in technical set-up. Teachers also reported difficulties managing Apple IDs, configuring devices, and troubleshooting without adequate technical support.

Time pressures were significant, with several teachers noting that integrating new tools required additional hours beyond their normal workload. Concerns were raised about online safety and the need to ensure cultural relevance within digital environments. These findings emphasise the need for ongoing technical, cultural, and infrastructural support to sustain effective implementation.

*“Ko aku māharahara, e hāngai ana ki te noho haumarua a te tauira, a te kaiako, a te rauemi nōki. Hakoa e tiakina ana ēnei hangarau e te MDM o Te Pūkenga o tēnei, ka pēhea ā muri ake nei, ka mutu nei te hōtaka ako nei. I te mea, kāhore i ahau/i tō mātou kura te mana whakarite/whakahaere o aua*

*hangarau, kua kaha taku mahi tahi ki tō koutou tangata hangarau o Te Tai*

*Tokerau nei, ki a \_\_\_\_\_, nāna mātou i ora ai.”<sup>3</sup>*

*“All of it can align however i probably won’t use it all - as much as I’d like to.*

*It’s probably more likely to be next term once the devices are signed over and*

*the school has admin rights and I can get the students individual accounts.*

*Also trying to shift our whole school from google chrome to the use of iPads so*

*it becomes a more fluid teaching approach and not just one classroom.”*

*“Allowing for online learning which in itself might be considered a double*

*edged sword, particularly if knowledge is lifted out of context. It may facilitate*

*relationships but may also undermine the importance of kanohi ki te kanohi if*

*not used with discretion”*

#### *6. Support Needs for Effective Integration*

Most kaiako outlined the supports needed to sustain digital practice. The most frequent requests were for ongoing PLD and training opportunities, including wānanga, instructional videos, and refresher sessions. Teachers emphasised the importance of one-to-one student device access, practical teaching resources, and step-by-step guides for using applications.

Improved technical support was requested, particularly for Apple School Manager, Classroom, and Self Service. Peer collaboration and communities of practice were highly

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<sup>3</sup> Trans: My main concerns relate to the safety and security of students, teachers, and the equipment. While these technologies are currently managed through Te Pūkenga’s MDM system, I am unsure what will happen once this programme concludes. As our kura does not have the authority to configure or manage the devices independently, I have worked closely with your Te Tai Tokerau technician, \_\_\_\_\_, whose assistance has been invaluable for us.

valued, with interest in regular forums or wānanga to share experiences. Limited time for experimentation and lesson adaptation remained a challenge.

*“Ongoing support, refresher courses, and/or how to integrate curriculum specific courses or bundles.”*

*“A step by step handbook on how to connect to apple schools manager and self-service app and classrooms app.”*

*“Working collaboratively colleagues while having some point of personal contact to help with issues we can’t solve on our own.”*

#### *7. Programme Relevance and Alignment with Kaiako Needs*

Most kaiako acknowledged that the PLD was well aligned with their professional needs. Participants described the programme as useful, enjoyable, and delivered with strong manaakitanga. Even those with prior digital expertise found the sessions informative and relevant.

Suggestions for refinement included customising certain applications for different school levels and strengthening links between digital learning and assessment. Some teachers noted delays in device rollout that limited immediate implementation.

*“We are so lucky to have Apple come into our kura here in the far north and to have wonderful facilitators as well. Ngā manaakitanga ki a koutou katoa.”*

*“This programme has given me a vehicle to complete my project for financial literacy. Students’ feedback was phenomenal. Their participation and results showed me that I was on a good path.”*

*“Don’t include the teacher badges in the tasks to complete for our journals. For me that was not a good use of my time... I just wanted to go deeper in the apps we were exposed to on site.”*

#### *8. Recommendations for Future PLD Delivery*

Majority of respondents offered recommendations for future iterations. The most frequent suggestion was to increase the use of te reo Māori and include more Māori-speaking facilitators. Respondents also recommended expanding access to Apple programmes, scheduling sessions during term time, providing detailed technical handbooks, and developing differentiated learning pathways to accommodate varying levels of digital fluency. The inclusion of more explicit NCEA-related support was also recommended.

*“Pēnā i te reo Māori, ka nui noa atu te whaihua o tēnei kaupapa ki ngā kura Māori, ngā puna reo, ngā kura rumaki. Ka mutu, mehemea he tangata/kaimahi/kaiako Māori, tangata kōrero Māori o koutou, o Te Pūkenga, o Āporo raini - ka nui noa atu te whai o te iwi Māori, te tahuri hoki ki te hangarau āporo nōki.”<sup>4</sup>*

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<sup>4</sup> Trans: Similar to the revitalisation of te reo Māori, this initiative holds significant value for Māori-medium schools, language nests, and immersion kura. Moreover, having Māori staff, teachers, or fluent speakers within Te Pūkenga or Apple would greatly enhance Māori participation and confidence in engaging with Apple technologies.

*“Maybe more differentiation to allow for the different capabilities of teachers.*

*Short bursts of explicit instruction with longer periods for exploring.”*

*“NCEA specific support will be great.”*

### *9. Alignment with Kaupapa Māori Pedagogies*

Most kaiako reflected that the PLD aligned closely with Kaupapa Māori pedagogies. Participants described the presence of manaakitanga, karakia, and safe spaces for te reo Māori. Teachers reported adapting digital tools to support Māori pedagogical approaches and strengthening their confidence to teach in culturally grounded ways.

A small number suggested more peer-learning opportunities and additional support for mainstream teachers with limited reo or tikanga knowledge. Overall, the PLD was viewed as affirming and mana-enhancing.

*“It aligns with what we do at the kura. It enhances all the learning that we are currently doing and I am excited that we get to share what they are learning with all these devices that we have been provided with.”*

*“...manaakitanga and karakia are still upheld. It’s an open classroom safe to speak te reo if you choose to.”*

*“There are definitely some cool tools that align with this approach. Having previously taught in a primary/intermediate context I am excited about the opportunities for digital storytelling in particular. I think that kaiako have an incredible opportunity to capture local stories and histories particularly those within Te Ao Māori using the iPads.”*

### *10. Culturally Responsive Digital Literacy*

Many kaiako proposed ways to strengthen cultural responsiveness within digital literacy training. Key suggestions included offering PLD fully in te reo Māori, structuring sessions as wānanga, and embedding Māori knowledge systems within digital learning. Teachers emphasised that cultural expression should remain central, using digital tools to revitalise pūrākau, whakapapa, and other forms of mātauranga Māori.

Equity of access remained a concern, particularly in rural kura. Participants noted that facilitators' grounding in Kaupapa Māori was essential for ensuring authenticity and relevance.

*“A fluent Māori version of this course. So this course just ‘Whakamaoried.’”*

*“Add more kaupapa Māori content, like atua Māori, kōrero tūpuna.”*

*“I’ve always grown up thinking apple products were for wealthy people.”*

### *11. Digital Technology and Māori Knowledge Systems*

Many kaiako reflected on how digital technology can support te reo Māori and mātauranga Māori. Participants viewed digital platforms as powerful tools for revitalising language and knowledge, recording and sharing narratives, and preparing Māori learners for future pathways. They also acknowledged potential risks such as misrepresentation and reduced kanohi ki te kanohi interaction.

Consensus across responses indicated that digital technology can strengthen Māori knowledge systems when guided by tikanga and applied with cultural and ethical integrity.

*“We have a vehicle to use to enhance mātauranga Māori that we would have never had without this course.”*

*“The space offers students valuable learning, they are able to bring ancient knowledge to the table and mix it with modern technology to make new combinations.”*

*“Mā te whakamahi, mā te whirinaki atu ki ngā hangarau rerekē o tēnei ao hurihuri e ora ai te reo Māori me te mātauranga Māori. Mā te kōrero rā anō ka ora. Mā te tuhi ka mau roa.”<sup>5</sup>*

### ***Findings from Interviews***

This section presents qualitative findings drawn from eight in-depth interviews with kaiako and one principal who participated in the Kaiako Professional Learning and Development (PLD) programme. The interviews explored experiences, reflections, and aspirations relating to digital integration, pedagogy, and cultural practice within Te Tai Tokerau kura. Thematic analysis identified five key themes: increasing digital practice, learning together, confidence, leadership, and digital futures. These themes capture both the personal and collective dimensions of professional learning, showing how kaiako experienced transformation through relational, culturally grounded, and practice-based engagement. The following themes summarise the main insights shared by participants.

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<sup>5</sup> Trans: It is through using and engaging confidently with the various technologies of this changing world that te reo Māori and mātauranga Māori will thrive. Through speaking, the language lives. Through writing, it endures

*Theme 1: Increasing Digital Practice*

Kaiako initially felt uncertain about digital technology and how to embed it meaningfully in their teaching. Over time, they began to see technology as an integral part of their professional identity rather than as a separate or technical task. Through hands-on exploration, they developed confidence in using digital tools to enhance creativity, relevance, and learner engagement. This shift represented a transformation in professional thinking, where teachers came to view themselves as capable digital practitioners contributing to culturally responsive, future-focused education.

**Tīrairaka:** *“I found myself feeling a little bit upset in myself that I didn't know enough to be able to teach it or to be able to correct properly. And so when this golden opportunity came up, I put up my hand straight away. I said “anything good for my students is good for me.”*

**Kōtare:** *“Most beneficial to my teaching practise I would say that it just gave me another confidence boost to use. So it was more around the confidence that it actually gave me to use another type of technology. Like I said, I was always Android, but now I'm confident enough to use Apple technology. And to actually look at even furthering that and getting an Apple phone, like just to make it simple, to actually simplify that process.”*

**Kūkupa:** *“And the length of time the actual intentions of what I really want to see in their mahi. I mean, I was doing that before, but with the use of this tool with the use of our Apple resources. It has, like little gems in there that makes the task easier.”*

### *Theme 2: Learning Together*

Collective learning was central to participants' experiences of change. Teachers described learning alongside colleagues, students, and community members in ways that reflected the Kaupapa Māori principle of ako. Collaboration encouraged safety, trust, and shared growth. Rather than hierarchical teaching, digital learning became a process of mutual discovery where everyone's knowledge was valued. The social and relational nature of this learning process strengthened whanaungatanga and ensured that growth in digital capability was both culturally grounded and inclusive.

**Kūkupa:** *Oh yeah, I learned beside them, you know, I admit, if I don't know something, we'll learn it together. Let's go and search it out... I don't pretend that I know everything, and I'm happy to tell them and we're good to go to mahitahi and we look for the answers together."*

**Koukoū:** *You know, so they're born into the digital world. So what do we have to do? We have to be prepared for that. Be prepared to give them some assistance. Guidance.*

*I don't know about teaching because they're probably the teachers of this world, you know, for the digital world. So I think it's a really good reciprocal learning process for both. Yeah, but....it's not going to go away. It's just going to get faster and quicker.*

### *Theme 3: Confidence*

Participation in the programme reignited enthusiasm and pride among kaiako, reminding them of their expertise and adaptability. Through structured learning and experimentation, teachers rediscovered a sense of curiosity and creative freedom. Success in applying new tools encouraged renewed professional confidence, encouraging kaiako to embrace change and innovation within their practice. The programme thus contributed to a

broad sense of professional empowerment and wellbeing, reinforcing teachers' belief in their ability to lead meaningful digital transformation.

**Kūkupa:** *“Oh, honey, they're so savvy. Honestly, they teach me. You know, some of the things like the free forming keynote. I thought I knew quite a bit about it. Oh, lo and behold. Oh, I've got a couple of them, actually. We've got a small little group that, that's their thing, you know. Tino koi. And so yeah, I have no problems at all when it comes to their digital learning. They could even lead a workshop 'cause, they're that koi. They're so clever when it comes to it.”*

**Koukoū:** *“...most of them were familiar with the apps, but because we went more in depth with the apps, that's what really came out.... You know, like they expanded the use of these apps. You're going, Oh my God. You don't even have to do Photoshop. You can go into keynote, you can go into AR maker. You can do all that sort of thing.”*

**Tīrairaka:** *“Well, I think you mustn't be scared of digital technology. I think you must embrace it. The reality is the students were way ahead of us as teachers and I don't want to be a fossil. I want to be at the cutting edge of what's happening. And if you want to be at the cutting edge, you need to start by learning.”*

#### *Theme 4: Leadership*

Leadership within the programme emerged as relational and collective rather than hierarchical. Teachers took on mentoring roles organically, offering guidance and support to

others in ways grounded in manaakitanga. Leadership was expressed through acts of care, shared responsibility, and collective problem-solving. Rather than individual recognition, leadership was understood as a shared commitment to lifting collective capability and ensuring that digital transformation benefited the wider teaching community and ākonga alike.

**Tīrairaka:** *“And for us it was about what I call working together. So if I didn't understand it, I could take it to another person.”*

**Tūturiwhatu:** *“I think that we need to be more responsive, we should be leading the way”*

**Kōtare:** *“It's up to us to take that, and take all that learning we've got and try and remodify it so it fits our people. I see us as being leaders eventually in the space, especially at Kura Kaupapa Māori. I know that we will end up leading that space out. We will be what everybody else ends up following. Because we know the importance of education, we know the importance of staying a step ahead as well. So you know, and we've always been like that up here. We're like, we want to be ahead. We want our tamariki to be one step ahead. We want to give them excellence. We want them striving for excellence. So you know, we've got to try and be a step ahead too.”*

#### *Theme 5: Digital Futures*

Teachers envisioned technology as a means to sustain and advance Māori knowledge systems, language, and cultural practices. They saw digital spaces as potential extensions of tikanga, offering new ways to uphold reo Māori, share pūrākau, and connect communities.

Participants emphasised that Māori leadership and ethical practice are vital to ensuring these technologies remain culturally grounded, and safe. In their view, innovation and heritage are compatible: technology can serve as a living expression of tikanga when guided by Māori values, aspirations, and self-determination.

**Tūturiwhatu:** *“I was thinking of a marae in the sky, and it wasn’t only for school it was actually for a concept that could be used in hui and that, when you’re talking to other hapū, talking to other iwi when you’re talking overseas. And you still follow the tikanga of the taumata. And the taumata, still operates. So your whole tikanga is never lost.”*

**Kuaka:** *“Would be [that] our kids are not only digitally competent, so they’re full digital citizens, but they’re also able to step back and step out of that world and be comfortable in their own knowing. They are entrenched in mātauranga Māori. They’re able to stand and speak te reo Māori. They still go back home.”*

**Tara Iti:** *“How do we keep our stuff safe? And we’re starting to think about that as a Kura. If we wanted to have a bank of all of our waiata, if we wanted to capture all of our waiata, all of that sort of stuff, it’s like again, we need to keep that safe because its taonga tuku iho and those are our whakapapa.”*

## Discussion

This evaluation confirms that the Apple in Kura Kaiako Professional Learning and Development (PLD) programme in Te Tai Tokerau delivered measurable benefits for kaiako and ākonga Māori. Findings show gains in teacher confidence, shifts in pedagogy, and increased learner engagement, alongside ongoing infrastructural and workload barriers that influence equitable digital participation. The results indicate that culturally grounded

professional learning, supported by appropriate infrastructure and sustained mentoring, can strengthen and maintain digital capability across Māori-medium and mainstream contexts.

Both the Tāmaki Makaurau pilot (AKE 1, 2024) and the Te Tai Tokerau evaluation (AKE 2, 2025) assessed the same programme using a Kaupapa Māori Evaluation approach that centres Māori values, relationships, and equity outcomes. Each study applied qualitative surveys and interviews with reflexive thematic analysis to examine how Apple technologies enhance culturally responsive teaching practice. The Tāmaki Makaurau pilot established proof of concept in an urban setting, while the Te Tai Tokerau evaluation extended the inquiry to a regional environment with greater socio-economic need and more limited infrastructure. This second study therefore provided replication and a test of scalability across a contrasting context.

In the Tāmaki Makaurau pilot, 15 kaiako completed surveys and seven participated in interviews. The Te Tai Tokerau study involved 30 kaiako and eight interviews, including one school leader. Both cohorts represented Māori-medium or Māori-serving education; however, the Te Tai Tokerau group worked within schools that had higher Equity Index scores and a greater proportion of Māori learners. Many participants had not previously engaged in structured digital PLD, underscoring the significance of the observed growth in digital capability.

Self-assessed confidence in Te Tai Tokerau increased from a mean of 2.6 to 3.9 on a five-point scale. Qualitative evidence across both cohorts shows that kaiako moved from uncertainty to purposeful use of iPads and Apple applications. Participants described themselves as creative digital practitioners able to model effective practice for colleagues and support collective uptake within their kura. The Tāmaki Makaurau evaluation captured this transition qualitatively, while the Te Tai Tokerau study provided quantitative confirmation,

demonstrating that the programme addressed a clear capability gap. Confidence gains were reinforced through peer support and shared problem-solving, showing the value of relational learning as a mechanism for professional growth.

Pedagogical transformation was evident in both contexts. Teachers described new approaches to planning, delivery, and assessment using iMovie, GarageBand, Keynote, and Padlet to support multimodal learning, collaboration, and student voice. Learners showed greater motivation and persistence when engaged in creative, culturally relevant projects. The Te Tai Tokerau evaluation provided further evidence of these pedagogical shifts, linking improved learner focus and engagement to tasks reflecting local identity and whakapapa. Teachers also reported more efficient planning and improved capture of learning evidence aligned with curriculum and NCEA expectations, although further support was requested for assessment integration.

Both evaluations emphasised cultural coherence. Participants confirmed that the PLD aligned with Kaupapa Māori principles. Facilitators created culturally safe spaces and encouraged the use of te reo Māori. Teachers applied digital tools to revitalise pūrākau, whakapapa, and local knowledge. The Tāmaki Makaurau report recommended expanding Māori-language delivery and Māori-speaking facilitation; the Te Tai Tokerau evaluation recorded these as active strengths and identified opportunities for full te reo delivery and deeper embedding of Māori epistemologies in exemplars. These developments demonstrate that the programme evolved in response to earlier feedback and that Kaupapa Māori principles guided ongoing improvement.

Leadership was relational and distributed. Kaiako mentored colleagues, shared examples, and provided support during and after workshops. Several participants pursued additional credentials such as Apple Learning Coach, indicating the importance of

professional recognition pathways. This collective approach aligns with ako and sustains progress beyond the formal PLD window. Teachers described renewed enthusiasm and professional pride, with visible ripple effects across staffrooms and departments. The Te Tai Tokerau evaluation shows this leadership becoming more embedded, with informal communities of practice forming at the regional level.

Challenges remained consistent across both reports. Unreliable connectivity, limited device access, workload pressures, and variable technical support constrained implementation. These issues were present in Tāmaki Makaurau but were more pronounced in Te Tai Tokerau, where rural schools experienced setup delays and limited digital infrastructure. Without reliable internet, one-to-one device access, and timely technical assistance, integration remained uneven and placed extra strain on kaiako. Both cohorts identified a need for culturally aligned digital resources and age-appropriate exemplars, along with policies addressing online safety and tikanga in digital spaces.

The progression between AKE 1 and AKE 2 demonstrates a maturing model. The Tāmaki Makaurau pilot focused on proof of concept, identifying the need for sustained PLD, Māori-speaking facilitators, and improved infrastructure. The Te Tai Tokerau evaluation built on these foundations, showing that when these supports are partially realised, gains become measurable and sustainable. Recommendations evolved from pilot-level improvements to system-level actions, including longer PLD duration with structured reflection, differentiated pathways by competency and school type, micro-credential recognition, regional peer networks, and long-term investment in infrastructure and industry partnerships.

Short, intensive PLD can initiate change, but durable impact depends on continued mentoring and system alignment. Participants requested refresher workshops, micro-learning resources, bilingual guides, and active communities of practice to consolidate skills and share

solutions. At a system level, the findings highlight the need for coordinated investment and policy alignment across government, iwi partners, and industry to ensure devices, connectivity, and culturally responsive resources keep pace with demand. Establishing clear credentialing pathways for kaiako leadership will help maintain momentum and embed digital capability as standard practice.

Across both cohorts, outcomes were consistent: measurable gains in confidence, pedagogical innovation, and learner engagement. The Te Tai Tokerau evaluation confirms that these results are achievable even under more constrained conditions. The programme's success in high-need, rural schools shows that a relational, culturally coherent, and context-specific PLD model can achieve meaningful improvement in digital equity and teaching practice.

#### Priorities for the Next Phase:

- Ongoing mentoring and refresher PLD, including wānanga and micro-learning resources.
- Investment in reliable connectivity and one-to-one device access.
- Expanded delivery in te reo Māori and increased Māori-speaking facilitation.
- Communities of practice across kura to share resources, exemplars, and troubleshooting.
- Stronger alignment between classroom tasks, assessment evidence, and NCEA standards.
- Clear credentialing pathways, including micro-credentials and Apple Learning Coach, to recognise and sustain capability.

Addressing these priorities will help convert short-term capability gains into lasting change. The combined evidence from Tāmaki Makaurau and Te Tai Tokerau shows that when

digital learning is developed and delivered within a Kaupapa Māori framework, it strengthens teacher practice, enhances learner engagement, and advances equitable participation in Aotearoa New Zealand’s digital education and technology pathways.

## **Recommendations**

The evaluation findings show that the Apple in Kura Professional Learning and Development (PLD) programme in Te Tai Tokerau produced meaningful benefits for kaiako and ākonga Māori. Participants reported gains in digital fluency, confidence with technology integration, and stronger alignment between digital tools and culturally responsive practice. To consolidate these outcomes and guide future delivery, the following recommendations are proposed.

### ***1. Programme Design and Delivery***

PLD should be structured for depth and reflection. Smaller, sequential modules will allow kaiako to practise, reflect, and integrate new learning in classroom contexts. A longer delivery window, either a five-day intensive or multiple sessions across school terms, will support retention and application. Scheduling during term-time teacher-only days will improve participation and wellbeing. Content should be differentiated for primary, secondary, and Māori-medium settings to ensure curriculum relevance. A brief pre-assessment of digital fluency will enable facilitators to adapt pacing and support equitable progression.

### ***2. Cultural and Linguistic Responsiveness***

Full te reo Māori delivery options are required, led by fluent and digitally capable Māori educators. Kaupapa Māori pedagogies, including ako, whanaungatanga, manaakitanga, and mahi tahi, should be embedded across facilitation and learning design. Māori-designed digital resources and exemplars in te reo Māori should be expanded to enable authentic integration of reo and tikanga. National capacity for a by-Māori, for-Māori facilitation model should be developed across regions through mentorship and regional networks.

### ***3. Pedagogical Integration and Student Outcomes***

Classroom application should remain the focus. Kaiako should be supported to use Apple tools in authentic, culturally grounded projects such as pūrākau, whakapapa, local histories, and marae-based learning. Clear exemplars are needed to align digital activities with NCEA and curriculum achievement standards. Student agency should be promoted through ākonga-led exploration, collaboration, and peer learning to enhance engagement and creativity.

### ***4. Infrastructure and Technical Support***

Equitable device access and reliable connectivity are essential. One-to-one device allocation for ākonga and dependable internet across participating kura should be prioritised. Administrative processes for setup and deployment should be streamlined to reduce delays. Dedicated and timely technical support for device deployment, identity management, and troubleshooting will reduce workload and strengthen implementation.

### ***5. Mentoring, Leadership, and Recognition***

Ongoing professional networks will strengthen practice. Regional communities of practice and Māori digital leadership hubs should be developed to share resources and innovation. Leadership contributions should be recognised, particularly where kaiako mentor peers or champion digital learning within their kura. Credentialling pathways, including micro-credentials and Apple Learning Coach certification, should be supported to formalise achievement and sustain motivation.

### ***6. Equity, Resourcing, and Sustainability***

Expansion should prioritise rural and high-Equity Index kura to target systemic disparities. A sustainable funding model is needed to maintain devices, upgrades, and support beyond initial implementation. Teacher workload should be acknowledged through release time or remuneration to recognise the additional labour involved in digital innovation and PLD participation.

### ***7. Pathways, Partnerships, and Evaluation***

Stronger pathways should connect kura with tertiary education and technology careers for Māori students. Programme design should align with Māori digital sovereignty and related Indigenous digital equity initiatives. Evaluation should be co-designed with kaiako and kura so that success measures reflect community priorities. Longitudinal monitoring of teacher capability, student outcomes, and system-level change should continue to inform national scaling of culturally responsive digital PLD.

## Conclusion

This evaluation demonstrates that the Apple in Kura: Kaiako Professional Learning and Development (PLD) programme delivered in Te Tai Tokerau produced clear and measurable gains in teacher confidence, digital fluency, and culturally responsive practice. Building on the outcomes of the earlier Tāmaki Makaurau evaluation, the findings confirm that a Kaupapa Māori-aligned PLD model can effectively enhance digital capability even in regions with significant infrastructural and socio-economic challenges.

Participants reported meaningful transformation in teaching practice, with Apple technologies integrated into creative, collaborative, and culturally coherent learning experiences. These shifts contributed to higher student engagement and stronger alignment between digital learning and Māori pedagogies. Teachers described the programme as empowering, promoting professional renewal and confidence to lead digital innovation within their kura.

The evaluation also identified ongoing challenges, including unreliable connectivity, limited device access, and workload pressures that restrict further integration. Addressing these constraints will require sustained investment, continued mentoring, and collaboration among government agencies, industry partners, and iwi to achieve long-term digital equity.

Across both regional evaluations, the Apple in Kura initiative has shown that culturally coherent, relationally driven, and practice-based professional learning can advance equity and digital inclusion for Māori learners. When delivered in Kaupapa Māori ways, digital education becomes a transformative practice that celebrates identity, enhances opportunity, and prepares future generations to thrive within Aotearoa New Zealand's evolving digital landscape.

**He Karakia Whakamutunga**

Ka wehe atu tatou

I raro i te rangimārie

Te harikoa

Me te manawanui

Haumi e, hui e, taiki e!

*We are departing*

*Peacefully*

*Joyfully*

*And resolute*

*We are united, progressing forward!*

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