



Master of Contemporary Education (MCE) Symposium January 2026

21st January 2026

C14P, C15P and C16F Cohorts

Executive summaries of project presentations

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Master of Contemporary Education C15P Cohort

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Improving Collaboration and Engagement in Science through Project-based Learning

Adiel Adams

aa2adams@gmail.com

Nāu te rourou, nāku te rourou, ka ora ai te iwi

With your food basket and my food basket the people will thrive

My name is Adiel Adams. I am a Science and Horticulture teacher in a South Auckland secondary school.

This project was implemented in a vertical year 9-13 Science elective class. The primary challenge was that many learners were not engaged in classroom learning, as teaching was predominantly textbook-based and lacked real-life, culturally relevant contexts that students could connect with. This resulted in decreased motivation, increased off-task behaviour, and higher rates of absence. Through observations of various science classes and conversations

with colleagues and students, it became evident that much of the pedagogy continued to rely on passive, content-driven delivery.

To address this problem the project introduced a Project-Based Learning (PBL) approach designed to promote active inquiry, collective responsibility, and meaningful engagement with real-world scientific problems. The purpose of the project was to enhance students' collaborative-problem solving skills - including communication, negotiation, and conflict resolution- while increasing engagement through authentic, culturally responsive learning experiences.

Research supports this pedagogical shift that learners who participated in PBL outscored their peers taught through traditional approaches (Geier et al., 2008). PBL provided active, hands-on learning opportunities that required students to collaborate, inquire and respond to authentic real -life challenges. This helped learners to see the practical application of their learning and understand its relevance beyond the classroom, while also equipping them with essential 21st-century skills.

This project was implemented in a single cycle of action research involving a vertical Year 9-13 science elective class. The intervention focused on a PBL unit titled Hydroponics vs Traditional Soil Farming, in which students simultaneously set up a hydroponics system and a traditional soil method of growing plants and conducted a comparative inquiry-based study of the two systems in real time. Students collaborated on planning, shared decision-making, data collection, problem-solving, and reflected on the outcomes of their investigations. My role involved planning and facilitating the PBL sequence, co-teaching, guiding the inquiry, and monitoring student interactions and participation.

A mixed-methods approach was used to evaluate the impact of the PBL Hydroponics vs Traditional Soil Farming project on student collaboration and engagement. Quantitative data were collected through student self-surveys and teacher observation rubrics. Collaboration was measured using the ACER Collaboration Framework (Scoular et al., 2020), capturing aspects such as working with others, sharing responsibility, contributing to groupwork, and

managing and resolving conflict. Student engagement was measured using behavioural, emotional and cognitive indicators (Appleton et al., 2008; Fredericks et al., 2004) with observations conducted at the start, middle and end of the project iteration.

Quantitative findings indicated an improvement in both collaboration and engagement across the duration of the PBL project. Survey data and teacher observations show steady growth in key collaboration areas, particularly in students' ability to work with others, share responsibility, and contribute to group tasks (Scoular et al., 2020). Engagement data shows stronger gains in behavioural and emotional engagement than in cognitive engagement, with cognitive engagement improving more gradually. This pattern matches research showing that it can be harder for students to develop deep thinking over short project times (Fredericks et al., 2004).

Qualitative data were gathered through informal talanoa interviews (Vaioleti, 2006) and end-of-project oral interviews to capture student voice in a culturally responsive way. Data from multiple sources was triangulated to identify patterns and changes over time.

Qualitative findings supported and enriched the quantitative results. Through talanoa and end-of-project oral interviews, students reported higher motivation, increased enjoyment, and a stronger sense of working collaboratively with peers during the hands-on hydroponics project compared with traditional classroom activities. Students described the project as more meaningful and engaging, particularly valuing the opportunity to work together on authentic real-world tasks. These findings are consistent with literature demonstrating that PBL supports collaboration, engagement and real-world application (Bell, 2010; Geier et al., 2008), and that culturally responsive approaches such as talanoa strengthen trust and student voice (Vaioleti, 2006).

Overall the findings indicated that when PBL is implemented in a culturally responsive way it can enhance student collaboration and engagement. The combination of quantitative and qualitative evidence showed positive shifts in students' collaborative problem-solving skills, communication, and

participation. The project concluded with a whānau and community showcase of students' hydroponic and soil grown plants and the insights gathered informed the development of a sustainable PBL framework for a future Year 10 Horticulture unit and upcoming cross-curricular STEM collaborations.

This project gave me greater insight into how culturally responsive, project-based learning can meaningfully enhance student engagement and collaboration. I learned that when learning connects to real-life situations and values students' identities and voices, students participate more and feel genuine ownership. My teaching practice has shifted toward more student-centred, inquiry-driven approaches, supported by clearer scaffolds for collaboration and ongoing use of data to guide next steps. In terms of leadership, by drawing on relational values and culturally grounded approaches, I recognised leadership as the practice of empowering others rather than directing them, shaping my view that effective educators build trust, foster an inclusive environment and value students' cultural strengths within the classroom. More broadly the project highlights how relational, culturally grounded pedagogy and authentic learning can support educators across Aotearoa New Zealand to foster deeper engagement, critical thinking, and collaborative competence in diverse classrooms.

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About the Author

Adiel Adams is a Whanau Dean and Science and Horticulture teacher in a South Auckland secondary school. His professional interests centre on sustainable science education and fostering students' understanding of environmental guardianship. He is actively involved in Auckland's Trees for Survival programme, where students participate in hands-on conservation work that strengthens their knowledge of ecological restoration and kaitiakitanga.





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Climbing the Vines of Learning: Flipped and Blended Pedagogies

Lilomaiaava Joanne Ah-Sam

joanne.ahsam@gmail.com

"O le ala i le pule o le tautua" - The path to leadership is through service.

The purpose of my project was to enhance engagement and achievement for Maaori and Pasifika students by embedding flipped and blended learning within a culturally sustaining framework. My project aimed to improve engagement, ensure culturally responsive practice, and enable all aakonga to gain ten Level 1 NCEA credits in Year 11 Commerce. The work was grounded in my school's cultural and educational framework, Te Ara o Taawhaki, which frames learning as a collective ascent toward knowledge through the five pou: puukengatanga, rangatiratanga, whaanaungatanga, puumanawatanga, and ako. These principles shaped both the design and intent of the project.

Before the project, student engagement in Commerce was low, with learning often experienced as assessment-driven and disconnected from students' strengths and lived realities. Recognising that without changing how learning

was experienced, these patterns would persist, my project focused on re-energising teaching and learning by intentionally combining digital innovation with culturally sustaining practice, grounded in Te Ara o Taawhaki.

Flipped and blended learning provided a useful structure. In flipped learning, direct instruction occurs before class through short videos or guided notes, freeing class time for discussion and application (Bergmann & Sams, 2012). Blended learning integrates digital and face-to-face approaches to support flexibility and personalisation (Garrison & Vaughan, 2008). In my context, these models needed to honour culture first and technology second. The digital space became a platform for inclusion, enabling students to learn at their own pace while maintaining relational warmth and support. As Gay (2000) argues, culturally responsive teaching uses students' cultural characteristics and experiences as instruments for learning, a principle embedded across all activities and resources.

Three artefacts were designed: teacher resources, student pre-class materials, and student in-class learning activities. All resources were available in both digital and print formats, to ensure equitable access. Pre-class materials introduced core ideas, while class time focused on collaboration, analysis, and hands-on practice. Students engaged with local business contexts such as Hone's Market Garden, Latu's Otai Stall, and Tamalelei's family fundraiser, supporting meaningful connections between theory, culture and community.

Developing and refining these artefacts became an ongoing action research process. Guided by Lewin's (1946) cycle, I made iterative changes in response to student feedback. Talanoa sessions allowed students to share what supported their learning and what needed clarification. Many valued being able to review content before class, while others noted that group discussions or being taught in Samoan helped them feel recognised and included. These insights reinforced that engagement grows when learning affirms identity and relationships.

Collaboration was central to my project. Weekly talanoa with my study

partner supported focus, data validation, and reflective interpretation. Within school, I shared resources with colleagues new to NCEA and the New Zealand context. Informal “meet, eat and talanoa” sessions enabled shared problem-solving and exemplified ako in action, extending the project’s impact beyond my classroom.

Data from surveys, observations, and talanoa revealed clear patterns. Most students agreed that flipped and blended learning helped them feel supported, respected, and represented. Barriers included low motivation, content difficulty, and assessment overload, while teacher support and collaborative tasks sustained engagement. Several students noted that learning in Samoan or discussing ideas in their own languages supported understanding. These findings align with Bishop and Berryman’s (2009) assertion that mana-enhancing relationships and high expectations enable Maaori and Pasifika learners to succeed as themselves.

Outcomes were strong with 88 percent of students achieving the two internal Commerce standards, gaining the full 10 credits targeted. This suggests that when digital approaches are aligned with cultural values, engagement and achievement improve.

Reflecting on my journey, my practice has shifted. I now plan by first considering culture, language, and relationships, using technology intentionally to enhance rather than replace human connection. Te Ara o Taawhaki has become a living metaphor for our collective climb toward learning and wellbeing.

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About the Author

Lilomaiva Joanne is the eldest daughter of Ulugia Lote Ah Sam and the late Melegalenu'u To'alepaiali'i Ah Sam, proudly hailing from the villages of Satapuala, Vaiusu and Vaimoso in the "Heart of Polynesia", Samoa.



Born in Samoa and educated in Aotearoa, her love of travel took her to the United Kingdom. After 25+ years of "living lavidia loca" in London, Lilomaiva returned home to continue her teaching journey in South Auckland.

She currently serves the Manurewa community at the local high school as Head of Learning - Commerce, sharing her passion for Business/Commerce education, travel, reading, baking/cooking and sport.



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Using flipped and project-based learning to enhance English language acquisition for non-native secondary school learners in New Zealand

Heather Gail Anderson

heather.lereve@gmail.com

The purpose of this project was to evaluate the comparative efficacy of flipped learning (FL) versus project-based learning (PBL) instructional methodologies, as implemented by educators, in accelerating English Language acquisition among migrant and refugee students within a New Zealand secondary school English for Speakers of Other Languages (ESOL) context. This research specifically addressed the critical challenge these learners face: the necessity of acquiring approximately 5000 core vocabulary words within a three year timeframe - rather than the typical five years - to meet the vocabulary threshold necessary for gaining National Certificate of Educational Achievement (NCEA) credits or University Entrance (UE) literacy requirements. This demanding schedule is underscored by research indicating

that students beginning English acquisition in high school face a steeper learning curve, often requiring up to 5 years for conversational fluency and 7 to 10 years for academic proficiency (Hakuta et al., 2000). The success of these students is largely tied to the amount of formal schooling they received prior to migration.

The project goals centered on investigating the effectiveness of both Flipped Learning (FL) and Project-based Learning (PBL) pedagogical approaches, implemented by ESOL teachers, in enhancing vocabulary and comprehension skills among migrant and refugee students. The methodology employed was Design-Based Research (DBR), selected for its iterative, collaborative, and practice-based nature, which facilitates the co-construction of knowledge and the systematic introduction of new pedagogical interventions. The study was conducted across four cycles involving four participating teachers from three high schools. The initial Cycle 1 involved a needs assessment survey to identify significant gaps in teacher knowledge regarding modern methodologies. Based on these findings, the researcher provided explicit, hands-on workshops demonstrating how to use FL and PBL and integrate digital tools like Brisk AI and Google classroom. The DBR process then cycled through the implementation of the FL (Cycle 2a) and subsequently PBL (Cycle 2b), with continuous reflection and data collection (Cycles 3 and 4). The study used a mixed-method approach, collecting both quantitative data via Likert scale survey questions and rich qualitative data through reflections and anecdotal evidence.

The conclusions drawn from the data suggest that both FL and PBL learning methodologies are effective tools for improving learning outcomes, but they serve different pedagogical purposes, ultimately leading to the recommendation that the optimum program incorporates both styles. Flipped Learning (FL), which involves students accessing core material outside of class to free up class time for discussion and application (Bergmann & Sams, 2012), was viewed as highly effective for academic acceleration and independent study, making it appropriate for senior students focussed on high-stakes assessments like NCEA. Teachers reported that this “front-loading” reduced

students' cognitive load, leading to more confident participation. Conversely, Project-Based Learning (PBL) was identified as superior for driving oral communication, social integration and cultural adaptation (whanaungatanga). PBL was highly engaging for junior students, fostering confidence in speaking and allowing for cultural sharing, although it faced cultural resistance from some senior international students who viewed group work as "play" or a "waste of time" compared to exam-focused methods.

The insights gained are significant for practice, particularly in addressing systematic issues in professional development. A crucial finding was the significant gap in teacher education regarding these modern pedagogies, necessitating explicit, hands-on instruction and scaffolding. This finding reinforces the notion that a "transfer problem" exists between theoretical teacher education and the practical knowledge needed in the classroom, suggesting that effective teacher preparation must immerse educators in practice to allow for the creation of personal knowledge (Korthagen & Kessels, 1999). Technology is seen not as an optional supplement, but as a fundamental infrastructure for success, requiring teachers to be confident in using tools like Google classroom and AI for material creation and scaffolding. The research confirmed that the success of ESOL students is largely tied to two factors: provide ample opportunities to engage in authentic learning contexts and the necessary support (scaffolding) to do so in English (Hammond & Gibbons, 2005).

Moving forward, key insights involve mitigating the primary barriers reported by teachers: the heavy initial preparation workload and insufficient planning time. Strategies for sustainability include collaboration among peers to share resources and focussing on linking only one NCEA unit standard at a time to lessen the burden. A future direction is transferring the power of AI tools directly to students through "AI Protocols," empowering them to use tools like Gemini for self-correction and independent review, thereby fostering self-regulated learning. Ultimately, by equipping time-poor teachers with structured support and foundational knowledge of FL and PBL, educators can provide greater equity for migrant and refugee students, enabling them to achieve their

academic aspirations in New Zealand.

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About the Author

Heather Anderson is currently a Head of Department (ESOL) at a high school in Hamilton, Waikato. She has held this position for a year and has been teaching ESOL since 1996 in both Taiwan and New Zealand. She holds a Master of Contemporary Education and is passionate about equity for migrant and refugee students in secondary schools. Her professional interests lie in research backed methodologies to inform her practice and facilitating workshops to share ideas and co-construct knowledge.





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Kokopelli:Canvas **Relational Futures in Visual Arts Education**

Amber Bell

ambervbell@gmail.com

[linkedin.com/in/avbell](https://www.linkedin.com/in/avbell)

This practice-based project addresses concerns about the negative effects of standardisation, high-stakes assessment, and individual competition in contemporary secondary visual arts education in Aotearoa New Zealand. It explores how the visual arts might instead become a site of ceremony, belonging and ethical creativity for young people. To explore this question, I designed Kokopelli:Canvas, a speculative curricular framework that treats the art room as a relational learning whare rather than an assessment factory, and positions creativity as a shared practice of reciprocity, belonging, and collective flourishing (Cajete, 1994; Greene, 1995).

The purpose of the project was to reimagine visual arts education as a relational, culturally safe and ethically grounded space, particularly for learners

whose identities and stories are often marginalised in mainstream schooling. My goals were to develop a flexible curricular prototype for Year 10 art, create a suite of relational tools for teachers and students, and articulate an ethical framework that would support Indigenous-informed, relational research in future implementations of Kokopelli:Canvas. These goals were aligned with kaupapa Māori thinking, Indigenous methodologies and relational theories of leadership that understand education as a communal and ceremonial process rather than an individualised race (Smith, 2012; Wilson, 2008).

The project unfolded as a conceptual, design-based inquiry rather than an empirical classroom intervention. I drew on kaupapa Māori theory, arts-based inquiry and autoethnographic reflection to design Kokopelli:Canvas as a living framework adaptable to different school contexts while remaining ethically grounded (Smith, 2012; Ballengee-Morris & Staikidis, 2017). The work included creating a curriculum map, a relational lesson-planning template, visual diary structures, self-reflection instruments, ceremonial protocols for openings and closings, and a teacher-facing poster of core relational values. I also imagined how a Kokopelli:Canvas-aligned digital tool could scaffold ethical use of generative AI in the art room, supporting teachers in holding relational accountability while working with emergent technologies.

Because of ethical commitments to Indigenous methodologies and the constraints of the programme, no live participants were involved, and I did not collect empirical data. Instead, I modelled a hypothetical research design for future classroom-based iterations of Kokopelli:Canvas. This included conceptual pre- and post-project reflection surveys, visual and symbolic journaling, self-actualisation prompts that understand growth as relational and collective rather than purely individual, and ceremonial practices that frame each data moment as sacred, relational and non-extractive (Blackstock, 2011; Ivtzan, 2008). I considered how these imagined data sources might be interpreted through relational analysis, attending to patterns of connection with land, community and ancestry, shifts in creative agency, and changes in how students speak about story sovereignty, cultural safety and belonging.

From this design work, I drew several conclusions that relate directly to the

project goals and to existing literature. First, Kokopelli:Canvas suggested that when arts education is grounded in whakawhanaungatanga, ceremony and story honouring, it has strong potential to deepen relational awareness between students, their communities and the more-than-human world, consistent with relational accountability and ecological Indigenous education (Cajete, 1994; Wilson, 2008). Second, by foregrounding process, risk-taking, and imaginative “wide awakeness”, the framework supports a shift away from product-driven, correctness-focused art making toward more exploratory and ethically engaged creative practices (Greene, 1995). Third, the project highlighted the importance of protecting the sacred, acknowledging that not all stories or knowledges belong on the classroom wall, and that cultural safety requires ongoing consent, humility and responsiveness (Ballengee-Morris & Staikidis, 2017).

The project also identified likely tensions. Some students and teachers may initially struggle to release deeply ingrained hierarchies of success that privilege grades, tidy products and speed over inquiry and slow growth (Ings, 2017). There are real risks of tokenism or retraumatisation if Indigenous and culturally specific knowledges are taken up without proper relational accountability and community guidance. The slower, cyclical rhythms of ceremony and reflection may sit uncomfortably within assessment-driven school structures. These tensions affirm that relational change in arts education is as much about leadership, policy and school culture as it is about curriculum design.

Engaging in this project profoundly changed my own understanding of teaching and leadership. I came to see my role less as a manager of outcomes and more as a relational wayfinder who holds space for ceremony, experimentation and collective healing in the art room (Shields, 2010). The work has already begun to influence how I speak with colleagues about assessment, cultural safety and the role of story in our programmes, and it has provided concrete artefacts that can be adapted and shared. More broadly, Kokopelli:Canvas offers a practical example of how Indigenous methodologies, relational ethics and arts-based inquiry can be translated into classroom-ready

tools without losing their depth. Secondary visual arts education can contribute to wider educational transformation when each brushstroke, story and shared breath is treated as part of a living lineage. Essentially, this means co-creating learning that honours ancestors, nurtures creativity and orients young people toward reciprocity, belonging, and collective flourishing.

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About the Author

Amber Bell is a secondary visual arts educator and Master of Education candidate at AcademyEX. She holds a Bachelor of Fine Arts and has undertaken further training in Montessori and Steiner education, outdoor education and postgraduate study in digital and collaborative learning and leadership for change.

Her work centres relational and Indigenous-informed visual arts education and project-based learning in secondary school settings. Drawing on experience in schools in Aotearoa New Zealand and Southeast Asia, she is interested in how visual arts can foster belonging, cultural dignity, and collective well-being alongside multimodal forms of expression. Her current project, *Kokopelli:Canvas*, explores a relational, arts-based framework for secondary visual arts that weaves Indigenous knowledge, ceremony, and ethical engagement with emerging technologies into the contemporary art room.





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Master of Contemporary Education C16F Cohort

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AI in Aotearoa Classrooms: Supporting Senior Students' Literacy Through Flipped/Blended Learning

T. Pauline Dawson

pauline.dawson@hotmail.com

This practice-based project was implemented in an Aotearoa secondary school context with predominantly Māori and Pasifika learners. I sought to explore whether combining a Flipped/Blended classroom model with Artificial Intelligence (AI) tools could enhance motivation, engagement, and literacy outcomes for senior students. As a Year 11 Dean and teacher with direct involvement in the national rollout of the new NCEA Level 1 and CAA literacy testing, I witnessed a concerning decline in literacy pass rates for senior students. The purpose of this project was to address that challenge by testing whether integrating AI tools within a Flipped/Blended environment could re-engage students in reading and writing, while simultaneously informing professional development for teachers around safe and ethical AI use.

The project aimed to: design and implement a Flipped/Blended classroom

model with AI tools adaptable for teachers; build student understanding of the risks, benefits, and ethical use of AI; gather student voice to determine whether the model increased motivation and engagement in literacy; and compare student perspectives of traditional classrooms with the Flipped/Blended approach. Each goal aligned with the overarching purpose of improving literacy through engagement and motivation.

To achieve these aims, I adopted an action research approach, following Kemmis and McTaggart's (Kemmis & McTaggart, 2007) spiral of planning, acting, observing, and reflecting through six iterative cycles. The participatory and democratic nature of this methodology was well suited to the project's emphasis on student voice and collaboration with stakeholders. Participants included 15 students aged 15–18, and a team of senior leaders and English teachers who supported design and moderation. Data collection combined qualitative and quantitative methods, including Google Forms surveys, Padlet discussions, voice-recorded reflections, and focus group interviews. Quantitative data, such as baseline literacy achievement and CAA pass rates, contextualised the qualitative findings drawn from student observations and feedback.

During implementation, three workshops were designed within the Flipped/Blended framework. Students accessed online video content on AI ethics, safety, and academic integrity through platforms such as EdPuzzle and Waybound prior to in-person sessions. In workshops, they explored AI tools including LearnCoach, ChatGPT, and NotebookLM, with tasks focused on Māori and Pasifika myths to ensure cultural responsiveness. Each cycle concluded with reflection and revision, gradually refining the structure and content to enhance engagement and clarity.

Data were analysed using inductive thematic analysis, allowing themes to emerge from student voice rather than being predetermined. Findings aligned strongly with literature suggesting that AI and Flipped/Blended learning can improve motivation, engagement, and literacy (Bergmann & Sams, 2012; Behnamnia et al., 2024; Kokoç, 2023).

Students reported that AI tools such as LearnCoach supported reading comprehension, vocabulary building, and writing structure. LearnCoach's interactive features and instant feedback were particularly valued, echoing Hattie's (Hattie, 2009) emphasis on the power of feedback for achievement. In contrast, ChatGPT was described as helpful for generating ideas but less effective for sustained engagement due to its open-ended and text-based format. Students also emphasised that AI tools must be guided by teacher presence and feedback. This aligns with Kokoç's (Kokoç, 2023) observation that AI enhances learning only when teachers have the pedagogical skills and digital fluency to integrate it effectively.

A key insight was that students preferred a hybrid model, combining the relational and motivational aspects of traditional classrooms with the flexibility and autonomy of Flipped/Blended learning and AI tools. They valued being able to work at their own pace, revisit content, and catch up when absent — reflecting Bergmann and Sams' (Bergmann & Sams, 2012) argument that the Flipped model personalises learning and extends accessibility. However, they also highlighted that motivation was sustained through teacher relationships, feedback, and structure — an insight reinforcing that AI cannot replace human connection.

Ethical and cultural considerations were central to this study. While most participants gained awareness of how to use AI responsibly, some revealed uncertainty about what constituted ethical use, such as paraphrasing AI-generated text. This supports the PPTA's (PPTA, 2024) call for professional development around AI ethics and academic integrity in New Zealand schools. Cultural responsiveness emerged as a challenge: when students tested ChatGPT on Samoan myths, some noted inaccuracies and cultural inconsistencies, underscoring Huang's (Huang, 2023) concern that AI tools may reproduce bias and lack contextual understanding. This highlights the importance of including Indigenous and Pasifika perspectives in the design of AI educational resources.

The study's conclusions point to several key outcomes. Firstly, the combination of AI tools and Flipped/Blended learning has strong potential to

increase student motivation and engagement in literacy. Students' autonomy to control their learning pace, alongside interactive, feedback-driven digital platforms, created a sense of ownership and curiosity. Secondly, the teacher's role remains crucial in mediating technology use, providing feedback, and safeguarding cultural and ethical integrity. Thirdly, structured guidance and policy are essential for safe AI use in education, a gap identified by both students and teachers.

For practice, this project has deepened my understanding of how AI and Flipped/Blended pedagogy can coexist to create equitable, engaging learning environments for Aotearoa's diverse students. It has informed my leadership direction toward designing professional learning in AI literacy for teachers, including guidelines for academic integrity and culturally responsive use. Within my school, it has initiated dialogue among senior leaders on developing an AI policy and embedding Flipped/Blended approaches across departments. More broadly, this research contributes to the national conversation on how New Zealand can responsibly harness AI for inclusive education.

In conclusion, the project demonstrates that integrating AI tools within a Flipped/Blended framework can meaningfully support literacy and engagement when implemented ethically, culturally, and pedagogically soundly. It calls for a collective effort among educators, policymakers, and developers to bridge the digital divide, ensure cultural integrity, and equip teachers and students with the competencies needed to navigate the evolving landscape of AI-enhanced education.

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About the Author

Pauline Dawson is a secondary teacher & dean undertaking academyEX Masters of Contemporary Education in the 2025 cohort. Pauline is passionate about democratic, collaborative and relationship-based learning, teaching and leadership.





academyEX Executive Summary

Master of Contemporary Education C15P Cohort

Symposium 21 January 2026

Enhancing Food Technology Learning through Culturally Responsive Flipped and Blended Learning

Maryke Diplock

marykediplock@gmail.com

*Enhancing Student and Whānau Engagement through Culturally Responsive
Flipped and Blended Learning in Middle School Food Technology*

This practice-based change project investigated the impact of a culturally responsive Flipped and Blended Learning (FBL) approach on student engagement, learner ownership and Whānau involvement within a multicultural middle school Food Technology context in Aotearoa New Zealand. The project was situated in a Year 9 and 10 learning environment and emerged from sustained patterns observed in professional practice. While students

consistently demonstrated high levels of engagement, confidence and collaboration during practical cooking activities, engagement was noticeably inconsistent during theory-based learning, written reflection, and knowledge consolidation tasks. At the same time, Whānau involvement in student learning was largely limited to formal reporting mechanisms, providing limited visibility of learning processes, cultural knowledge and learner progress over time. These tensions highlighted the need to redesign pedagogy in ways that were culturally responsive, relational and inclusive of multiple forms of engagement.

The purpose of the project was to explore how integrating flipped learning, blended digital platforms and student blogging within a culturally responsive pedagogical framework could strengthen student engagement and relational connections between students, teachers and Whānau. Rather than positioning FBL as a technical strategy designed to improve efficiency or content delivery, the project reframed it as a relational and equity-oriented pedagogy that foregrounds learner voice, cultural identity and learning visibility (Gay, 2018). This stance was informed by Aotearoa New Zealand-based research that emphasises culturally responsive relationships, power-sharing and partnership with learners and their whānau as central to educational improvement (Bishop & Berryman, 2010).

The project goals were to increase student engagement and ownership of learning, affirm cultural identity within Food Technology learning, strengthen Whānau involvement through increased visibility and accessibility and develop my own professional practice as a culturally responsive practitioner. These goals were enacted through a critical participatory action research methodology, allowing for iterative cycles of planning, action, observation and reflection across four school terms (Kemmis, McTaggart, & Nixon, 2014). Action research was deliberately selected to support responsive decision-making and to position learners, Whānau, and practitioner reflection as central to the change process rather than as peripheral sources of data.

Across four action research cycles, flipped instructional content was delivered through a dedicated learning site to support preparedness, confidence and equitable access to learning. Blended learning was scaffolded

using digital platforms to structure learning tasks, provide timely formative feedback, and support differentiation. Student blogging was introduced as a core pedagogical tool to support reflection, cultural storytelling, and learning visibility. Blogging functioned as both a learning artefact and a mechanism for sharing learning beyond the classroom, enabling Whānau to view and engage with student learning in informal and accessible ways. The fourth iteration extended learning into the community through a Cultural Food Festival, where students and Whānau collaboratively planned, prepared and shared culturally significant food in a collective setting.

Findings indicated that student engagement increased when learning was culturally meaningful, relationally designed, and visible. Blogging supported learner ownership by providing students with opportunities to articulate learning in their own voices and to connect classroom experiences with family food practices and cultural narratives (Gay, 2018). Over time, student reflections became more confident, detailed and purposeful. Flipped learning enhanced preparedness and confidence when expectations were explicitly taught and supported in class, aligning with foundational flipped learning principles that emphasise intentional pedagogical design rather than independent consumption of content (Bergmann & Sams, 2012).

Although Whānau surveys received limited written response, triangulated evidence demonstrated meaningful engagement through learning visibility, informal conversations and strong attendance at the Cultural Food Festival. This challenged deficit assumptions about Whānau engagement and reinforced the importance of recognising relational and culturally grounded forms of participation that may not always be captured through traditional feedback mechanisms (Bishop & Berryman, 2010). The festival marked a shift from digital visibility to embodied participation, reinforcing the value of community-based learning experiences as a legitimate and powerful form of engagement.

Key insights from the project include recognising engagement as a relational and contextual phenomenon, understanding digital tools as relational bridges rather than compliance mechanisms and acknowledging that culturally responsive practice must be sustained and cumulative rather than episodic.

Professionally, the project prompted significant shifts in how learning is designed for visibility, how engagement is interpreted ethically and how assessment practices can honour multiple ways of knowing.

The significance of this work lies in its contribution to practitioner-led inquiry that integrates culturally responsive pedagogy with digitally supported learning in a practical curriculum area. While the findings are context-specific, the project offers transferable principles for educators seeking to design equitable, relational and culturally sustaining learning environments. Findings have been shared through professional learning groups, national technology education forums and school-based professional learning, supporting broader professional impact.

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About the Author

Maryke Diplock is a Food Technology and Hospitality teacher based in Aotearoa New Zealand (South-Island, West-Coast), with experience teaching culturally diverse learners in both South Africa and New Zealand. Her professional interests include culturally responsive pedagogy, digital learning design, student engagement and Whānau partnership.





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Master of Contemporary Education C14P Cohort

Symposium 21 January 2026

Enhance Critical Thinking using STEAM and Problem-Based Learning

Marleen George

mgeorge@sehc.school.nz

"Mā te kimi ka kite, Mā te kite ka mōhio, Mā te mōhio ka mārama."

*Seek and discover. Discover and know. Know and become
enlightened.*

My name is Marleen George, and for the past 11 years, I have been a Year 7 and 8 teacher in a school with a predominantly Māori and Pasifika demographic. The primary goal of this project was to assess and compare the effectiveness of two distinct pedagogical approaches - STEAM (Science, Technology, Engineering, Arts, and Mathematics) and Problem-Based Learning (PBL) - in improving the critical thinking skills of my Year 8 class.

This project was strategically structured using an Action Research methodology, which is distinguished by its iterative, cyclical nature: Plan, Act, Observe, and Reflect. This framework was ideal for a practitioner-led inquiry, as it empowered me to systematically test, refine, and improve my teaching

practice based on direct classroom evidence. The project unfolded across two distinct six-week cycles, each focused on a different pedagogical approach.

The first six-week cycle implemented an interdisciplinary STEAM framework. The primary goal of this initial cycle was to build foundational competencies in collaboration and creative problem-solving. Students engaged in hands-on, collaborative activities, such as creating digital ecosystem prototypes in TinkerCad and Minecraft, and building Scratch games that translated biological concepts into computational logic. They demonstrated significant growth in their ability to work in teams and approach problems from multiple perspectives.

However, reflecting on this cycle revealed a crucial limitation. While the STEAM approach successfully fostered creativity, I had to critique the assumption that an open-ended project was inherently sufficient for deep learning. This presented a "living contradiction" in my practice: I valued deep, analytical thinking but had employed a methodology that primarily fostered surface-level creativity. This gap in my own pedagogy became the central focus of my inquiry, demanding a purposeful adaptation for the next phase of the research.

The second six-week cycle was a direct response to this finding, employing a more focused Problem-Based Learning (PBL) methodology. This approach was selected for its literature-backed strength in developing discrete analytical skills. The project was centered on a tangible, real-world problem: the regeneration of a failed school garden. This authentic challenge required students to move beyond creative exploration and engage in critical analysis, such as analysing soil chemistry, and systematic evaluation by comparing solutions based on sustainability and cost.

To gain a comprehensive understanding of the project's impact, I carried out a mixed-methods research design. Combining quantitative and qualitative data was essential for capturing both the measurable changes in student skills and the nuanced processes of their learning and development.

The synthesis of the quantitative and qualitative data provided clear answers

to the project's guiding research questions and yielded insights that connect directly to the established literature on critical thinking.

The primary finding is that both STEAM and PBL are highly effective pedagogies for developing critical thinking, but they achieve this through different strengths. The data confirmed that PBL's process-driven approach, which uses "messy," ill-structured problems, is particularly powerful for compelling students to engage in deep analysis and evaluation. STEAM's transdisciplinary, integration-driven approach proved exceptional at fostering creative synthesis, challenging students to integrate knowledge from disparate fields to create innovative solutions.

Several specific pedagogical components emerged as being most effective in driving student success:

1. Small-group collaboration, which forced students to articulate and defend their reasoning.
2. The use of authentic, real-world problems, such as the regeneration of a failed school garden, which required students to analyse soil chemistry and evaluate solutions based on sustainability and cost.
3. The explicit teaching of discrete skills like critical listening, critical reading, and the use of Socratic questioning to probe assumptions.

The data also illuminated key challenges students faced. These included a lack of metacognitive skills for accurate self-assessment, a tendency to offer conclusions without providing supporting evidence, and a lack of confidence that manifested in dismissive responses like "nah, I don't know" and what Bishop (2019) describes as "secret feelings of inadequacy." To address these challenges, I learned the critical importance of providing explicit scaffolding, modeling critical thinking processes aloud, and cultivating a safe, "extended family-like context" (Bishop, 2019) where students feel psychologically secure enough to take intellectual risks.

The ultimate value of this project extends beyond its specific findings. By engaging in systematic self-study, I generated what McNiff and Whitehead (2003) call a "living educational theory" - a form of personal professional knowledge derived from and validated by reflective practice. This outcome holds significance for my own practice, for my colleagues, and for the wider

educational field.

On a personal level, this project prompted a fundamental shift in my practice—from a focus on content delivery to the intentional cultivation of a growth mindset within a culturally responsive learning environment. It also transformed my approach to assessment, moving me away from product-focused evaluation toward process-focused tools like the Critical Thinking Rubric, which measures the quality of inquiry and argumentation rather than just a final answer.

For my colleagues and school community, this research offers a direct comparative analysis of STEAM versus PBL, addressing a gap in the literature. The findings provide evidence that structured PBL is superior for systematically developing discrete critical thinking skills, while STEAM excels at fostering creativity. Furthermore, the project produced a practical toolkit, including a shareable rubric, that can support other educators in their own classrooms.

Finally, this project contributes to the broader field of education by affirming a crucial principle: pedagogical tools are only effective when implemented within a safe, supportive, and culturally responsive classroom culture. It serves as a model for practitioner-led action research, demonstrating how educators can be empowered to generate valid, contextual knowledge from their own practice to improve student outcomes.

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About the Author

Marleen George currently works as a teacher at an intermediate school in South Auckland, the same intermediate school she used to attend back in 2003 and 2004. She was trained as a teacher at the University of Auckland from 2012 to 2014, where she graduated with a Bachelor of Education (Primary Specialisation). She started teaching in 2015, and has over 11 years as a classroom teacher, and has had many roles, including being in charge



of the Literacy, Digital Technologies, Sustainability, and a Within School lead as part of her school's Kahui Ako. She has established a passion for the integration of digital technologies across the curriculum and a love for sustainable approaches to enhance learning.



academyEX Executive Summary

Master of Contemporary Education C15P Cohort

Symposium 21 January 2026

Future-Focused Kaiako: UDL, AI, and Mentoring

Andrew Hancock

andrewhancock.researchnz@gmail.com

“Ehara taku toa i te toa takitahi, engari he toa takitini.”

My strength is not that of an individual, but that of the collective

This project examined how Universal Design for Learning (UDL), adaptive and AI-enabled technology, and mentoring could be combined to support teachers in Aotearoa New Zealand to design learning that is inclusive, culturally responsive, and sustainable in practice. The inquiry was situated within my professional context as a secondary school ESOL and Learning Support teacher working with multilingual and neurodiverse learners in an East Auckland secondary school.

The project addressed a challenge evident within the researcher's secondary school context. While many teachers value inclusive and culturally responsive practice, workload pressure, cognitive load, and uncertainty around emerging disruptive technologies can limit their capacity to enact these

principles consistently. The purpose of the project was to examine whether micro, co-designed mentoring cycles, supported by bespoke AI-enabled tools, could strengthen teacher agency and support the practical enactment of UDL in everyday classroom design (CAST, 2018).

The project employed a Design-Based Research (DBR) methodology, incorporating principles of co-design to iteratively develop, trial, and refine a UDL-informed mentoring and AI workflow in authentic school contexts (McKenney & Reeves, 2019). DBR was selected because the focus of the inquiry was on improving practice through iterative refinement rather than evaluating a fixed intervention. The project was conducted over several months and involved eleven teachers, including the researcher. Participation was deliberately flexible and aligned with UDL principles, allowing teachers to engage in ways that suited their workload, confidence, and preferred modes of professional learning.

Data were collected through two surveys, semi-structured interviews, informal mentoring dialogue, interactions within a shared Slack channel, and the researcher's reflective log. Quantitative data were analysed descriptively, while qualitative data were examined using inductive thematic analysis to identify patterns across participant responses and reflective records. This mixed-methods approach supported a nuanced understanding of teacher experiences and perceptions within the inquiry.

Findings indicated that participating teachers already held strong commitments to inclusive practice but often had trouble translating these commitments into consistent classroom design decisions. AI-enabled tools did not generate new pedagogical ideas; rather, they reduced cognitive and workload barriers associated with low-level production tasks. This reduction in cognitive load enabled teachers to engage more deliberately in reflective and intentional learning design aligned with UDL principles (CAST, 2018). The findings also highlighted the importance of relational, context-aware mentoring. Bespoke mentoring conversations, grounded in familiar teacher language and local contexts, appeared to strengthen confidence and professional agency, aligning with research on reflective coaching and culturally responsive practice

in Aotearoa New Zealand (Basham & Koehler, 2022; Macfarlane et al., 2018). While teachers' confidence in using AI increased, participants maintained appropriate caution regarding accuracy and ethical use, reinforcing the importance of human judgement and professional oversight (Duan, 2024).

The most significant outcome of the project was a shift in teacher self-perception. Participants described feeling more like designers of learning rather than deliverers of content. This project did not measure student achievement outcomes; rather, it functioned as a cyclical pedagogical inquiry focused on how teachers design for learning. The primary change observed was a shift in mindset towards taking small, manageable steps and viewing professional growth as iterative rather than immediate.

A key professional insight from the project was that UDL capability develops most effectively through relational, supported experimentation rather than through theoretical knowledge alone. When cognitive overload is reduced, teachers are better positioned to draw on cultural knowledge, professional judgement, and existing pedagogical expertise. This reinforced the importance of positioning AI and other disruptive technologies within values-based mentoring relationships, rather than treating them as stand-alone solutions. Within this project, UDL functioned most effectively as an attitude guiding practice rather than as a checklist of strategies. The approach trialled demonstrates potential as a sustainable model for professional learning and development in Aotearoa New Zealand secondary education.

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About the Author

Andrew (Andy) Hancock is an experienced secondary school ESOL and Learning Support teacher based in East Auckland, Aotearoa New Zealand. He works at Howick College supporting multilingual learners and neurodiverse students across junior and senior levels, with a particular focus on Universal Design for Learning (UDL) and culturally responsive practice. Andy has held a range of leadership roles including Dean, Head of Department, and mentor for provisionally certified teachers. He has also worked overseas as a teaching consultant in the United Arab Emirates (UAE) and taught in England earlier in his career.



His professional interests centre on teacher agency, mentoring, inclusive curriculum design, and the ethical use of adaptive and AI-enabled technologies to lift confidence and reduce workload for teachers. Andy is currently completing the Master of Contemporary Education through Academy EX, with a research kaupapa grounded in collaborative design, relationship-based practice, and practical pathways for UDL implementation in real classrooms



academyEX Executive Summary

Master of Contemporary Education C16F Cohort

Symposium 21 January 2026

The Impact of Gamified Physical Activity Breaks on Student Engagement in Year 8 Classrooms

Daniel Harrington

dharrington@breambaycollege.school.nz

This practice-based change project explored whether short, gamified physical activity breaks could meaningfully enhance behavioural, emotional, and cognitive engagement for Year 8 students at Bream Bay College. The initiative stemmed from a recognised need to address declining on-task behaviour, fluctuating motivation levels, and reduced emotional investment in learning among early adolescents. Over a 15-week period, the project aimed not only to test the effectiveness of gamified activity breaks but also to design a replicable model that could be shared with other teachers across the school and potentially within wider educational networks.

A review of the literature highlights the strong connection between physical inactivity and reduced engagement, attention, and academic readiness in adolescents. Regular physical activity has been shown to improve mood, focus,

and participation, particularly in learning environments that demand sustained concentration. However, research indicates that the addition of gamification—the use of game elements such as challenge, competition, reward, and collaboration—can significantly increase motivation and sustain students' interest in learning interventions over longer periods (Deterding et al., 2011). Fredricks et al.'s (2011) three-part model of student engagement guided the project's analytical framework, providing a clear structure for examining shifts in behaviour, emotion, and cognition. Australasian research on activity-based learning (Watson et al., 2017) further informed the design of the activity breaks, particularly the expectation that short bursts of movement can positively influence learners' readiness to re-engage with their learning.

The project was grounded in Kemmis and McTaggart's Action Research Spiral Model, which emphasises iterative cycles of planning, acting, observing, and reflecting. This model allowed the intervention to evolve responsively over three five-week cycles. Each cycle introduced refinements based on observational data, teacher feedback, and student voice. A mixed-methods approach was employed to strengthen the validity of the findings. Quantitative data were collected through structured classroom observations focusing on on-task behaviour, transitions, disruptions, and the level of student participation. Qualitative data came from student reflections, teacher notes, informal interviews, and group discussions, offering insights into emotional responses, motivation, and perceived cognitive benefits.

To support sustainability and teacher uptake, a digital artefact was developed using Google Sites. This platform has a collection of gamified physical activity breaks, video demonstrations, clear instructions, and guidance for adapting activities for different classes. The site also functioned as a record of learning and a professional resource for staff, ensuring that the intervention could continue beyond the research timeframe.

Findings indicated clear improvements in student engagement across all three domains. Behaviourally, students exhibited increased participation during learning tasks following the activity breaks. Teachers observed smoother transitions back into academic work, fewer off-task conversations, and a

noticeable decline in low-level disruptive behaviour. Students who typically struggled to sustain attention showed improved focus in the 15 minutes following each break.

Emotionally, students frequently reported feeling “more awake,” “energised,” “motivated,” and “ready to learn.” These emotional shifts were particularly significant for learners who often disengaged due to frustration or low confidence. The competitive and collaborative dynamics of the gamified tasks—such as earning points, working as a team, and completing time-based challenges—helped generate positive classroom energy and fostered a supportive environment where students encouraged one another.

Cognitively, students demonstrated deeper engagement with complex tasks following the breaks. Teachers noted improved problem-solving, increased willingness to attempt challenging activities, and greater resilience when encountering difficulty. Students themselves reported that the activity breaks “cleared their head,” “helped reset their brain,” or “made it easier to think.”

A key focus of the project was cultural responsiveness. Activities were intentionally designed to be inclusive, strengths-based, and adaptable, ensuring full participation for Māori and Pasifika learners. Drawing on culturally sustaining principles, the activity breaks emphasised tuakana-teina partnerships, collaboration, and opportunities for students to lead. Allowing students to choose or create elements of the games strengthened their sense of agency and belonging. The intervention also aligned with Universal Design for Learning principles, providing multiple ways for students to engage physically and socially, regardless of fitness level or confidence.

Leadership and collaboration played a crucial role. Ongoing dialogue with colleagues ensured the intervention responded to student needs and worked within the realities of classroom practice. Teachers trialled the activities, shared observations, and contributed suggestions for improvement. This collective approach strengthened professional trust and supported the development of a shared understanding of how movement and gamification can enhance learning.

Overall, the project demonstrates that short, structured, gamified physical activity breaks are a low-cost, high-impact strategy for improving student engagement. When embedded intentionally and supported by culturally responsive design, these breaks promote motivation, focus, and positive classroom culture. The findings offer practical, evidence-informed strategies that educators can use to design more dynamic, inclusive, and engaging learning environments for diverse learners.

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Project Deliverable: [Gamified Physical Activity Breaks](#)

About the Author

Daniel Harrington is Head of faculty in Physical Education and Health at Bream Bay College. He holds a Bachelor of Education from the University of Canterbury. Daniel has a passion for educational technology, physical well-being, and innovative teaching practices. He is currently completing his Masters in Contemporary Education at AcademyEX focusing on how gamified physical activity breaks can improve student engagement.





Academy EX Executive Summary

Master of Contemporary Education C15P Cohort

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The Impact of Generative AI on Student Engagement

Ashleigh Hoyland

ashmartin20@gmail.com

He aha te mea nui o te ao? He tangata, he tangata, he tangata.

This practice-based change project investigated how generative artificial intelligence (AI) could be meaningfully integrated into NCEA English classrooms in Aotearoa to foster student engagement without compromising authentic skill development. The work emerged from growing curiosity and concern about AI's role in education. As a teacher, I observed that conversations about AI were often emotionally charged and polarised, yet rarely informed by research. Some colleagues viewed AI as revolutionary, while others feared it would encourage laziness or render teachers obsolete. I wanted to move beyond opinion to evidence, exploring what happens when generative AI tools are used thoughtfully to support learning rather than replace it (van Rensburg & Reedy, 2024).

The project aimed to evaluate how generative AI could influence cognitive, emotional, behavioural, and agentic aspects of student engagement within an NCEA English context (Christenson et al., 2012; Reeve & Tseng, 2011). My goal was to develop practical guidelines to help English teachers use generative AI to promote reflection, feedback literacy, and agency while upholding assessment integrity. The guiding questions asked what impact generative AI might have on student engagement, how it could be used to enhance skill development, and how it might be ethically and effectively incorporated into classroom practice.

An action research approach was used, involving cycles of planning, implementation, reflection, and adaptation across three school terms (McNiff & Whitehead, 2005). 21 students in my Year 12 and Year 13 English classes participated, with input and oversight from my colleagues and school leaders. The project began with the collection of baseline engagement data, using a modified version of Gunuc and Kuzu's (2015) engagement scale. Students then began interacting with generative AI through structured prompts that encouraged them to analyse model essays produced by generative AI, discuss their quality, and apply feedback strategies to their own work. This early phase focused on building students' critical literacy and feedback skills rather than content generation, setting a foundation for reflective engagement (Jauhiainen & Guerra, 2023).

In Term 2, students used School AI's Sidekick, a generative AI tool trained on NCEA English rubrics, to receive formative feedback on their drafts. This approach aimed to combine the efficiency of generative AI feedback with the relational dialogue of teacher conferencing. Students appreciated the immediacy and clarity of generative AI responses but emphasised that teacher feedback provided essential empathy, context, and depth (Christenson et al., 2012). Most preferred using both, viewing generative AI as a useful starting point rather than a replacement for human interaction.

In Term 3, I explored generative AI's potential to build collaboration and emotional engagement through a podcast project using NotebookLM. When access to the tool was restricted, I adapted by producing the podcasts myself.

Students valued them as revision aids but reported little increase in connection with peers, highlighting generative AI's limitations in fostering whanaungatanga and belonging (Bishop, 2019).

By Term 4, interviews revealed consistent patterns. Students found generative AI helpful for generating ideas and receiving quick feedback, supporting cognitive and behavioural engagement (Jauhiainen & Guerra, 2023). However, emotional engagement and agency were mixed; some felt empowered, while others found generative AI impersonal or demanding. Most concluded that generative AI should support, but never replace, human teaching and feedback.

The findings show that generative AI can enhance motivation, efficiency, and self-regulation when used appropriately, particularly for students who struggle with confidence or time management. However, its impact is far more limited when it comes to emotional connection and relational trust. Generative AI can provide immediate, unbiased feedback, but it cannot replicate the empathy, cultural responsiveness, and relational depth that underpin effective teaching (Bishop, 2019). In this sense, the project reaffirmed the teacher's role as irreplaceable, even as new technologies reshape how feedback and learning occur.

The study offers important insights for classroom practice. It suggests that AI is most effective when used moderately and intentionally, particularly for formative feedback rather than summative assessment. It also highlights the importance of teacher mediation: students need help interpreting and applying AI feedback critically. When used well, AI can democratise access to consistent, high-quality feedback and support cognitive engagement (van Rensburg & Reedy, 2024). While increased cognitive engagement may theoretically provide pathways to emotional and behavioural engagement, this study observed no discernible impact on these dimensions, nor did students report any.

This work contributes to a growing body of understanding about how technology can be ethically and effectively embedded in education. It calls for

teacher-led innovation that honours local context, cultural values, and the human relationships at the heart of learning (Bishop, 2019). Ultimately, the project repositions AI not as an educational revolution, but as a tool to support cognitive engagement in reflection, feedback, and empowerment. When used wisely, it can help students become more active, thoughtful, and cognitively engaged learners, even if effects on emotional or behavioural engagement remain limited, but without careful guidance, AI risks fostering dependence or isolation.

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About the Author

Ashleigh has been wrangling words and teenagers as a secondary English teacher for the past decade, and she loves it. Getting to support the future generations, year after year, brings her immense joy. Deeply committed to evidence-based teaching, she knows there's too much at stake to rely on guesswork, especially in a world that seems to change by the minute. Over the past 2.5 years, Ashleigh has enjoyed the challenge (and occasional chaos) of completing her masters, all while continuing to do what she loves: helping students find their voice. When she's not in the classroom, you'll likely find her on the squash court, at a concert, or getting outdoors with her husband and their much-loved dog.





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Master of Contemporary Education C15P Cohort

Symposium 21 January 2026

Enhancing effective collaboration using blended learning to improve students' results in a Level 2 (Year 12) Tourism Class – An Action Research Approach

Maria Iki

ikimaria24@gmail.com

Secondary students are at a crucial point in their journey. They must make decisions about their future and what kind of career they want to pursue. A lot of the skills that they will take into their respective career paths are developed during their time at school. Skills like collaboration are developed in the group work they do in class and the way they navigate those situations. However, times are changing and student learning is shifting as well. Our role as teachers means that it is our responsibility to make sure that learning does not stop for our students. It is like the saying, *"modern problems require modern solutions"*.

The purpose of this project was to investigate how blended learning can enhance collaboration among students to improve overall academic achievement, in the context of a NCEA Level 2 Tourism class, at James Cook

High School in Manurewa. This is in response to observed concerns of uneven participation in group work, over-reliance on teachers, a lack of appropriate culturally responsive support for Māori and Pacific students in the classroom.

As such, blended learning has become the new path forward, allowing learning to extend beyond the classroom. Blended learning is the combination of online learning and traditional learning to allow students the opportunity to learn both in class and online.

The project aimed to (a) enhance students' collaboration skills through group work using the ACER Collaboration framework (Scoular et al., 2020) , (b) increase engagement and achievement in Level 2 Tourism through blended learning tasks, and (c) build students' confidence and ownership of their own learning. An additional goal was to use culturally responsive practices like Talanoa to empower and support Māori and Pacific students.

A mixed method approach of both qualitative and quantitative was used and guided by the Violetti's (2016) Talanoa Research Methodology (TRM), as well as the ACER Framework by Scoular et al., (2020). These methodologies and frameworks focused on encouraging collaboration through open dialogue and Talanoa. Two iterations were carried out, first to implement the use of blended learning to enhance collaboration. There were twelve (12) female consented participants but by the time the first iteration started, three had left school. One left at the end of the first iteration.

Eight key themes were identified by thematic analysis: (1) Flexible and Accessible learning, (2) Enhanced Communication, (3) Increased Engagement Through Interactive Tools, (4) Building Relational Trusts and Cultural Responsiveness, (5) Teacher Facilitation and Support. These themes were then analysed and showed that blended learning both encouraged engagement and enabled students to collaborate face-to-face in the classroom and online in ways that build communication, teamwork, and digital literacy (Garrison & Vaughan, 2008). Overall, this project demonstrated how creating group activities encouraged collaboration and supported overall academic achievement.

This project showed that deliberately designed blended learning can meaningfully enhance collaboration in the classroom and contribute to improving academic success for most participating students. In the initial stages, students were reluctant to contribute and spent more time off-task; however, in later stages they contributed more evenly to the work, shared responsibility, and worked comfortably with peers, even creating new relationships through their work. Observation rubrics, student reflections, and survey data showed that collaboration became normalised, with students reporting that group work helped them understand content better and they were more willing to communicate and negotiate roles within their groups.

This shift was supported by an overall increase in academic achievement, with several students completing all four tourism unit standards and others making considerable progress towards NCEA Level 2, which suggests that collaboration positively influenced task completion and assessment results. The various methods used in this project like the ACER Collaboration Skill Development Framework (Scoular et al., 2020), blended tasks, and Talanoa-based dialogue confirmed that collaboration is a teachable, scaffoldable skill that can be developed when supported by structured activities and culturally responsive facilitation.

This project also highlighted challenges, including literacy demands of the workbook, digital access issues, and students' need for explicit teacher facilitation to address non-contribution and ensure that collaborative work remains productive and inclusive. Another key insight was that collaboration does not work by simply putting students in groups, but rather through intentional design of tasks that make interdependence necessary. Activities like 'Amazing Race' and 'Scavenger Hunt' created reasons for students to talk, negotiate, and co-construct understanding. When paired with a blended structure, this gave students multiple points of learning, which benefitted shy students and those who prefer digital interaction, while still maintaining the relational strength of in-person Talanoa. This project also showed how powerful a culturally responsive approach is for Māori and Pacific students, especially, which allowed for students to engage more openly, sharing and

finding commonalities among their peers. This relational trust was the foundation for students to begin taking more responsibility for their learning and their groups' learning, with the teacher facilitation taking a secondary, more supervisory role.

In terms of practice, this project highlighted the importance of combining structured collaboration frameworks, like ACER (Scoular et al., 2020), with culturally grounded methods (such as Talanoa) when designing blended learning in senior classrooms. This is especially relevant in schools like James Cook High School, which are low decile and culturally diverse. This suggests that teachers can improve engagement and achievement by building in regular interactive group tasks alongside workbooks, teaching collaboration skills, using observation rubrics and student voice to track growth, and creating shared resource booklets that support both teachers and students in sustaining collaborative, blended learning beyond a single project.

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About the Author

Maria Iki is a Secondary School teacher at James Cook High School. She is a committed Christian and has been the church's general secretary for ten years now. Maria is passionate about Sunday school, and she is one of the curriculum writers and examiners/markers. She also runs her own homework centre in her garage, and it is free to both primary and secondary students from church. She likes reading, singing karaoke and hanging out with friends. Her children are her biggest supporters





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Master of Contemporary Education C16F Cohort

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Designing a Lateral Engagement Assessment for Learners with Complex and Profound Multiple Learning Difficulties

Bharath Rao Kappet

bharathk@cass.school.nz

The project set out to create a lateral, non-linear assessment system to better capture and support engagement for learners with complex learning difficulties (CLD) and profound and multiple learning difficulties (PMLD). It emerged from recognising that existing linear assessment models used in many New Zealand special schools often fail to reflect the unique cyclical ways these learners engage with learning.

Progress is assumed to occur along a continuum of skills, an approach that excludes learners whose engagement and learning do not follow linear trajectories. The purpose of this project was therefore to design and trial an inclusive, meaningful, and culturally responsive alternative that values lateral growth, recognising engagement as dynamic, relational, and context dependent.

The goal was to develop and implement a working prototype of a Lateral Engagement Assessment and Progression Steps (**LEAPS**) system that measured how learners deepen, revisit, and refine skills rather than simply moving to “next steps.” LEAPS challenges deficit-based assumptions about CLD/PMLD learners by positioning engagement as a sign of agency, curiosity, and communication rather than compliance or performance. The project also sought to promote teacher collaboration and moderation, ensuring that assessment became a collective professional dialogue rather than an isolated act of judgement.

To achieve these goals, the project was designed as a mixed-methods action research study undertaken across three iterative cycles in 2 classrooms, with 2 students participants each – a short pilot (2 weeks), a main cycle (10 weeks), and a follow-up (5 weeks). Action research was chosen because it allowed continuous reflection, collaboration, and adaptation in real classroom contexts. Data were gathered from teacher interviews, questionnaires, video observations, and student engagement analyses, enabling triangulation between teacher perceptions and observable student behaviour. The participants included teachers from my own school and other New Zealand special schools who worked with CLD/PMLD students.

The assessment activities were delivered through digital play and gamification **sessions**, using multisensory switch-activated games to facilitate shared engagement between teacher and learner. Each session lasted five to ten minutes and focused on a single learner’s existing skill.

The LEAPS framework, inspired by pre-formal and informal curricula (Imray et al., 2024) and the theory of lateral progression (Sissons, 2024) visualised goals as being interconnected, showing how learners could move laterally between related skills rather than up or forward. Engagement was recorded using structured observation sheets, observing video recordings of **sessions** categorising behaviours as active, partial, or non-engaged, and these observations were later converted into graphs showing changes in engagement over time.

The data revealed that engagement for CLD/PMLD learners is highly individual and situational, influenced by health, mood, environment, and relationships. Across both classrooms, the graphs confirmed that progression of engagement was non-linear, characterised by peaks and regressions, and steady growth depending on context. e.g., one student's active participation doubled over the study, while two others' fluctuated with health events, and the last remained stable showing slight progress. These patterns reflected teachers' reports submitted through the LEAPS website and validated the value of repeated observation and moderation.

Teachers from all groups acknowledged that existing tools such as ABLES, or P-Scales were useful but inadequate for representing meaningful learning for complex learners. They agreed that engagement looks different for every student and cannot be captured by standardised tools. They valued the flexibility of LEAPS, particularly its ability to record qualitative change of how learners used, transferred, and generalised their skills across contexts. Collaboration was central to the process. Teachers and learning assistants co-moderated video evidence, reducing subjectivity and strengthening the credibility of findings. This collective approach demonstrated that reliable assessment can emerge from shared interpretation rather than numerical scoring. A mid-iteration and final iteration assessment was also done to check whether the students had mastered their skills or not, which was recorded on the purpose-built LEAPS website.

From a leadership perspective, the project embodied an agile and collaborative approach to change. Drawing on Goleman's (2000) leadership styles and Kotter's (1996) model of building coalitions allowed to foster trust, reduce resistance, and encouraged staff ownership of the new system. Consultation with external schools broadened perspectives, while distributed leadership within the classroom empowered teachers and learning assistants to co-create solutions. These practices cultivated a professional culture of reflection, moderation, and shared responsibility for engagement assessment.

The project was also grounded in culturally responsive practice. Guided by the Educultural Wheel (MoE, 2015) and Kaupapa Māori principles such as

whanaungatanga, manaakitanga, and tino rangatiratanga, LEAPS recognised learning as relational, cyclical, and holistic. It upheld students' dignity and autonomy, positioning them as active participants in their learning rather than passive recipients. The lateral, cyclical nature of the assessment mirrored Māori worldviews that resist linear hierarchies and values holistic growth.

Technology was used to make the activities accessible and bridge towards engagement. Shared engagement through digital play allowed learners with limited physical access to demonstrate agency through switch operated accessible technology and cause-and-effect actions. These interactions supported multimodal communication (Burkhart, 2024) and multisensory learning, aligning with research showing that combining visual, auditory, and tactile stimuli enhances attention and memory for learners with additional needs (Sanfilippo et al., 2022). Video recording also facilitated reflective practice and peer moderation, strengthening the reliability of teacher assessments.

The conclusions drawn confirmed that the progress of engagement cannot be measured in fixed increments, but observed over time, interpreted collaboratively, and understood in context. Lateral assessment, offered a practical model for capturing small but qualitative shifts such as independence, spontaneity, and transference of skills that traditional systems overlook. By integrating gamification, observation, and collaborative reflection, the project provided evidence that meaningful engagement can be recorded without reducing learners to numbered scores

The project showed that innovation in special education does not always require inventing new tools. It involves reimagining how existing tools are used and understood. The experience transformed my teaching practice moving from an individual search for solutions to a collective, culturally grounded pursuit of equitable assessment.

The significance for practice extends beyond one school. LEAPS provides a replicable model that any special school can adapt using their own curricula, digital resources, and student interests. It bridges theory and practice by

translating concepts from international frameworks such as Routes for Learning and MAPP into a local Aotearoa context that honours Te Ao Māori values. It legitimises lateral progress as genuine achievement and demonstrates how collaborative action research can generate sustainable, culturally responsive change. Ultimately, the project reframes assessment as a living, reflective process, one that celebrates the diverse ways our most complex learners connect, communicate, and thrive.

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About the Author

Bharath Rao Kappet is a special education teacher with eight years of experience working with learners who have complex learning difficulties (CLD) and profound and multiple learning difficulties (PMLD). He has a Masters in Contemporary Education and his interests are specialising in inclusive and equitable approaches to assessment and curriculum design. His research focuses on developing holistic, person-centred systems for assessing and supporting engagement that recognise the diverse ways students with complex needs demonstrate learning and participation.



Guided by principles of cultural responsiveness and universal design, he integrates Kaupapa Māori values, play-based pedagogy, and digital innovation such as gamification and multimodal tools to bridge curriculum intent with authentic learner experience and create meaningful, accessible educational opportunities.

Having lived and worked across multiple countries, Bharath brings a broad intercultural perspective to his teaching. A passionate polyglot and a lifelong traveller, he values diversity, and global connection, qualities that continue to inform his commitment to inclusive education and lifelong learning.



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Through the eyes of my tipuna: A Mātauranga Māori lens on STEAM for Yr 7/8 learners

Mayana Karena

mkarena@pnins.school.nz

Whaia te matauranga, hei oranga mō koutou

Seek knowledge, for the sake of your well-being

Titiro whakamuri, kōkiri whakamua

Look to the past and move forward

Through the eyes of my tīpuna is where I began my mahi, iwi relationships, and iwi voice, giving purpose and direction within the New Zealand Curriculum. This project aimed to strengthen the school's local curriculum through two contemporary approaches. Project-based learning structured the STEAM component and place-based learning supported the local contexts, knowledge, and community relationships. Learning began with place, culture, and

community, and drew on the work of Penetito (2009), before extending into STEAM projects co-designed with mana whenua.

Based on discussions with staff and across the Kāhui Ako, mātauranga Māori was usually absent from classroom programmes due to limited knowledge and low confidence among teachers. It appeared mainly through cultural protocols rather than consistently across curriculum learning areas. This low-level integration reduced opportunities for Māori learners to recognise their identities in classroom learning, and for non-Māori learners to acknowledge and culturally understand their place and environment. Furthermore, teachers identified barriers such as limited time, few resources, and the need for sustaining iwi relationships.

A school student survey data, from 2024, showed strong interest in STEAM learning that included mātauranga Māori. This data confirmed the foundation of this project. How can integrating mātauranga Māori into STEAM learning support Year 7 and 8 students' understanding of STEAM subjects and strengthen their cultural connections? I wanted to find out how project-based STEAM learning, informed by place-based mātauranga Māori, supports student confidence and cultural connection.

My four project goals for this project were:

- To co-design a STEAM curriculum that integrates mātauranga Māori and Western worldviews (e.g., with a new acronym written as STEAMM which stands for: Science, Technology, Engineering, Art, Math, Mātauranga Māori)
- To increase student confidence in STEAM subjects and cultural knowledge
- To develop a sustainable and culturally responsive STEAMM programme
- To strengthen relationships and collaboration with Rangitāne iwi

The methodology brought two models together in the same way as the Two-Eyed Seeing approach, drawing on Western and Māori ideologies (Marshall,

2008). Kemmis and McTaggart's action research model provided clear cycles of planning, action, observation, and reflection (Kemmis and McTaggart, 2005). Smith and Smith's (2009) Kaupapa Māori principles set the cultural purpose and ethical accountability of the work.

There were three iterations over two school terms, co-designed with our local kaumatua.

Cycle 1 involved 12 interested participants from one team across the school. Students explored the pūrākau Okātia and the formation of the Manawatū awa, linked to the school's awa pathway design in the inner quad. Students designed cardboard information boards and outdoor interactive activity prototypes connected to the local awa. These were shared with the principal as a project stakeholder.

Cycle 2 involved a different group of 12 students. Students learned about the pūrākau Haunui-a-Nanaia and how he named the Manawatū River. A schoolwide survey resulted in a lack of pūrākau knowledge and strong interest in interactive learning, which informed the design of digital and hands-on activities, which were shared with the principal.

Cycle 3 tested the approach at full class scale. I involved my own class of 32 students, with 24 participating in the research. Students worked with pūrākau from earlier cycles and Māui and the Great Tuna. Learning included a whānau-supported eel visit, input from a Horizons Council educator on awa health, and science teaching on erosion and deposition. Students designed and launched cardboard and digital arcade games inspired by pūrākau and expert kōrero. These were shared with 10 classes, reaching over 320 students, 14 staff members and a few class whānau.

The data collected were from pre- and post-surveys, observations, student conversations, videos, photos, and online group journals. I used this information to review what was working and to decide next steps in each action research cycle, based on a mixed methods approach that values both numerical trends and lived experience (Creswell, 2014).

Qualitative data showed the importance of iwi involvement and place-based learning. Student reflections referred to learning from iwi members, kaumātua, and community experts, which gave an accurate and meaningful understanding of pūrākau. Experiences connected to the Manawatū awa and the school's inner quad awa pathway increased engagement and supported students to apply both cultural and scientific knowledge within their STEAM designs. Groups were more confident, drawing on two knowledge systems to explain their thinking and designing of their project-based work.

These findings reflected Marshall's (2008) Two-Eyed Seeing approach, where Indigenous knowledge and Western science are learned alongside each other. Iwi involvement and the use of local pūrākau and mātauranga Māori were used as an integral part of the learning process, rather than added after design decisions were made.

Time emerged as a key constraint. In Cycles 1 and 2, students from other classes had only had 6 x 1-hour sessions and reduced opportunities to unpack mātauranga Māori in depth. New learning often needs revisiting between sessions, including time spent developing correct pronunciation in te reo. In Cycle 3, working with my own class allowed learning to be part of my regular daily programme. Weaving the integration of pūrākau and key concepts highlighted that mātauranga Māori learning develops over time and should not be rushed.

This mahi has made a difference in how STEAM and mātauranga Māori were viewed in the school. Mana whenua and school leadership have seen the value of the approach and the possibilities it opened for change. This approach offers a model for other iwi and kura to follow. The work relied on limited pūtea. The hāpori impact grew beyond what the data captured. The impact is evident when you walk through the school where iwi and kura work side by side in everyday practice. This research continues beyond the project through a new STEAMM programme two days a week in 2026. This next phase focuses on sustaining iwi relationships, building teacher confidence, and extending STEAMM learning across my kura.

He waka eke noa
We are all in this together

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About the Author

He uri tēnei kaiako nō Ngāti Kahungunu, Rangitāne, Ngai Tahu me Taranaki anō hoki.

May Karena has 25 years of classroom teaching experience across primary and intermediate settings. She has taught in Aotearoa and the UK. She values innovation in her practice and enjoys inspiring others to think and teach differently. May is not afraid to shift practice from traditional approaches toward contemporary, creative teaching. She is proud of her Māori culture and heritage and is passionate about sharing this with students, colleagues, whānau, and iwi.

Mauri ora!





Academy EX Executive Summary

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Enhancing Adult Learner Success in Commercial Drivers' Licensing through Blended and Flipped Learning Approaches

Brian Kerr

trucktraining101@gmail.com

I come to this work as a long-time heavy-vehicle trainer who also happens to be an adult with ADHD. Over the years I kept seeing the same pattern: ESOL drivers and learners with difficulties were turning up for New Zealand commercial licence theory training worried, under-prepared, and often fighting the English more than the road rules. A failed theory test delays work, visas, and family plans, yet the official pathway quietly assumes directed study time, strong literacy, and no learning differences. I wanted to see whether a deliberately multilingual, mastery-based, flipped learning pathway could lower those unnecessary barriers without compromising the licensing standards.

The purpose of the project was to design and evaluate a bilingual, flipped/blended theory pathway that gives ESOL adults and neurodiverse learners a fairer chance at commercial licensing. The main goals were to: 1) re-work the MITO study-guide content into short, visual, mobile-friendly micro-lessons with L1 narration (initially Hindi and Portuguese) alongside on-screen English; 2) wrap those lessons in mastery-oriented “learning loops”- retrieval practice, spaced review, and no skipping ahead, so that understanding rather than guessing drove progression; and 3) collect mixed-methods data (LMS traces, surveys, SDLSS and TAM items, interviews, and observations) to see which design elements actually shifted engagement, confidence, and pass rates.

In practice the project unfolded over three design-based research cycles on TalentLMS. I mapped key learning outcomes from the MITO guides into micro-lessons of 15 to 30 minutes each, paired with formative quizzes and page references back to the mandated text. Each lesson combined simple English text with L1 narration and captions, later supplemented by short “commuter podcasts” that drivers could replay on the way to work. Learners first encountered the ideas online, then used face-to-face time for coached application: working through scenarios, practising judgement calls such as one-lane bridges or steep descents and comparing local examples from their own routes and understanding. Mastery gates required 100% on short quizzes, with missed-item summaries and spaced re-tests before the next module unlocked.

Alongside the LMS telemetry (logins, active days, level-ups, completions, passes and not-passes), I ran pre/post Self-Determined Learning Skills Scale (SDLSS) surveys, a short Technology Acceptance Model (TAM) battery, and Likert items on fairness and usability. I observed classes with a co-observer and conducted semi-structured interviews with four focal participants, who brought a mix of languages, work patterns, and learning profiles. Qualitative data were analysed using reflexive thematic analysis along Braun and Clarke’s (n.d.) six phases, with a deliberately hybrid stance: I started with lenses from Universal Design for Learning, self-determination, and translanguaging, but

stayed open to surprises in how learners used the system. Quantitative data were explored with descriptive statistics, simple correlations, and small logistic models, with more attention on effect sizes and patterns than on formal significance testing.

Across cycles the data told a surprisingly consistent story. When the “Full learning programme” was present, bilingual narration, clear progress cues, and firm mastery gates, learners logged in more often, spread their study over more days, and needed fewer re-tries per concept. Those who levelled up at least once had dramatically higher completion and pass rates than those who never engaged with the progression system. In the small cohort of 21 ESOL learners (including one with ADHD and one with dysgraphia), 90.9% logged in at least once and 87.0% recorded at least one pass, but the real difference lay in behaviour: the median learner studied across six days rather than cramming into one. Interviews and classroom observations helped explain why. Learners described feeling “less embarrassed” in class once they had already met the content in their strongest language at home; they appreciated being told clearly, “what to do next”; and they valued the ability to replay explanations privately until they “clicked”. Trainers noted that ESOL learners were more willing to attempt judgement questions, reached for the right English terms after hearing them in Hindi or Portuguese, and needed less time on basic definitions. I am cautious about grand claims from such a small, specific group, but the convergence of LMS traces, survey responses, learner feedback, and assessment outcomes gives a credible chain of evidence.

Several conclusions follow. First, translanguaging is not just an add-on; it functions as a precision equity tool. Keeping English text visible while offering L1 audio and examples honours assessment requirements but let’s meaning progress first, aligning closely with UDL’s call for multiple means of representation (CAST, 2024). Second, short, well-signposted modules are a better fit than thick manuals for adults juggling shifts, whānau, and unfamiliar terminology. Retrieval practice and spacing stop being abstract cognitive-science ideas and become very concrete design decisions: small mastery quizzes, missed-item roundups, and nudges to “come back tomorrow for a

quick re-check," all of which were tied to steadier progress and better first-time pass rates (Roediger & Karpicke, 2006). Third, progress visibility matters more than I expected. Simple "Start here / Next / Review" tiles, levels, and badges acted as scaffolds for self-regulated and self-determined learning, giving learners a visible sense of competence and control (Deci & Ryan, 2000). Finally, the blended, flipped structure changed the feel of classroom time. Instead of spending workshops re-explaining basic terminology, we could lean into applied decisions, local case stories, and safety-critical judgement.

The project also shifted my own practice and, slowly, the habits of colleagues. Working in iterative DBR cycles forced me to treat the LMS as a living prototype rather than a finished product: build a small change, see what learners do, adjust, and repeat (Wang & Hannafin, 2005). Listening carefully to feedback from ESOL learners with ADHD and dysgraphia sharpened my sense of what "accessibility by design" means in a trucking context: shorter videos, well written questions, and more than one way to show understanding. Colleagues who were initially sceptical of "online stuff" have started asking for bilingual modules in other licence classes and for new languages beyond Hindi and Portuguese. At a sector level, the work offers a tested, adaptable recipe for anyone wanting to support ESOL and neurodiverse drivers more fairly: bilingual micro-lessons anchored to official study guides, mastery-based progression with visible progress cues, and a commitment to reading the data with, not just about, learners. Thank you.

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About the Author

Brian Kerr is a driver trainer and learning designer based in Auckland, with more than three decades of experience in heavy-vehicle training across South Africa, Africa, Europe, United Kingdom, North / South America, Australia, Indonesia and Aotearoa New Zealand. His work focuses on culturally responsive, technology-supported pathways for commercial drivers, especially ESOL and neurodiverse learners.





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Master of Contemporary Education C16F Cohort

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Digital Literacy Skills and Engagement with Young Learners

Emma McKay

emmameffan@gmail.com

Digital technology is often a divisive topic especially when it comes to its use with young learners. We have seen high schools adopt the BYOD (bring your own device) approach and run their days through the use of digital technology but there is very little research about the impact of iPads in primary school classrooms (Hilton, 2018). I wanted to find out whether integrating digital technology and specifically teaching digital literacy skills would increase engagement in young learners (5 and 6 year olds). I had noticed that the students in my classroom were not digitally aware and although they liked using digital technology, they didn't know how to actually use it and lacked the basic foundations of digital literacy skills. I believe these are important skills to learn with the introduction of the fourth industrial revolution and the fact that society is heavily reliant on digital technology. Hassan & Mirza (2020) stated that children entering school are at a key age to introduce the concept of technology and that it gives them time to explore digital devices and gather an

interest in ICT. With this knowledge in mind I set out in transforming my participants into responsible digitally literate learners.

My project goals were to have all participants understand how to effectively use the digital technology available to them and navigate the device independently. I wanted my participants to be able to use Google Docs as well as reading and numeracy apps to help to engage them with their learning in a different way. I wanted a way to keep the children engaged while sitting on the mat and listening to learning and I wanted them to have a more active role in their education. By learning the skills early I knew it would only benefit them later in their education when they would need to have a device to navigate all of their learning needs.

I converted my entire day in the classroom to Google Slides. This was projected up for the class to see on an interactive board called the commbox. The participants learned how to navigate the slide show and get it ready in the mornings. The commbox allowed us to write over our Google Slides so the participants were able to solve maths and literacy problems directly on the board. This enhanced the engagement during mat time substantially. They loved the slide deck and knew what was coming next throughout their day. I incorporated te reo māori and the children have been engaged in learning a new language.

I had to teach digital literacy skills from the beginning and we spent many lessons going over how to properly operate our iPads. The participants had to learn to be responsible for their devices so we learnt how to properly care for them and how to retain their battery so they would continue to work efficiently. After the basics were mastered we then moved on to learning how to use different tools within the iPad to enhance our learning across all curriculum areas. We learnt how to login to different accounts via manual logins and QR codes too.

Falloon (2023) found that well planned and targeted use of ipads showed benefits across a broad range of different curriculum areas. By specifically teaching my participants how to correctly use their iPads and commbox as well

as spending time targeting each skill I noticed a huge improvement in their engagement across all curriculum areas. I found an increase in their mathematics ability as well as their decoding and encoding abilities in literacy. I realised that the digital technology was an added advantage to my classroom programme and helped the participants learn and understand what was being taught in a different way. The use of digital technology encouraged the participants to share their new skills with each other and they often went home and shared their new learning with their parents. Digital technology is not just one tool. It is a whole range of tools inside the one device creating lots of opportunities for children to use their creativity and critical thinking to develop themselves into more adaptable learners.

I had always had some form of digital technology in the classroom, usually in the form of iPads but I had never specifically taught the skills needed to be able to navigate the iPads and use them well in the classroom. Students always seemed to know what they were doing but after watching the students more thoroughly I realised they were just jumping around apps and not spending time actually learning anything from them. Through this project I understood that by beginning to teach the foundations of digital literacy skills I was engaging my learners in their learning in a different way. This project gave them the ability to problem solve when something happened in the app. It made the app jumping stop and they were focused and fully engaged on the task that was set for them. The participants were feeling pride in being able to navigate the device and were successful when attempting something new as they now had the skills to use the iPad and commbox to a high degree. This project has breathed new life into how I run a junior classroom and I am looking forward to continuing to adapt and enhance the findings I have made during the implementation of this project.

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About the Author

Emma McKay is a passionate and dedicated educator with over 15 years experience in teaching year 0 - 2 learners. She lives just outside of Gore and job shares the role of teaching year 0 - 2 at Waikaka School. Emma enjoys teaching junior school children and providing them with a rich and safe environment for them to reach their full potential.





academyEX Executive Summary

Master of Contemporary Education C15P Cohort

Symposium 21 January 2026

Integrating UDL principles and digital technology to enhance student engagement and writing attainment

Susan Marquet

sue.marquet@tongariro.school.nz

I used a hands-on approach, letting strategies grow through cycles of planning, doing, reflecting, and making improvements. To understand what changed, I used writing samples scored with e-asTTle rubrics, notes on student engagement, data from digital tools, and feedback from student surveys, teacher journals, peer observations, and team discussions. I included teacher and peer feedback, drawing on research by Walls (2015, 2017).

Universal Design for Learning (UDL) principles and digital tools (CAST, 2018) can help Year 7 and 8 students become more engaged and successful writers. One morning, I noticed a Māori student, Dean, sitting quietly, twirling his pencil, his blank page a sign of his lack of engagement. While his classmates wrote eagerly, Dean seemed unsure where to start. This scene highlighted a common

issue: many students, especially Māori learners, were not engaged in writing, lacked confidence, and made little progress, even after previous efforts.

To address this, I created and refined strategies to remove barriers, give students choices, and make writing a way for them to share their identity and experiences. Drawing on the practical applications suggested by Smith and Suzanne (2023), I implemented Universal Design for Learning (UDL) principles by designing writing tasks with multiple entry points to address my students' diverse learning needs. This research-to-practice approach aligned with UDL evidence advocating for flexibility and accessibility in learning tasks. Consistent with UDL-informed findings, I ensured that culturally sustaining practices shaped each writing activity by connecting assignments to students' identities, local backgrounds, and lived experiences. Furthermore, following the specific recommendations of Learning Architects (2024), I selected and used digital platforms such as Google Docs, planning applications, and feedback tools in ways directly intended to boost student agency, support varied modes of expression, and improve both the accessibility and quality of feedback, as advocated in the literature.

I used a hands-on method, letting strategies change through cycles of planning, doing, reflecting, and making improvements. Each cycle now and in the future focuses on engaging students in writing and using digital tools. We did one cycle over six weeks, which gave us time to observe and collect information. I used both data and feedback to understand what changed: writing samples scored with e-asTTle rubrics; notes on engagement; digital tool data; student surveys; teacher journals; peer observations; and team discussions.

Each data type provided useful insights, but some limitations and challenges were also evident. For example, writing samples offered evidence of growth in ideas, vocabulary, structure, and audience awareness; however, these samples may not fully capture students' day-to-day fluctuations in writing confidence, external influences, or the quality of peer support. The rate of progress documented in these samples varied among students, with some continuing to struggle despite supportive measures, suggesting that summative writing

assessments may miss subtler changes in student engagement or incremental improvements.

Student feedback highlighted persistent barriers such as: 'I don't know where to start'; 'writing takes too long' and 'I don't like handwriting' - alongside motivators such as: 'I like choosing my topic'; 'I prefer typing' and 'I need examples to know what good writing looks like'. Although valuable, such self-reported feedback can be subject to response bias or influenced by students' unwillingness to share honestly in a classroom setting. These findings informed three main principles for future work: start-confidence for early support, time-ease for making writing quicker and easier, and modelling by providing clear examples.

However, implementing these principles revealed difficulties in ensuring equitable access and consistent uptake among all learners, with available data sometimes lacking detail on the contextual factors affecting participation. Observations showed changes in time spent on tasks, peer collaboration, and willingness to revise, yet some students remained hesitant to participate fully or revise independently. These observational data, while insightful, may be limited by subjectivity or incomplete documentation in fast-paced classroom contexts.

Collectively, these insights contributed to making writing tasks more accessible, relevant, and motivating, while also highlighting areas where further adjustments are needed to address ongoing challenges and to improve the robustness of data collection and analysis.

I redesigned writing tasks using UDL principles to give students different ways to engage, express, and show their ideas. They could choose topics that mattered to them, like local Tongariro stories, personal experiences, or community events. Planning tools included graphic organisers, oral brainstorming, and visual storyboards. For students who needed more structure, I provided templates, sentence frames, annotated examples, checklists, and models. For advanced learners, I offered extension prompts and creative options.

I included Māori perspectives, local history, whakapapa, and stories in my writing tasks and examples to reflect students' identities. This helped many students see writing as a place where their lives and cultures mattered. Guided by research from Walls (2015, 2017), I improved feedback by making it timely, specific, and focused on strengths, both from teachers and peers. During the project, students became more engaged and confident, and their writing improved. Many made faster progress in vocabulary, structure, and audience awareness, as shown by e-asTTle data. More students finished drafts and revised their work independently. Those who used to avoid writing started joining in, working with classmates, and felt proud using Google Docs. Student feedback showed that having choices made writing easier and more enjoyable. Digital feedback tools helped students make better revisions. Māori students, especially, said that cultural relevance boosted their confidence and motivation, leading to greater participation. Teachers also grew in designing inclusive tasks, using digital tools, and understanding data for ongoing improvement. The project led to better teamwork among teachers and to a more consistent approach to teaching writing in Years 7 and 8.

My project shows that writing instruction grounded in UDL, cultural relevance, and digital support can boost engagement and achievement among Year 7 and 8 students. The results show that removing barriers, reflecting students' identities, and using digital tools to enhance, not just replace, writing instruction can help even reluctant writers succeed.

There are three main takeaways. First, accessibility and engagement should be built in from the start, not added later. UDL is a strong framework for this. Second, digital tools work best when they remove barriers, give students more control, and personalise feedback, rather than just making old tasks digital. Third, cultural relevance is crucial, especially for Māori learners. Connecting writing to identity, place, and community builds motivation and pride.

Looking ahead, these findings have important implications for broader educational practice. Embedding UDL principles and digital support across the curriculum could enhance engagement and achievement for diverse learners beyond writing. Involving whanau and the wider community in curriculum

development may further strengthen cultural connections and foster sustained motivation. Ongoing professional development for teachers in inclusive design and digital pedagogy will likely be essential for maintaining consistent, effective practice. Overall, these changes point to the potential for scalable, research-based approaches that support every learner's success.

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About the Author

Susan Marquet is a teacher in an area school. She is interested in the use of digital technology in classes.



academyEX Executive Summary

Master of Contemporary Education C15P Cohort

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Enhancing School-Home Partnerships and Empowering Whānau Through a Blended Digital Platform

Veronica Masters

vturner_kps@hotmail.com

This project was initiated to address a pressing need within a contributing primary school in the Far North of New Zealand: strengthening school-home partnerships and empowering whānau to actively participate in their child's learning journey. Initial consultation surveys revealed that only one-third of whānau felt adequately informed about their child's learning, while 70% expressed a desire for more guidance on supporting learning at home. These findings reflected national priorities outlined in the New Zealand Curriculum and the National Education and Learning Priorities (Ministry of Education, 2024), which emphasise placing learners and their whānau at the centre of education. In response, this practice-based change project sought to leverage blended learning approaches through the Seesaw platform to enhance clarity, foster engagement, and enable reciprocal, learning-focused communication

between school and home.

The overarching goals of the project were threefold: to strengthen meaningful, collaborative school-home partnerships; to clarify learning stages for whānau; and to empower whānau to be more actively involved in their child's learning. These goals were informed by literature which emphasises that effective school-home communication should move beyond one-way information sharing to actively supporting parental engagement and self-efficacy in supporting student learning (Goodall, 2016). Research consistently demonstrates that parental involvement positively impacts student achievement and wellbeing (Biddulph et al., 2003), yet traditional approaches often fail to provide clarity or foster genuine collaboration. This study explores the use of a digital tool to bridge communication gaps, provide ubiquitous learning clarity for whānau and offer flexible, learning-focused engagement opportunities.

To achieve these aims, the project adopted an action research methodology, following Okoko's (2023) seven-step model to ensure a cyclical process of inquiry, reflection, and adaptation. Implementation occurred over three iterations, with a fourth planned. The first iteration focused on staff professional learning and development to build confidence and capability with Seesaw, recognising that teacher buy-in and competence were prerequisites for successful whānau engagement. Subsequent iterations extended staff skills, increased whānau connectivity, and introduced targeted resources such as a Whānau Interaction Infographic and a multi-modal resource library to clarify learning across curriculum areas. Semi-structured interviews and surveys with whānau and teachers provided qualitative insights, complemented by quantitative data from Seesaw analytics and communication logs.

Thematic analysis of qualitative data produced findings that indicate that Seesaw significantly enhanced the frequency and quality of learning-focused communication between school and home. Whānau reported that the visual and auditory affordances of Seesaw—particularly video and voice recordings—provided unprecedented clarity about their child's learning, surpassing traditional written reports or sporadic face-to-face interactions. This clarity

empowered whānau to engage in meaningful, timely learning conversations at home, reinforcing classroom learning and fostering confidence in supporting educational progress. These outcomes align with Goodall's (2016) assertion that technology can increase parental confidence and engagement by offering insights into classroom practices.

Teachers corroborated these findings, noting that Seesaw facilitated more efficient and personalised communication with whānau. However, challenges emerged around workload and variability in whānau engagement. While most whānau found the platform intuitive, interviews revealed that app-based connections yielded higher reach and engagement than email-based access, highlighting the importance of onboarding processes and ongoing support. This insight suggests that accessibility remains a critical consideration for future iterations and ongoing support.

The project also highlighted limitations in quantitative engagement metrics provided by Seesaw, which I found to be misleading due to the inclusion of unpublished posts and exclusion of "likes" as indicators of interaction. This reinforced the value of mixed methods approaches and critical data analysis, as qualitative findings offered richer insights into the impact of Seesaw on whānau empowerment and partnership development. For example, while analytics suggested moderate engagement, interviews revealed that whānau were using Seesaw content as prompts for extended learning conversations at home—an impact not captured by platform metrics.

Beyond its immediate context, this project contributes to an emerging body of teacher-as-researcher literature exploring digital strategies for enhancing school-home partnerships. It offers practical deliverables—including Seesaw guidelines, induction plans, and Professional Learning and Development frameworks—that can inform similar initiatives in other schools. Importantly, the project underscores that successful implementation requires a collaborative, context-specific approach that prioritises relationship-building, cultural responsiveness, and stakeholder voice. Concepts such as whanaungatanga, manaakitanga, and kotahitanga were interwoven throughout the project to ensure alignment with Māori values, reflecting the school's demographic

composition and commitment to equity.

The significance of these findings for practice is considerable. First, they demonstrate that blended learning approaches, when thoughtfully integrated and supported, can transform school-home communication from a transactional process into a reciprocal partnership that empowers whānau to be actively involved in their child's learning journey. Second, they highlight the importance of professional learning for teachers, not only in technical skills but also in strategies for culturally responsive engagement. Third, they reveal that digital platforms can serve as powerful tools for equity when combined with intentional scaffolding and support for whānau.

In conclusion, this project affirms the potential of digital platforms like Seesaw to redefine the landscape of family-school partnerships in Aotearoa and beyond. By clarifying learning through multimodal digital tools and fostering collaborative engagement, schools can create inclusive, flexible, and culturally responsive pathways for whānau involvement. While challenges remain—particularly around workload, connection methods, and data interpretation—the insights gained provide a strong foundation for continued innovation in this space. Ultimately, the project demonstrates that when schools and whānau work together through accessible, transparent, and culturally grounded communication, the benefits can be profound and enduring.

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About the Author

Veronica is a classroom teacher, Deputy Principal and SENCO at a contributing primary school in the Far North of New Zealand. With over 20 years of experience in classroom teaching, much of this within the early primary years Veronica understands the changing demands of the classroom and learners entering school. She advocates for meaningful school-home partnerships and power-sharing of teacher knowledge and strategies with whānau to support student learning and overall wellbeing.





academyEX Executive Summary

Master of Contemporary Education C16F Cohort

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21st-Century Learners - School to Employment

Julie Mees

julie.mees@tarawera.school.nz

This research project set out to address a critical gap in the New Zealand secondary education system: the failure of current assessment and reporting practices to authentically recognise and communicate the work-related, or '21st-century', skills and competencies that are valued by local employers and necessary for student success beyond school. At Tarawera High School, in a predominantly Māori, rural, and low-socioeconomic community where fewer than 10% of school leavers pursue tertiary education, with the majority now moving directly into employment, traditional academic qualifications such as the NCEA do not reflect the full range of skills students possess and that employers seek. The overarching aim was to collaboratively design, implement, and evaluate a Record of Learning (RoL), renamed He Ara ke te Mahi: A Pathway to Work, which would capture work-related skills valued by a local

employer, thereby enhancing student self-confidence and employability as they transition into the workforce.

The problem addressed was twofold: first, the disconnect between what is currently measured and valued in schools (primarily academic achievement) and the broader set of competencies required in the contemporary labour market; second, the lack of a reliable, scalable system for recognising and reporting non-academic skills within existing school frameworks. This was necessary as current assessment systems were not serving the majority of leavers well, especially in communities like Kawerau, and perpetuated inequity for Māori and other underserved groups (Biesta, 2010, as cited in Houghton, 2015).

The project was conducted using an action research methodology, progressing through iterative cycles of design, stakeholder consultation, feedback, and refinement. Key stakeholders included teachers, Year 13 students, and local employers, each contributing to the identification of the specific work-related skills and competencies most valued in the local context. Data were collected through surveys, interviews, and sense-making conversations, and further refined using generative AI tools to map and align identified skills with curriculum outcomes. The design process prioritised authenticity, local relevance, and practical feasibility, culminating in a certificate which provided a summary of both explicit (directly assessed) and implicit (developed through participation) skills, as well as punctuality and attendance, features requested by the majority of stakeholders.

The findings revealed strong consensus among stakeholders that a strengths-based, work-related RoL was valuable: 92.3% of teachers, 86.7% of students, and 100% of employers supported its implementation. The skills and competencies identified, such as communication, teamwork, critical thinking, adaptability, resilience, and work ethic, align closely with international frameworks like the World Economic Forum's New Vision for Education (2015), but were selected and worded for local relevance. However, baseline data showed that while students were confident in their skills, teachers and

employers were less so, highlighting a gap between self-perception and external judgement of readiness for employment.

A notable insight was that the document alone was insufficient to boost student self-confidence; one-to-one coaching and opportunities to articulate their strengths were essential, echoing findings by Broadfoot (1998) that support and guidance are critical to realising the motivational potential of records of achievement. The iterative process also surfaced tensions around what to include in the RoL, particularly regarding attendance and punctuality, which students found contentious, but employers valued highly.

The significance for practice is substantial. The research demonstrates that it is possible, through collaborative and iterative design, to create a locally relevant system for recognising and reporting a broad range of student competencies within an existing school structure. It also shows the potential for generative AI to support this process by mapping skill development across the curriculum efficiently. For Tarawera High School, the project will support a shift in teacher practice and school policy: there can now be a clearer focus on embedding work-related skills throughout teaching and learning, reframing academic interviews to include skill articulation, and building stronger school–employer partnerships. The approach is scalable and adaptable for other schools wishing to respond to similar local needs.

In conclusion, this project contributes to the wider educational discourse by offering a practical pathway for schools to move beyond narrow academic definitions of achievement and towards a more holistic, equitable, and locally responsive model of student success. It validates the importance of community-driven definitions of employability and highlights the need for ongoing professional learning and stakeholder collaboration. The new Record of Learning, He Ara ke te Mahi, is not just a certificate but a catalyst for cultural and pedagogical change, supporting students to recognise, articulate, and present their strengths confidently to future employers. This work affirms the findings of Joyce and Hipkins (2009) that assessment systems must evolve to value what truly matters for student success in the 21st century, and those of

Broadfoot (1998), who argues that authentic records of achievement can motivate and empower learners when coupled with appropriate support.

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About the Author

Julie Mees is an experienced educator from the United Kingdom who has dedicated the past 22 years to teaching in Kawerau, in the Eastern Bay of Plenty. As a Foundation staff member and Deputy Principal of Behaviour Pathways at Tarawera High School since its establishment in 2013, she has played a key role in shaping the school’s culture and direction. Over the past five years, Julie has served as Deputy Principal Learning Pathways, leading several strategic initiatives focused on curriculum innovation and student achievement. Her professional focus is on ensuring every student realises their potential and transitions into meaningful pathways beyond school.





academyEX Executive Summary

Master of Contemporary Education C13P Cohort

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AI-Enhanced Professional Development for Teacher-Student Collaboration

Michele Moorcroft

michelle@armadillo.org.nz

This Practice-Based Change Project explored how a generative AI-supported chatbot could be used to enhance teacher professional development (PD) in behaviour and learning support within a school context. The specific focus of the PD is on trauma-informed, collaborative practice and culturally sustaining pedagogies. The project was implemented within a New Zealand primary school context and involved collaboration with the Deputy Principal and Senior Leadership Team (SLT). Grounded in action research, (Kemmis, McTaggart, & Nixon, 2014) and mixed methods, the project evolved through four iterative design cycles and was underpinned by the Collaborative & Proactive Solutions (CPS) model (Greene, 2018), the Neuro-sequential Model in Education (Perry, 2019) and culturally responsive leadership frameworks, including the Niho Taniwha model (Riwai-Couch, 2020) and Teaching to the North-East (Bishop, 2019, 2023).

The problem addressed by the project was the significant decline in student engagement and academic performance post-COVID, which has been widely reported in New Zealand (Ministry of Education, 2023; OECD PISA, 2022). Teachers were reporting an increase in behavioural complexity, emotional dysregulation and student disengagement in learning (ERO, 2024).

Traditional behaviour management strategies have not been meeting the needs of students, particularly those affected by trauma, neurodiversity or social disadvantage. This project responded to these challenges by designing a targeted PD intervention to support teachers in applying collaborative and trauma-informed strategies to identify and address student learning and behaviour needs more effectively.

The CPS model (Greene, 2018) reframes student behaviour as a signal of lagging skills or unmet needs and promotes structured, solution-focused conversations between students and teachers. This collaborative approach aligns well with inclusive education goals and supports student agency by involving learners in co-constructing solutions. Complementing CPS, Perry's (2019) Neuro-sequential Model of Therapeutics (NMT) provided a developmental framework to understand the impact of trauma on brain function and learning. NMT emphasises co-regulation and sequential intervention based on student-teacher collaborative problem solving. Both models shift teacher practice away from punitive or reactive strategies and toward relational, reflective and responsive approaches. These frameworks formed the theoretical backbone of the chatbot's conversational design, providing teachers with simulated role-play prompts and strategies to support their decision-making and practice.

The innovation of this project was the integration of these frameworks into an AI-supported chatbot designed using ChatGPT, (OpenAI, 2024). The chatbot was intended to serve as a "critical thinking buddy" for teachers. It is designed to be underpinned by tailor-made theory, providing real-time scenario-based dialogue support and culturally appropriate prompts to foster reflective practice. Throughout its development, cultural responsiveness was a central design principle, particularly Māori frameworks, particularly the Niho

Taniwha model (Riwai-Couch, 2020), informed the structure of the chatbot's reflection tools, including values such as Manaakitanga, Ako and Whanaungatanga. These cultural principles ensured that the bot's prompts encouraged teachers to consider learner identity, relational context and whānau engagement in their responses to behavioural challenges.

The iterative action research methodology, (Kemmis, McTaggart, & Nixon, 2014) allowed for real-time adjustments based on feedback from the Deputy Principal, representing SLT. Cycles involved design, reflection, evaluation and ethical review. Notably, the project had to navigate significant ethical concerns, including the potential for privacy breaches when discussing student scenarios and the limitations of AI to represent local culture. While the tool was initially intended for broader teacher use, concerns about data privacy and safety of AI-generated content led to a shift in strategy. The chatbot was ultimately re-purposed as a back-end role-play and content-generation tool, supporting the development of teacher PD and SLT materials rather than being directly accessed by teachers for collaborative behaviour problem-solving; however it was agreed that a fifth iteration could be the implementation of a web app that links to the AI bot in the future, once we could trial it with team leaders or interested teachers.

Data collected included reflective journaling, anecdotal conversations, chatbot usage analytics and survey feedback, which revealed four key findings:

1. AI tools have strong potential to support teacher learning by modelling strategies and prompting reflection, including SLT
2. Ethical risks, especially concerning student privacy and must be tightly managed
3. Cultural responsiveness cannot be fully automated and must be led by teacher judgment

The leadership approach adopted throughout the project drew on collective leadership theory. I worked collaboratively with SLT to co-construct ethical

boundaries, align the chatbot with school priorities and respond to disruptive technological advances. This included revising the project's direction in response to new risks and strategically withholding the bot from school-wide rollout until it could be trialled safely. Leadership was not about delivering a fixed solution, but creating space for inquiry, reflection and shared problem-solving. Collaboration was also deeply embedded in the process, not only with the leadership team but in the resource development of the bot.

The project also generated new knowledge regarding the intersection of AI, teacher PD and cultural responsiveness. It demonstrated that digital tools, when developed thoughtfully and ethically, can support professional learning by offering scaffolded, context-aware reflection. However, it also discovered that such tools must remain second to human relationships, including cultural knowledge and ethical leadership.

While still in a trial phase, the chatbot and its supporting website now represent a potential future-facing model for how schools can integrate AI in a way that enhances professional practice without compromising student wellbeing or cultural identity. This work has already informed policy discussions in the school, influenced leadership thinking and modelled how AI-enhanced digital transformation must be grounded in culturally responsive and trauma-informed practice. As such, the project provides a replicable framework for other educational leaders exploring AI, professional learning and behaviour support in ways that respect the Mana of learners and uphold the principles of Te Tiriti o Waitangi. Looking ahead, the project offers a practical contribution to the emerging field of AI in education in Aotearoa, illustrating how Tikanga Māori, educational psychology and collective leadership can converge to inform technology use that is not only innovative, but safe and culturally responsive with ongoing oversight.

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About the Author

Michele Moorcroft is an experienced educator with a Postgraduate Diploma in Educational Leadership & Administration from Massey University, and a postgraduate candidate in the Master of Contemporary Education programme at academyEX in Auckland, New Zealand. Her work focuses on culturally responsive leadership, trauma-informed practice and ethical innovation in education.





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Master of Contemporary Education C15P Cohort

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Developing & strengthening whanau engagement

Zia Shafeena Nisha

zia.nisha96@gmail.com

This project inquired how the integration of technology could enhance whanau engagement by using digital tools to create accessible, two-way communication between home and school in a year 2 & 3 class in a New Zealand primary school. Strong home and school partnerships create a sense of belonging and ensure that learning is supported both inside and outside the classroom. When whanau are well informed and more connected to tamariki's learning they are able to better support their learning at home and build trust with the school. However, many whanau face the barriers of traditional communication due to work commitments, time constraints, limited access and language differences. The project aims to explore how technology can provide timely, more accessible and culturally responsive ways for whanau to connect with their tamariki's learning and strengthen relational partnerships (Olmstead, 2013).

Through Action Research, the project was implemented through iterative

cycles of planning, acting, observing and reflecting. This methodology was chosen since it supports researchers' inquiry and enables responsive changes within authentic classroom contexts. Through these iterative cycles, digital communication strategies were introduced, monitored and refined in relation to whanau feedback and observed engagement patterns. Digital platforms such as online learning platforms, text, visual updates (photos and videos) and messages were used to provide whanau with real-time communication about students' progress, school events and classroom learning. Whanau were encouraged to ask questions, share feedback, and comment through these platforms, supporting two-way, relationship focused communication instead of one-way information sharing. Communication was intentionally planned to be relational instead of being purely informational, making sure that whanau were active partners in their tamariki's learning journey.

Specific attention was given to ensuring that communication between home and school was culturally responsive and inclusive. This included using respectful and clear language, acknowledging diverse identities, incorporating culturally affirming content and considering accessibility needs (Smith, 2013). Visual photos and videos were prioritised to make learning understandable and visible, especially for whanau with language barriers. Instead of relying solely and heavily on written explanations, videos and images were used to illustrate learning processes, classroom experiences and student achievements. The intention and focus was to reduce barriers to understanding and create shared learning communication between school and home.

Data for this project was collected through whanau surveys, classroom observations, and digital communication records. These qualitative methods were chosen to collect authentic whanau perspectives and lived experiences of the engagement. Survey responses gave insight into how whanau perceived frequency, accessibility and quality of communication. Communication records enabled analysis of engagement patterns, including interaction levels over time, responses, and comments. Observations in the classroom supported reflection of changes in family involvement, participation and students' confidence. The findings show the majority of the whanau felt more informed

and connected when digital platforms were used consistently. Whanau enjoyed and valued being able to see their tamarikis' learning in real time through videos, learning updates and photos. Many whanau reported that these updates enabled them to have more meaningful learning conversations at home with the tamariki and better understand curriculum expectations. Increased visibility into classroom experiences strengthen trust and reinforce the sense of partnership between home and school. While few of the whanau continued to face challenges particularly related to time constraints and digital access, overall the data showed improved communication, engagement and trust between school and home.

The project shows that if technology is used inclusively and thoroughly it can enhance whanau and school relationship and support tamariki learning. A key conclusion from this project is that technology alone does not enhance relationships; rather it is the intentional, culturally responsive and relational use of technology that makes a meaningful difference. Digital platforms became effective when communication was respectful, inclusive, consistent and designed to invite dialogues. The project also highlights the importance of balancing digital communication with face-to-face communication to ensure that all whanau feel included and valued. The findings hold implications for whole school practice, clearly highlighting the importance of accessible digital communication and cultural responsiveness as the key strategy for building trusting and meaningful partnership between school and whanau. These findings contribute to wider educational discussions about technology integration by showing that digital communication, when grounded in relational practice, can become a powerful strategy for enhancing sustainable home and school partnerships.

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About the Author

Zia Nisha is a Year 3 teacher in Manurewa, New Zealand. She is passionate about culturally responsive teaching, strengthening whānau engagement, and supporting neurodiverse learners. Through her Master of Contemporary Education research, she explores how intentional digital communication can build strong home–school partnerships and enhance student confidence and belonging.





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Master of Contemporary Education C15P Cohort

Symposium 21 January 2026

Empowering Māori and Pasifika Learners Through Blended Maths

Christine Sevia Pereira

cpereira1222@gmail.com

"E fofo e le alamea le alamea."

The solution to a challenge is found within its source.

This project set out to address longstanding challenges in student engagement and foundational mathematical understanding among Year 10 learners, with a particular emphasis on Māori and Pasifika students. These learners often face barriers to participation and success in mathematics, influenced by gaps in prior knowledge, reduced engagement, and limited confidence. In response, this inquiry was designed to explore how a Blended Learning approach that combines face-to-face instruction with digital tools and culturally responsive pedagogy could support improved student outcomes, build learner agency, and promote equitable access to high-quality mathematics education.

The core aim of the project was to investigate the effectiveness of culturally responsive Blended Learning strategies in enhancing algebraic understanding, engagement, and self-efficacy. Three key goals guided the work: (1) to explore how blended strategies could be applied meaningfully in a Year 10 mathematics context, with attention to student identity and voice; (2) to examine the extent to which blended and culturally grounded approaches could address gaps in foundational numeracy; and (3) to evaluate the impact of these strategies on students' engagement, learner behaviours, sense of belonging, and achievement in mathematics. The project followed an Action Research framework, enabling iterative reflection, adaptation, and collaboration throughout the process (Kemmis & McTaggart, 2014).

The focus area for implementation was Algebra, chosen for its place in the teaching schedule and its direct relevance to the upcoming Numeracy examination. The project began with an Algebra pre-test to establish baseline knowledge and diagnose individual needs. A student survey was also administered to understand learner attitudes, confidence levels, and experiences with mathematics. The analysis of these data allowed for the identification of patterns, common misconceptions, and student sentiments about maths, which in turn shaped the design of the Blended Learning activities and tasks.

The learning programme combined teacher-led instruction, independent digital learning, collaborative problem-solving, and culturally contextualised tasks. Drawing on Graham's (2013) assertion that blended learning enhances engagement through varied modes of access and participation, digital platforms such as Google Classroom, IXL, Education Perfect, and Google Maps were used strategically to support instruction, practice, and real-world mathematical applications. These tools provided opportunities for self-paced learning, immediate feedback, and reinforcement of key algebraic concepts. Students without internet access at home were supplied with printed resources, ensuring equitable access to learning materials.

Culturally responsive practice was a defining element of this project. Mathematics problems were adapted to reflect Māori and Pasifika contexts,

values, and lived experiences. Students engaged in discussions using their home languages, providing opportunities to draw on cultural knowledge and linguistic strengths. This process often revealed meaningful cross-linguistic mathematical connections and deepened students' conceptual understanding. More importantly, it contributed to a safe, affirming learning environment where identity, culture, and language were acknowledged and celebrated as assets in learning mathematics.

A key deliverable of the project was the development of a Blended Learning Toolkit, comprising lesson plans, task sequences, digital resources, student examples, and offline support. This toolkit not only guided the project but also served as a resource for other educators seeking to implement blended approaches in culturally diverse settings. Other deliverables included a comprehensive evaluation report, a suite of culturally responsive mathematics tasks, and materials to disseminate findings within and beyond the school community. These resources ensure that learning and insights from this inquiry are sustainable, scalable, and able to support ongoing professional practice.

The project yielded strong evidence of improvement in student engagement, confidence, and algebraic understanding. Students demonstrated greater willingness to participate, ask questions, collaborate, and persist through challenges. Importantly, the project supported notable gains in learner agency, digital literacy, and self-directed learning behaviours. Students reported increased confidence and a deeper sense of belonging, with many expressing pride in seeing their culture reflected in learning tasks. All participating students successfully achieved their Numeracy CAA, underscoring the positive academic impact of the blended, culturally-responsive approach.

In addition to student outcomes, the project contributed significantly to professional learning and leadership practice. It strengthened digital capability, deepened understanding of culturally sustaining pedagogies, and fostered collaborative planning within the Mathematics department. The work has also laid the groundwork for future cross-curricular initiatives and professional development opportunities, providing a model of practice that aligns with the school's vision for inclusive, culturally grounded, and future-focused teaching.

In conclusion, this project contributes meaningful evidence to the literature and practice of blended learning in secondary mathematics, particularly within Māori and Pasifika contexts. It demonstrates that when digital innovation is coupled with culturally responsive pedagogy and relational practice, equitable and transformative learning outcomes are possible. The deliverables created ensure that the knowledge gained extends beyond a single classroom, offering a model for how secondary educators can design mathematics learning that is culturally affirming, digitally enriched, and academically rigorous.

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About the Author

Christine Pereira is a Deputy Principal in a South Auckland college. She is a proud Samoan woman, wife to Fata Leauamoana Romolo Pereira, mother of 3 adult children and grandmother to 7 beautiful grandchildren who hails from the villages of Afega, Falefa, Manono, Lauli'i and Sapunaoa (home of Manu Samoa).

She has a passion for Maori and Pasifika education, especially in the area of Mathematics. When she is not teaching, Christine continues to share her love of Samoan siva and handicrafts.





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Master of Contemporary Education C16F Cohort

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The Screen Time Dilemma: Balancing Digital Well-Being and Learning – How Much Is Too Much?

Victoria Phillips

wikigates@gmail.com

“Mā te huruhuru ka rere te manu.”

This practice-based action research project explored the role of digital technology in the classroom and examined the impact of reducing screen time for Year 5 students (aged 9–10) to promote balanced learning and improved well-being. Digital devices are now embedded across New Zealand classrooms, offering opportunities for engagement, creativity, and research. However, increasing concerns regarding excessive screen use highlight potential risks to children’s physical health, attention, and emotional regulation. This project aimed to develop a more balanced approach to device use by raising awareness of the impacts of screen time, supporting teachers and students to understand Ministry of Education guidelines, and trialling classroom

strategies to minimise unnecessary device exposure while maintaining academic standards.

The purpose of this project was to educate teachers and students about the potential negative effects of high screen use, encourage reflection on current classroom practices, and introduce strategies to ensure technology is used intentionally to enhance learning outcomes. The project sought to ensure that device use was purposeful, contributing meaningfully to learning rather than acting as a default option or reward system that could inadvertently encourage over-reliance on screens.

The research employed a reflexive thematic analysis approach (Braun & Clarke, 2006) to analyse student interviews and activity logs. Key patterns emerged, including widespread recreational device use at home, with limited supervision or awareness of content; high levels of engagement with screens for entertainment rather than learning; and recognition among students that teacher supervision and classroom layout strongly influenced focus and on-task behaviour. Students reported enjoying technology but also expressed frustrations such as technical glitches, battery failure, and distraction, demonstrating that engagement does not automatically equate to learning outcomes.

The project followed three iterative cycles of action research, which informed teaching and learning throughout. The first cycle established baseline awareness of students' screen habits through discussions, interactive activities, and self-reported screen logs. This revealed that many students underestimated their screen time and were largely unaware of the potential negative impacts on their well-being. The second cycle focused on teaching healthy screen habits and promoting alternative activities, encouraging students to engage in physical, creative, and collaborative tasks. Reflection logs and observations indicated that some students successfully reduced screen use and enjoyed these activities, while others required ongoing support to adjust behaviours. The third cycle empowered students to consolidate and share their learning through student-led advocacy, creating posters and videos to promote balanced screen use across the school. This process gave students

an authentic voice, increased peer awareness, and received positive feedback from parents and teachers, demonstrating meaningful changes in attitudes and behaviours around technology. Together, these cycles provided a structured, iterative approach that informed practical classroom changes and strengthened students' understanding of responsible device use.

The findings prompted significant shifts in classroom practice. Device use was reduced and restricted to explicit, purpose-driven tasks that directly supported learning objectives. Screen-based rewards, such as gaming or movie viewing, were replaced with offline alternatives including crafts, board games, outdoor play, and other collaborative activities. Guided reading returned to physical texts, and sustained silent reading was carried out using library books instead of optional digital platforms. Writing and mathematics were predominantly taught using pen and paper, with explicit handwriting practice included daily to support fine motor development and cognitive engagement. Classroom management practices were adapted to ensure devices remained visible to teachers and that active monitoring supported student accountability. The SAMR model (Puentedura, 2014) was used to guide planning, encouraging technology integration that enhanced learning rather than simply substituting paper-based tasks. Teachers reflected on whether digital activities added value, supported collaboration, and ensured all students could participate meaningfully.

These changes demonstrated that reducing screen time is achievable without compromising academic outcomes. Students engaged more deeply in hands-on and collaborative activities, with improvements in attention, peer interaction, and creativity. The project reinforced that technology is most effective when it complements pedagogical strategies rather than replacing them. Health, social interaction, and well-being were positively influenced by the introduction of structured offline activities, visible teacher supervision, and intentional use of devices. This project highlights the importance of balancing digital learning with tactile, interpersonal, and reflective learning experiences to foster holistic development.

The implications for wider practice are significant. Schools should implement policies that ensure technology use aligns with clear learning goals and supports student well-being. Teachers are encouraged to reflect critically on the necessity and impact of device use in their classrooms, and to collaborate with whānau to maintain consistency of expectations between home and school. Excessive screen time should not be treated as an unavoidable part of modern education; instead, purposeful integration and thoughtful reflection can safeguard students' physical, social, and emotional health while promoting meaningful learning outcomes. By modelling responsible digital habits and using structured, evidence-informed approaches, schools can prepare students to navigate their digital futures safely and effectively.

This project contributes to the current discourse on digital pedagogy by providing a practical example of how intentional technology use and reduced screen exposure can be implemented in a primary classroom. It demonstrates that thoughtful changes can improve student engagement, well-being, and focus, without detracting from learning. Through the iterative cycles of action research, I was able to reflect on my practice, make data-informed decisions, and observe tangible improvements in student behaviour and understanding. The research underscores the value of ongoing practitioner inquiry for creating classroom environments that balance digital tools with essential offline skills, supporting children to develop as resilient, capable learners.

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About the Author

Victoria Phillips is a primary school teacher with over 20 years of experience teaching multiple year levels. She is passionate about creating engaging, balanced learning environments that integrate technology purposefully while promoting student well-being. Her practice-based research focuses on responsible digital use in classrooms and strategies to support children in developing healthy screen habits. Victoria is committed to reflective teaching and continual professional development to enhance both academic outcomes and the holistic development of her students.





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Master of Contemporary Education C15P Cohort

Symposium 21 January 2026

Mana Ōrite mō te Mātauranga Māori

Mark Rangi

mark@poutoru.co.nz

*Toitū te marae ā Tāne, Toitū te marae o Tangaroa, Tōitu te Taiao, Toitū te
Oranga Tangata.*

This whakataukī serves as the foundational pillar of this project — a kaupapa planted from the desire to revitalise the environment, the language, and ancestral knowledge by integrating them into today's digital learning landscape. The initiative is grounded under the mantle of **Mana Ōrite for Mātauranga Māori**, one of the key reforms of the NCEA refresh introduced in 2018, which calls for the weaving of mātauranga Māori across all learning areas in Aotearoa.

The central aim of this enterprise is to explore the following research question:

“What are the impacts of integrating mātauranga Māori into an online course; on student engagement, learning achievement, and cultural efficacy?”

To enact this, I designed and delivered an online learning programme for a cohort of approximately sixty wharekura students, focused on **Tiaki Taiao**, **Pūrau (STEM)**, and **Environmental Sustainability**. The course was deliberately designed from a Māori worldview — not as an add-on to a Western framework — and intentionally wove language, tikanga, and values such as whakapapa, whanaungatanga, manaakitanga, and kaitiakitanga into the science curriculum (Mercier, 2018)

Data were collected through semi-structured interviews, student reflections, and NCEA assessment outcomes, and analysed using thematic analysis within a Kaupapa Māori framework. The primary focus of the analysis was to examine where engagement, achievement, and cultural efficacy emerged for learners within the online learning environment.

The key findings indicate that when mātauranga Māori is authentically embedded within an online curriculum, student commitment, motivation, and confidence increase significantly. Learners reported feeling that they belonged within the learning space, and that learning became a site for strengthening Māori identity rather than something culturally separate (Martin, 2012). The rise in NCEA achievement levels (approaching Merit and Excellence) highlighted a strong relationship between culturally grounded learning and academic success.

Student voice revealed that whanaungatanga and manaakitanga were central pillars of the learning experience. Some students shared that the inclusion of mihimihi, karakia, and pūrākau within lessons fostered a sense of connection and emotional safety. At the same time, challenges were identified — such as access to digital devices and the quality of internet connectivity — which posed barriers for some immersion-pathway participants (Gottschalk & Weise, 2023). However, collaborative problem-solving between participants and teachers helped to address these issues and further strengthened learner engagement.

Teachers were identified as a critical factor in the programme's success. Educators who were confident in te reo and tikanga Māori, and who also possessed strong digital pedagogical skills, were better positioned to create culturally safe and responsive online learning environments (Ritchie, 2023). The research highlights the need for targeted support and professional learning to strengthen the integration of mātauranga Māori and digital technologies.

Kura also emerged as a vital pillar of online learning. Through online kura hui and interactive learning activities, support for learners increased, and learning became embedded within everyday whānau life. This reflects the strength of "kura and community-based learning" as an approach closely aligned with Kaupapa Māori principles.

From these findings, several key implications for future practice emerge: Learning design must begin from a Māori worldview, rather than adding Māori elements retrospectively; Teachers' te reo Māori capability and digital fluency must be strengthened; Equitable access to digital devices and reliable internet must be ensured for all learners; Sustained collaboration with whānau, hapori, and iwi should be embedded, recognising them as research and learning partners; Wānanga values should be enacted so that online spaces become sites of dialogue and relationship-building, not merely content delivery.

In conclusion, the authentic integration of Mātauranga Māori into online learning environments has the power to revitalise te reo, culture, and Māori identity for learners, while also strengthening their connection to the environment in a future focused way.

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About the Author

Mark Rangi is the Kaiārahi Tiaki Taiao (Lead Environmental Studies Teacher) of Te Whare Angitu, an educational arm of Ngā Kura a Iwi o Aotearoa Incorporated.

He is also a consultant in implementing Te Reo Māori, culturally inclusive teaching pedagogy as well as designing NCEA accredited achievement standards, tasks and assessment criteria statements.





AcademyEX Executive Summary

Master of Contemporary Education C15P Cohort

Symposium 21 January 2026

The Heart of the Matter: A Dance and Phenomenon-Based Learning Solution for Resilient Classrooms and Positive Educator Impact

Maria Roy

dancelove.mr@gmail.com

This practice-based change project sought to foster behavioural resilience in young learners and to support educators in creating positive learning environments. It was grounded in the belief that children are capable individuals whose mind, body, and spirit call for equal respect, and that educators can be empowered to nurture resilience through empathy, inquiry, and creative practice. Central to the project was the assumption that learning and behaviour are deeply interconnected and that addressing the child holistically supports meaningful engagement and growth.

The project pursued multiple interconnected goals: strengthening behavioural resilience; fostering positive classroom cultures; empowering educators with empathetic and practical strategies; inspiring motivation and responsible decision-making; promoting holistic learning through dance and real-world phenomena; and developing scalable, culturally responsive tools across iterative cycles. These aims were addressed through an integrated pedagogical framework combining phenomenon-based learning, creative dance, and the behavioural philosophy of Love and Logic, offering a relational and embodied approach to learning and behaviour.

An action research methodology was employed due to its suitability for practitioners investigating their own professional contexts. This approach supported ongoing reflection, collaboration, and the generation of knowledge directly from practice (McNiff, 2016). A qualitative research design was adopted to explore young learners' behaviour, emotions, and learning experiences. Data were collected through semi-structured interviews, questionnaires, teacher voice notes, the researcher's reflective journal, media recordings, and teacher reflections. The use of multiple data sources enabled triangulation and provided insight into both children's experiences and educators' interpretations across two cultural contexts: New Zealand and India.

The project was implemented across two early childhood education centres and one full primary school, involving children aged 3–9 years. In the first two iterations at Olive Shoots Early Childhood Education, weekly 40-minute creative dance sessions were conducted with groups of approximately 10 children. This model was refined and expanded at Real Kids ECE, where six groups of 6–10 participants engaged in the programme. The project then evolved into a remote interdisciplinary collaboration with Pallikoodam School in India, involving learners aged 8–9 years. Across contexts, dance functioned as a vehicle for embodied learning, inquiry, emotional regulation, and resilience development.

Analysis of the data revealed several interrelated themes. First, emotional safety and recognition of the child as capable emerged as foundational. Findings indicated that children's willingness to explore, take risks, and engage

creatively was closely linked to their sense of security within the learning environment. Traditional models that emphasise control or micromanagement can inadvertently position children as deficient; in contrast, this project positioned children as active agents in their own learning journeys. Second, holistic education was strongly emphasised. Consistent with Lonka's (2019) assertion that children naturally approach the world holistically, learning experiences integrating physical, emotional, and cognitive dimensions supported deeper engagement.

Third, the evolving role of the educator was critical. Educators were positioned as designers of learning environments, researchers of their own practice, and lifelong learners rather than transmitters of knowledge. Through reflective inquiry, educators intentionally shaped contexts that nurtured curiosity, collaboration, and emotional regulation, while valuing the learning process alongside observable outcomes. Fourth, inquiry and resilience emerged as interconnected constructs. Educators moved from theoretical understandings toward practical, embodied strategies that enabled children to explore, reflect, and co-create meaning through movement.

Cultivating behavioural resilience required attention to the child's inner world. Confidence and self-esteem supported children's capacity to navigate challenges, engage in perspective-taking, and participate meaningfully in social contexts. Educators often described the learning environment as "the third teacher," intentionally designed to promote safety, respect, and joy. Observations suggested that such environments supported social-emotional skill development through collaboration and problem-solving, often with reduced reliance on direct adult intervention. Authority was most effective when enacted calmly and empathetically, allowing children to move beyond survival-oriented behaviour toward sustained engagement and learning. Within this framework, education functioned as a partnership between children, families, and educators.

For practising educators, the findings highlight the importance of creating learning environments in which behavioural resilience and positive classroom cultures emerge from holistic, interdependent systems. These systems are

grounded in a philosophical stance that consistently views children as capable makers of meaning. Within such environments, individual resilience is nurtured by addressing the heart in order to engage the mind. This process is sustained through intentional classroom design that prioritises safety and connection and is activated by empowered educators whose reflective, co-learning stance serves as a central catalyst. The project also contributes to practice-based knowledge by demonstrating how phenomenon-based learning can function as an embodied, arts-integrated pedagogy. Dance operated as a multimodal inquiry tool, integrating emotion, cognition, and physical expression to support intrinsic motivation.

The conclusions emphasise that education must move beyond theory to cultivate practical life skills such as problem-solving, boundary-setting, accountability, and self-discipline. Behavioural resilience was understood as a naturally developing capacity strengthened through caring relationships, consistent boundaries, and opportunities for self-expression. When combined with creative arts, phenomenon-based learning provided interdisciplinary pathways connecting learning to real-world contexts. The Love and Logic philosophy complemented these approaches by equipping educators with practical tools to maintain empathy, consistency, and calm authority. Together, these elements form a scalable and culturally responsive framework for holistic education.

The project's outputs include six-week lesson plans structured into four modules, alongside supporting artefacts such as videos, booklets, and a digital e-portfolio. These resources enable educators, parents, and organisations to adapt the integrated framework within their own contexts, positioning participants as co-creators of educational change and supporting sustained innovation.

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About the Author

Maria Roy has spent the past four years at the intersection of dance, creative movement and education. Her love for the performing arts has taken her from the screens of Indian cinema to studios across India and New Zealand, where she's worked as an actor, dancer, instructor and creative entrepreneur. Eventually, she found her sweet spot in the classroom. As a freelance dance educator and creative movements practitioner, she's witnessed firsthand how empathy, safety and meaningful connection can kindle a child's love for learning.



As the founder of Easy and Light, a creative dance education initiative, Maria blends her passion for teaching with her belief that dance is more than movement - it is joy, connection and a playful but powerful way of learning something new. She holds qualifications in dance and film, as well as a Postgraduate in Digital and Collaborative Learning from AcademyEX.

Maria will begin contributing to the management of Pallikoodam School in Kottayam, India, from June 2026. Founded by her grandmother, the late educator-activist Mary Roy, Pallikoodam is a 60-year-old institution in India. From New Zealand, Maria has already been supporting the shaping of curriculum design, especially around practice-based and transformative learning approaches.



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Master of Contemporary Education C15P Cohort

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Implementing Flipped and Blended Learning to Enhance Māori Student Engagement and Strengthen Whānau-School Relationships

Tania Siueva

tania.siueva@otahuhuprimary.school.nz

This project explored how culturally responsive flipped and blended learning could be implemented to increase Maori student engagement, strengthen relationships between home and school and create community participation in learning. The inquiry was grounded in the kaupapa Maori principles of ako, whanaungatanga and mana Motuhake, which emphasise reciprocity, collective responsibility and learner leadership.

Maori students in the bilingual hub were increasingly disengaged, often perceiving schoolwork as irrelevant or disconnected from their lived experiences. Some tamariki displayed off-task behaviours, while whanau felt alienated by predominately negative communication from school. Building on

Glynn et al. (2010) and Bishop and Berryman (2009), to project sought to re-establish learning on a shared, relational endeavour where every participant contributes to the collective good.

The central purpose was to develop a culturally sustaining learning model that blended digital and face-to-face approaches to foster engagement and trust. Four goals guided the work: to improve student and whanau engagement, create an accessible digital platform for shared learning artefacts in the name of flipped and blended learning, promote collaborative inquiry, and normalise Te Reo Maori and tikanga Maori across classroom and school life.

A Google site, titled OPS Maori Resources, became the central hub for teaching material, with the use of videos, photos and learning notes. It connected school and home learning by allowing children and whanau to explore material before class and revisit it afterwards. Teachers used Class Dojo and Skool Loop to communicate updates and collect feedback. Learning activities were contextualized in Maori culture. Themed learning included gardening, kapa haka, marae visits and whanaungatanga with other local schools' Maori bilingual hubs. Learning was reported back to whanau on a face-to-face basis during twice-a-term whanau hui, or posted up as a display for families to look at while picking up or dropping off their children.

The project followed a participatory action research design (Kemmis & McTaggart, 2014). Teachers, students and whanau acted as co-participants throughout iterative cycles of planning, action, observation and reflection. Quantitative attendance and engagement data that was collated through classroom observations were triangulated with qualitative reflections and survey responses. Ethical practice was informed by manaakitanga and respect for Te Tiriti o Waitangi principles of partnership, participation and protection.

Data revealed significant improvements in engagement when learning was connected to cultural identity. The first learning block of each day- when reading tasks integrated Maori vocabulary and stories, and when the Maori hub would assemble for whanau time and engage in karakia, whakatauki, mihi,

pepeha and waiata showed the highest levels of focus and engagement. Students demonstrated increased confidence in using Te Reo Maori and leading karakia and waiata during assemblies. Whanau questionnaires showed strong enthusiasm for digital participation, although device accessibility remained uneven between students.

Teachers observed that visibility of Maori identity enhanced pride and motivation, confirming Bishop and Berryman's (2009) concept of mana Motuhake- the recognition of every learner's potential to lead. These findings also aligned with Garrison and Vaughan (2008), who describe blended learning as enhancing social presence and connection. Collectively, the evidence indicated that flipped and blended approaches, when designed within a kaupapa Maori framework, can be both culturally sustaining and pedagogically effective.

Leadership drew on the Tū Rangatira model, viewing influence as collective and relational rather than hierarchical. My role involved modelling reflective practice, encouraging open dialogue and supporting staff to develop digital and cultural confidence. Collaboration extended across multiple levels: within the bilingual hub, with whanau, and across the Kahui Ako cluster. Joint kapa haka practices and share Te Reo sessions with neighbouring schools built local whanaungatanga and normalised Maori language in wider learning contexts. This is projected to continue in future years.

Cultural responsiveness was woven into every stage of the project. The research avoided token inclusion by ensuring whanau voice informed planning and evaluation. Classroom practice reflected ako in action- teachers learned from families while families engaged in children's academic worlds. The experience deepened my understanding that technology is valuable only when it serves human connection. Flipped learning became a means of honouring collective agency rather than an isolated technical tool.

This project contributes new knowledge about integrating kaupapa Maori principles into contemporary digital pedagogy. It demonstrates that relational

approaches and online learning are not opposites but can co-exist to strengthen whanau engagement. The model provides practical strategies for other educators: use shared digital spaces to extend the classroom into the home, design content grounded in local Māori contexts, hold regular hui for feedback and collective reflection, and position children as co-teachers and leaders of cultural knowledge.

These strategies move education toward culturally sustaining practice (Paris & Alim, 2017), ensuring Maori learners see their culture not as supplementary but central to schooling. The project also reinforces Robinson et al. (2019) who link effective leadership with relational trust and shared purpose.

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About the Author

Tania Siueva is a teacher at Otahuhu Primary School

in Auckland. As of September 2025, she has been teaching at the school for 8 years and is now in her 9th year.

Originally working in the Māori bilingual hub, she was renamed as a classroom release teacher, specialising in Te Reo Maori and Maori tikanga, to be shared throughout the school.



She is originally from Wellington but has been living in Auckland since 1994.



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Master of Contemporary Education C16F Cohort

Symposium 21 January 2026

Gagana Talanoa Programme

Terry Televave

terry.televave@roscommon.school.nz

Talofa Lava, O lo'u Igoa o Terry Televave I am of Samoan descent and I am currently teaching year 7 & 8 students in a Samoan Bilingual Unit. This Masters programme has provided an opportunity for me to sharpen my thinking and teaching practice around language learning. This project was about how the students were comprehending the Gagana Samoa language. This was also about myself and how I see myself in this space of learning. I initially thought about how we know bilingual approaches and pedagogies by name but how often do bilingual educators critically think about these approaches and understand how well they work for our students. The problem I identified was students were experiencing a Cognitive Academic Language Proficiency (CALP) gap in Gagana Samoa (Cummins, 2008). This was evident through their Gagana Samoa Speeches they prepared with their parents. This initial idea provided an opportunity for me to think of ways I can bridge this CALP gap for my students. This linked well to my purpose statement of my project which was

to implement flipped learning approaches in order to develop communicative tasks that will provide more engaging ways in improving the understanding of Gagana Samoa (Cummins, 1981). The Main terms that formed my goals were, Flipped Learning, Communicative Task approach, my role as a leader in my chosen research methodology of Talanoa. These specific terms align very well to my project purpose and have been the main conversation of my project evaluation.

My project design involved a vast amount of surveys students took part in. The first survey was to get an indication of how the students saw themselves as bilingual learners and whether they are involved in a lot of language learning in class. This survey was completed prior to starting my first iteration. The rest of the surveys were designed to gain student voice on how well they participated in the tasks and to see whether they found the flipped learning beneficial. My project design ran for a total of three iterations. In each iteration there were a total of 4 sessions.

There were a few flipped tasks the students were involved in as well as teacher tasks that followed to support with comprehension. This involved topic-specific vocabulary tasks and metaphoric phrases that needed more in depth teaching. All tasks were informed by the students' speech writing as well as their feedback from their surveys. Assessments were carried out in the beginning and the end of my programme. This told me whether my tasks were working or not. The tasks were designed for mixing, matching and most importantly communication of ideas

Throughout my project most of the data was qualitative data. This included the output data of student task evidence, this was data drawn from the task completion. Although the primary focus was meaning completion of the task was not priority. This included written responses, definitions and how the students used the target language to achieve meaning. Another source of data collection was my own teacher observation of student engagement and participation. This mostly consisted of Talanoa (group discussions) as well as surveys, about the specific tasks where the target language needed to be explained or used through input and output. Observing the students on what

language skills were they transferring during the tasks. I also used a teacher reflection journal where I blogged about every session and noted down my own thoughts and thinking process. This helped me gather my thoughts and just inform my next steps for my sessions.

Student output was assessed through accuracy of meaning and word formation. We also looked at the pragmatic competence of language where students were able to use the language in the right context (Bachman & Clark, 1987). According to Bachman & Clark, (1987) they suggested that we can look at assessing language proficiency by focusing on what the students can do with the language rather than comparing students to each-other. From this literature I understood that we had to consider the illocutionary force to language proficiency where we understand the speaker's intended meaning and purpose (Bachman & Clark, 1987). This connected really well to the model text we used to support student language learning in Gagana Samoa.

In summary, there are many factors that challenge bilingual learners in a classroom environment. These factors include heritage language and culture, language acquisition and grammatical and phonological differences between the first language and English. Although these factors can potentially have a negative impact on our students' learning experiences, it is our job to acknowledge their heritage language, to create a safe environment, to celebrate one's cultural differences and to really get to know our learners so that we can plan meaningful learning experiences to really lift their achievement.

I believe that one of the many goals for supporting student language learning is to support students to develop this explicit knowledge through communicative tasks so that one day that explicit knowledge becomes implicit knowledge. Cummins, (2008) describes when explicit instruction focuses on the similarities and differences between languages it increases overall language awareness and helps them relate knowledge of their heritage language and second language.

Task design plays a vital role here. Task design that actually supports language learning. We need to see every lesson as a language lesson because students are working with language and using language to communicate ideas and knowledge. It is the responsibility of the teacher to notice and recognise two languages being seen as a two way transfer. It is the skill of the teacher to identify what language skills are being transferred between Gagana Samoa and English. If we can see this in class we can bridge the CALP gap students have when it comes to language content knowledge.

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About the Author

Terry Televave is Samoan descent, and he is currently teaching year 7 & 8 students in a Samoan Bilingual Unit.





academyEX Executive Summary

Master of Contemporary Education C15P Cohort

Symposium 21st January 2026

Using Culturally Responsive Project-Based Learning to Strengthen Reading Achievement and Engagement for Māori and Pasifika Learners (Years 4–6).

Tutunoa Tereu-Solomona

ntereu@strathmore.school.nz

Iti rearea teitei Kahikatea ka taea

The rearea is the smallest bird in the forest, yet it flies in the highest trees.

Strathmore School identified challenges with reading achievement for Years 4-6 Māori and Pasifika learners, with more than half of senior students performing below curriculum expectations and significant concerns around student engagement and attendance. Traditional reading approaches were not shifting outcomes, despite deliberate actions from teachers. At the same time opportunities for hands-on collaborative learning existed through the school's under-utilised Makerspace.

The purpose of this project was to implement and evaluate a culturally responsive Project-Based Learning (PBL) approach focussed on identity, belonging and collaboration, then to measure its impact on reading achievement and student engagement. PBL was selected due to its alignment with Māori and Pasifika values - collective learning, whānaungatanga and contexts that affirm identity and culture. Almulla (2020) found that PBL strengthened learning in IT and collaborative skills in science. While the research was centred on IT and science, it raises questions about PBL's potential to support other learning areas such as reading. Bishop and Lepou (2018) explored this through a teacher-led inquiry at Mt Roskill Primary, where PBL was used with a group of Māori and Pasifika students. Achievement data showed improvements in literacy. These studies suggest that PBL can have benefits in other subject areas too.

The project established four goals

1. **Improve Reading Achievement** – Increase the number of Māori and Pasifika students meeting curriculum expectations in reading.
2. **Enhance Student Engagement** – Increase motivation and collaboration through culturally relevant learning experiences.
3. **Build Teacher Capability** – Strengthen understanding and implementation of culturally responsive PBL.
4. **Gather Evidence for Future Practice** – Collect data to evaluate PBL as an effective approach at Strathmore School.

Using a mixed-methods action research design, the project was implemented with 29 Year 4–6 students over two terms. Data was gathered through STAR reading tests (pre and post), student engagement surveys using Likert scales, talanoa conversations with students and teacher reflections.

The PBL kaupapa, *Ko Wai Au – Who Am I?*, was intentionally designed to celebrate the identities and stories of our Māori, Cook Islands, and Samoan learners. Tamariki explored their whakapapa and aiga/whānau histories, created a digital slideshow to express who they are, and shared their learning through short presentations to peers and whānau. Key outcomes included

student-created artefacts, chromebook capability checklists that supported digital independence, and PBL planning templates that can be reused to support future projects.

During implementation, several challenges emerged. Many students were unfamiliar with inquiry learning and initially found it difficult to generate deeper questions to drive their projects. In addition, digital literacy skills required more explicit teaching than anticipated, which reduced the time available for inquiry and project work. A further complication arose when the Makerspace became unavailable and the project was relocated to the school hall, limiting access to resources and reducing opportunities for hands-on, creative learning.

To respond, the inquiry incorporated modelling and guided digital skill development. Leadership of the project drew on Wayfinding Leadership, which emphasises responsiveness, intuition, and adapting actions based on what unfolds. Lessons shifted toward explicit scaffolding rather than purely student-led inquiry.

Despite interruptions, the project demonstrated that culturally responsive PBL, supported with scaffolding, can strengthen both reading achievement and engagement. Reading data showed small but positive shifts for the majority of students. 87% improved their STAR reading score, with an average gain of 11.4 scale points across the group. Māori learners showed the strongest overall improvement, with a mean increase of 12.45 points, while Pasifika learners recorded the highest individual gain of 34 points. Student engagement increased across all categories when reading occurred in a PBL context, with the most significant improvement in collaboration and discussion (+0.90 on the Likert scale)

Insights from the project highlight that identity matters. When students see their culture reflected in learning, their engagement increases. The findings also showed that PBL requires deliberate scaffolding, students need explicit teaching in inquiry skills, collaboration, and digital fluency before they are able to lead their own projects. Collaboration emerged as a significant strength for Māori and Pasifika learners, with engagement increasing when learning was

collective and aligned with whānau-like contexts described in Te Mātaiaho (Ministry of Education, 2023) and in Russell Bishop's (2019) *Teaching to the North East*. While the action researcher strengthened their own capability in PBL, future iterations will place greater emphasis on co-planning and shared leadership with colleagues to build expertise across the school. Overall, the project indicates that culturally responsive PBL is a viable approach to improving reading achievement and engagement for Māori and Pasifika learners, and with refinement, has the potential to become a signature pedagogy at Strathmore School.

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About the Author

Tutunoa Tereu-Solomona (Noa) is in her first year as a tumuaki and has over 20 years of teaching and leadership experience. From Avenger movies to educational leadership, her interests are wide-ranging and always accompanied by a coconut flat white. Having grown up in a time where cultural responsiveness was rarely seen in classrooms, Noa is committed to leading change so that identity and culture are visible and valued for all tamariki in Aotearoa





academyEX Executive Summary

Master of Contemporary Education C14P Cohort

Symposium 21 January 2026

Enhancing career certainty and mana in a rural high school

Elizabeth van den Berg

elizabeth.vandenberg@otamatea.school.nz

*Kia kaha, kia māhīā, kia manawanui
Be courageous, be confident, be committed.*

This project came from a desire to enhance the career certainty and mana (roughly translated as a sense of self-worth, self-efficacy and belonging), of Year 9 and 10 students after seeing an OECD report (2024) which showed that career uncertainty of 15-year olds in New Zealand has increased to about 40% according to 2022 PISA data, which was a jump from 25% in 2015 and 2018. The same report stated that longitudinal studies show that in countries where career education is started with students before the age of 15 and continues as an important part of their education every year until leaving school, significant benefits are shown in bringing down career uncertainty and raising income and success of work in their later lives. Holistically, students' mana is equally important for making wise decisions at every stage of their lives and careers.

My working definition for career certainty came from Boye and Nyarko-Sampson (2023), who say "If one does not have a good grasp of the fundamentals in decision-making in career choices, one will be prone to career uncertainty". (p. 55) A range of aspects that could predict career uncertainty have been researched, such as career self-efficacy, academic self-esteem, perceived parental support, extraversion, openness, and conscientiousness (Stărică, 2012). Working on career certainty can be seen as increasing career self-efficacy and, as I could not include each of the other factors, I looked for an overarching idea. I found it in Webber's (2024) mana model, which states that mana is a foundational part of well-being and self-esteem, something students need to become productive members of society. Thus, to give effect to our school's vision of our students being "Ready for the world | Kia mataara ki te ao" I decided to work on a project for career education that would enhance both.

Aiming to make the career programme original, creative, engaging and have a positive emotional effect on students, I researched experiential teaching and learning approaches. I decided to devise activities based on play-based, project-based and place-based approaches.

So my research question was whether play-based, project-based or place-based activities would enhance the career certainty and mana of Year 9 and 10 students at a rural high school the best? I also included sub-questions about gender, ethnicity and parental involvement.

Over Terms 2 and 3 of this year, I had three consecutive groups of volunteer Year 9 and 10 students. Every group had two sessions of play-based activities, two of project-based ones and one place-based, which was a trip to workplaces in the community. Each iteration followed a different order of the activities to avoid a cumulative effect, and all 15 activities were unique.

Deciding on the content of the activities, I looked for a unifying idea that would help students with the basics of career-decision making. Since Parsons 1909 theory that a person's traits could be matched to a career, several theorists, such as Holland, and Myers and Briggs, proposed more involved and

more accurate ways of matching, using a range of different interests or characteristics (NMIT, 2017). These are very involved, and it is difficult to explain the underlying principle to students, so they end up taking a quiz and being given a list of careers that should suit them. On the other extreme, students are told to follow their passion, but as many students have asked me, how do I know what my passion is?

So I developed a simplified two-factor approach using memory and creative-logic strengths. These two were chosen as they have an intuitive element to them, but are also grounded in academic research. Through games in play-based activities, inquiry and tangible artefacts in project-based activities and visits to workplaces in place-based activities, students developed an understanding of their own memory and creative-logic strengths on a continuum. They also explored how different occupations and job tasks require more or less of these strengths. They could then understand that a match of the person and what they need for the career could result in a wise choice.

Data was collected through Google surveys, observations, answers on worksheets, informal interviews and my reflective diary. I also conducted a parent/caregiver survey that answered my third sub-question conclusively.

I found that, possibly because of the voluntary nature of signing up as a participant and giving up break time, the participants were already quite career certain and displayed high levels of mana. But despite this, there were some uncertain students involved, and their survey answers showed an increase in career certainty. I also observed a growing sense of mana throughout each iteration. As to the main research question, I cannot single out any of the teaching/learning approaches as the best, but found the following: students were most involved in the place-based activities, reported enjoying the play-based ones and did the project-based activities with varying degrees of involvement. I also found a positive correlation between parental involvement on one side and career certainty and a higher sense of mana on the other.

My two-factor approach is not the be-all and end-all of career education, but can be used productively for younger students to start their career thinking.

That leaves the more complex decision-making tools for a time when they have already grasped the fundamentals of career decision-making. The experience that my two-factor approach can be used in different teaching and learning approaches also convinced me that it is an easy enough tool for all teachers to implement in their subjects and pastoral care activities.

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About the Author

Elizabeth van den Berg is career adviser at a rural school in Northland and teacher of a range of technology subjects for Year 7 to 13 students. She is also the Self-driven Pathways coordinator at the school, which is a unique programme for NCEA Level 2 and 3 students who do two core career standards, a traffic law and a financial literacy standard, and for the rest of the year work on their own individualised programme that aligns with their vocational interests. Her husband, Andre, was the initiator of the binary distinction used in the proposed theory.





academyEX Executive Summary

Master of Contemporary Education C15P Cohort

Symposium 21 January 2026

Empowering Numeracy by Leveraging Digital Tools

Isabel Videtta

izzyvidetta@gmail.com

This practice-based research project explored how access to a tailored, culturally responsive mathematics tutorial platform could enhance engagement, confidence and achievement for students preparing for NZQA's Numeracy Common Assessment Activity (CAA). The project was designed and implemented by a mathematics teacher at Selwyn College in Auckland in response to persistent achievement disparities in mathematics education, particularly for Māori, Pacific and low-income learners. This project addressed these barriers by developing a blended learning resource that embedded culturally responsive pedagogical principles and prioritised student agency.

The purpose of the project was to evaluate how digital tools could enhance accessibility, motivation, and numeracy outcomes by bridging the gap between classroom and home learning. The project's primary question - "How can access to a tailored mathematics tutorial platform enhance engagement and support mathematical progress for students preparing for the Numeracy

Achievement Standard?" - was explored through secondary inquiries into the effects of blended learning, the influence of teacher familiarity, and the impact of targeted support for Māori and Pacific students. These questions guided the iterative cycles of action research that underpinned the project design.

The project demonstrated that relational practice is central to effective blended learning. The better teachers understand their learners - their backgrounds, interests, challenges and aspirations - the more precisely they can design learning experiences that meet students' needs. The inquiry confirmed that confidence and engagement grew most when students felt known and valued, reflecting Bishop's (2019) assertion that strong relationships form the foundation of responsive pedagogy. Learners were more engaged when instructional content came from teachers and peers they recognised and trusted, indicating that familiarity was not only a comfort factor but could initiate deeper learning. By positioning digital tools within a context of relational knowledge, the project highlighted that technology amplifies impact only when it is grounded in connection, empathy and culturally sustaining practice.

The project employed an action research methodology, chosen for its transformative and participatory nature. Following the principles described by Merler (2019), action research was employed both as an inquiry and as a means of enacting classroom change. The research was structured around four iterative cycles, each informed by data collection from surveys, diagnostic and formative assessments, classroom observations, interviews and website analytics. This mixed-methods approach (Braun & Clarke, 2012) enabled a continuous feedback loop between reflection and action, allowing the educator to respond dynamically to student needs and refine the intervention across the school year.

The intervention centred on the creation and progressive enhancement of the Numeracy Support Website - a digital platform hosting teacher (and student) tutorial videos, practice tests, and strategy walkthroughs. Iteration 1 involved diagnosing student needs and launching an initial version of the website populated with skills-based content. Iteration 2 expanded the resource to include explicit test coaching and collaborative input from other mathematics

teachers, resulting in improved student confidence and self-directed use. Interaction 3 introduced peer-created content from senior students, enhancing the cultural and relational relevance of the platform. Finally, Iteration 4 focused on synthesising data, refining usability and preparing to disseminate findings to the wider mathematics education community through presentations such as the Auckland Mathematics Association (AMA) Maths Day.

Quantitative and qualitative findings revealed substantial gains in student confidence, engagement, and digital fluency. Survey data showed that self-reported confidence in answering maths questions rose from 11.7% to over 50% among Year 10 students and from 0% to 42.9% among Year 11s. Confidence in using technology reached 100% for the Year 11 cohort by mid-year, demonstrating the success of the blended approach in building digital capability. Students' engagement with the website was exceptionally high - after initial direction and integration into class routines, 100% of participants reported using the resource multiple times per week. While confidence and engagement remained consistently strong across both cohorts, the data also highlighted the fragility of confidence among students with a history of non-achievement. The Year 11 resit group exhibited renewed anxiety and reduced self-belief after unsuccessful assessment attempts, underscoring the need for ongoing relational support alongside digital interventions. Students demonstrated strengthened understanding of the Numeracy Process Ideas, particularly those aligned with mathematical application (Process Idea 2). Website analytics revealed predictable engagement spikes in the lead-up to assessments, indicating that students viewed the platform as an integral preparation tool. Video analytics showed a shift from early skill videos to test coaching near assessments, reflecting a maturation in students' learning strategies and confidence.

Qualitative student feedback supported these findings, revealing three major themes: resource evolution, engagement and impact, and usability and barriers. Initially, students described the website as "looks a bit confusing tbh", prompting subsequent design simplifications that improved navigation and engagement. As the resource evolved, students increasingly valued the

relevance and relatability of the videos, with one noting it was “cool Miss Videtta made a website cos no other teachers did that,” and another commenting, “I like that u can watch the videos again at home if u forget what happened in class”. The introduction of strategy-focused walkthrough videos was particularly well-received, with students crediting them for improved test readiness and reduced anxiety.

Overall, the project demonstrated that blended learning approaches can meaningfully enhance student agency, confidence, and achievement in numeracy, particularly when supported by culturally responsive practice. The findings reaffirmed that familiarity and relational practice are key factors in digital learning environments - students were more engaged when instructional content was delivered by teachers and peers they knew. The project also revealed the potential of collaborative resource creation within a school community to extend the reach and sustainability of digital learning tools. The researcher concluded that while digital resources are powerful enablers of equity and engagement, their true impact lies in the relationships and responsiveness that surround them. The Numeracy Support Website has since been refined for long-term use at Selwyn College, with potential for adaptation across other year levels and subjects. Further iterations will focus on integrating interactive tools (e.g. Edpuzzle) and expanding whānau engagement to sustain motivation, particularly for students who have experienced repeated failure. This project contributed significant insight to the practice of mathematics education in Aotearoa, demonstrating that culturally grounded, teacher-designed tools can dismantle barriers to achievement and empower rangatahi to succeed in numeracy.

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About the Author

Isabel Videtta is a Mathematics and Statistics teacher at Selwyn College, a co-educational secondary school in Auckland, New Zealand. Her teaching and research centre on relational practice and culturally responsive pedagogies that foster student agency and confidence in mathematics. This project emerged from her observation of increasing anxiety among students and a growing number identifying themselves as “not maths people.” Isabel completed the inquiry as part of her Master of Contemporary Education with AcademyEx | The Mind Lab, drawing on her classroom practice to design and evaluate digital tools that bridge learning between home and school. She is passionate about creating and sharing resources that support student learning and welcomes collaboration with other educators.





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Master of Contemporary Education C14P Cohort

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From Burnout to Balance: How Can Generative AI Improve Teacher Wellbeing by Reducing Cognitive Load?

Liz Whittaker

researcher0872@gmail.com

<https://www.linkedin.com/in/liz-whittaker/>

This design-based research project investigated the question: How can generative artificial intelligence (AI) improve teacher wellbeing by reducing cognitive load? The study was situated in the Year 0–8 sector in New Zealand, where teachers commonly experience high cognitive demand due to broad curriculum coverage, extensive administrative requirements, and significant relational responsibilities. While concerns about teacher workload, stress, and attrition are well documented, fewer studies have examined how emerging technologies might alleviate cognitive pressure without undermining professional judgement or ethical practice.

Drawing on Cognitive Load Theory, the project focused specifically on extraneous cognitive load generated by repetitive, language-intensive tasks such as planning, reporting, differentiation, and professional communication (Sweller, 1988; Paas et al., 2003). The inquiry examined whether generative AI could meaningfully reduce this form of cognitive burden in ways that support teacher wellbeing, confidence, and sustained engagement in professional practice.

The study adopted a Design-Based Research (DBR) methodology, enabling iterative cycles of design, enactment, analysis, and refinement within authentic educational contexts (McKenney & Reeves, 2019). This approach was selected to ensure that theory and practice informed one another and that the intervention remained responsive to teacher experience over time. The primary design artefact was the A-Einstein website, a scaffolded, teacher-facing platform that provided ethically framed prompts, examples, and guidance for using generative AI to support cognitively demanding professional tasks.

The design of the intervention was informed by research emphasising that AI adds educational value only when it augments rather than replaces human intelligence and judgement (Luckin et al., 2018). Consistent with this perspective, generative AI was positioned as a cognitive support tool intended to reduce extraneous load, not as a mechanism for automating pedagogical decision-making. Participation was voluntary, self-paced, and non-mandatory, reflecting a deliberate emphasis on teacher autonomy, psychological safety, and professional trust.

Twenty-one teachers completed the pre-study survey, and thirteen teachers formed the matched pre- and post-study dataset. Participants represented a range of primary teaching contexts and experience levels. Data collection combined quantitative and qualitative methods, including pre-, mid-, and post-study surveys, collaborative Padlet reflections, and email correspondence. Quantitative data was analysed descriptively to identify shifts in perceived workload, wellbeing, and engagement, while qualitative data was analysed using inductive thematic analysis (Braun & Clarke, 2006).

Findings indicate that reducing extraneous cognitive load through the use of generative AI was associated with improved teacher wellbeing and professional capacity. In the matched dataset, positive perceptions of workload manageability increased from 36 percent prior to the intervention to 87 percent post-intervention. Similarly, positive wellbeing perceptions increased from 32 percent to 80 percent. Teachers most frequently identified planning, reporting, and administrative writing as tasks that generated high cognitive load and aligned well with generative AI's strengths.

Qualitative findings illustrated how these shifts were experienced in practice. Teachers described feeling less stressed by wording, formatting, and "getting started" on demanding tasks. One participant reflected, "I used ChatGPT for maths report comments... it took away the stress of wording it all right." Another described the experience of using AI for professional reflection as "a free coaching mentor." These accounts suggest that AI functioned not merely as a time-saving tool, but as a support for emotional regulation, confidence, and cognitive momentum during periods of overload.

Importantly, participants did not describe relinquishing professional judgement or authorship. Ethical reflexivity featured strongly across responses. One teacher noted, "It took half my time to make the task ... but I still checked every line to ensure it sounded like me." This reinforces the project's framing of AI as an augmentative support rather than a substitute for expertise, addressing common concerns about de-skilling and over-reliance on automation.

Beyond efficiency gains, participants reported affective and relational benefits. Reduced cognitive pressure appeared to restore emotional capacity for creative and relational aspects of teaching. Teachers described feeling calmer, clearer, and more able to engage positively with students and colleagues. These findings suggest that even modest reductions in extraneous cognitive load can have disproportionate effects on wellbeing, agency, and professional confidence.

Engagement with generative AI was not uniform. A small number of participants reported limited benefit, particularly where they already felt highly efficient in certain tasks. This variation underscored the importance of optional, autonomy-supportive implementation rather than mandated adoption. Leadership context emerged as a significant enabling condition. Where teachers perceived trust, transparency, and ethical clarity, engagement was stronger. In contrast, uncertainty, guilt, or fear of “doing something wrong” acted as barriers to experimentation.

A small micro-iteration explored accessibility for neurodivergent teachers through tailored prompts and temporary access to a paid AI version. Feedback from this subgroup highlighted the value of generative AI as a non-judgemental, always-available thinking partner during periods of executive fatigue. These insights reinforced the importance of designing AI-supported professional learning with accessibility and equity in mind.

An emergent conceptual insight from the study was the A-Einstein model, which reframes generative AI not as a More Knowledgeable Other, but as a cognitive offloading support. Findings suggest that by reducing extraneous cognitive load, AI may enable teachers to operate more effectively within their existing capacity, particularly during periods of strain. Rather than extending expertise, AI appeared to create the conditions for teachers’ own thinking, problem-solving, and decision-making to re-emerge. This model is presented as a tentative, practitioner-derived proposition rather than a validated theory, offering a lens for future research into AI-supported professional learning.

Overall, the study demonstrates that ethically framed, teacher-led use of generative AI can reduce cognitive load and support teacher wellbeing when introduced with care, autonomy, and cultural responsiveness. The findings contribute practitioner-informed insight into the affective dimensions of AI adoption and reinforce the importance of centring teacher experience in educational technology design and evaluation. When extraneous cognitive load is reduced, teachers regain cognitive space for reflection, creativity, and connection, positioning wellbeing as a foundational condition for sustainable teaching practice.

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About the Author

Liz Whittaker is a New Zealand educator with nearly 30 years of teaching experience across a wide range of Auckland schools.

She has held multiple leadership roles and is currently a Professional Learning and Development (PLD) facilitator supporting schools in digital fluency, curriculum design, and teacher capability.

Liz is passionate about ethical and sustainable innovation in education and is committed to empowering teachers to restore balance, creativity, and agency in their professional practice. www.a-einstein.net





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Master of Contemporary Education C15P Cohort

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Developing Collaboration Skills In a Year 4 Class through a STEAM Approach Combined with Design Thinking In a Primary School in Auckland

Patricia Whitmore

patizbd@hotmail.com

Naku te rourou, nau te rourou, ka ora ai te iwi.

The purpose of this project is to implement a STEAM approach, using Design Thinking as a framework, to explicitly teach and develop collaboration skills in a Year 4 class at a primary school in Auckland. Although students enjoy hands-on Classroom Release Time sessions, classroom observations showed that, when working in groups, some children tended to withdraw or not participate at all, leaving others to do all the work. These behaviours suggested gaps in their understanding of collaborative skills.

This research responds to the growing need for 21st-century competencies. Latifah et al., (2023) emphasise that collaboration is a key transferable skill for

future learning and work, and content knowledge alone is insufficient. A STEAM approach, integrated with the Design Thinking stages: Empathise, Define, Ideate, Prototype, and Test (Nunes et al., 2021), provides an authentic, iterative structure in which students can practise teamwork while solving creative engineering challenges.

To guide my research, I developed a leading question and three additional supporting ones:

How will using a STEAM approach, combined with Design Thinking, develop collaboration skills in a Year 4 class?

- What stage of Design Thinking encourages collaborative behaviour among Year 4 students?
- What specific collaborative skills do Year 4 students develop through STEAM and Design Thinking activities?
- How do students perceive the benefits and challenges of collaboration in a STEAM and Design Thinking context?

This project follows an Action Research model (Kemmis, 2009; McNiff & Whitehead, 2011), chosen for its reflective, iterative, and improvement-focused nature. It enables the practitioner to plan, act, observe, and reflect, linking theory directly to classroom practice.

Characteristics of Action Research applied in this project include:

- reflective practice – continuous analysis of teaching effectiveness;
- collaboration – inclusion of whānau, leadership, teachers, and students;
- iteration – two research cycles over six months;
- integration of theory and practice – informed by research-based frameworks; and
- ethical and inclusive focus – upholding respect, integrity, and equity.

The study involved 23 Year 4 students from a culturally diverse Auckland school. The class includes neurodiverse learners, students with learning and emotional needs, and students with varied levels of English proficiency.

Universal Design for Learning was used to cater for the variety represented in the group, and culturally responsive practices drew on tikanga Māori values: whanaungatanga, manaakitanga, kotahitanga, rangatiratanga, and pūmanawatanga (Macfarlane et al, 2007) to promote belonging and inclusion.

To ensure validity and triangulation, both qualitative and quantitative tools were used:

Instrument	Purpose	Data Type	Source
Collaboration Skills Rubric	Establish baseline, midpoint, and post-intervention collaboration levels.	Quantitative + Qualitative	Student self-assessment
Yes/No Quick Graph (Golden, 2018)	Record observed collaboration behaviours in real time.	Quantitative	Teacher observation
Survey (Google Form)	Capture student attitudes and feelings about group work.	Qualitative + Quantitative	Student
Design Thinking Questionnaire	Assess collaboration at each Design Thinking stage.	Qualitative	Student reflection
Teacher Journal	Record anecdotal evidence, context, and critical reflection.	Qualitative	Researcher notes

A comparison of baseline, midpoint, and final data highlighted measurable growth in collaboration and revealed which Design Thinking stage most effectively fosters teamwork.

The study concluded that students made noticeable progress across all collaboration skills: using time, sharing ideas, listening, joining in, and including others, with the most substantial gains in listening and including others. In the second iteration, where students worked in pairs, collaboration continued to improve, though some participants expressed dissatisfaction at not being paired with friends.

In relation to Design Thinking, the Ideate stage proved most conducive to collaboration. At this stage, students shared and merged ideas, listened attentively, and created joint solutions. Their comments, such as “We put all our ideas together” and “Let everybody have a turn and share their ideas,” reflected creativity, cooperation, and genuine teamwork.

Students also identified both the benefits and challenges of collaboration. Reported benefits included helping others, sharing ideas, building friendships, inclusion, and teamwork, while challenges involved sharing resources, occasional disagreements, and working with less compatible partners. Overall, eight-year-olds approached collaboration with optimism—valuing teamwork, friendship, and shared success—while also recognising ongoing challenges in communication, inclusion, and role distribution. After participating in STEAM and Design Thinking activities, most students reported greater enjoyment, a stronger sense of collective accomplishment, and a deeper appreciation of the complexity and importance of collaboration.

Exploring STEM and STEAM education deepened my understanding of how these approaches address ill-defined, real-world problems and promote future focus skills such as creativity, critical thinking, and collaborative problem-solving (Granshaw, B., 2016). The knowledge gained from this study has influenced my current practice by integrating authentic, real-life problems into teaching. The collaboration skills students developed through STEAM and Design Thinking are transferable across curriculum areas (Bertrand et al., 2020), empowering them to work constructively with peers. Classroom teachers can adopt these time-efficient strategies to explicitly teach collaboration and use Māori values during outdoor activities or ‘Brain Breaks’ to nurture unity, empathy, and culturally responsive relationships.

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About the Author

Patricia Whitmore is a primary school teacher at Remuera Primary School, Auckland, with over 25 years of teaching experience. She holds a Bachelor of Education, a Diploma of Teaching, a Certificate in Adult Education, and a Postgraduate Certificate in Digital and Collaborative Learning. Patricia is currently completing her Master of Contemporary Education at academyEX. Her professional interests include STEAM education, Design Thinking, cultural responsiveness, and collaborative learning.





academyEX Executive Summary

Master of Contemporary Education C15P Cohort

Symposium 21 January 2026

The Impact of Symbolic Play Through Music and Movement on Social-Emotional Skill Development in Sensory-Seeking Neurodiverse Students

Suzette Willis

suzettegcc@gmail.com

He aha te mea nui o te ao? He tangata, he tangata, he tangata,

*meaning what is the most important thing in this world? It is the people, it's the
people, it's the people!*

The whakataukī “He tamaiti te pūtake o te ako” — “The child is at the heart of learning” — guided this research, framing the learning environment around sensory-seeking neurodiverse learners’ needs, strengths, and identities. This study investigates how music and movement, integrated with symbolic play, support social-emotional development, communication, self-regulation, and peer engagement in a rural ORS-funded classroom in Aotearoa New Zealand.

While prior research establishes that music-based interventions can support neurodiverse learners in clinical settings, these practices rarely translate into everyday classroom routines. This project argues that embedding music-and-movement interventions in classroom contexts, with teachers as collaborators and implementers, provides both equitable access and sustainable social-emotional development opportunities.

The central claim of this research is that music and movement are not merely supplementary activities but constitute critical pedagogical tools for communication, regulation, and relational growth in sensory-seeking learners. Rickson (2014) contends that structured musical experiences enhance joint attention and reciprocal social interaction. In my study, learners demonstrated increased gestures, turn-taking, eye contact, and vocalisations during rhythmic and symbolic play activities, providing empirical support for this claim. These observations suggest that music-and-movement routines can transform the classroom into a space where communication extends beyond language, allowing minimally verbal learners to participate meaningfully in shared social experiences.

Similarly, the study posits that music and movement facilitate emotional regulation and positive affect. Polyvagal Theory argues that predictable, rhythmic experiences promote physiological safety and engagement (Porges, 2011). In practice, learners exhibited reduced agitation, smoother transitions, and sustained attention when participating in structured music-and-movement activities. This evidence aligns with Porges' argument and underscores that sensory-responsive interventions, when applied in classroom contexts, can create environments conducive to emotional and social learning, rather than merely managing behaviour.

The project also takes an explicitly cultural stance, arguing that engagement and identity are inseparable from cultural responsiveness. Bishop (2007) demonstrates that affirming learners' language, culture, and identity significantly improves educational outcomes. By intentionally integrating Te Reo Māori vocabulary, waiata, and the school values of manaakitanga, whanaungatanga, kotahitanga, and kaitiakitanga, this study showed that

learners responded with increased confidence, participation, and relational engagement. These outcomes support the argument that culturally responsive practices are not optional enhancements but are essential for equitable and effective pedagogy in Aotearoa New Zealand classrooms.

Methodologically, the research employed a Participatory Action Research (PAR) framework. The use of Participatory Action Research, as outlined by Coghlan and Brannick (2014), allows classroom practices to be deliberately responsive to the needs of sensory-seeking neurodiverse learners, enabling teachers to collaborate in implementing music- and movement-based interventions that generate meaningful, context-specific social-emotional outcomes. In this context, teachers functioned as collaborators and implementers, contributing to the fidelity and sustainability of music-and-movement routines. This collaboration demonstrates that while teachers may not be co-researchers, their active engagement in implementing, observing, and reflecting on the interventions strengthens both practice and evidence generation. The iterative cycles enabled adjustments to lesson sequences based on student responses, highlighting the practical advantages of PAR for creating classroom-specific solutions rather than applying generalized interventions.

A critical claim of this research is that symbolic play, when combined with music and movement, extends learners' agency and social competence. Bruner (1983) argues that symbolic play transforms experiences into shared, meaningful representations.

Observing learners use instruments, movement, and pretend play to initiate interactions, take turns, and respond to peers demonstrates that symbolic play provides authentic opportunities for communication and relational learning. This study strengthens Bruner's theoretical claim by showing that these experiences are observable, measurable, and reproducible in classroom settings, and not limited to clinical or therapeutic contexts.

The findings also challenge the assumption that structured, adult-led interventions are the most effective for sensory-seeking learners. By

prioritising learner-led and play-based engagement, this research showed that unstructured or flexible sessions often produced richer social-emotional outcomes. This supports an argument for a paradigm shift: rather than controlling learner behaviour, teachers can facilitate environments that respond to learner cues, promote agency, and support relational growth. Observations of “magical moments,” such as a minimally verbal learner spontaneously initiating a musical phrase or a student successfully coordinating movement with peers, provide compelling evidence of the impact of responsive, collaborative pedagogy.

From a practical perspective, the project generated tools and approaches directly transferable to classroom practice. Lesson plans integrate music, movement, and symbolic play, alongside visual supports and Te Reo Māori vocabulary. These resources enable teachers and teacher aides to implement evidence-based strategies within daily routines, bridging the gap between research and practice. By observing, reflecting, and adjusting interventions iteratively, practitioners can adapt activities to learners’ specific sensory, social, and emotional profiles, further supporting the argument that classroom-embedded, culturally responsive music interventions are both feasible and effective.

While this research supports many claims in the literature, it also acknowledges limitations and context specificity. Not all learners responded equally to every intervention, indicating that individual sensory profiles, classroom size, and prior exposure to music and movement may influence outcomes. Nevertheless, the study argues that the principles of relational, culturally responsive, and sensory-informed practice remain broadly applicable and can guide teachers in designing inclusive interventions tailored to their specific contexts.

In conclusion, this research demonstrates that music and movement, integrated with symbolic play, function as essential pedagogical strategies for sensory-seeking neurodiverse learners. The study argues that these modalities are critical for fostering communication, emotional regulation, social engagement, and cultural affirmation.

By situating teachers as collaborators and implementers within a PAR framework, the research highlights the practical viability of these interventions and their capacity to produce meaningful, observable, and context-specific outcomes. Grounded in the whakataukī “He tamaiti te pūtake o te ako”, the project confirms that centering learners’ identities, strengths, and voices is fundamental to equitable and effective pedagogy. The closing whakataukī “Piki ake, kake ake” — to climb and rise — reflects the ongoing commitment to sustaining a sensory symphony where every learner is heard.

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About the Author

Suzette Willis is a Master's candidate in Special Education in Aotearoa New Zealand. She specialises in music- and movement-based symbolic play to support social-emotional development in sensory-seeking neurodiverse learners. Working in rural and ORS-funded classrooms, she integrates sensory-responsive pedagogy with culturally responsive practices aligned with Te Tiriti o Waitangi and the New Zealand Curriculum. She collaborates with teachers and teacher aides as implementers and facilitators to create sustainable, inclusive models that promote communication, self-regulation, peer interaction, and learner agency, ensuring that each child's identity, voice, and engagement remain central to learning.



academyEX Executive Summary

Master of Contemporary Education C14P

Symposium 21 January 2026

Hōhonutanga o Taha Wairua mā te Kōrero Mātāhiko

(Deepening Taha Wairua Through Digital Storytelling)

Joanna Mary Young

jomyoung1980@gmail.com

“Waikato taniwha rau: he piko, he taniwha, he piko he taniwha”.

(Reminds us that challenges are not signs of failure; they are natural parts of the journey, shaping our direction and strengthening our courage).

As a kaimahi at ABI Rehabilitation working at the intersection of cultural capability development and clinical support, I undertook this project to address the limited opportunities staff had to explore their taha wairua, identity, and personal values within their professional roles. Although ABI Rehabilitation has strong commitments to equity and Te Tiriti o Waitangi, most cultural safety initiatives to date have focused on increasing knowledge rather than creating safe spaces for deeper personal reflection. Many kaimahi expressed that they had few opportunities to consider who they are, what matters to them, or how

their sense of wairua influences wellbeing and practice. The purpose of this project was to strengthen taha wairua within a mainstream health organisation by using digital storytelling through the Kōrero Mātihiko framework. The goals of the project were to support kaimahi to reflect on their identity, engage with their values through story, and explore how reconnecting with wairua could influence their practice with Māori kiritaki and whānau. These goals aligned closely with the organisational aim of embedding cultural responsiveness into everyday mahi.

To meet these aims, I facilitated a series of activities informed by the Kōrero Mātihiko process. The project followed an Action Research approach that unfolded across several iterative cycles (Kemmis & McTaggart, 2005), allowing for ongoing refinement in response to participant feedback and the realities of a busy clinical context. Kaimahi engaged in online learning modules, kanohi ki te kanohi workshops, and guided digital storytelling sessions designed to support grounding, reflection, and authenticity. The digital format gave participants autonomy and flexibility, key elements of adult learning (Knowles, 1980; Brookfield, 2017), while tikanga ensured relational safety throughout. As the project progressed, I adapted the process, increasing opportunities for whakawhanaungatanga and adding reflective pauses to support participants' comfort and engagement.

Data for this project were gathered through participants' digital stories, written reflections, workshop discussions, feedback forms, and my own reflective journal as a practitioner-researcher. Thematic analysis was applied to identify patterns related to wairua, identity, relational connection, and cultural confidence. This analysis was shaped by Kaupapa Māori principles (Pihama, 2010), ensuring mana-enhancing interpretation and relational accountability, and by Rongomātāu, which emphasises wairua-centred listening that attends to emotion, tone, and deeper meaning. This combination supported a culturally grounded interpretation of experiences expressed across multiple data sources.

The findings demonstrated that taha wairua can be meaningfully strengthened within a mainstream organisation when reflective opportunities

are intentionally grounded in tikanga and supported through relational care. Participants described reconnecting with parts of themselves they had previously set aside, gaining clarity about their purpose, and rediscovering their mauri. Many noted that the process helped them understand how their identity shapes their professional roles. These insights align with Elder's (2017) work on the transformational potential of storytelling and with Māori understandings of wairua and mauri as central to wellbeing (Bishop, 1999; Henare, 2001). The accessibility of the blended learning model, the combination of online modules and face-to-face support, proved especially valuable, reflecting findings that blended approaches can deepen reflection and participation (Garrison & Kanuka, 2004; Hansen et al., 2020). Overall, the project confirmed that wairua does not require a specialised cultural setting; it thrives where time, tikanga, and relational connection are intentionally upheld.

This kaupapa also produced meaningful shifts in my own practice. Supporting kaimahi to explore their stories deepened my understanding of how wairua can be honoured in both digital and clinical spaces and highlighted the impact of giving staff permission to bring their whole selves into their work. Many colleagues expressed that the project expanded their understanding of cultural responsiveness not as knowledge acquisition, but as a lived, embodied sense of identity, connection, and purpose. A key outcome was the creation of a digital exhibition collating participants' stories and reflections. This resource supports long-term cultural development and aligns with Te Tiriti obligations of protection, partnership, and participation (Reid, Cormack, & Paine, 2019). More broadly, the project offers a replicable, culturally grounded approach that could influence practice across the rehabilitation sector and within mainstream organisations in Aotearoa and beyond. Strengthening taha wairua strengthens cultural safety, and strengthening cultural safety strengthens equity. This waka of transformation moves forward one story at a time.

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About the Author

Joanna Young is a Kaiārahi Kauapapa Māori at ABI Rehabilitation, where she brings over twenty years of experience in teaching, learning, and Te Ao Māori. Her work is grounded in a deep commitment to Te Tiriti o Waitangi and guided by the principle 'Ko te kiritaki te pūtake o te ao,' ensuring that the wellbeing of kiritaki (clients) and whānau is at the centre of every decision. Drawing on knowledge handed down from her tūpuna, she role models Māori values, language, and tikanga in everyday practice, contributing to ABI's bicultural environment. She is also working towards her ACC Rongoā Māori vendor code, further strengthening her ability to support holistic hauora. Her professional interests include cultural safety, wairua-informed practice, digital storytelling, adult learning, and strengthening bicultural partnerships within mainstream health settings. She is driven by a passion to uplift Te Reo Māori, normalise its presence in the workplace, and live by the principle 'Kia mau koe ki ngā kupu o ōu tūpuna' (holding fast to the wisdom of her ancestors and sharing it with others).

