



Master of Contemporary Education (MCE) Symposium July 2025

9th July 2025

C13P and C14P Cohorts

Executive summaries of project presentations

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Master of Contemporary Education C12P Cohort

Symposium July 9th, 2025

Improving Student Agency Through Technology Integration in Assessment Tracking

Maryam Boateng

maryam@boateng.org

The complexities of teaching and assessing food technology, hospitality, and catering can create significant challenges for teachers, particularly in tracking student progress and assessment evidence. With increasing demand for timely feedback and student ownership of their learning, it became essential to address these issues through a technological solution. This project aimed to create and implement a web-based application, UCAT (User Centred Assessment Tracker), to streamline the process of tracking student assessments and promote student agency.

Following an Action Research approach, I took on the role of a reflective practitioner (Schön, 1983) and engaged in multiple iterative cycles to ensure continuous improvement and responsiveness to feedback. The UCAT web application was developed from scratch, with input from both students and teachers, providing a collaborative, real-world tool for assessment management. This project not only aimed to improve assessment tracking but also to enable students to take greater responsibility for their learning, increasing engagement and agency.

The application integrated key aspects of culturally responsive education by incorporating bilingual features (English and Te Reo Māori), emphasizing inclusivity and supporting a diverse student population. The focus on student empowerment aligned with the educational frameworks of the 21st Century Skills and the SAMR model (Puentedura, 2010). Students actively engaged in tracking their own assessment evidence, fostering a sense of ownership and responsibility over their learning outcomes.

Data was collected through surveys, focus groups, and user analytics, and evaluated at each phase of the project. Surveys revealed that 73.4% of students valued the ability to share their assessment evidence with friends and family, which reinforced the role of community engagement in student learning. Students indicated that they logged into the UCAT frequently to track their progress, highlighting the application's effectiveness in promoting self-regulation and accountability.

The project yielded a significant improvement in assessment performance outcomes and management for both teachers and students. The UCAT reduced teacher workload by automating the collection of assessment evidence and providing real-time tracking capabilities. For students, the application enhanced agency by giving them control over their assessment submissions and progress tracking. A notable 62.5% of students found it easy to track their cooking photos, while 66.6% found the application effective in managing their assessment evidence. Teacher feedback further emphasized the positive impact of the tool on classroom management and student engagement. Although there were challenges with the full translation of Te Reo Māori due to changes in school, and support and time constraints, adjustments were made to ensure the application remained accessible to all students, regardless of linguistic or cultural background.

The UCAT's success demonstrates the potential of integrating technology into assessment processes to enhance student agency and reduce teacher workload. By allowing students to actively manage their own assessment evidence, the application fosters a collaborative and empowering learning environment. This aligns with research on student agency, which suggests that when students are given control over their learning, they are more motivated and engaged (Bandura, 2001; OECD, 2018).

Moving forward, the UCAT has the potential to be adopted across multiple schools. Plans for future iterations of the application include scalability for different educational settings,

additional features for student collaboration, and further refinement of its bilingual capabilities.

Disseminating the findings and success of the UCAT will involve promoting in schools, and encouraging other educators to adopt similar technology-driven solutions. The project's final deliverables, including the web-based application and curated assessment resources, provide a practical model for other schools to implement in their own contexts.

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About the Author

Maryam Boateng is a Home Economics graduate currently teaching Hospitality and Food Technology at James Cook High School, where she strives for initiatives in digital education and student engagement. Maryam has extensive experience in integrating technology into the classroom to improve learning outcomes and is committed to fostering inclusive, culturally responsive teaching practices. With a passion for empowering students and teachers alike, Maryam continues to explore innovative solutions to educational challenges.



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Symposium July 9th, 2025

Gamification in the Classroom: Does it Enhance Learning?

Sona Chawla

schawla@hns.school.nz

Although digital technology is becoming increasingly prevalent in classrooms, teachers, academics, and practitioners in schools are still challenged to determine the most effective ways to utilise it to enhance student learning (Sarker et al., 2019).

The impetus of the project came from the attitude and interests of the students in the programme called Prodigy, where everything revolves around gimmicks, avatars, complex screens, and rivalry amongst them. The overarching goal was to implement gamification through the curriculum content with a group of year 5/6 students within a period of 15 weeks and compare their results using formative and summative assessment (pretest and posttest). Teachers' digital fluency was evaluated using the DigComEdu framework (Redecker, 2017).

The project entailed three purposes: to see the impact of digital gamification on students' performance; to observe the effect of gamification on teachers' digital fluency in the classroom; and to compare the effect of gamification before and after its implementation.

The purpose of meaningful gamification, which helps people interact (Nicholson, 2012, as cited in Becker, 2016) in a non-game context, is to effect long-term transformation. While reward-based gamification is concerned with extrinsic motivation, meaningful gamification is concerned with developing intrinsic motivation so that the learner's interest in the subject can endure even when the game features are no longer motivating.

The initial iteration did not show a statistically significant difference in the test scores; however, the test results showed a significant improvement in the third iteration, where differentiated lessons were taught in addition to gamification to make learning more engaging and productive. Although gamification techniques assisted students in finishing their work and earning points and badges, the teacher's precise instruction was crucial.

Action research is focused on immediate application rather than on the development of theory. The emphasis is always on the problem or an issue at hand in a local setting. The action research for the project was implemented because it involves scientific thinking and aims to improve teaching practices in the classroom by using prudence and good management skills (Best & Kahn, 1996).

The increase in the motivation level of my students and boosted engagement was evident in my classroom. However, this motivation came from elements like leaderboards, badges, points, and avatars. Students were always ready to play against each other on an individual basis and in teams to win the battles. While working in teams, I could see the collaborative strategies take place where they were working together towards the shared goal. Students who were most likely to get anxious while solving maths problems seemed happy and excited most of the time. They were always trying their best and also asking for help if needed. The tasks on the platform get differentiated automatically based on the correct and incorrect responses of the students. However, I found this a bit contradictory, too. When the students are clicking the correct response by just guessing or getting help, no learning takes place. The difficulty level of the questions stays the same, and that can sometimes lead to the frustration of the students.

What I saw in my class was that students didn't get motivated to answer the questions correctly; their motivation came from the whole idea of battling with each other, winning the battles, earning the points/badges/pets, and eventually getting to the top of the

leaderboard. And that is the actual essence of gamification. However, learning doesn't happen because of the point system but because of the change in their attitude towards learning.

Gamification in the classroom can be analogue and doesn't need to be done digitally; there are different ways we can incorporate it in the classroom. The traditional ways of gamifying lessons serve a purpose in education, too. However, to cater to the needs of 21st-century learners, there is an option of digitalising those activities. After completing my project, I have learnt and realised how easy it is to use the traditional gamification techniques in class and replace them with digital technology.

Keeping Bishop's kaupapa in mind, some important components of gamified lessons were identified, which include prior learning, students' agency, collaboration, assessment, goals & objectives, time management, and a simple, easily managed gamification evaluation matrix.

The success or failure of the gamification depends on students. Some like it, some don't, some gain and others don't, some like quizzes and some like competitions. Games, game-based learning and gamification have such overlapping meanings. However, I have understood that digital technology is not necessary to gamify a lesson and that learning doesn't happen because of the gamification of a lesson. Explicit teaching of the topic is still necessary, although gamification can help in changing the behaviour or attitude of students, which ultimately leads to learning.

Gamification only brings a flow of joy and motivates students, engaging them in the tasks they are doing. It is the motivation and engagement that help them to learn.

Gamification has a lot of benefits, and it works in a lot of situations; however, Burke (2016) challenges educators to think critically about its effectiveness, stating "How can badges and points motivate and engage people? They don't – it's what they mean for those people that motivates them."

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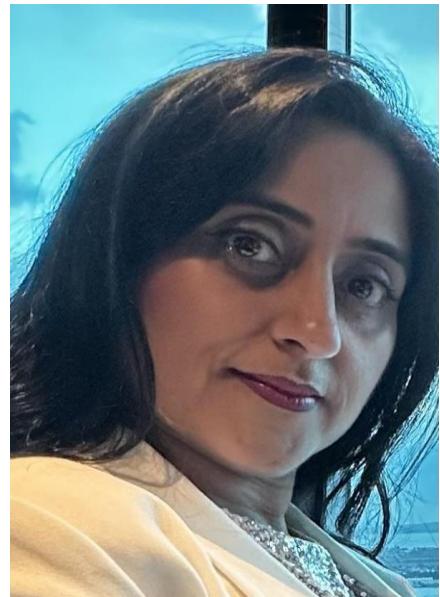
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About the Author

Sona Chawla has over 25 years of teaching experience, including time spent instructing visually impaired students in India. She acquired a Ph.D. in Education after completing a Master of Special Education (M.S.Ed.) in India. She began her career in New Zealand as a relief teacher and has since taught primary school at all year levels. She is a numeracy leader, a team leader, and a teacher for a year 5/6 class at a West Auckland school. Other than the big responsibilities at school, she likes to engage with other teachers and students and supports them in every possible way. She believes in relationship-based pedagogy and situational leadership practice. She loves to read, spend time with her family, and try out new recipes in her spare time.



Your best teacher is your last mistake.



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Master of Contemporary Education C14P Cohort

Symposium July 9th, 2025

Connecting to Te Taiao – Cross Curricular Environmental Education in a Secondary Setting

Kate Crawford

kcrawford@kerikerihigh.ac.nz

This project is situated in a large Year Seven to Thirteen, mixed gender semi-rural school where cross curricular education is not practiced. It aimed to bridge the gap in environmental education through subject collaboration and place-based learning. The intention was to empower our students to become environmentally aware citizens who have a respect for te taiao. I wished to understand the depth of localised environmental education that is available to students at my kura and to investigate where we can improve on this for our Tamariki. A goal was to implement sustainable, cross-curricular environmental education initiatives within my kura that use place-based and phenomenon-based learning.

The project's aim was to combine the siloed focus of various subjects within a year group into a cross-curricula approach that had a central focus. The unit was to be focused around our local awa, but the base content needed to be drawn from the selected topics that the subjects had identified for study. The topic was to be taught by existing teachers, led by myself in a collaborative manner through Authentic leadership (George et. al. 2002). A quantitative survey of subject leaders showed that Environmental Education was very

sparse throughout junior levels, with Science and Social Studies having the most impact on this area, but little or no Place-based learning.

The kura I work at is one of the phase three Te Kotahitanga schools, and this Kaupapa is embedded into the way we work. For this reason, I intended to follow an Action Research profile (Cram, 2011), but with a modification that embeds aspects of Kaupapa Māori methodology (Bishop & Glynn, 2000). As I am Pakeha, I am aware that Kaupapa Māori methodology is for Māori by Māori, but I want and need to be culturally responsive and aware of my surroundings and the people who I am working with and for. This project was one full iterative cycle.

The Whitebait connection delivered an in-class starter lesson that looked at what might live in the river, what catchments were and why river health is important. The planned trip included a session with the Whitebait Connection, a walk along the river with verbal history/histories, rongoa education, and a bus ride back to school. The research design moved from a planned, structured approach to a project that was much more fluid and evolving. The leadership style changed for every teacher I worked with. Some subjects were provided with textbooks that had been adapted to suit the environmental focus but still contained the core information from the original, whereas some teachers were happy with the starter information provided and to integrate it into their teaching.

Formal data collection was in the form of surveys that contained a mixture of quantitative and qualitative questions. The initial student survey showed less than 50% of the class really valued learning about te taiao with only 6 of 19 students stating they really liked learning about the environment at the start of the project. One of the questions asked of the students was which subjects they felt most or least successful in. Teachers gave qualitative feedback; as there were only four teachers in the project the information was processed thematically. The first teacher survey noted the variety in academic ability in the class as well as good working relationships between the teachers and students.

After four weeks of the project the second set of surveys was completed. From the teacher survey the data showed that there was an increase in student connectivity to the four subjects participating in the project, as well as an increase in relationships between both the teachers and the students. From the teachers' point of view the class was also

more cohesive than prior to the study. Although there was no change in students' interest in te taiao when asked directly, they identified more feelings of success in subjects than the first survey and teachers identified an improvement in focus from a large variety of students. Although produced in a small window of time, the project shows that a shared EOTC experience can strengthen teacher/ student relationships. Connecting teaching content to a shared learning experience can enable students to understand concepts that otherwise might seem disconnected from their own lived experiences. The limitations of the study included the inability to shift akōnga perception about the environment within the project scope, even though there was an increased engagement noted by teachers. A longer, more in-depth study might produce a different result to akōnga perception. The evidence of this study reveals that with interest and effort from teachers even subjects such as Mathematics, which McDowall & Hipkins (2019) state is seen to be less environmentally inclusive, can be used successfully and link abstract ideas with real life in a way that allows students to understand how the work might be used in everyday life.

The Kaiako who participated noted they were able to all gain something positive for their teaching practice through participating in the project. There was also an increase in their interest in environmental education. The project has shown me that with effort and enthusiasm, a cross-curricular project can be run in a traditional-model school. The project has also made me realise that there are systemic leadership models that prohibit effective and sustainable practice of cross-curricular education in a school environment like mine, and more work needs to be done to encourage Kaiako to work together and collaborate more for student benefit. Environmental Education is fundamental to my interests. It is also fundamental to embedding Mātauranga Māori into our school system. This project has developed my understanding of the potential of cross curricular education at my kura and how environmental education can be linked to areas of teaching and learning fairly easily as long as the support and leadership is in place.

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About the Author

I am from Northland and have lived and worked here most of my life. My twenty-year teaching career is mainly in one school, although I participate on a national scale in my subject, presenting at conferences and assisting teachers throughout the motu where I can. Family connections are incredibly important to me and although I am Pākehā I have had a strong connection to the land through my family history and my upbringing. I have run the Environmental group at my kura for eight years. Wanting to encourage more students to connect to te taiao was the starting point for this Masters.





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Master of Contemporary Education C13P Cohort

Symposium July 9th, 2025

Transforming Homework: Using Gamification to Foster Engagement in Year 11-12 Students

Lisa Everett

lisaeverett0511@gmail.com

This project aimed to design and implement a gamified platform to examine the impact of gamification on homework completion rates among Year 11–12 students. A core purpose was to address students' lack of awareness regarding their homework progress, which often led to dissatisfaction with final grades and limited proactive improvement. Furthermore, the traditional homework grading process was largely subjective, time-consuming, and inconsistent, creating a need for a more accurate system. Ultimately, the study aimed to support other educators in implementing gamification to develop student agency and increase engagement with independent homework tasks. The research was guided by three key questions:

- How will gamification impact the engagement with homework for Year 11-12 students?
- To what extent will student voice impact the engagement and completion of homework tasks?
- To what extent will the transparency of a homework score motivate and engage

students to complete given homework tasks?

This research resonated with Kulpa's (2017) study, sharing core gamification elements like score transparency, earning experience points (XP), and offering opportunities for performance improvement and instant feedback. Like Kupla's findings, similar positive impacts on student engagement were observed, though this project offered deeper insights from both student and teacher perspectives.

The project established the following key goals:

Goal 1: Redesign a spreadsheet with the ESOL Head of Department to meet the specific needs of ESOL students. Key features included projected end-of-term grades, XP-based scoring, second-chance opportunities, and instant feedback to support transparency and student agency.

Goal 2: Implement the project across two iterative cycles (Terms 3 and 4, 2024) with Year 11–12 ESOL students in an Auckland college, with cycle 2 offering greater student control over game elements and task options.

Goal 3: Finalise task types, XP values, and scoring with the HOD, taking into account existing homework requirements. Clear demonstrations supported varying English proficiency levels.

Goal 4: Analyse cycle 1 data by comparing Term 3 results with Terms 1 and 2, using feedback to refine the gamified platform for cycle 2.

Goal 5: Identify effective game elements and develop a flexible, customisable spreadsheet for wider use across subjects and year levels.

The project employed an Action Research methodology, specifically a Living Educational Theory approach, using Kemmis and McTaggart's (1992) cycle of planning, acting, observing, and reflecting. The core deliverable was individualised Google Sheets for each student, integrating complex formulas to enable gamification features like XP tracking and levelling. Students began with 5000 XP and a grade of 4, earning or losing points based on homework completion, with optional tasks offering additional XP without penalty. The spreadsheets included a progress bar, targets required for the next grade, and motivational messages.

A significant technical learning involved writing an automated Google Apps Script to enter 'no' for incomplete tasks after due dates. A 'teacher bonus' and 'teacher penalty' section allowed for qualitative assessment. For teachers, a main tracking sheet consolidated student progress and scores, linked via *importrange* formulas, and Flippity provided a class ranking overview. Extensive time was spent testing formulas and writing custom functions, with AI tools aiding troubleshooting, though coding knowledge remained essential.

The project was implemented with Year 11–12 ESOL students across two cycles. Five weekly homework activities were included: three compulsory and two optional, using a 1-5 grading system where Grade 1 was the highest, requiring both completion and a teacher bonus for quality. To address digital fluency and varying English proficiency, step-by-step instructional videos were created for students and teachers.

Data collection combined qualitative and quantitative methods. Quantitative data came from 32 consenting students' homework scores, comparing Term 3 results to baselines from Terms 1 and 2. Notably, Term 4 data was discarded due to extremely low participation from students leaving for study leave. Qualitative data included teacher observations, surveys, and a reflexive research journal. Thematic analysis (Braun & Clarke, 2021) applied both inductive and theoretical approaches.

The project revealed mixed results regarding homework completion but highlighted significant benefits in engagement and teacher efficiency. While 22% of students improved scores, 34% decreased, and 31% maintained consistent grades. This suggests that gamification alone, particularly score transparency, was not sufficient to motivate all learners. However, teachers perceived a noticeable increase in student engagement, with students showing increased enthusiasm, actively asking about gaining more points, indicating that the gamification elements positively influenced perceived engagement. This was a significant finding, demonstrating that while quantitative completion rates might not have consistently improved, the project positively impacted student engagement with homework.

An unexpected but substantial conclusion was the project's impact on teachers. It significantly eased teacher workload and improved reporting accuracy. The automated tracking and main summary sheet made data collation and reporting much more efficient

for teachers, allowing them to quickly view results and support their professional judgement with data.

The project also highlighted barriers related to low digital fluency for teachers and students. Students struggled with navigating spreadsheet tabs and using dropdown boxes, necessitating teacher guidance. Clear instructional videos were essential to mitigate these challenges.

Finally, data collection itself presented limitations, with the extremely low student survey response rate (4 out of 32 participants) restricting the representativeness of student feedback and making it difficult to fully address the research question on student voice. The premature end of cycle 2 due to study leave also highlighted that the project's full implementation is best suited for academic Terms 1-3 only.

The project demonstrated that gamification meaningfully enhances engagement, particularly through transparent scoring systems and XP accumulation. It also resulted in significant reductions in teacher workload, improving efficiency in tracking and reporting. While the spreadsheet was designed to be flexible and accessible for different year levels and subjects, further implementation would be needed to confirm its effectiveness in other contexts. Culturally responsive design elements, such as clear instructional resources, diverse task choices, and tools supporting teacher judgment, contributed to broad applicability. However, sustaining long-term student engagement will require ongoing updates to maintain novelty and interest. Importantly, the project influenced school policy, with plans for implementation in the 2025 academic year and integration of visual progress tools into the homework system.

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About the Author

Lisa Everett is a teacher at Nukumea Primary School in Auckland and brings over a decade of teaching experience spanning Years 1-6. She has a passion for integrating digital technology into all areas of the curriculum. An avid gamer and puzzle enthusiast, Lisa's research interests encompass coding, game-based learning and gamification. Holding a Bachelor of Commerce in Commercial Law and Marketing, a Graduate Diploma in Primary Teaching, and a Postgraduate Certificate in Digital and Collaborative Learning, she is also recognised as an Advanced Classroom Expertise Teacher. Lisa aims to ignite inspiration in both current and future students through the realm of gaming. Guided by the philosophy of equipping students for the future, she concentrates on fostering problem-solving skills, critical thinking, and curiosity.



Lisa delights in developing students to achieve their fullest potential and has coached Kapa Haka groups and Jump Jam teams. Beyond her dedication to research and teaching, she proudly represented New Zealand in both Pool and Karate, showcasing her competitive spirit. Additionally, Lisa engages in archery competitions, demonstrating her diverse skills and passion for sports.



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Master of Contemporary Education C14P Cohort

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Anxiety and Student Agency

Colin Hammond

principal@okainsbay.school.nz

The purpose of this project was to explore the complex relationship between student anxiety and student agency, with a focus on how culturally responsive practices could mitigate anxiety and foster agency (Adie, Smith, & Brown, 2018; Bishop, 2021). The project sought to develop and trial a set of interventions, including an anxiety toolkit, to support students' mental health and well-being, while also empowering them to take ownership of their learning and decision-making (American Academy of Child and Adolescent Psychiatry [AACAP], n.d.). By integrating culturally relevant frameworks, such as *Te Whare Tapa Whā* (Durie, 1994), the project aimed to offer a holistic approach to addressing anxiety in students, particularly those from Māori communities, while also promoting student agency.

Project Goals

The key goals of the project were to:

- Understand the relationship between student anxiety and agency and how they interact within the school environment (AACAP, n.d.).

- Develop an adaptable, culturally responsive toolkit for managing student anxiety (Adie et al., 2018).
- Enhance student agency by providing students with structured independence, voice, and choice (Bishop, 2021).
- Integrate culturally responsive practices, such as *Te Whare Tapa Whā*, to increase engagement and improve the overall effectiveness of interventions (Durie, 1994).
- Foster collaboration with whānau (families) to ensure that the home environment is aligned with the school's efforts to reduce anxiety and build student agency (Adie et al., 2018).
- Assess the impact of the interventions through both qualitative and quantitative data, to understand the effectiveness of the strategies and tools in reducing anxiety and fostering student agency.

This project utilised a mixed methods approach to gather both quantitative and qualitative data from students, educators, and families. The research was conducted in a rural school setting, where a series of interventions were implemented to address student anxiety and enhance student agency.

The core intervention was the development and use of an anxiety toolkit, which included various strategies for reducing anxiety, such as breathing exercises, journaling, structured choice-making, and mindfulness practices (AACAP, n.d.). These strategies were adapted to meet the diverse needs of students, ensuring that each student could personalise their approach based on their anxiety profile. Key components of the toolkit were also informed by culturally responsive practices, such as *Te Whare Tapa Whā* (Durie, 1994), a model for holistic well-being that emphasises the importance of physical, mental, spiritual, and familial aspects of health.

Additionally, the project incorporated structured opportunities for student agency by allowing students to take ownership of their learning and well-being. This included involving students in goal setting, co-creating learning plans, and offering scaffolded choices that allowed students to take independent actions in a low-risk, supportive environment (Bishop, 2021).

The project involved close collaboration with whānau, ensuring that families were not just consulted but actively engaged in supporting their child's mental health and well-being. Regular communication between the school and families ensured that strategies were reinforced at home, leading to greater reductions in anxiety (Adie et al., 2018).

The project demonstrated that student anxiety and agency are deeply interconnected, with fostering student agency helping to reduce anxiety levels (AACAP, n.d.; Bishop, 2021). The findings revealed that empowering students through structured independence, voice, and choice had a positive impact on their emotional well-being. In addition, the anxiety toolkit, when personalised and culturally responsive, proved to be a valuable resource for addressing a variety of anxiety types, including panic, social anxiety, and school avoidance.

The integration of *Te Whare Tapa Whā* into the project proved highly effective, particularly for Māori students (Durie, 1994; Adie et al., 2018). The culturally grounded approach not only improved engagement but also enhanced the overall effectiveness of the interventions. This highlights the importance of cultural responsiveness in mental health initiatives, confirming that students' cultural identities must be recognised and supported to achieve optimal outcomes (Bishop, 2021).

Another key conclusion was the importance of working in partnership with whānau. Families who consistently applied the strategies from the toolkit at home saw the most significant reductions in their child's anxiety (Adie et al., 2018). This underscores the vital role that families play in supporting student well-being and the importance of home-school collaboration.

Insights Gained and Significance for Practice

- **The Agency-Anxiety Relationship:** The project highlighted the evolving and reciprocal relationship between anxiety and agency (AACAP, n.d.; Bishop, 2021). Rather than simply reducing anxiety to enhance student agency, the project found that increasing student agency itself helped alleviate anxiety. This suggests that interventions targeting both areas simultaneously are more effective than focusing on either one in isolation.

- **Personalisation of Interventions:** The project demonstrated that students benefit from personalised strategies that align with their specific anxiety profiles (AACAP, n.d.). By allowing students to choose the strategies that work best for them, the toolkit fostered a sense of ownership and empowerment, which further contributed to the reduction of anxiety.
- **Cultural Responsiveness:** Integrating culturally grounded models like *Te Whare Tapa Whā* proved essential in engaging students, especially those from Māori backgrounds (Durie, 1994). This approach was critical in increasing student and family involvement, improving the overall effectiveness of the intervention, and confirming that cultural identity plays a significant role in students' mental health and well-being (Adie et al., 2018; Bishop, 2021).
- **Home-School Partnership:** The success of the project emphasised the importance of involving families in the process of reducing anxiety and building student agency (Adie et al., 2018). A collaborative approach between school and whānau was shown to be a powerful strategy in supporting students' emotional resilience.

The findings of this project have significant implications for educational practice, particularly in the areas of mental health, student agency, and culturally responsive pedagogy. The insights gained can inform future efforts to address anxiety in schools, providing practical strategies that educators, school leaders, and families can use to support students' well-being and development.

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For more information on the anxiety toolkit and additional resources for educators and families, visit <https://sites.google.com/okainsbay.school.nz/anxiety-digital-toolkit/home>

About the Author

Colin Hammond has been a school principal for the past sixteen years. He aims to empower students to improve academic quality and outcomes through mitigating anxiety and increasing student agency. He likes to keep his practice current and relevant by constantly researching and sharing his findings with others. Colin has spent over thirty years in primary education and has been SENCO, Deputy Principal, and Principal. His last research centred on “Boys in Education” and why the majority of his behaviour referrals were boys.





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Implementing Student Agency to Improve Writing for Year Three and Four Students.

Lana Herewini

lherewini@papnorth.school.nz

The aim of my project was to enhance writing outcomes for Year 3 and 4 students by fostering student agency. I noticed many students lacked confidence and motivation to write, so I focused on creating a learning environment where they felt empowered and valued (Bishop, 1996). By embedding *Te Marautanga o Aotearoa* (Ministry of Education, 2008) and emphasising *whakapapa* and cultural identity, I supported students in connecting their learning to who they are, recognising that identity, language, and culture form the foundation of effective learning (Ladson-Billings, 1995; Gay, 2010). This culturally responsive approach helped build student engagement and strengthened their sense of belonging and purpose as writers.

I encouraged students to take ownership of their writing by offering choices in topics, tools, and presentation formats, whether digital or handwritten. My goal was to build confidence through a supportive classroom culture, where students could draw on their lived experiences and feel proud of their voices. Ultimately, I wanted to inspire students to become confident, creative storytellers who see writing as a meaningful way to express themselves.

In my study, I used a qualitative action research methodology, guided by Kemmis and McTaggart's (1988) cycle of planning, acting, observing, and reflecting. This approach allowed me to both improve my teaching practice and examine how increased student agency impacted motivation and confidence in writing. To deepen the inquiry, I incorporated a mixed-methods approach, using Likert scale self-assessments, annotated writing samples, and reflective journaling to gather data.

My leadership approach was grounded in transformational leadership, which focuses on inspiring and motivating others toward a shared vision (Burns, 1978; Bass & Riggio, 2006). This aligned with my values and project goals of fostering student agency and growth. I applied key elements of this model—such as promoting student voice through co-constructed learning intentions, encouraging reflection, and using feedback to guide next steps. By modelling expectations and responding to individual needs, I aimed to support both the academic and emotional development of my students.

These varied data sources helped me identify patterns in student confidence, motivation, and cultural connection to writing (Creswell & Plano Clark, 2018). Reflective journaling supported my own professional growth and allowed for real-time adjustments based on student engagement (Mertler, 2017). The project was grounded in culturally responsive pedagogy, aligning with student-centred approaches that value identity, voice, and empowerment (Ladson-Billings, 1995; Bishop, 1996).

Despite its strengths, the project presented several challenges. Managing time for data collection and teaching responsibilities proved demanding, and maintaining regular feedback and journaling was difficult in a busy classroom. In future iterations, I plan to streamline data collection—such as collecting fewer writing samples—and extend the project duration to capture more sustained outcomes. Expanding the participant group and collaborating with other teachers will also help improve validity and scalability.

Additional challenges included the subjectivity of interpreting qualitative data, varying student capacities for self-reflection, and occasional technological issues. These experiences helped me set more realistic goals and refine both the research design and my teaching practice for future inquiries.

Throughout my project, regular reflection helped me grow professionally and better respond to student needs. At first, giving students complete freedom in writing seemed

empowering, but it quickly became overwhelming, leading to a drop in motivation. This taught me that while student agency is powerful, it must be balanced with clear structure and support. By limiting choices and gradually increasing independence, student engagement improved. I also learned the importance of being open to feedback, adapting my teaching, and recognising that culturally responsive practice and digital tools can significantly boost student confidence, motivation, and creativity.

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About the Author

I am a dedicated Year 3 and 4 teacher working in a Māori bilingual unit. I am deeply passionate about fostering a positive and empowering learning environment where students feel valued, inspired, and confident to express their unique voices. I am committed to supporting my students but also colleagues and whānau, believing strongly in the power of collaboration and community to help everyone live their best life. I am a mother of three beautiful boys, and I have always believed it was my job to teach them to live without me. This has been the same approach I have had in ensuring my students have the tools to be responsible for their own learning and the decisions they make.



Beyond the classroom, I treasure spending quality time with my family and friends. I have a love for learning that extends beyond teaching, continually seeking opportunities for personal and professional growth. I also enjoy travelling, embracing new cultures and experiences that are rich. My holistic approach to life is a commitment to nurturing and helping others to be the best they can be.



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Enhancing Student Engagement, Achievement, and Mātauranga Māori through Place-Based Learning: Ngā Rau Huia ō Ākina

Candyce Keelan

cke@hastingsgirls.com

This project set out to strengthen student engagement and achievement in mathematics for Year 9 and 10 students at Ngā Rau Huia ō Ākina (Hastings Girls' High School) by implementing numeracy-focused, culturally responsive, place-based learning strategies embedded in Mātauranga Māori. Responding to diagnostic data showing significant gaps in numeracy, especially among Māori learners, the initiative aimed to design a curriculum that connected mathematics to students' cultural backgrounds and local environments, to restore their confidence and sense of belonging “Tūrangawaewae” (Gruenewald, 2003).

The project aimed to achieve three primary goals: implementing a localised, culturally informed mathematics curriculum; enhancing student engagement and numeracy through relevant, problem-solving activities; and evaluating the impact of these changes using both qualitative and quantitative measures. A further objective was to develop a

professional learning programme for teachers to support the wider implementation and sustained integration of these strategies.

Over four school terms, students engaged in integrated, cross-curricular, project-based learning [PBL] modules that holistically connected mathematical concepts with mātauranga Māori and culturally embedded narratives (Bell, 2010; Keelan, 2025). Students examined traditional tukutuku panel designs to develop understanding of patterns and algebra, conducted statistical inquiries framed by Matariki and social justice paradigms, applied geometric principles through the traditional practice of weaving Ngā Kete, and applied measurement and estimation to inquiries into rongoā Māori within the context of kaitiakitanga. These cycles were embedded within iterative action-research, allowing ongoing reflection, student voice, and data-informed refinement (Keelan, 2025).

The initiative was guided by kaupapa Māori research principles, with emphasis on whanaungatanga (relationships), manaakitanga (care), and ako (reciprocal learning) (Berryman, Lawrence, & Lamont, 2018). Teachers used observations, formative assessments aligned with NZ Curriculum Levels 4 and 5, and student reflections to gain insights into engagement, skill development, and learner agency. Robust whānau hui, collaborative iwi partnerships, and co-teaching models fostered a collaborative support framework defined by mutual support and cultural responsiveness (Bishop, Berryman, Cavanagh, & Teddy, 2007).

Quantitative data showed upward trends in student achievement especially in Statistics, Measurement, and Shape with 69 percent of Year 10 students reaching Level 5 numeracy by early 2025. However, number sense, algebra, and probability remained challenging, indicating the need for continued instructional support. Qualitative feedback revealed increased confidence, enjoyment, and cultural connection among students. Teachers also reported increased enthusiasm when lessons were aligned with students' diverse cultural backgrounds and community contexts (Anthony & Walshaw, 2009; Boaler, 2009).

Integrating Mātauranga Māori within mathematics learning proved effective in improving both engagement and academic outcomes. When education is culturally embedded and place-based, students are acknowledged as capable and valued learners

(Bishop & Glynn, 1999; Ministry of Education, 2020). This success, however, depended on sustained professional development, collaborative planning time, and strong whānau participation.

Teacher confidence and cultural competency were identified as effective elements requiring holistic support to promote cultural responsiveness (Berryman et al., 2018).

The approach highlights the transformative leadership defined by cultural responsiveness and a shared vision. By upholding Māori data sovereignty and prioritising student wellbeing, the principles of tikanga were embedded throughout the design, implementation, and evaluation phases of the initiative.

Collaborative leadership practices, including co-constructed planning with whānau and iwi, shared data interpretation, and culturally responsive pedagogy, supported the development of outcomes that were equitable, locally relevant, and aligned with cultural values (Keelan, 2025).

This work contributes to the national dialogue on equity in mathematics education, showing that culturally responsive pedagogy is both a moral imperative and an evidence-based strategy. Drawing on frameworks like Te Kotahitanga, the findings affirm that identity-affirming curriculum leads to stronger engagement and achievement (Bishop et al., 2007). Embedding local narratives, pūrākau, and tikanga enables students to experience mathematics as meaningful and empowering, rather than abstract and disconnected.

Professional learning resources, planning templates, examples, and reflection tools developed through this project are already being shared across the school community. Communication and collaboration have been fostered through staff hui, wānanga, and digital platforms, facilitating greater engagement and sustained partnership.

Enhancing student agency through the co-design of learning tasks, delivering targeted scaffolding in numeracy areas requiring improvement, and embedding collaborative planning and leadership approaches throughout our school community ensure sustained impact, equity of access, and culturally responsive practice.

The project is committed to expanding its impact by embedding sustainable practices that support continuous improvement. This includes establishing student leadership roles to

strengthen rangatiratanga (self-determination) and expanding partnerships with iwi to enhance cultural connections and curricular relevance. Ongoing evaluation will focus on refining pedagogical approaches and addressing persistent challenges in numeracy domains (Keelan, 2025).

Collectively, these efforts highlight the project's enduring commitment to fostering a culturally affirming and equitable mathematics learning platform. By integrating Mātauranga Māori, cultural responsiveness, kaupapa Māori paradigms, curriculum, and community, this project demonstrates that mathematics learning can function as a transformative vehicle for equity, belonging, and systemic change. It offers a sustainable framework for schools dedicated to closing achievement gaps while affirming students' cultural identities and aspirations.

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About the Author

Hikurangi te Maunga

Waiapu te Awa

Te Aitanga ā Mate te Hapū

Ngāti Porou te Iwi

Mrs Candyce Keelan is Head of Department of Te Reo Māori at Hastings Girls' High School, bringing over 20 years of teaching experience predominantly in rural Māori communities with low socio-economic platforms. She has recently transitioned to an urban school environment, supporting a diverse student body with a significant Pasifika presence. Mrs Keelan is a committed advocate for kaupapa Māori pedagogies and the integration of mātauranga Māori alongside culturally responsive approaches. She leads initiatives to enhance student engagement and achievement in numeracy, literacy, and Māori and Pasifika education. Her work focuses on advancing equity and identity-affirming curricula that promote the academic success and cultural wellbeing of Māori and Pasifika learners.





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Personalised Learning and Collaboration to Develop Positive Engagement and Confidence in Revitalising the Samoan Language in a Year 3 Class.

Olioli Loto

olioliloto66@gmail.com

My research journey started from an immense passion and a belief that all children should see themselves connected to their heritage language and culture. As a Samoan bilingual teacher in New Zealand, I saw the growing struggle in my Year 3 students, many used little Samoan at home and hesitated to use gagana Samoa at school. The agenda for this project was to make Samoan language learning less passive, more personal, and more interactive through personalized learning with group collaboration (Amituanai-Toloa & Fitzpatrick, 2014; Aukuso, 2022).

The aim of my project was to make my teaching more effective and responsive, so that each child felt their Samoan identity was recognized and valued. My key goals were to improve students' confidence in speaking and understanding Samoan, to enact a sense of cultural belonging, and to provide learning opportunities that reflected each child's language ability and interests (Aukuso, 2022; Ministry of Education, 2018). Ultimately, my hope was that collaboration and personalised learning would help students embrace their language and culture with pride (Clark, 2021; Leadbeater, 2008).

I designed a unit of work based on personalized tasks and frequent group work. The learning included pre- and post-tests, weekly reflections, and recordings of students' Samoan speech and group conversations. In class, we made language strips of common Samoan phrases for the wall and made them part of daily routines. Each day started with a Samoan lotu (prayer) and regular singing of Samoan songs, reinforcing vocabulary and pronunciation (Amituanai-Toloa & Fitzpatrick, 2014; Aukuso, 2022).

Students set their own language goals, such as reading Samoan stories, writing simple sentences, and engaging in daily Samoan conversations (Bolstad et al., 2012; Tomlinson, 2014). They use these skills in group activities like paired reading, peer feedback, and cultural projects including the ava ceremony, traditional chants, and reenactments of Samoan stories (Gillies, 2016). We incorporated hands-on STEAM projects, such as exploring the life cycle and uses of the coconut tree (niu), to connect language learning to cultural knowledge (Ministry of Education, 2018).

Throughout the project, I engaged families and the wider community by inviting parents to student-led conferences, sharing their child's progress, and encouraging Samoan language use at home. This built transparency and trust while making learning more authentic and meaningful for students (Clark, 2021; Timperley et al., 2007). To measure impact, students completed questionnaires about their attitudes and confidence with Samoan before and after the project. Daily reflection sessions in Samoan, work samples, digital recordings, and teacher journals provided a full picture of progress and engagement. I also conferred with colleagues and referred to the Tapasā framework for cultural responsiveness (Ministry of Education, 2018).

The findings from the project were positive and led to new understandings. Personalized and collaborative learning clearly increased students' confidence, engagement, and pride in gagana Samoa (Leadbeater, 2008; Gillies, 2016). Most students felt more comfortable speaking Samoan both at school and sometimes at home. They showed greater willingness to participate in Samoan language activities and many developed a stronger sense of cultural identity. Collaborative work and peer feedback encouraged less confident students to take risks and learn, while more confident students could support others growing their own knowledge and cultural understanding (Ottillie & Dorian, 2024; García & Kleyn, 2016).

However, I also saw ongoing challenges with reading comprehension. Many students could read Samoan texts aloud but did not always understand them well (August & Shanahan, 2006). This showed a need for more explicit teaching of comprehension and cultural context along with the cognitive aspects of language. I recognized that creating a culturally safe, inclusive, and supportive classroom where every child feels seen is a continuous journey that takes time, patience, and input from the community (Bass & Riggio, 2006; Vygotsky, 1978).

Key messages emerged with clear implications for practice. First, personalized learning matters, when activities connect with students' backgrounds, learning is more meaningful and enjoyable (Suarez-Ortiz, 2022; Tomlinson, 2014). Second, collaboration between students, teachers, and families is essential in heritage language education, building confidence, supporting diverse learners, and strengthening relationships (Amituanai-Tolosa & Fitzpatrick, 2014; Otilie & Dorian, 2024). Third, cultural responsiveness must be visible in daily practice, not just as content but in routines, language use, and relationships within and beyond the classroom (Clark, 2021; Ministry of Education, 2018).

This project illustrates that heritage languages such as gagana Samoa can be revitalized in mainstream classrooms, but teachers must be willing to see themselves as learners and leaders serving and working alongside their students and community (Greenleaf, 1977; Whitehead & McNiff, 2006). Through personalized learning, collaboration, and strong cultural foundations, teachers can support the development of both language skills and identity for future generations.

Though my findings focus on one Year 3 bilingual class, I believe the approach can be adapted to other classrooms especially those serving diverse or heritage language learners (Bolstad et al., 2012; Clark, 2021). By sharing lesson plans, group tasks, and actively involving families, teachers elsewhere could also foster more authentic, meaningful language learning and help keep languages and cultures alive in our schools and communities.

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About the Author

Before moving to New Zealand in 2014, Olioli taught high school in Samoa for four years. Olioli Loto is a proud Samoan from Sapapali'i and Saleaamua, Aleipata. After graduating with a Bachelor of Education in 2019, Olioli began teaching at Roscommon School in 2020, spending two years in the mainstream and two years in the Samoan Bilingual Unit, Fotu O Nu'upule, where Olioli currently teaches while pursuing a Master's in Contemporary Education. Olioli is passionate about sharing the beauty of Gagana Samoa and the richness of Samoan culture with bilingual Samoan students and the wider Aotearoa community. Being proud of our language and heritage is vital, not only for maintaining our identity, but also for empowering the next generation to celebrate and carry forward our unique cultural legacy.





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Building Capacity to Weave Mātauranga Māori Into Our Teaching and Learning in a Secondary School

Jo Lucas

jol@flaxcol.co.nz

This project was developed and led by an experienced kaiako and Leader of Learning at Flaxmere College—an urban, co-educational secondary school with a predominantly Māori student population and community. As a practitioner committed to culturally sustaining pedagogies, I initiated this project to address an urgent and persistent problem: despite decades of reform efforts, inequities in educational outcomes between Māori and non-Māori learners continue to persist. At the heart of the issue is an education system that remains largely Eurocentric, often requiring ākonga Māori to assimilate into a dominant cultural paradigm rather than seeing their own worldviews authentically reflected in teaching and learning.

The purpose of this project was to build staff capacity to embed *authentic mātauranga Māori* into NCEA Level 1 teaching practice. Through place-based learning, the project aimed to enhance kaiako understanding, confidence, and competence in mātauranga Māori. These goals were aligned to national imperatives such as the NCEA Change Programme's call for

Mana Ōrite mō te Mātauranga Māori, and to the local aspiration to uplift student identity and belonging through culturally responsive and sustaining practice.

The project utilised a two-cycle action research methodology. Early engagement involved a presentation to the Board of Trustees and addressing the entire staff before inviting all timetabled Level 1 teachers to join. Seven NCEA Level 1 teachers voluntarily participated. Participants engaged in group wānanga, individual hui and a sequence of collaborative, multimodal learning sessions framed around the guiding questions: *What is mātauranga Māori? Why is it important? How can we embed it?*

Key resources were made available through a dedicated Google Classroom, and learning was contextualised to our kura and local rohe, reflecting the principles of place-based education. Participants helped co-create a shared definition of mātauranga Māori and began the development of our school's cultural narrative. In addition, an AKO reflection tool was created to support deeper engagement and synthesis of new learning. While the creation of a resource document cataloguing place-based strategies is pending, significant steps were taken toward this outcome.

To evaluate impact, both qualitative and quantitative data were collected through pre- and post-cycle surveys, reflective tasks, and transcripts from hui. This mixed methods approach allowed for a robust and triangulated understanding of participant growth. The Pre- and Post-Cycle surveys employed 5-point Likert scales to measure participants' perceptions of their understanding, confidence, capability, and self-efficacy regarding mātauranga Māori. Open-ended survey items and reflection activities captured narrative data to illustrate changes in understanding and intention.

Data analysis involved coding participant responses into themes. Initially, responses reflected minimal understanding of mātauranga Māori as a holistic, values-driven, place-based body of ancestral knowledge. Over the course of the project, participant responses revealed growth across all key themes—particularly in their understanding of the values-based and place-based nature of mātauranga Māori.

Notably, four of the seven teachers showed marked increases in confidence and capability, with self-assessments moving from foundational to adept levels. Participants also reported enhanced self-efficacy, improved capability to access resources, and greater clarity about implementation strategies. However, the project revealed disparities in engagement

levels; two participants completed just over 50% of the learning tasks, reflecting Fullan's (2001) "implementation dip" and underscoring the importance of ongoing scaffolding and leadership support.

The findings confirm insights from international and local literature: authentic integration of indigenous knowledge systems supports cultural identity, enhances learner engagement, and leads to more equitable outcomes. Research by Paris & Alim (as cited in Ferlazzo, 2017), Milne (2017), and Penetito (as cited in Te Kete Ipurangi, 2024) affirms the transformative potential of culturally sustaining pedagogies grounded in local context and values. The findings also echo Bandura's (1977) assertion that self-efficacy significantly impacts learner engagement and performance.

Through this project, my understanding of culturally responsive leadership and kaupapa Māori research has deepened. I have become more critically reflective and more confident in modelling a Māori worldview - thinking Māori, knowing Māori and being Māori. The process affirmed the power of collaborative, values-based inquiry and the need to walk alongside others rather than lead from above. It also reinforced the importance of engaging with mana whenua, protecting cultural intellectual property, and avoiding appropriation.

Participants reported increased awareness of their role in decolonising classroom practice, of the value of place-based education, and expressed motivation to continue their mātauranga Māori journey. The project offered a safe, respectful space to explore new ideas, challenge assumptions, and grow professionally. While not all deliverables were completed within the project's timeframe, the foundations laid are strong. Though the resource document and full cultural narrative are still in development, the foundational work has positioned staff to take the next steps confidently.

The project holds wider significance beyond our kura. It offers a replicable model for building teacher capability in authentic mātauranga Māori practice through a relational, place-based, and inquiry-driven approach. It adds to the growing body of research affirming that transforming education for Māori must begin with transforming educators. This project does not seek to close the gap by bringing Māori learners closer to the dominant system—it seeks to transform the system so that it better serves Māori learners.

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About the Author

Ko te Whanganui-a-Tara te maunga
Ko Waingongoro, ko Pouhokio ngā awa.
Ko Taikitimu te waka
Ko Ngāti Kahungunu te iwi
Ko Waimārama te marae
Ko Ngāti Kurukuru, Ngāti Whakaiti, Ngāti Urakiterangi,
Ngāti Hikatoa ngā hapū
Ko Haumihiata August raua ko Wiliam Henry Lucas ōku
mātua
Ko Jojo Lucas ahau





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Culturally Sustaining Pedagogies: Enhancing Science Engagement for Māori and Pasifika Learners

Lisa Merchant

lisa.merchant1206@gmail.com

The purpose of this project was to implement culturally sustaining pedagogies, specifically focusing on the principles of *whanaungatanga* (relationships) and *ako* (reciprocal learning), to improve the engagement and academic success of Māori and Pasifika learners in a Level 3 science class. This initiative arose due to the persistent local and national challenge of disproportionately lower engagement and achievement in science for Māori and Pasifika students compared to other ethnicities. I teach at a large urban secondary college where approximately 25% of students identify as Māori or Pasifika, yet only half were taking National Certificate of Educational Achievement (NCEA) Level 2 science in 2022, dropping to 30% at Level 3. These students are also overrepresented in failing to achieve or submit NCEA assessments. The project aligns with the Treaty of Waitangi principles within the New Zealand (NZ) curriculum, which advocate for curriculum acknowledging bicultural foundations and incorporating *te reo Māori* and *tikanga Māori* (TKI, n.d.), and the Ministry of Education's National Education and Learning Priorities (NELP) objectives concerning

learner-centred approaches and barrier-free access for all learners, including Māori and Pasifika (Ministry of Education, n.d.)

The overarching goal was broken down into two specific sub-goals:

- To investigate how *whanaungatanga* would contribute to improving engagement and success for Māori and Pasifika learners in Level 3 science.
- To examine how the principle of *ako* (reciprocal learning) would help improve engagement and success for Māori and Pasifika learners in Level 3 science.

The project used an action research design which enabled ongoing reflection, adaptation, and collaboration with students. As the majority of the students were Pasifika, a Talanoa methodology was employed. Talanoa removes the distance between researcher and participant and provides research participants with a human face they can relate to (Vaiolleti, 2016). A mixed-methods approach was used for data collection, combining quantitative surveys with qualitative Talanoa sessions and classroom observations to enhance the robustness of the findings.

The implementation began with a strong emphasis on *whanaungatanga*, recognizing the importance of building genuine relationships. This developed into "Whanaungatanga Friday" being established as a dedicated time for relationship-building activities. Each week students took part in a different activity that allowed them to share and find out more about each other. It also included team building activities. Alongside this a unit on Homeostasis was redesigned to regularly integrate *ako*, incorporating cooperative learning tasks and opportunities for students to leverage their prior knowledge and cultural backgrounds. This included the development of a new culturally relevant assessment task.

Data was gathered using surveys through Google Forms which provided baseline and post-implementation data, incorporating Likert scales and open-ended questions. They revealed increased behavioural engagement and a stronger emotional connection to the teacher. However, limitations included incomplete responses and survey fatigue. Talanoa sessions, supported by the school's Pasifika mentor, replaced traditional interviews to better align with the cultural background of most students. Initial sessions revealed hesitation and unequal participation. However, post-implementation Talanoa, conducted in smaller groups,

produced deeper, more specific feedback. Students highlighted increased comfort, enjoyment of group tasks, and appreciation for Whanaungatanga Friday and culturally relevant activities. They reported stronger teacher-student relationships, higher motivation through praise and rewards, and greater confidence in collaborative learning. One student noted, “I’m more comfortable now because I didn’t know my group at the start.”

Observations were conducted twice using a structured engagement tool. The first showed mixed behavioural and emotional engagement, with minimal cognitive engagement. The second revealed significant improvement across all three domains, students collaborated more, showed greater initiative, and used prior knowledge in class discussions. The most valuable insights came from the observer’s additional notes, which were later coded into themes.

Overall, the data strongly supported that whanaungatanga was foundational to building trust, while ako-based tasks increased cognitive engagement. Whanaungatanga truly is foundational and necessary for effectively teaching Māori students (Bishop et al., 2014). The improved outcomes show that culturally sustaining pedagogy, through relational trust, collaborative learning, and relevant contexts—can significantly enhance engagement and learning, particularly for Māori and Pasifika students.

Prior to carrying out my research project very little data had been gathered on engagement of Māori and Pasifika students in science and pretty much zero on science in senior school. My findings back the findings from several researchers like Bishop et al. (2014) but more specifically look at two specific aspects of whanaungatanga and ako. After a short amount of time by using these culturally sustaining pedagogies I have seen shifts in my Māori and Pasifika engagement behaviourally, emotionally, and cognitively.

My biggest learnings from the project have been around the fact that it is crucial to make an ongoing space for relationship building with your students. You cannot engage students in discursive practices unless the foundations of a positive relationship have been built first. My Māori and Pasifika learners have amazing prior knowledge and a cultural toolkit to bring to the classroom but are often worried about making mistakes and have a fear of failing. By using cooperative learning strategies and having a culture of belonging I have seen my students' confidence grow.

I have begun to share resources for whanaungatanga and ako with the colleagues in my science faculty. My next step is to create a Google site in order to share the whanaungatanga and ako resources with other teachers both in science and other curriculum areas. There may also be the opportunity to run workshops during professional learning sessions on culturally responsive pedagogy which aligns with the school's strategic plan.

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About the Author

Lisa Merchant is currently a Head of Science at a large urban secondary college. After training and teaching in the United Kingdom for 6 years Lisa moved to New Zealand. She now has 20 years of experience of teaching science and biology in three different secondary colleges in Auckland. Prior to becoming Head of science Lisa was a Head of biology and a teacher coach facilitating inquiry and professional learning within school.





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Investigating the Effectiveness of an AI-Powered Tool in Enhancing Students' Self-Efficacy in a Year 10 Science Class

Caston Muganda

mugandac@gmail.com

This project investigated the potential of an AI-powered tool to enhance Science self-efficacy in year 10 students in a remote rural New Zealand school. The purpose was to explore the impact of integrating an automated assessment and feedback AI-powered tool into science lessons on students' confidence (self-efficacy) in their science abilities. The findings contribute to the growing body of research on technology in education, providing valuable insights into how teachers can effectively leverage AI to support student success.

The project goals were:

1. To understand existing AI tools and applications relevant to science teaching and learning, identifying potential tools based on user-friendliness and alignment with the New Zealand science curriculum;
2. To select and pilot an AI tool in a Year 10 Science class over eight weeks, integrating it into lesson plans and ensuring consistent usage;

3. To establish a robust research methodology and select appropriate instruments for assessing the effect of AI tool usage on student self-efficacy;
4. To collect and analyse research data and compile a report on the impact of the AI tool; and
5. To share research findings with a community of practice through a blog post after the final evaluation.

This study aimed to bridge the gap between theoretical understanding of AI's potential and its practical application in a real-world classroom setting, where access to educational resources is limited.

The project employed a quasi-experimental design, utilizing an eleven-item pre- and post-intervention survey alongside qualitative data collection methods, including teacher interviews. The study involved seven Year 10 Science students from a small rural school.

A Science Self-Efficacy Questionnaire (SSEQ) was administered as a pre-test at the beginning of Cycle 1 and again as a post-test at the end of Cycle 2, following an eight-week learning interval. Students engaged with an AI-powered assessment and feedback tool. In Cycle 1, students received answers to predetermined questions, while Cycle 2 allowed for broader exploration and clarification of unclear answers. Qualitative data were gathered through semi-structured interviews and teacher class observations.

The methodology adopted was action research, characterized by iterative cycles of planning, implementation, observation, reflection, and evaluation. Data analysis involved the Wilcoxon signed rank test for quantitative data to determine statistical significance, and thematic analysis for qualitative data to identify recurring themes and patterns. A comprehensive approach allowed for a multifaceted understanding of the AI tool's impact on student self-efficacy and the broader learning environment.

The conclusions drawn from the project indicate a statistically significant improvement in students' Science self-efficacy following the AI intervention. The Wilcoxon signed-rank test ($z = 2.37$) confirmed this positive change, with the mean SSEQ score increasing from 3.00 (SD = 0.26) to 3.37 (SD = 0.28). Notably, all seven participating students demonstrated improvement. The increases were modest but consistent.

An analysis of individual SSEQ questions revealed that nine out of eleven items showed increased mean scores, with the most substantial gains observed in students' understanding of science content and their enjoyment of science. Conversely, two questions indicated slight decreases in confidence related to independent problem-solving and data analysis.

Qualitative data further supported these findings, highlighting increased student engagement, focus, and confidence during science tasks. The study underscored the continued necessary role of the teacher in interpreting AI feedback and contextualizing it for students.

The project yielded valuable insights into the potential of AI in education, its potential impact on self-efficacy, and challenges encountered when implementing AI within school environments. The observed modest yet consistent gains in self-efficacy align with existing literature that links mastery experiences to increased confidence in science, reinforcing AI's role as a supportive tool for human educators. The lack of Māori science content in AI tools highlighted a gap in culturally sustaining pedagogy (Ladson-Billings, 2014). Future implementations should co-design materials with local iwi to align with Te Tiriti o Waitangi principles. These findings underscore the critical importance of meticulous tool vetting and the preservation of teacher agency in the integration of AI. The project's small sample offers a replicable model for rural contexts

The project significantly reshaped my teaching practice by promoting the deliberate selection of AI tools, prioritizing adaptive platforms that offer personalised feedback. It also highlighted the importance of transparency in data usage. The findings hold both practical and theoretical significance for: science teaching and learning; the concept of self-efficacy; and the broader field of technology in education. In addition, the project supports the integration of culturally relevant pedagogy and culturally sustaining pedagogy within technology-enhanced learning environments. This research provides a replicable framework for evaluating educational technology interventions and supports training teachers in AI literacy to optimize and encourage AI integration.

The project's success, though modest in its quantitative gains, signifies a promising direction for leveraging AI to enhance student confidence and engagement in science learning, while also emphasizing the need for thoughtful implementation and ongoing

critical evaluation of these powerful new tools. This supports existing literature suggesting that technology can enhance confidence in STEM (Britner & Pajares, 2006).

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About the Author

Caston Muganda is a maths and science teacher with over 15 years of experience in teaching. Born and raised in Zimbabwe, he worked in South Africa before relocating to New Zealand in 2019. He holds a Bachelor of Science in Education and a postgraduate diploma in Microbiology. Caston enjoys sharing his passion for science with young people. Outside of the classroom, he loves tramping, gardening, and travelling.



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Implementing Personalised Learning to Improve the Academic Writing of Year 7 and 8 Students

Tara Orme

torme.teiwaki@gmail.com

This place-based change project focused on implementing personalised learning strategies to improve the academic writing of students in a Year 7 and 8 classroom. Grounded in action-based research, the project aimed to address writing achievement gaps by tailoring teaching to students' needs, strengths, and interests while fostering collaboration and integrating digital tools. Personalised learning, as defined by Cardno, Tolmie, and Howse (2017), involves adapting content, process, and learning environments so each learner can progress at their own pace and in ways that best suit their abilities and goals. It shifts the teacher's role from delivering uniform instruction to facilitating differentiated, student-centred pathways.

The project adopted both shallow and deep personalisation. Shallow personalisation provided students with choices such as topic selection, preferred groupings, and tools, enhancing engagement and ownership. Deep personalisation involved co-constructing learning goals, developing individual pathways, and embedding self-reflection and targeted support into lessons. Kontrimienė et al. (2021) emphasise that effective personalisation requires shared ownership of the learning between teacher and learner, supported by

adaptable content, flexible environments, and data-informed decision-making. This principle guided planning and delivery.

Collaboration was central to the project's success. Teacher-student conferences, peer feedback sessions, and co-created success criteria helped students see themselves as active partners in their learning. Bishop (2019) highlights the importance of relational trust, and in this project, relationships were strengthened through ongoing dialogue and joint decision-making. The project also promoted teacher collaboration: colleagues engaged in professional conversations, shared lesson plans, and moderated writing samples to ensure consistent expectations and approaches.

Digital tools were a critical enabler. Writer's Toolbox offered scaffolded support, diagnostic data, and skill-specific modules that targeted individual writing needs. It enabled both teachers and students to track progress over time. Google Documents allowed for real-time collaboration and feedback, ensuring students could act on guidance promptly. These tools were chosen for their ability to make feedback immediate, visible, and actionable, aligning with Bishop's (2019) view that timely, relevant feedback is key to student growth.

An action-based research approach ensured the project was iterative and responsive. The process followed a plan-act-observe-reflect cycle. The planning phase identified challenges in writing achievement and engagement, using baseline writing samples and teacher observations. The action phase implemented personalised strategies and digital tools. Observation involved systematically collecting data, and the reflection stage used findings to refine practice.

Data collection combined quantitative and qualitative methods. Quantitative data included pre- and post- writing tasks and assessments using curriculum-aligned rubrics to measure growth in areas such as sentence fluency, vocabulary, and text organisation. Analytics from Writer's Toolbox provided measurable evidence of skill development. Qualitative data came from student surveys and interviews, which captured perceptions of engagement and confidence, as well as classroom observations and teacher reflective journals that documented changes in learning behaviours and teaching strategies. Student work samples were also analysed for evidence of improved writing quality.

The findings demonstrated measurable improvement in student writing. Quantitatively, students showed gains in vocabulary range, sentence complexity, and writing cohesion.

Qualitatively, they reported feeling more motivated, supported, and confident in their writing. Many students valued the autonomy that came with personalisation, noting that having choice and voice in their work helped them feel more invested in learning. Teachers observed that students became more proactive in seeking and applying feedback, a shift that supported deeper engagement with the writing process.

The collaborative approach also had a positive impact on teaching practice. Teachers developed greater confidence in using digital tools to provide differentiated instruction and feedback. Professional learning conversations created a stronger shared understanding of what effective writing instruction looks like in a personalised learning environment. These outcomes suggest that personalisation can not only raise student achievement but also strengthen teacher capability and professional culture.

Sustainability was a key consideration. Strategies trialled and refined during the project have been embedded into everyday practice, ensuring that personalised learning continues beyond the initial implementation period. The tools and approaches developed can be adapted for future cohorts and across other curriculum areas. Ongoing teacher collaboration and professional development will help maintain momentum and ensure practices remain aligned with emerging research and technology.

Overall, this project illustrates how personalised learning, when implemented through a collaborative, action-based research model, can make a tangible difference to student achievement in academic writing. By combining shallow and deep personalisation, building strong teacher-student relationships, leveraging digital tools for feedback and progress tracking, and using both qualitative and quantitative evidence to guide decision-making, the project created a responsive, engaging, and sustainable learning environment. In line with Cardno, Tolmie, and Howse (2017), Kontrimiene et al. (2021), and Bishop (2019), the results affirm that personalisation is most effective when it is relational, data-informed, and embedded in a culture of shared responsibility. The success of this initiative lies not in a single tool or strategy, but in the synergy of personalised pedagogy, collaborative practice, and evidence-based refinement.

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About the Author

Tara Orme was born and raised in the Pacific Island nation of Kiribati, located in the heart of the central Pacific. In 2001, she moved to New Zealand and has since made her home in Kirikiriroa, Waikato, where she works as a dedicated kaiako. Tara is passionate about creating an open and inclusive classroom environment where students and their whānau feel genuinely welcomed and able to communicate freely. She fosters a learning space that encourages students to take risks, think creatively, and develop as confident problem solvers, ensuring that every learner feels valued and empowered to reach their potential. When she is not at school, Tara likes to read, go for walks, spend time with her family and friends, and travel.





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Generative Artificial Intelligence in the History Classroom: Using GenAI to Deepen Understanding of the Key Historical Ideas

Erik Persen

edp@shirley.school.nz

In historiography (the study of history) it is generally recognised that there are “the big six” key historical ideas: Significance, Primary Source Evidence, Continuity and Change, Cause and Consequence, the Ethical Dimension, and Historical Perspective (sometimes referred to as Historical Empathy) (Seixas, 2017). In a typical history classroom in a New Zealand secondary school the Key Historical Issues (KHIs) are usually taught through traditional pedagogical methods that might look somewhat transactional in nature; read a text and then answer questions designed to elicit understanding of the KHIs. Technology like video has introduced more engaging and entertaining ways to explore the past, that are perhaps more appealing to the modern secondary student in a BYOD environment, but in essence has only substituted one method of content delivery for another. The process of research in the age of Google has also lost its academic rigour, and is often used to produce the lowest quality answer in the quickest possible time. Indeed, for all the cost of modern educational technology, there has yet to be substantial return on that investment.

Author and historian L.P. Hartley (1953) famously stated “The past is a foreign

country. They do things differently there” (p.1). This is the essence of the educational problem that this project sought to address - can technology, powered by Generative Artificial Intelligence (GenAI), be used to access the past in more engaging and effective ways? In late 2022 the release of Open AI’s ChatGPT provided an easy to use and conversational conduit to historical knowledge. Of particular interest was the “Act as...” feature - careful prompting of GenAI would allow students to have access to a 1:1 tutor that would offer personalised and conversational exploration of the KHIs. The purpose of my project initially was to just explore how GenAI could be used to act as a historical figure in order to foster deeper understanding of historical perspective. In other words, what better way to understand Lenin’s thoughts on Tsar Nicholas II during the Russian Revolution, than to ask him directly. Whilst this remained the cornerstone of my project, I also explored how broader application of the “Act as” feature could be applied to the other KHIs. Specifically. I explored “Act as a tutor”, “Act as a research assistant”, and “Act as a writing coach”, alongside prompting the GenAI to act as a historical figure.

The project adopted action research methodology and was implemented in two senior history classes, over the period of one term at the start of an academic year, and consisted of four phases. Phase One focused on using GenAI as a 1:1 tutor, for example to learn about a new historical context or historical event - “Act as history tutor and teach me about the 1905 Revolution in Russia”. This involved teaching effective prompting skills to the students and encouraging them to have two-way dialogue with the GenAI to encourage a more relational interaction with the technology, rather than purely transactional. The second phase was to use GenAI as a research assistant - “Act as a research assistant and help me find useful and reliable sources about the Myth of the Moriori”. The students used Perplexity, and were able to ask specific questions of the historical sources, and analyse and summarise sources. Phase Three focused on the ethical use of GenAI, and the students sought feedback on a draft assessment piece - “Act as a writing coach and give feedback on the following draft. Give specific advice only. Do not rewrite”. Phase Four focused on creating immersive, interactive conversations with historical figures to gain insight into historical perspective.

There were three main streams of data collected. The first was a baseline and post-intervention survey that explored self-ranking in historical skills, familiarity with Artificial

Intelligence (AI) tools, current AI usage and knowledge, and attitude towards AI. The second stream of data was documentary analysis of the student “chats” with the GenAI models. The third stream of data was observation notes made when the GenAI tools were being used in the classroom

The academic literature (Ali et al., 2024; Deng et al., 2025; Zhang & Tur, 2024) identified positive benefits like improved academic performance, motivation, higher order thinking and reduced cognitive load, as well as concerns including over-reliance, less robust learning, biases in training data, privacy issues, inaccurate information, and the lack of genuine human interaction. My results indicated that using GenAI as a personalised tutor/teacher significantly improved student engagement, particularly as the students become more familiar and comfortable in relational and dialogue-based interactions with the GenAI. What also became clear was that effective use of GenAI tools like Perplexity transformed the research process, allowing students to access and process information more effectively than traditional methods. Anecdotally the quality and quantity of evidence used in student assessment work was significantly improved over previous years. Improving AI Literacy, such as the structured approach promoted by MacCallum et al. (2024), is also crucial. Explicitly teaching effective prompting, and using a prompt model, improved the quality of GenAI outputs, and the students self-assessed prompting ability. Exploring historical perspective through interactive conversations with the GenAI acting as a historical figure proved to be a highly engaging and insightful way of understanding perspective. The students were also able to get their GenAI historical figures to comment on events outside of their original chronology - for example one student had historic Catherine the Great casting judgement on current Russian leader Vladimir Putin.

In my opinion, judicious and effective usage of GenAI, particularly taking into account deliberate steps to improve AI literacy of users, has the potential to transform the way we learn about the past, and the lessons from the history classroom are applicable universally.

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About the Author

Erik Persen has leadership portfolios in both eLearning and History in a South Island single-sex boys' school, and was able to combine his passion for teaching history and educational technology in this project.





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Positionality Stories to Develop Leadership Goals

Paul Simmons

psimmons@hns.school.nz

There is overwhelming agreement that schools must engage better with diversity and provide inclusive learning spaces. And yet the reality is that many teachers and school leaders are not equipped to engage with the values, knowledge, and practices of their local communities (Bishop, 2023). In classrooms, it is normal to hear teachers questioning their learners' assumptions and beliefs, but how well do teachers examine and reflect on their cultural understandings?

Schön (2013), author of 'The Reflective Practitioner', describes two types of reflection. Reflection-in-action is the ongoing 'in the moment' daily reflections teachers make. Reflection-on-action is deliberately looking back and examining what happened in the classroom, and has the potential to be less well done. I wonder how self-aware our educators are of their conscious and subconscious decision making as they reflect on their teaching interactions.

In this project, I set out to engage a group of school staff in their personal stories to measure if there was any impact on their leadership goals. Positionality stories emerged as a method to involve the participant group in their personal stories. To do this, we took part in writing activities that socially located ourselves, using concepts such as language, family,

traditions, religion, education, and politics. Positionality draws on social locators to examine how it shapes experiences and beliefs. Social locators inform positionality.

Authentic Leadership was pivotal to this project. Knowing your story and the experiences that have formed your identity (self-awareness) is an essential aspect of this leadership approach. Further indicators of an authentic leader are: habitual self-reflection; values and actions align; acknowledge experts and nurture leaders, believing that all staff in an organisation have leadership responsibilities.

Creating an inclusive and safe environment was a priority for this project, and the selected methodologies complemented this view. The Talanoa Framework was the overarching 'umbrella' under which the project sat, conceived from indigenous knowledge of relationships, out of a frustration of colonial researchers extracting data from peoples of the Pacific through their epistemological lens. As a result, data extracted from these communities was often misunderstood or misinterpreted (Vaiotei, 2016). Talanoa requires personal relationships to exist and be nurtured before any meaningful inquiry can begin.

Additionally, our school is a Relationships First school, engaging with culturally sustainable pedagogies from Russell Bishop's work on developing 'North East' teachers. In this, we look to support our learners, in particular learners representing marginalised communities, against whom traditional teaching styles and deficit thinking have harmed (Bishop, 2023). The Talanoa methodology celebrates epistemologies other than the dominant colonial blueprint, and therefore, there is synchronicity between the Relationship First philosophy and Talanoa.

We used Stringer's action research model, an ideal methodology for educational settings because it explores solutions to problems using a natural 'Look, Think and Act' approach (Stringer et al., 2010). Iterative cycles of inquiry by nature are complicated and unpredictable; however, within a culturally safe environment where all opinions & ideas are valued, the participant group was able to guide our project's next steps.

When we analysed the qualitative data to measure the impact of positionality stories on our group's leadership goals, the results were disappointing for a number of reasons, such as poorly worded goals that were broad and with little specificity, as well as a large

timeframe (almost 5 months that included a summer break) between the pre and post-goal-setting events.

Feedback from participants was appreciation for the experience, noting that they enjoyed sharing and listening to each other's personal stories. All stated that Talanoa supported the process. They also agreed that positionality stories had impacted their leadership goals, but there was little further evidence other than their opinions.

Thankfully for the project, we had a wealth of data sitting almost unnoticed; the 200-word stories that the participants had written to engage in their positionalities. Using a thematic analysis process (Braun & Clarke, 2006), we uncovered data that revealed the individual strengths of the educators through a Relationships First lens. Unfortunately, we couldn't present the data back to the participants (the project was finished), a process that would have completely aligned with The Talanoa Framework's methodology; participants who provide the data must be front and center of any analysis and decision making that uses their data. This type of collaborative conversation could have yielded additional information, benefitting both the researcher and participants.

From the researcher's perspective, engaging in the positionality stories and analysis of the data certainly provided greater understanding of each of the participants; a more informed perspective on their individual strengths. It also brought into focus the personal privileges the researcher has experienced in his life. As a school leader, the project certainly improved the researcher's authentic leadership.

Educators benefit from 'shining a spotlight' on their cultural beliefs and assumptions. A thematic analysis of an individual's positionality stories highlight interesting themes that reveal their strengths. There is potential in designing a specific tool to emphasise desirable leadership traits through an analysis of positionality stories. Importantly, after data is collected the analyst (such as a teachers' colleague) would have to present this information back to the teacher for them to make sense of.

There are a number of potential challenges. Schools are busy places. Engaging in positionality stories requires time; the most valuable resource that is in short supply. Radically changing timetabling priorities for this type of talk and deep connection would

need to take place. Furthermore, sharing personal information that socially locates us and engages us in our positionalities can be uncomfortable and confronting. Many colleagues could rightly feel unsafe and vulnerable sharing this personal information.

The message to educational leaders is that an analysis of social locators that informs their positionality is a critical exercise to challenge their personal beliefs and assumptions. Even more beneficial would be an immersion into multiple positionality stories with colleagues, in a culturally and emotionally safe environment, to develop cultural awareness.

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About the Author

Paul is a deputy principal at a diverse West Auckland school. He loves his role, thinking he has the best job in the world. He is aware of his privilege getting into this position. To support teachers in the school he focuses on their strengths, knowing that we all have significant contributions to make, and all have leadership roles. Paul enjoys spending time with learners, and again prefers to put the spotlight on their talents to support their next steps. If there is one thing he thinks schools should do, it's slow down, forget the unimportant stuff, and do



the most important stuff to the highest standard possible. Paul is learning to improve self-awareness and be an authentic educator, matching his values to his actions.

At home, Paul wishes he could be in the garden more. There is nothing more nourishing for his soul, other than teaching, than standing barefoot on the land. As his own children are nearly all grown up, Paul has more time to explore local places, walking or biking around the many sites of Tāmaki Makaurau. Luckily for Paul, his wife is smarter than him, so his education is ongoing; a genuine life-long learner. If there was a magic wand, Paul would wish for musical talent; a singing gig would do. In the meantime, he will continue to sing and play his ukulele in private.

Nā tō rourou, nā taku rourou, ka ora ai te iwi.

With my basket (of knowledge), and your basket (of knowledge), we will thrive.



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Symposium July 9th, 2025

Te Ako Matawhaiaro i te Akomanga Te Reo Māori

Kataraina Smith

kataraina_s@hotmail.com

I toko ake te whakaaro mō tēnei rangahau nā te hiahia ki te whakapiki i te mana o te reo Māori i taku kura auraki. Waihoki kia whakaaweawe i te tokomaha kia whakamana i te reo Māori. He wero nui māku te whai wāhi i te kura auraki. Āpiti atu, he wero te whakaako i te akomanga taumata rua (Multi level class) mō te NCEA Level 2 me te Level 3. Ehara te whakaako i te akomanga taumata rua i te mea hou. E ai ki a Passmore (2019), nā te maha o ngā kōwhiringa ki te ako i ngā reo i Aotearoa, ka mimiti haere ngā nama ki ngā tuakana nōreira, ka whakakotahi ngā akomanga. Ahakoa ngā wero e hāngai ana ki te akomanga taumata rua, ko tā te rangahau nei he whakamahi i ngā rautaki ako matawhaiaro (Personalised Learning) hei whakatipu i te aronga a te akonga (Student Engagement) me te mana o te reo Māori. Ko te ako matawhaiaro tētahi o ngā ariā e mōhiohia whānuitia i te ao mātauranga. Ka whakatinana a ngai Māori i ngā tikanga me ngā mātāpono, te whanaungatanga, te whai wāhitanga me te rangatiratanga. Koia te ngako o te ako matawhaiaro. E ai ki tā Leadbeater (2008), ko te ako matawhaiaro e hāngai pū ana ki te ākonga, te katoa o te tamaiti, āna pūkenga me āna pūmanawa. Ko te whāinga matua o tēnei

rangahau he whakawhanake i ngā ākonga kia whakamana i te reo Māori, kia ako tonu i te reo hei oranga mō rātou. Ka hono ēnei whāinga ki ngā tuinga kei runga i te anga Tātaiako, kua whakatairanga ake i te aronga ahurea whakaako kia whanake ngā ākonga Māori.

(Ministry of Education 2011)

Ngā whāinga o te rangahau:

- Whakawhanake i te aronga a te akonga i te akomanga reo Māori mā ngā rautaki ako matawhaiaro.
- Whakawhanake i te mana o te reo Māori i te kura me te hapori
- Rukuhia te hononga o te ako matawhaiaro ki te aronga a te akonga me te mana o te reo
- Whakamahia ngā mātāpono o te rangahau kaupapa Māori hei whakamana i ngā ākonga Māori, whānau, hapū, iwi me ngā kaimahi.

I whai ahau i ngā tukanga rangahau kaupapa Māori, ā, ko ngā mātāpono me ngā tikanga Māori te tūāpapa o ngā mahi. Arā, ko te whanaungatanga, te manaakitanga, te rangatiratanga, me te kanohi kitea ētahi o ngā tikanga. E tika ana kia whai i tēnei ariā i te mea e hāngai ana taku kaupapa ki te reo Māori me ngā ākonga, whānau, hapū, iwi Māori. Ka noho haumarua ngā ākonga me ngā kōrero o roto. Waihoki, kua tuhia katoatia ngā tuinga ki te reo Māori.

Ko ngā raraunga i kōhi he raraunga kounga me te raraunga tatau. Ko ngā hui ki ngā ākonga me ngā whānau, te whakawhiti kōrero- he momo wānanga, ngā pepa uiui kūkara, te mātakitaki i te akomanga. He pai ake te whakamahi i ēnei kohinga e rua i te mea he painga kei roto i ngā hui kanohi ki te kanohi, anō hoki i ngā kohinga raraunga pepa uiui kūkara. Ko ngā kōrero i puta i ngā pepa kūkara, kāore i whakapuaki i ngā hui ā kanohi. Nōreira, ka whai wāhi ngā kōrero pono ahakoa te momo tukanga. I whai hoki ahau i te Action Research, i au e noho tahi ana ki āku ākonga. Nā te whakakotahi i ngā ariā e rua, ka ngawari ake te whakahaere i te rangahau. E ai ki a Cram (2012), ka noho te Action Research hei hoa haere mō te ariā kaupapa Māori, i te mea ka mahi ngātahi ngā ākonga, whānau, hapū me te iwi. Ka mutu, ka whakamahia ngā mātāpono Māori hei te wā arotake.

Ko ngā hua i puta i te rangahau he huhua, otirā, he māramatanga kei roto i ngā

kōrero me ngā mahi e hāngai ana ki te ako matawhaiaro me te aronga a te akonga. Ka whai wāhi te ako matawhaiaro ki te akomanga taumata rua, ā, ka whanake i te aronga a te akonga. Ka whai wheako whaiaro ngā ākonga i te mea ka hāngai ngā ngohe ki a rātou. Ka tipu te ingo mō te ako, ka whai wāhi te ako ki ngā horopaki i waho i te akomanga. Nā te whakatinana i ngā mātāpono Māori, ka rongō i te ngākau pono. Ka tipu te whanaungatanga i waenga i ngā ākonga, whānau, kaimahi o te kura, me te hāpori. Inā ka whakamana te kura i te reo Māori, ka rongō, ka kite i ngā kawenga o te kura.

Hei whakakapi, ka tohu tēnei rangahau i te hiranga o te reo Māori me te ao Māori. Ahakoa ko te ako matawhaiaro te rautaki hei whakapai ake i te taha whakaako me te aronga a te akonga, ko ngā mātāpono Māori te take i noho haumaruru ai ngā ākonga me ngā whānau, anō hoki i tipu te mana o te reo Māori. Ka mutu, e kī ana ngā raraunga mā te whakakotahi i te ako matawhaiaro me ngā mātāpono Māori, ka whanake te aronga a te akonga me te reo Māori i te kura. He pou tarāwaho tēnei hei hāpai i ngā kaiako e whakaako ana i te reo Māori i te kura auraki, i te akomanga taumata rua, me ngā akomanga reo Māori. Mauri ora.

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About the Author

Kataraina Smith is Head of Te Reo Māori at St Cuthbert's College, Auckland. Her background is in teaching at kura Māori, bilingual and rūmaki settings, where te reo Māori and tikanga are at the heart of teaching and learning. She is passionate about strengthening te reo Māori and uplifting the mana of Māori and Pasifika. She is committed to shifting societal attitudes towards te reo Māori, to ensure greater acceptance and appreciation for our taonga.

By embracing te reo Māori, we strengthen our collective cultural identity. She aims to promote mana wahine and elevate ākonga to achieve their full potential.





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AI for Teacher Wellbeing: Reducing Workload and Improving Job Satisfaction (*White Paper*)

Marcelo Sosa

sosa.marce@outlook.com

Recently, many teachers have become enthusiastic and curious about the opportunities artificial intelligence (AI) may present to support teaching and learning, while others have preferred to remain cautious. Via the use of specialised teaching platforms, teachers are able to reduce teacher workload, save time, and personalise learning experiences. This has been true in my case, as working in a high decile school with demanding parents that expect specialised teaching for their kids, meant I was constantly making extra resources. On the other hand, there are still those who are yet to embrace artificial intelligence platforms, and may be waiting until guidelines and frameworks are further developed by education authorities. One of the most significant barriers artificial intelligence integration faces is the lack of reliable and adequate professional development for teachers in navigating the complexities of such tools and platforms. This has likely slowed the rate of acceptance and use in educational settings; an interesting paradox since teachers should prepare students for the future. Other concerns include data privacy, ethical considerations, and potential bias.

Teaching is a challenging profession. Teachers tend to complain about how additional administrative duties take away from the primary purpose of their role, which is teaching.

Allen, Gallo Cordoba, Longmuir, and Phillips (2023) revealed a progressive decline in teacher job satisfaction. This decline in job satisfaction is a real concern for school authorities, the government, and society. If there are no more teachers left, who is going to nurture and prepare children for the future? Teachers often report experiencing stress, fatigue, anxiety, and feeling overwhelmed by the high demands of the profession. Further research has proven that teaching is one of the world's top five most stressful careers (Coombe, 2008). But what if artificial intelligence was the solution? What if it could reduce the number of teachers leaving their careers? Schools and the department of education globally should work tirelessly to empower teachers to integrate AI tools to enhance and improve their practice and student learning outcomes. Allowing educators to develop their skills and gain confidence using artificial intelligence is therefore crucial to protect their wellbeing.

In this project, I aim to investigate how using a range of Artificial Intelligence platforms such as Chat GPT, MagicSchool, and Brisk Teaching has the potential to increase the level of teacher job satisfaction. In this project I will design, implement, and evaluate a professional development program to equip colleagues with the knowledge and skills to effectively and confidently integrate AI tools into their teaching practice. As a result, teaching and learning will be enhanced without an increased level in workload. This project will be carried across a primary school setting. This project will explore and analyse the benefits and/or drawbacks of incorporating AI tools in the planning process of classroom activities for teaching and learning.

The project objective is to bridge the current gap between the increasing amount of artificial intelligence tools and platforms and the lack of professional development currently provided to educators. The main objective and product of this project is the creation and implementation of a ten-week professional development program for teachers in a primary school setting. This project objective is to support teachers with the integration of a range of artificial intelligence tools such as ChatGPT, MagicSchool and Brisk Teaching into their planning and practice. The intention is that acquiring this new set of skills and knowledge will help teachers save time in administrative tasks; thus reducing stress and burnout.

Generative AI has taken New Zealand and the rest of the world by storm and has been a hot topic in education across the globe. Teachers and educators are feeling a combination of excitement and apprehension regarding AI as it transforms traditional classroom dynamics.

Whilst most educators recognize the potential for AI to transform the classroom, there are still many questions that need answering.

In order to fully embrace Artificial Intelligence in the classroom with learners, teachers must first feel empowered themselves about the use of technology and the use of AI. It is important to keep in mind however, that this may be harder to achieve because adults learn in a very different way to how children learn, and it might be difficult for some teachers to leave some well embedded habits.

The generative AI revolution presents yet another opportunity for schools to reimagine education and embrace a technology that can help teachers and learners. The authors Vashista, Gugnani & Bala (2023) state that “Artificial intelligence (AI) has the potential to enhance the educational landscape by optimizing the learning process, tailoring instruction to individual learners, and providing educators with insightful data to enhance their pedagogical practices. This educational approach affords students the autonomy to acquire knowledge at their individualized speed, while simultaneously enabling teachers to instruct in manners that align with the unique needs of each student” (p.13). Walter (2024) also highlights that perhaps one of the most promising benefits of AI in education is the potential in supporting students with special needs, promoting inclusivity, and enhancing personalized learning experiences.

The astronomical growth of AI has created incredible opportunities globally across education and other sectors. However, this growth also created a set of challenges that are yet to be resolved. According to UNESCO (2024), achieving AI governance and ethics is perhaps one of the most challenging tasks of our time, which expands beyond education.

That has been the big question since the generative AI revolution began. The most commonly agreed answer to this question is that AI is not here to replace teachers but to aid them (Thinkific, 2024). Whilst AI can streamline simple admin processes like lesson planning, assessment marking and even responding to emails; teachers are still very much needed to provide emotional support, guidance and mentoring to our young learners.

Pausing the AI revolution and even going back in time is not a possibility, so the only option we have is to embrace the change. Even when we are so unsure about this evolving technology. As educators, we have a moral and ethical responsibility to prepare students for

the future, and excluding them from the opportunity to explore the technology and integrate it with their learning will be failing in our duties.

The world is changing at a tremendous pace and we have the opportunity to witness one of the biggest revolutions in humankind history. Therefore, regardless of individual opinions in relation to Artificial Intelligence use and the varying levels of predisposition to incorporate such tools by education providers and educators, it is hard to ignore the fact that AI is already here and that it will not go away. Therefore, education entities have a responsibility to adapt to the AI revolution and provide educators with the necessary level of training so this knowledge can be passed to the learners. We are still very much in the developing phase of this technology and what it could look like in education, but it is exciting to think about how by implementing such a powerful tool we can redesign and change classroom dynamics.

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About the Author

Marcelo Sosa is a Primary School teacher at Shorncliffe State School, Brisbane. In the past, Marcelo has taught at Te Kowhai School in New Zealand where he held the role of Head of Digital Technologies. Marcelo aims to empower teachers and help reduce symptoms of fatigue and stress in education by utilizing a range of artificial intelligence tools. Marcelo keeps his practice current and relevant through research and by connecting with global educators. Marcelo has experience working in a range of year levels, from prep to year 12 both in New Zealand and Australia and has delivered professional training for colleagues at multiple schools. He is motivated and committed to facilitating engaging and personalized learning for all.





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Master of Contemporary Education C13P Cohort

Symposium July 9th, 2025

Personalised Learning for Secondary Students with ORS Funding

Angela Whyte

awhyte@masseyhigh.school.nz identified a gap in students' learning who have ORS (Ongoing Resourcing Scheme) funding. The students' learning needs were not being fully met in the classroom with peers of the same age in our secondary school setting. Our ORS funded students were catered for in a variety of different ways from basic worksheets, work assigned on a laptop which wasn't monitored or expecting a Teaching Assistant to differentiate the learning intention and activity for the class.

The project endeavoured to challenge what inclusion in a mainstream setting could look like through student and family agency and personalised learning. At the onset of the project, individual goals were set with the family and their child about what they wanted their children to achieve at school and beyond. The second goal was to create personalised learning lessons to meet the targets from Goal 1. Further to this, lessons and opportunities were developed to enhance skills needed for employment.

Five students initially embarked on the personalised journey. For three of these students they could work together on similar tasks with personalised outcomes. These activities

included cooking main meals, advocating about their abilities with their teachers and working on communication and employment skills within the group. The overarching goal for the parents was belonging and friendships. This cohort of students are working within level one of the New Zealand curriculum. Two other students were at a slightly higher level and working on communication, independence and employability skills. This had them working within the Deep personalised learning stage (Leadbetter, 2006) which Clarke (2013) further defined as the students having the control over the tasks instead of the teacher. One of the students did work experience in the school by working with the school maintenance team and creating gardens and features to solve health and safety features. The second student was preparing to go to university so worked on transition, safety and employment skills.

When starting out with this project I discovered that there were similarities from all over the world where inclusion was expected through policies but inconsistencies about what inclusion looks like either between countries or even within countries (Szumski, Smogorzewska & Karawowski, 2017) I also discovered that these policies from all over the world were not necessarily supported through funding for resources or professional development for teachers. Curic (2019) wrote of the divide between what is stated in legislation and what is actually happening in the classroom.

One of the challenges I had during this project was the different leadership styles I needed to adopt with different stakeholders. From an Adaptive Leadership style to challenge the status quo and move teaching and learning on, Distributive Leadership where I wanted families and school to drive change in a collaborative way. I was pleased to be able to remain true to my personal values and passion and use an authentic leadership style at times. My style did need to become authoritarian at times when some staff were not on board with educating the students with ORS funding.

At the beginning of the project I became aware that parents initially had very little ambition or future goals for their children. This was due to believing their child couldn't be employed and thinking they would be in their care forever. Through this project I was able to move this thinking on and involve parents in their children's learning and planning for a contributing future. We collaborated to make future goals, and I created innovative lessons

in school and with the addition of agencies that could support where appropriate.

At the conclusion of the project both students and parents overwhelmingly wanted the lessons to continue. This was a shift in the family thinking about inclusion and embracing the opportunity for their child to learn relevant skills for their future. Our staff were more aware of the levels of students' academic abilities and able to better plan in class learning through differentiated learning. Staff, both teachers and support staff, that were directly involved in the project reported more work satisfaction when working in the collaborative style and on individual learning targets as they felt the students were learning and they felt a positive shift in student mindset.

Since completing this project, the cohort of students has grown significantly to include students that do not have ORS funding but are benefiting from the personalised learning opportunities.

There will be conversations with Senior Leadership about funding learning activities for more students, having a permanent base to do cooking activities and perhaps becoming a family class.

This project challenged families to question what they wanted out of inclusion in a mainstream classroom. For the families and students, the sense of belonging and working at their level was a very positive experience. Staff involved rated the learning and experiences as fun and enriching for both the students and their own practice.

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Educational Research Review, 21, 33-54 **About the Author**

Angela was born and raised in West Auckland and has returned to her high school as SENCo. She has taught in primary school settings in New Zealand, London, The Gambia and Uganda. She has a passion for ensuring every person gets the best education possible. Her interests include family, alternative education, traveling, nature and music.





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Symposium July 9th, 2025

Developing Formative Assessment Tools to Enhance Instructional Practices for Provisionally Certified Teachers

Latecia Williams

ericandtesh55@gmail.com

Formative Assessment for Cultural Responsiveness: Enhancing Instructional Practices among Provisionally Certified Teachers is a practice-based change project designed to transform classroom instruction in Year 5–8 classes at a local primary school. The purpose of this project was to explore how the implementation of a suite of formative assessment tools could provide Provisionally Certified Teachers with actionable insights into student learning and ultimately empower them to adapt their teaching strategies (Wiliam, 2011). Recognising that the traditional one size fits all approach no longer meets the diverse needs of today's learners, the project sought to create a more responsive, adaptive, and culturally inclusive learning environment that not only improved academic outcomes but also affirmed students' identities and cultural experiences (Bishop, 2019; Riwai-Couch, 2022).

At its core, the project was driven by a dual purpose. First, to enhance teachers' ability to gauge student progress in real time and to adjust instruction dynamically based on immediate feedback (Absolum, 2006; Wiliam, 2011). Second, to weave culturally responsive pedagogy into the very fabric of formative assessment practices by aligning tools with

culturally relevant content such as local Māori narratives and te reo elements (Riwai-Couch, 2022). The project goals were multifaceted: to equip teachers with a broad range of formative assessment strategies; Think Pair Share, Mini Whiteboards, Exit Tickets, Rubrics, Cooperative Learning Roles, Fold the Paper, Line Up Fold Up, Keep Question Going, and Feedback, Feed Forward (Wiliam, 2011); to foster an environment of continuous professional learning through collaborative planning, coaching, and reflective practice (Absolum, 2006); and to establish a sustainable framework that could be shared widely, thereby promoting a culture of continuous improvement and educational excellence (Bishop, 2023).

To achieve these goals, a series of professional development sessions and team teaching demonstrations modelled the effective use of each formative assessment tool within a broader “no hands up, except to ask a pātai” ethos (Bishop, 2019). This relationship-based learning approach ensured that every ākonga understood their role in the learning process and that their contributions were integral to classroom discussions (Bishop, 2019). Teachers were encouraged to adapt these strategies so that they resonated with the diverse cultural backgrounds of their students. For example, some Think Pair Share prompts were drawn from local whānau stories, while Exit Tickets invited students to reflect on their learning in a culturally meaningful context (Riwai-Couch, 2022). By integrating culturally anchored content, these assessments did more than measure academic progress, they validated students’ lived experiences and strengthened their sense of belonging (Absolum, 2006; Riwai-Couch, 2022).

Throughout the project, iterative action research cycles involved planning sessions, classroom observations, and interviews with both teachers and students. These cycles allowed for continuous refinement of tools and practices based on real time feedback (Wiliam, 2011; Bishop, 2023). Observational data showed that consistent use of these strategies enabled teachers to promptly identify learning gaps and adjust instruction to better support individual needs (Absolum, 2006). Interviews and group discussions further revealed that both teachers and students valued the clarity of learning objectives and the immediacy of feedback, building teacher confidence and fostering an adaptive educational culture (Wiliam, 2011).

The project yielded several key conclusions. It demonstrated that when formative assessment tools are implemented with clarity and cultural responsiveness, they can

significantly enhance student engagement and learning outcomes (Absolum, 2006; Riwai-Couch, 2022). Teachers reported improved capacity to personalise instruction and address diverse learning needs when they had immediate, actionable data (Wiliam, 2011). Moreover, embedding culturally relevant elements into assessments enriched students' experiences by affirming their cultural identities and connecting academic content to personal and community narratives (Riwai-Couch, 2022). The project also highlighted the importance of collaborative leadership and ongoing professional support and core principles in Leading to sustain innovative practices and amplify their impact across the school community (Bishop, 2023).

In addition, several insights emerged that are significant for broader educational practice. First, the project underscores the transformative impact of continuous, low stakes formative assessments, which nurture reflective teaching and active student participation (Wiliam, 2011; Absolum, 2006). Second, culturally responsive pedagogy is critical; integrating students' cultural backgrounds into assessment processes fosters inclusion and belonging, leading to more engaged and successful learning environments (Riwai-Couch, 2022). Finally, the establishment of a digital repository through the POUR (2024) website provides a sustainable resource for educators. This searchable platform includes practical guides, downloadable templates, video demonstrations, and teacher reflections, and serves as a virtual community of practice, extending the project's benefits far beyond the initial school setting (Bishop, 2019).

Overall, this project provided compelling evidence that a well-structured, culturally responsive formative assessment framework can drive significant improvements in instructional practices and student outcomes. By equipping teachers with actionable insights and embedding culturally relevant content within assessment strategies, the project not only improved academic performance but also affirmed students' cultural identities. The lessons learned offer a replicable model for other schools aiming to foster a more responsive, engaging, and equitable learning environment.

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About the Author

Ko Tuanaki te maunga

Ko Te Marie te awa.

Ko Tokerau te moana.

Ko Mamaru te waka.

Ko Parata te rangatira

Ko Ngati Kahu te iwi.

Ko Ngati whata te hapu.

Ki te taha o toku papa;

Ko Frederick Beazley toku koro.

Ko Mary Evans toku kuia .

Ko Bevin Beazley toku papa.

Ki te taha o toku mama;

Ko Harold Beckham toku koro .

Ko Louisa Rae toku kuia.

Ko Fay Beazley toku mama.

Ko Daryl raua ko Grant oku tungane.

Ko Eric Williams (Eriki Pene Mehana Pikaahu) toku hoa matua.

Ko Jordan raua ko Tayla oku tamahine.

Ko Kai Eriki raua ko Miles Etuale oku mokopuna



No Parapara ahau.

Latecia Williams serves as Deputy Principal at Pompallier Catholic School in Kaitaia. She also fulfils several key leadership roles: Within School Leader for Te Kahui Tai Kura o Te Hiku, Lead Educator in the Manaiakalani programme, and Leader of Curriculum and Assessment. With a career that spans early childhood, primary, secondary, and tertiary education, Latecia is dedicated to advancing student achievement while mentoring and building teacher capacity. A passionate advocate for literacy and mathematics, she maintains an extensive kete of resources and expertise which she generously shares to support colleagues' professional growth.