

# MASTER OF CONTEMPORARY EDUCATION

Symposium Proceedings

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Master of  
Contemporary  
Education

C8P SYMPOSIUM 18<sup>TH</sup> JANUARY 2023

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## Executive Summary C8P

# Kia Mau ki te Aka Matua

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Cindy Pile-Wetere

'Kia mau ki te aka matua' in the context of this project refers to the metaphor of consolidating the foundations and fundamentals of mathematics. Developing the fundamentals of numeracy and then creating new vines. The purpose statement of this project was to create a series of rautaki tau (number strategies) numeracy video recordings taught alongside students at kaupae (stage) 4-6 applying the Assessment for Learning and Poutama tau (Māori medium framework for teaching numeracy) pedagogies to increase student and teacher confidence with learning and teaching numeracy (tau). The project goals were to plan, implement and evaluate numeracy lesson plans in te reo Māori premised on the principles of Assessment for Learning and Poutama tau pedagogies. The number stories have incorporated the local curriculum commitment of our school to mana whenua (Te Kawerau a Maki), which is appropriate.

The numeracy video recordings in te reo Māori are an alternative approach to applying and reviewing number strategies to build student confidence and teacher practice within a Māori medium classroom. The recordings will alternatively be used for the professional development of teachers of te reo Māori while teaching numeracy across our local Kāhui Ako. The main beneficiaries of this project are the students because the deliverables (numeracy recordings) will be shared on the school platform of Hapara, accessible to all students. Teachers of Māori medium settings within our Kāhui Ako also benefit from this project because the numeracy recordings include teacher planning of the lessons recorded, lessons implemented and evaluated. Digital technology, such as, platforms and video recordings, provide a vehicle for teachers and learners to revisit and revise learning and teaching with the outcomes of building confidence.

The Covid lockdown years raised the awareness that rumaki reo Māori (total immersion Māori) students required teacher support while learning numeracy strategies at home guided by the pedagogies of Assessment for Learning and Poutama tau. These pedagogical approaches are the norm in my classroom setting, involving student participation, discussion, and engagement which was impossible during these times. Numeracy learning for students in this context could continue through the creation of number strategy lessons using digital technology. Target audiences are able to access and revisit these numeracy video lessons. According to the Ministry of Education (2022), there is a need to review the way numeracy is learned and taught, which is evident in the current climate with the re-evaluation of numeracy teaching/learning and placing priority with Māori students. These numeracy recordings will provide lessons for teachers of te reo Māori and teachers requiring professional development.

An overview of this project included formulating and analysing lesson plans, which led to the numeracy recordings being created by four student participants (Group 1) and the teacher. Six students of (Group 2) watched and were guided by the numeracy recordings to learn three numeracy strategies

which provided qualitative data from observations, discussions, and work sample surveys were completed by the participants providing quantitative and qualitative data.

The numeracy recordings were digitally shared with three education leaders who provided qualitative data as to the validity of the resource being used for teacher professional development. Action research and the kaupapa Māori framework were methodologies applied as the learning context and the language of instruction is Māori. Smith (2015) describes te reo Māori as a taonga tuku (a treasure passed down from our ancestors) which must be safeguarded to ensure its survival. The Kaupapa Māori framework and methodologies legitimizes and holds the researcher accountable for the research done by 'Māori for Māori'. This project exemplifies this statement.

The qualitative data was collated and then analysed by finding commonalities and differences in themes and patterns of responses. The main responses showed that students felt confident with learning the numeracy strategies with the use of equipment, the modelling of the participants, and the ability to revisit the recordings of the lessons. The recordings motivated the learners to use the equipment without being directed. The analysis of the qualitative data showed that students were able to explain their strategies confidently after revisiting and then practicing examples independently. Including the dialogue and mathematical explanations of solving problems in te reo Māori. Absolum (2011) reinforces the importance of modelling, and the opportunity for learners to revisit the models to ensure clarity of the learning. The literature explains the raised metacognitive awareness of learners, particularly at the co-construction of success criteria stage, whereby learners begin "to think about their thinking". The leaders of learning highlighted the strengths of the recordings as having clarity of the lesson sequence, scaffolding, the appropriate use of equipment, imaging, and number manipulation. The qualitative data of the teachers highlighted the transferability of this process to pānui(reading) and tuhituhi (writing) with instructional groups. Also, reinforcing the positive use of te reo Māori by tamariki in a learning classroom setting.

The findings of the project showed similarities in the clarity of the lesson recordings from both the students and teachers. The clarity was demonstrated by students in the follow-up activities and the use of equipment which were modeled, including peer discussions. The main theme highlighted by the teacher evaluations was the clarity of the process of Assessment for learning and the Poutama tau pedagogies. The next steps for this project would be a discussion with our school and Kāhui Ako leaders to ascertain the viability of continuing the project with the aim of teachers becoming confident with these pedagogies within Māori medium settings. Continuing to make more recordings at the levels within their own classes and establishing a database for all teachers and students to use at home or in the class. The ability of digital technology (video recordings) supports teacher and student confidence while learning numeracy, assessment for learning and the poutama tau pedagogies because it captures practice, mathematical dialogue, thinking and problem-solving strategies. Students and teachers learn more by showing, not just telling.

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## ABOUT THE AUTHOR

Cindy Pile-Wetere - cindywetere@gmail.com

Ki te taha o toku pāpā  
Ko Pūtauaki te maunga  
Ko Mātaatua te waka  
Ko Rangitaiki, ko Orini ngā awa  
Ko Ngāti Awa te iwi  
Ko Ngāi Te Rangihouhiri tuarua, ko Ngāi Taiwhakaea ngā hapū  
Ko Hiriweteri Pile toku pāpā

Ki te taha o toku māmā  
ko Pouerua te maunga  
Ko Ngātokimatawhaorua  
Ko Waitangi te awa  
Ko Ngāpuhi te iwi  
Ko Ngāti Kawa te hapū  
Ko Ngaro Whanake Taituha Pile toku māmā  
Ko Cindy Pile-Wetere ahau.



I have been teaching in the Auckland area for over twenty years in both English and te reo Māori learning contexts. I was originally trained in English medium and then followed my calling into bilingual Māori and then Māori immersion classes. I graduated with a Bachelor of Arts, Graduate diploma of teaching, Post Graduate Certificate, Master of Professional Studies in Education and now the Masters of Contemporary Education. I taught for four years in Queensland Australia in the Gold Coast within different schools finally returning to Aotearoa. During this time in Australia, I realised that student centred learning and culturally responsive practices are well ahead in Aotearoa. I am currently working at Rānui School as the deputy principal where I have been fortunate to complete this master's degree alongside my colleagues and sister supported by the Board of Trustees. He mihi nunui tēnei ki toku whānau whāiti. He tuku aroha tēnei ki toku hoa rangatira ko Brendon i ana mahi tautoko.



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## Executive Summary C8P

# Ko Wai Au, Nō Hea Au?

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### Ernest Karl Harris

In this project, my goal was to work closely with kaumātua and advocates of Te Kawerau a Maki (iwi who hold customary authority or mana whenua within the Waitākere region) to help with my investigation to further my knowledge of whakapapa around the Rānui/ Tāmaki ki te Uru domain. I also wish to build a strong, authentic relationship with mana whenua so my tamariki can potentially become involved in various activities in the community in and around Tāmaki ki te Uru. Since I have been on this research journey, I have made strong connections with many organisations throughout the community, firstly, Te Kawerau a Maki, Aktive Whakapapa, Arataki Visitors Centre, Auckland City Council, Waitākere Park Rangers, just to name a few, always expressing the importance of education outside of the classroom, using Penetito's (2009) place-based education approach.

In my practice, I have changed the way I use technology in my class. Tamariki and whānau are using a variety of digital programs to record whānau voice and communicate with kaiako. I have had support from the Principal and Rānui School Board to then integrate my project scope into a local curriculum document. I have used a range of digital technologies to enable me to film, record and document information from Te Kawerau a Maki, having access to waiata, mōteatea, haka, pūrākau, also attending a range of events lead by the iwi in the Waitākere region. Absolum's (2011) Clarity in the Classroom uses a learning-focused relationship approach that supports learners, in this instance, the kaiako and senior leaders of the 12 schools in Te Kāhui Ako o Waitākere. My role as an across schools leader is to support them with learning local stories, tikanga capabilities, and understanding the Māori concepts in the Aotearoa New Zealand histories document. The aim also was to use these professional development sessions to focus on Bishop and Berryman's (2010) Te Kotahitanga approach and Hohepa and Robson's (2008) seven tū rangatira leadership style to promote tikanga Māori and to provide our kāhui ako with a tirohanga Māori to our wānanga when addressing mātauranga Māori, and as Mead (2003) said, "Tikanga comes out of the accumulated knowledge of generations of Māori".

Signing a three-year partnership with Te Kawerau a Maki has been an enormous accomplishment for our kura, opening up many research opportunities for our inquiry and local curriculum kaupapa, 'Our Stories', starting in term 1, 2023. This knowledge has supported my kura in developing a local curriculum that has increased understanding, awareness, and whanaungatanga throughout our kura and the community, with access to an array of kōrero with reference to pūrākau, waiata, haka, mōteatea, tūpuna and the various wāhi rangatira in the Waitākere area.

The impact that the local mātauranga has had on our kaiako, whānau, and not only for our tamariki Māori but for our diverse communities with our kura, has been huge. It's inspiring to see our whānau frequently involved in various activities in school and in the wider community, including local walks, school camps, and even learning waiata. This has been a vital element in sustaining a strong, authentic relationship between tamariki, kaiako, whānau and mana whenua.



The purpose of this project was to develop a localised curriculum specific to our kura but after reflection and consideration of other approaches, in fact, it was visiting those prominent sites around Waitākere whānui and bringing back the culture of storytelling through mōteatea, waiata, karakia and whakapapa as a method delivering, gathering and recording local knowledge. Travelling to the places stated in our school's pepeha to connect with the whenua and make ourselves seen in the community by various organisations, as Smith (1999) says, he kanohi kitea, using local waiata and mōteatea was our way to whakamana Te Kawerau a Maki in acknowledging us, Rānui as kaitiaki mātauranga. As Bishop (2019) says "Relationships are fundamental to learning", and in this context, we are all learners.

This is a tremendous opportunity for me who has the manawawera and manawa tītī to continue to support and lead the localised curriculum as an educator and an advocate for Te Kawerau a Maki. Maintaining a strong authentic partnership with iwi, kāhui ako, community, kura, kaiako, whānau and tamariki is essential for a trustworthy relationship.

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## About the author

Ernest Karl Harris - [ernestkarl27@gmail.com](mailto:ernestkarl27@gmail.com)

Ko Rākautapu te maunga  
Ko Tapuwāe te awa  
Ko Ngātōkimatawāhōrua te waka  
Ko Te Rarawa te iwi  
Ko Ngāi Tūpoto te hapū  
Ko Ngāi Tūpoto te marae  
Ko Ngāhuia te tūpuna whare  
Ko Ernest Karl Harris ahau  
Tihei mauri ora



Harris has whakapapa connections to Te Rarawa kaiwhare and Ngāpuhi kōhao rau. He has 22 years' experience in the construction industry as a bricklayer, 4 years study with Te Wānanga Takiura and 7 years as a kaiako.

Harris believes that his passion for his culture and heritage, along with his expertise, awareness, and knowledge of te reo Māori me ōna tikanga has supported Rānui Primary and Te Kāhui Ako o Waitākere in establishing a strong relationship with the local iwi, Te Kawerau a Maki. Localised curriculum is a driving focus for Rānui Primary therefore, the expertise, not only as an educator but an orator that is able to engage with the local iwi is pinnacle. Localised curriculum includes mana whenua if learning is to be authentic.

These aspects that Harris has described, are a powerful source of motivation for him to achieve to the highest possible level during his time as a bricklayer, a student at wānanga, and now as a kaiako at Rānui Primary.

Nō reira, tēnā rā koutou katoa.



## Executive Summary C8P

# He kākano ahau i ruia mai i Rangiātea

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### June Paratene

This practised-based change project aimed to apply a localised curriculum using Te Kawerau a Maki narratives and Michael Absolums Assessment for learning. I was integrating Te Kāhui ako o Waitakere writing indicators and Tū Rangatira leadership.

This project was necessary because of limited bi-lingual tuhituhi resources to support bi-lingual writing programmes. The focus is on New Entrants from Year 0 to Year 2, using Te Kāhui ako o Waitakere indicators, applying Assessment for Learning and integrating Local Te Kawerau a Maki narrative and Tū Rangatira leadership roles. There is a need for te reo Māori, bi-lingual support resources for teachers and students in writing, which can help clarify learning using the Assessment for Learning approach. All writing data shows that our tamariki need assistance writing in Te Reo Maori.

This project used two different forms of methodology: 1) Kaupapa Māori research (indigenous research method), an approach, especially for researchers who are Māori undertaking research with Māori—using Māori knowledge, Māori cultural values and practices and 2) Action Research process (the cycle of inquiry and reflection) to help find ways to accelerate and lift student achievement and improve my practice.

I applied Michael Absolum's (2006), Assessment for Learning process to improve students' learning and my teaching. The assessment aims to diagnose and identify students' learning needs and improve my writing practice. My Learning intentions came from Te Kāhui ako Māori o Waitakere tuhituhi indicators. I integrated Te Kawerau a Maki narrative (pepeha/ moteatea) and Tū Rangatira practices (comparing the leadership practices with tupuna in the narratives) in class discussions.

The target group within the project were kept anonymous, and all other stakeholders and collaborators were named throughout the project. The educational excursions provided many authentic learning experiences and connected the learning.

The first and second iterations had four phases each –Planning, Taking Action, Observation, and Reflection. The first iteration used school waiata pepeha and moteatea (Te Kawerau a Maki narrative) integrated into the learning, one of many hooks that worked well in implementing strategies that prompted the tamariki to write and supported the new learning with the target group. E kore au i ngaro, he kākano i ruia mai i Rangiātea, I am a seed from the heavens, I shall never be lost (Clement, 2015).

For the second iteration, the Tū Rangatira leadership roles were introduced. If the tamariki could talk about and identify what it takes to be a good leader, then integrating the leadership roles while unpacking the narratives was seamless. Ehara taku toa i te toa takitahi, engari he toa takitini. My strength is not just that of a single warrior but that of many (Thomas, 2020).

There are many benefits of this project. The key ones are: 1) to increase writing by writing about our local history and stories (Te Kawerau a Maki narrative); 2) our tamariki, whanau, staff and community increase their knowledge about Mana whenua and local history, our place in our community; 3) the recordings of lessons are to be used as a learning and teaching tool, an effective way for students to revisit learning within Tuhituhi, Assessment for Learning and te reo Māori. The students at this level are learning te reo Māori, the language used to deliver Assessment for Learning, and the curriculum language of Tuhituhi; 4) to be responsive to the needs, identity, language, culture, interests, strengths and aspirations of all our learners and their whānau; 5) to integrate Te Tiriti o Waitangi into classroom learning.

The main challenge of the project has been Covid 19. It has given us uncertainty, lockdowns, isolations, loss of timeframes and deadlines, absentees, and long Covid. It has impacted the spiritual, physical, mental, and health of our whānau in some way.

From the start of Year 0, to learn the fundamental skills needed to develop writing, the ability to hold, draw, write, copy, and colour. A mixed data collection method was used. Qualitative data included interviews, Teacher observations, reflections, questionnaires, and much hui. Quantitative data consist of school-wide data, including final end-of-term data and school attendance. This relationship between attendance and achievement shows that regular attendance may be one of the most significant factors influencing academic success. At the beginning of the project, there was resistance to writing. The tamariki were starting as emergent writers. The target group was building a foundation and understanding of writing and developing their potential and confidence as writers.

Research from Berryman (2015) indicates that when schools develop educationally powerful connections with whānau and their Māori communities, there is potential to significantly improve learning outcomes for Māori students.

I was unpacking the six concepts of the Assessment for Learning matrix, which has helped the tamariki and me with knowledge of processes and how to apply Assessment for Learning.

Making authentic connections and setting up a culture with my class where they feel safe to give new learning a go. "Learning-focused relationships are about using the considerable potential in the relationship between teacher and student—a culturally responsive practice. It is about enabling the student to play a meaningful role in deciding what to learn and how to learn; and about enabling the student to become a confident, resilient, active, self-regulating learner" (Absolum, 2006)

The clarity in learning- (learning intentions and success criteria) has set a good foundation for writing. The new learning is dependent on the kaiako. Expertise in my kaupapa, how I unpack and apply the learning, focus, energy, and relationships with my tamariki.

"For students truly to be able to take responsibility for their learning, both teacher and students need to be very clear about what is being learnt and how they should go about it. Research shows many important shifts for students when learning, and the path towards it is clear. Their motivation improves, they stay on-task, their behaviour improves, and they can take more responsibility for their learning" (Absolum, 2006).

Design, reading, and looking for culturally appropriate frameworks and strategies have been successful in this change-based project. Providing authentic learning experiences has engaged learners, and Waiata and Moteatea were also culturally inclusive, a faster way of learning and retaining narratives. Place-based education is a term that puts community and location at the centre of pedagogy.



Many Tū Rangatira leadership roles exist in our daily practice and change-based project. The importance of leadership and applying the appropriate leadership approaches to bring the desired outcomes.

Our collective project will bring a Māori worldview to the new localised curriculum documents. To present new ways to how the local curriculum could look in our local schools. To develop better strategies for accomplishing goals.

The deliverables will show how to use everyday classroom resources in your lessons. The video recordings show simple ways to introduce using a variety of sentence starters in writing lessons and easy-to-use lesson plans.

"Kua tawhiti kē to haerenga mai, kia kore e haere tonu. He nui rawa o mahi, kia kore e mahi tonu."  
"You have come too far not to go further. You have done too much not to do more." Tā Hemi Henare.

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## About the author

June Paratene - [juneparatene@gmail.com](mailto:juneparatene@gmail.com)

He uri tēnei no te nota,  
Ko Whangatauatia, Ko Ngaiotonga ōku maunga,  
Ko Karirikura me Waikare ōku wai ora,  
Ko Tinana me Ngātokimatawhaorua ōku waka,  
Ko Te Ohaki me Te Aranga o Te Paa ōku whare tupuna,  
Ko Te Rarawa me Ngāpuhi ōku iwi,  
He kaiako ahau i te kura o Rānui,  
E noho ana ahau ki Kelston,  
Ko June Paratene ahau.





## Executive Summary C8P

# Toi Te Kupu, Toi Te Mana, Toi Te Whenua

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### Monica Pile-Marsters

The purpose of this project was to increase teachers' confidence in English-medium classes to teach te reo and tikanga Māori using a website created as a 21st-century learning tool through collaboration. This project is a model for teachers to collaborate their learning and build confidence when teaching te reo Māori and tikanga Māori within their classrooms.

The project had the following goals:

- 1) To apply the action research framework to structure my project so that a website could be established as a digital vehicle of collaboration for a cohort of English medium teachers.
- 2) To create a database of online lessons completed by teachers through external facilitators, te reo Māori resources including videos, photos, and information to increase teachers' confidence in teaching te reo Māori and tikanga. This website is a collaboration tool to reinforce and extend professional learning for teachers.

Rānui School is a diverse multicultural setting with predominantly 40% Māori students who attend. The majority of Māori students are within English medium classrooms with no exposure to te reo and tikanga Māori. Pre-surveys of teachers were completed to gain an overall picture of teaching te reo Māori within classrooms. The responses of this cohort of teachers were underwhelming which led to the initiation of this project to lift teacher morale and confidence in teaching te reo Māori.

Applying the action research model, framed the project in cycles of inquiry including planning, acting, observing, and reflecting. The Kaupapa Māori research framework was cohesively integrated at every stage of the project. The principles of te reo and tikanga Māori, whakapapa, and rangatiratanga are all relevant to the research design of the project (Smith, 2015). Kaupapa Māori endorses the national significance of te reo and tikanga Māori in Education founded on Te Tiriti o Waitangi (Ministry of Education, 2022). Planning consisted of collaboration of the stakeholders including the Board of Trustees, principal, senior management, teachers, and learning support staff. Whanaungatanga would be the process of schoolwide participation, working together, and respect when taking risks with learning (Slater, 2004). Planning the digital tool for collaboration was considered.

Acting on the agreement of the stakeholders to continue with the project led to the active participation of teachers to learn online with my support and external facilitators, organized staff hui, and the collaboration website. In-class observations and face-to-face discussions provided qualitative data as to the shifts in teachers' confidence. Ongoing analysis of the teacher attitudes and participation levels was reflected upon with the collaboration of colleagues and leaders of learning in the school. The utilisation of the website for the teachers provided data indicating the effectiveness of teachers while teaching te reo Māori.

The data showed that the collaboration tool (website) and the resources within it gave teachers more confidence after using it. Pre-surveys indicated that teachers were not confident, especially those teachers who were not familiar with te reo and tikanga Māori. Post surveys indicated small shifts by most teachers with the benefit of accessing resources to be used in the class. Collaboration online was

valuable for “on your own time” learning however, the face-to-face staff hui was overwhelming to others. Teachers valued the one-step collation of the resources to be accessed easier within one website. Having the website organised in a way that teachers could navigate it was helpful with accessing the goals of the week and self-monitoring their progress each week and month. Contributing teacher experiences through classroom videos and sharing them online provided feedback/feedforward as a researcher.

Whanaungatanga would have to be nurtured more with the teachers in English medium even though the data showed that confidence had increased post the website, there is still some support to be done in person. Creating the website

helped staff with their practice as they became more confident in teaching te reo Māori with their tamariki. Also, with Te Reo Tuatahi (external provider) they were able to provide guided lessons, videos to watch and play. The resources they provided could be download and printed which made it easy for staff to use. The next step for this project is to encourage teachers to register with Te Ahu o te reo Māori (TAoTRM). This is a Ministry of Education initiative that started two years ago. What this programme is, is the future pathway of te reo Māori. A pathway that seeks to inspire and aspire for improved te reo Māori proficiency, acquisition and use across the education sector. It also provides opportunities for te reo Māori to be normalised, and Māori identity and culture to be shared and embraced. Enrolments opened on the 16 January 2023, currently we have 17 staff members registered. With this programme you are learning alongside other Kaiako in the Auckland Region. I think this is going to be an important area in our practice, as we will get to collaborate, mahi tahi, whanaungatanga, manaaki and tautoko each other in this journey.

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## About the author

Monica Pile-Marsters - monip40@gmail.com



## Executive Summary C8P

# Developing student agency through a purpose-built curriculum incorporating elements drawn from STEM, heutagogy, and place-based learning

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### Poko Kirkwood

The purpose of this project is to help teachers increase student engagement in their classroom and to implement a culturally responsive teaching strategy and to integrate Project Based Learning into STEM. This was made possible by developing and providing examples of how teachers can support enhancing student data and engagement with learning by using culturally responsive teaching.

An overview of the project: In a small group, we were able to meet with twelve mixed-ability students from year 3 through 6. We met once or twice a week for eight weeks in Term 2, and for six weeks in Term 3, we met once a week. These students had been selected with great care by teachers. Students' ability to answer complex questions and solve real-world problems may take several weeks or longer to develop because of the project. Students must identify areas of concern, interest, or something they are passionate about before implementing the projects in Gold Standard PBL.

The project's goals and outcomes included developing and evaluating new pedagogical programs that foster and engage our students and lead to student agency to determine what best practice looks like. The desire is to identify the right model to increase student and teacher engagement in class. Students are guided in the right direction by a method of inquiry known as the Gold Standard PBL seven essential project design elements in any learning areas. At the end of the process, students can present their project in any format and with an audience. I was unable to create and provide professional development for our teachers in 2022. Instead, I made a survey to emphasise the importance of integrating project-based learning in STEM and, hopefully to implement professional development in 2023. The following goals were set for successful completion.

- 1) Create a professional developmental programme implementing and evaluating Project Based Learning through a culturally responsive approach.
- 2) Implement two action research iterative cycles, each providing teachers with what best practice looks like. I will use teacher observations, reflections, and student interviews to evaluate each cycle and meet with my Project Team to use these evaluations to inform the design of the next cycle.
- 3) Integrate Project Based Learning in STEM through a culturally responsive lens and investigate what best practice looks like Term 2 and 3.
- 4) Use a combination of teacher observation data and the Project Based Learning rubric through culturally responsive teaching practices for all learners to assess teacher capability of best practice effectively.
- 5) Create a report to inform stakeholders of the importance of promoting the integration of the Project Based Learning approach in STEM that will include the findings generated from the professional development programme that will enable all teachers to design, implement and evaluate student success."

Throughout the project, I used both qualitative and quantitative data to evaluate and measure the goals' efficacy. Evidence was collected in photographs, class observations, formal and informal conversations with teachers, surveys, and data of both teachers and PBL students.

The findings of the project showed student engagement has increased in what they are interested or passionate about, open to learning and the use of digital technology. Most of all the shift in student performance and attitude and the ability to share 'Tuakana Teina' knowledge & skills with others.

Teachers voiced the importance and the greater need to implement professional learning development in the Gold Standard Project Design for students and the Gold Standard Teaching Practice for teachers. Teachers must upskill themselves to ensure that learning is encouraged at a deeper level when evaluating their own practice. According to the Buck Institute of Education (2021), project-based learning (PBL) focuses on the significance of how educators collaborate closely with students who are actively engaged in meaningful work and share in the rediscovered joy of learning.

I have gained a better understanding of implementing Project Based Learning model in STEM in a culture response teaching practice and 'Cynefin' and 'Digital Competency Educator' leadership framework. The need to implement Professional learning development in the school will enable us to apply the models to have a better understanding and attitude toward our learning and practice. The ability to influence and change challenges, building and accepting students who are unique and open-minded to new learning opportunities. This will be an ongoing development to ensure that the school will implement a teaching model to help students to become critical thinkers, problem-solvers, communicators, self-management, project managers, and collaborators throughout the process using project-based learning guidelines. According to the Education Council (2017), *Our Code, Our Rules: Students' involvement: utilizing inclusive methods to meet the requirements and capabilities of all students* (p.10).

In conclusion, the Project Based Learning model in STEM and the application of Cynefin and the "DigCompEdu" leadership framework gave me the tools I needed to get students involved and involved in the classroom. According to the Ministry of Education (2011), *Ka Hikitia: The following is an important step toward achieving these goals: Keep elevating the quality of school leadership and the professional status of teachers* (p. 8). My job is to encourage students to dig deeper into inquiry learning because the project-based learning model recognizes student-centred learning. This project helped our students develop their agency by encouraging and engaging them. This required building teachers' capacity to engage our students through cultural practices, which led to the project goals that helped influence student learning. Ministry of Education (2007), the New Zealand Curriculum key competency reflects students' thinking, self-management, relationships with others, and participation and contribution. People with these skills can live, learn, work, and actively participate in their communities, all of which are connected to our school's values (Education, 2007). fosters respect, integrity, community, opportunity, and resilience.

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### **About the author**

Poko Kirkwood - pokokirkwood@gmail.com

## Executive Summary C8P

# Establishing whānau relationships to improve student success through a cooking context

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## Priscilla Tooley

Being able to cook a meal for the family at home is not only an important task but it allows students to participate in an activity that brings value to their home environment and whānau. The purpose of this project was to create authentic relationships with whānau to help students utilise their cooking skills at home and monitor whether these whānau connections increased the frequency, quality and quantity of students cooking at home. Durie (2004) explains how relationships underpin the success of Māori both between teacher-student, teacher-whānau and student-whānau. This idea has been recently published in Tātaiako where it explains the idea of Whanaungatanga - Actively engaging in respectful working relationships with Māori learners, parents and whānau, hapū, iwi and the Māori community. (Ministry of Education. 2011, pg6).

The specific goals of this project were to;

- 1) Increase student success of cooking at home through regular connections with whānau.
- 2) Use an action research approach to teaching cooking skills to be practised at home.
- 3) Create and use school based events to connect with whānau.

The proposed benefit of this project meant greater accountability for students completing their work and having them engage in more cooking at home on a regular basis. Whānau could greatly benefit when their children helped their family out by cooking dinner for the family. Students could benefit by having autonomy over what they cooked for their whānau and by identifying their value when participating in meal prep and cooking. The teacher could benefit by strengthening relationships with whānau which would support other aspects of schooling and show an increase in achievement data from previous years.

This project involved 11 year 10 students from a Palmerston North highschool aged from years 7-13. This cohort had two students who spoke English as a second language, two students with ADHD, two students diagnosed with Autism and four students on the learning needs school register. These students had previously participated in a cooking at home on a budget assessment in 2021 and this was designed to provide an online method of teaching cooking during the covid pandemic. Previously only 89% of students attempted this assessment with only 61% receiving a merit or higher. It became evident that very few students were responsible for cooking a family meal on a regular basis in their homes. This project tests the theory of increasing the success of the students by forming stronger authentic relationships with Whānau.

Barriers to learning involved digital fluency of the whānau, the time needed to build authentic relationships, having a strategy to build these relationships in a safe way and also dealing with the individual needs of the students themselves.



For this project I scheduled one-on-one meetings with my year 10 parents. I utilised the parent-teacher interview time to start this project. I informed parents about what I wanted to achieve and asked them the best way to be contacted. I began texting my parents weekly to explain what their child's next steps were. I identified all barriers to students cooking at home such as;

- Availability of ingredients.
- Suitable venue to cook for their family.
- Student skill level and support, such as allowing parents to help and using scaffolding to support students who were less confident.
- Rescheduling and managing time effectively.
- Working with boarding students in our school hostel to provide infrastructure for them to achieve their assessment.

This project followed an action research cycle explained by Spencer (2017) planning, actions, analysis, conclusion, then repeat. Students were given instruction and practice time to cook a meal at school they could then replicate at home. Students were given the tools, strategies and practice time to succeed and were then asked to plan to cook this meal at home for their whānau. The process was evaluated by both the student and the whānau using surveys and questionnaires. They then reflected upon what needed to change for the next iterative cycle. This was repeated 4 times meaning all students had to practise, plan, cook and evaluate 4 times for this cooking journal assessment.

Achievement data was compared to the previous year where these same students underwent a similar assessment called 'cooking at home on a budget'. Surveys were completed to gather data on what students currently (previous to this assessment) did at home to cook for their whānau. It was identified early on that very few students cooked at home on a regular basis and the main reason identified through data was because the parents did not want them to make a mess. The data suggested that there was an increase in students cooking at home on a regular basis and that the overall feedback was positive from whānau in terms of their value for this assessment. The increase in cooking at home was monitored through the continual communication with whānau and this resulted in 100% success for this assessment. Literature states that an increased relational trust with whānau promotes success. (Ministry of Education 2008 pg 18) explains how 'a productive partnership starts with the understanding that Māori children and students are connected to whānau and should not be viewed or treated as separate, isolated or disconnected. Parents and whānau must be involved in conversations about their children and their learning. They need accessible, evidence-based information on how to support their children's learning and success.' This was evident in my project as there was an increase in student success and parental satisfaction overall.

In conclusion, the explanation of an increase in student success, enjoyment and achievement has been noted due to a firmer and more authentic relationship with whānau. This regular collaboration with whānau has kept students accountable and has also helped parents feel informed. If I were to continue this project, I would like to find ways to make and maintain relationships with whānau more manageable with larger numbers of students. It was very time-consuming to message parents each week, and it would be better if there was a way to proceed without having to use my own personal phone. Difficulty with using the school's technology made it hard to send out multiple messages quickly without being able to make groups in Google Mail with our school's digital platform. As a teacher, I have really noticed the value in forming these relationships with parents as I have learnt a lot about the varying families in my classroom and how to better meet their specific needs. These relationships are long-lasting and will benefit my teaching in the following years. It was essential that all students, including Māori, could enjoy and achieve educational success as Māori, and this is achievable when we seek to establish relationships in partnership with Te Tiriti o Waitangi. Berryman et al. (2018).

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## Executive Summary C8P

# Improve Literacy Success for Māori Learners Through A Cultural Lens Leading To Learner

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### Ana Kawenga

The impact of colonisation on education for Māori continues to highlight the need for greater equality to receive equitable opportunities. In 1996, the Ministry of Education published its first bicultural curriculum, *Te Whāriki - He whāriki mātauranga mō ngā mokopuna o Aotearoa* Early childhood framework. This document was created to protect and support te reo Māori me ona tikanga under the obligations of Te Tiriti (Ministry of Education, 1996). A key element that reflects culturally responsive practice is the interrelation between student and teacher. This has been, and still is, the predominant approach to effective teaching for improving learning outcomes for Māori.

The New Zealand Curriculum also reflects the cultural diversity of tangata whenua to be “at the core of our nation’s founding document, Te Tiriti o Waitangi” (Ministry of Education, 2007 pg. 6) thus, revitalising te reo Māori me ona tikanga as a national taonga for all to be nurtured in. This creates the idea that culture counts and strengthens the aspirations for Māori in the 21st century.

The purpose of this project was to develop a culturally responsive teaching approach to engage and improve literacy success for Māori students leading to learner agency in the Māori bilingual unit in my school. This would be achieved through developing and implementing professional developmental programmes that will enable all teachers to design, implement and evaluate literacy success for Māori students through a culturally responsive lens.

Goals and outcomes pertaining to the project involved investigating what best practice looks like by developing and testing emerging pedagogical programmes to foster and engage our students, leading to student agency. This involved working to build teacher capability around cultural practices to engage our students as some teachers had limited affiliations with Māori cultural practices. The desire to raise the cultural status that enables teachers to understand who their students are and how they learn best was paramount, but so too was what prior knowledge and experiences their students would bring with them (Bishop and Berryman, 2010). In doing so, I was able to create and provide ample opportunities for teachers to engage in professional development to see what effective teaching in literacy looked like to achieve better learning outcomes.

This occurred on a fortnightly basis during staff meetings to support teachers during my practice-based change. From there, teachers were able to adapt new knowledge into their practice based on their delivery and student engagement. The specific goals included:

1. Creating a professional developmental programme implementing and evaluating literacy success for Māori learners through a culturally responsive approach.
2. Implement three iterative cycles leading to student agency through a culturally responsive lens.
3. Providing teachers examples of what best practice looks like using teacher observations/reflections and interviews from students.
4. Using a combination of teacher observation/school-wide data and the Ka Hikitia Measurable Gains Framework Rubrics (Ministry of Education, 2012), on culturally responsive teaching practices for Māori learners to assess teacher capability of best practice effectively.

5. Creating a report that will include the findings generated from the professional developmental programmes that will enable all teachers to design, implement and evaluate a programme for literacy success for Māori learners through a culturally responsive approach.

To evaluate and measure the effectiveness of the goals I used both qualitative and quantitative data throughout the project. These consisted of teacher/student surveys, class observations, photographs, formal and informal conversations with teachers and school-wide data.

The analysis of the data showed a vast improvement in teacher competency with teaching literacy through a cultural lens during the duration of the project. This was evident from the class surveys, observations and informal and formal conversations. Though this is a positive outcome, teachers voiced the need for on-going professional development with a whole school focus on literacy. This was based on school-wide data around Māori students under achieving in both reading and writing. In addition, due to the schools over commitment towards other subject areas in the New Zealand Curriculum teachers felt they would benefit prioritising the needs of their students. According to Bull and Gilbert (2012, cited in Scott, 2015), teachers continue to acquire more knowledge and skills that are meaningful and purposeful for their learners.

Teachers also voiced the time factor necessary to unpack and to collaborate with others in order to strengthen their knowledge and understanding around raising literacy and overcoming barriers for their learners. When teachers are more confident in understanding the process and the teaching skills required to support their learners, learners show a profound increase of high engagement and proficiency (Lloyd, Braund, Crebbin & Phipps, 2000).

The findings of the project showed a vast shift in overall student performance and academic achievement in both Reading and in Writing. Teachers found that students were more engaged when the opportunities arose to further develop their own pedagogical content knowledge to understand how to better support their students. This highlighted the importance of appropriate culturally responsive practices for all students through developing the child physically, emotionally, spiritually and academically. It also addressed the importance of student-teacher relationships, student voice and creating a learning environment that reflects their cultural heritage. As Bishop & Berryman (2010) suggest, to be culturally responsive means embracing the child wholeheartedly therefore creating a sense of autonomy and community in the classroom. Teachers have a responsibility to create pathways where their students feel supported and successful to improve their quality of education.

As a continuation of this project, I would like to explore cultural competency as a school-wide focus. The need for change due to concerning school policies and practices in education is paramount under the principles of Te Tiriti o Waitangi of partnership, participation, and protection. As Māori underachievement continues to be of great concern, school leaders can change and improve the disparities Māori continue to occur. By simply changing how we interact and build relationships with one another within our classroom and school, we can make the biggest difference in how Māori see themselves as learners and competent and capable achievers. (Bishop and Berryman, 2010).

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## Executive Summary C8P

# Collaborative writing for self-regulating writers

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### Beverley Steward

The purpose of my change project was to use collaborative writing to teach my students to become confident self-regulating writers and raise their writing achievement. Collaborative writing (CW) is a culturally responsive dialogic pedagogy which involves socially shared regulatory learning (SSRL) as students work together towards a common goal. Students who achieve in writing self-regulate (Parr et al., 2018). SSRL and self-regulatory learning (SRL) are similar processes but in CW there is a shift from the individual to the group (Hadwin et. al., 2011 as cited in Carlos Núñez et al., 2017). My project capitalised on the dialogic processes in CW to teach self-regulatory writing strategies for writing independently. My hypothesis was that self-regulatory writing skills could be taught in collaboration.

The intervention took place at a Catholic secondary girls' school in Auckland in an innovative learning environment (ILE) with two combined multicultural classes of 50 Year 8 students.

Junior writing in English was traditionally taught as an independent activity, with little peer interaction. However, the most effective instructional approach for Year 8 involves peer collaboration (Gadd, 2017). In addition, a culturally responsive dialogic approach has been found to be most effective for all learners.

The key stakeholders were the school leadership, the English faculty and current and future Year 8 students. A key deliverable was a seven-week collaborative persuasive writing teaching and learning unit plan and resources.

The project used an action research model as this was suited to a reflective approach to solving a classroom problem. Also, it enabled me to use predominantly qualitative data based on student and teacher perceptions. The project involved four collaborative writing cycles. Each cycle of learning was based on Zimmerman and Moylan's (2009, as cited in Carlos Núñez et al., 2017) cyclical phases model of self-regulation (2009), with its three phases: Forethought, Performance and Self-reflection. Students wrote two complete collaborative essays in their teacher-selected group, one in the first cycle and one in the last cycle, and two collaborative paragraphs in the second and third cycles, one in groups of two to three, and one in self-selected groups. Student feedback, teacher observation and student writing samples informed adjustments to teaching and learning for each inquiry cycle. Cycles explored students' perceptions of CW and groupings and the quality of students' regulatory behaviours.

A mixed-method approach was used for data collection with quantitative data from pre- and post-intervention e-asTTle writing levels. e-asTTle is a New Zealand standardised writing assessment used for diagnostic and teaching purposes. Qualitative data came from pre-and post-student self-reflection surveys on self-regulation and collaboration. Other qualitative data came from student exit slips which were analysed thematically, student writing samples and feedback sheets, teachers' field notes and my reflective journal.

My findings were promising and suggest that students can learn to self-regulate their independent writing in collaboration. Most students believed they had made the most gains setting goals and



understanding the next steps they needed to take, as well as brainstorming and planning and using the assessment criteria. Teacher's observations and student writing samples supported this finding as students' writing samples showed they had made significant gains with organisation and evidence of planning could be seen on their writing samples. Findings were similar to those of Seuba & Castelló (2015) that planning guides and checklists supported the regulation of writing and text quality.

However, in hindsight, these results were overly dependent on student perceptions which are open to bias. For more accurate and valid data, future research could be done measuring SRL as an event, rather than an aptitude and in a longitudinal study.

Students made significant gains in the quality of their writing. This supports the findings of Seuba & Castelló (2015) and Yarrow & Topping (2001). Students' use of language improved significantly. This supports my hypothesis that, although punctuation and sentence structure was not explicitly taught, students' discussion of language in collaboration to convey accurate meaning impacted on the accuracy and complexity of their texts. (Fernández Dobao & Blum, 2013; Storch, 2011). Contrary to the findings of (Matos, 2021; Seuba & Castelló, 2015), students did not make such significant gains in terms of the quality of their ideas although students' believed that sharing ideas was one of the most significant benefits of CW. This may be because students did not practice dialogic argument as a bridge to individual writing as Matos (2021) has done in the study with elementary learners.

Students indicated that they still preferred working with their friends, but most saw the academic merit in working in collaboration and the majority felt more confident about their writing. Participation and the quality of discussion appeared to have the most impact on the quality of collaborative texts (Seuba & Castelló, 2015). As students spent more time working in their heterogeneous groups, the quality of their discussion and CW improved. However, with increasing familiarity, some groups had increasing conflict (Ucan, 2017). Therefore, groupings must be carefully considered and strategies to resolve conflict explicitly taught.

My study shows that there is promise using collaborative writing to create self-regulating writers. Furthermore, it is an effective way to improve the quality of individual writing. The dialogic nature of CW is key to its success. When students voice their thinking and discuss their use of language to create meaning, this makes them not only better self-regulators but also better writers. CW is largely unreferenced in Ministry of Education documents and rarely used in schools and across the curriculum, yet it addresses so many educational priorities. It is culturally responsive, teaches interdependence and deep thinking, and it makes students better writers.

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## Executive Summary C8P

# Strengthening Student Engagement Through Project-Based Learning

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Donna Murphy

Student engagement has long been a topic of debate as educators and researchers have grappled with the challenge of engaging students with learning, with both touting student engagement as the antidote for poor attendance, disinterested learners, classroom behavioural issues, low academic achievement, and disaffected students (Fredricks, Blumenfeld, and Paris, 2004).

The aim of this project was to strengthen student engagement through the creation of an authentic, culturally responsive, and engaging learning environment that supported the development of 21st-Century skills. The implementation of Project-Based Learning was the approach used to strengthen student engagement in three Primary School classrooms.

Student engagement is a multidimensional construct consisting of three separate but intertwined elements - behavioural engagement, emotional engagement, and cognitive engagement (Fredricks et al., 2004). When students are engaged behaviorally, emotionally, and cognitively at school, their well-being and academic achievement are enhanced (Gallup, 2013). Project-based learning enhances student engagement (Thomas, 2000).

Using an action research methodology, project-based learning was implemented in a Year 0-1, Year 5-6, and a Year 7-8 classroom. The teachers in the classrooms planned for and facilitated two units of project-based learning, using recognised project-based learning criteria (Buck Institute for Education, 2021) to ensure consistency. Data in the form of reflections and surveys informed the impact of the project on student engagement from the perspective of the teachers, with an adapted version of Schlechty's (2002) Student Engagement Continuum used to measure the level of student engagement.

A mixed method research approach used in combination with Creswell and Plano Clark's (2007) explanatory design, supported the collection, analysis and interpretation of the data gathered from the students. The data included an initial and final survey and two group interviews conducted with students from the Year 5-6 cohort. The survey data was composed of two short answer questions and a rating scale that required students to rate their perceived engagement with learning most of the time. The student survey data was analysed in conjunction with the interview data and the teachers' reflections.

Project-based learning positively impacted the engagement of most of the students involved in this study, with some consistently disengaged students showing a marked improvement in their level of engagement with learning. The engagement of the students also crossed over into other areas of the curriculum with teachers noting improved student self-regulation and motivation. These findings are consistent with research that shows, overall, project-based learning supports higher levels of engagement at all levels of school (Thomas, 2000).

The design elements of project-based learning (student voice and choice, sustained inquiry, reflection, critique and revision, authenticity, and real-world problem solving) (Buck Institute of Learning, 2021), along with a focus on the key 21<sup>st</sup> Century skills (collaboration, communication, critical

thinking, and creativity), have supported the teachers in this study to create authentic, culturally responsive, and engaging learning environments; learning environments that support the development of student autonomy and recognise and celebrate the diversity of learners.

The implementation of project-based learning will not solve the myriad of reasons students are disengaged at school, but it is a start in the journey to see our students thrive at school now and in the future. This project serves as a stepping stone towards school-wide implementation of project-based learning for the purpose of strengthening student engagement with learning and supporting teachers as they continue to extend their understanding and use of student-centred pedagogical approaches in teaching and learning.

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## About the author

Donna Murphy - [cozobejo@gmail.com](mailto:cozobejo@gmail.com)

Donna Murphy is the New Entrant teacher and Assistant Principal at Ahipara School in the Far North of New Zealand. With over twenty-years' experience teaching junior children, Donna is passionate about ensuring the youngest students' first experiences at school provide a foundation for their future success. Donna has a Master of Contemporary Education.





## Executive Summary C8P

# Staff confidence, comfort, and collaboration in a flexible learning environment

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Johanna Wrack

In August 2022 Dr Michael Johnston and The New Zealand Initiative published a controversial report on the state of New Zealand education, in particular the damaging effects of Flexible Learning Environments (FLE) on students. Teachers moving into these spaces are not prepared for working collaboratively or having two, three or four times the number of students with no understanding of the changed pedagogy required to work successfully in these environments. I know this from personal experience. The purpose of my project therefore was to ensure my staff were set up to work in an FLE successfully.

My project was to design and lead the implementation of a professional development programme for teachers. The goal was to empower staff to feel comfortable, confident, and working collaboratively so that the move into our new FLE building is a streamlined process. This was achieved through readings; implementing a structured professional development plan; updating our reading, writing and mathematics matrices and personalising our Learn, Create, Share pedagogy for our context. The key to this iteration was differentiating the models for each syndicate. The project not only benefited the teachers but the students and their learning. The engagement and enthusiasm from students when they were exposed to Assessment for Learning and our new Learn, Create, Share models exploded (Clarke et al., 2014). This student agency has met the needs of most learners, including diverse learners by allowing the students to own their learning and to reduce the reliance on the teacher to be delivering the curriculum (McKenzie, 2015; Amos, 2016).

I was a burnt-out teacher at the end of 2016 due to moving into an FLE with very little professional development. Teachers in my school have shifted their practice enormously since I started five years ago. A natural next step was to build teacher capability around Assessment for Learning, collaborative planning and teaching, and student agency. These were the key drivers in this project. There is a wealth of research on student agency and collaboration, but it lacks practical information on how to use it in the classroom. My project was based on the belief that Student Agency alongside collaboration creates engagement in classrooms so teachers can do what they are employed to do - teach.

My project was a series of professional development staff meetings based on improving Teacher Practice. I used Action Research to conduct interviews, surveys, monitoring planning and observations to evaluate the project.

The analysis of the data showed a significant increase in students' understanding of their learning and what their next steps are. Through interviews, it showed that students were engaged and excited in their learning with many striving to move to the next level. Teachers' data also increased however what can't be measured is the energy and enthusiasm this project has enabled. While you will not find this in the literature, it does discuss Assessment for Learning not only improving the quality of teaching and learning but also enabling definite clarity for both learners and teachers.

This project will continue in 2023 with the implementation of our new and improved Learn, Create, Share models and frameworks. We will also be expanding our Assessment for Learning practices by including reading and writing in our daily practice. I highly recommend that any schools moving into FLEs undertake a programme as I have with my staff. All staff, including beginning teachers, feel empowered and excited, ready to begin their new adventure - working successfully in a Flexible Learning Environment.

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## About the Author

Johanna Wrack - [jcwrack@gmail.com](mailto:jcwrack@gmail.com)

Johanna was born and bred in Kaitia with the majority of her 30 year teaching career completed in a range of decile schools throughout Auckland. She is currently a Deputy Principal and her passion is in improving Teacher Practice, with students at the core of every decision. She has always had an interest in furthering her knowledge and recently completed a master's programme through Mind Lab. Johanna is a keen cyclist and enjoys visiting and walking along our beautiful beaches throughout the year.





Master of  
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## Executive Summary C8P

# Te ako o Pūmanawatanga: Digital fluency to support school culture

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## Rosalie Stevens

The intertwining of the digital world with the classroom is becoming more prevalent. As these digital components continue to advance, educators must transform teaching practices and approaches to assimilate this new knowledge to benefit all. Therefore, advocating for the practice of collaborative learning and reciprocal teaching and learning experiences are enhanced through a collective exchange of knowledge, reciprocal care, and trust, with the learner being at the core, such as the notion of Pūmanawatanga (Macfarlane, 2004). My project aims to create a cohesive school culture by fostering digital fluency through the successful implementation of the frameworks of Universal Design for Learning (UDL) and Digital Competence for Citizens (DigComp2.1). It was evident in this study that resources such as time, materials and staff working together in purposeful collaboration encourages and supports collective improvement. An effective school culture promotes great teaching and learning. It empowers educators to connect, communicate, collaborate, reflect, and become confident. Thriving in the digital age requires fostering 21st Century skills and developing digital fluency.

The goals of the project were:

1. Develop a resource and activities to help teachers understand UDL
2. Develop a kete of resources to support the active participation of design thinking skills
3. Investigate the impact of collaborative practice on the capability and confidence of teachers to embrace teaching design thinking and collective agency.

The overarching goal of this practice-based change project was to improve school culture and collegiality by developing digital fluency. I aimed to achieve this by developing my knowledge, understanding, and implementation of the Universal Design for Learning (UDL) framework (Te Kete Ipurangi, n.d) and the use of the DigComp2.1 framework, creating new teaching resources, leading professional development lessons for staff, and improving the use of digital tools (Robinson, 2017).

The proposed benefits of the project were to develop school-wide practices where digital fluency will support our ākonga to use digital technologies to enhance their learning confidently. And that would be central to bringing about change across the school and encompassing the school's attention to the big picture together.

The challenge was systems and resources needed to be updated. There was a lack of knowledge or desire to lead change in supporting the development of digital skills and digital fluency. Teachers worked in isolation, and there was little collaboration. Our kura had an outdated school website that was only editable by an outside agency, and the information and data needed to be updated. Feedback indicated that it was boring, and the students and their whanau rarely, if ever, visited it. The priorities were in other areas, so I used this opportunity to explore the schools' strategic plan and lead the development of digital tools and technology skills - to make this part of my action research project. A streamlined approach to teaching across our school and our community was missing, evident through Covid-19 lockdowns. This has been the trigger that's highlighted this project. Creating

innovative, design-thinking resources for teaching and learning, holding professional development, creating a 'digital hub' of learning, and collaborating on activities were necessary to foster within our kura.

Before I began my action research project, I talked to teachers, whānau, and students about their experiences with remote learning throughout the Covid-19 pandemic and my thinking regarding my action research project. From this, I created and sent a survey to staff that was interested in participating in the project and clearly stated what it entailed: Investigating teacher confidence and capabilities with digital tools and technologies, cohesion; collaboration; agency, and the impact of UDL and DigComp2.1 frameworks may have to embrace school culture, connection, and collegiality.

The plan was to Implement four iterations. Each iteration had a specific focus. The overarching focus of all iterations was to develop a collegial school culture using digital fluency and agency through contemporary approaches; tuakana-teina, student-centred and personalised learning.

From the survey data, the first iteration needed to focus on introducing UDL so that the teachers understood the multiple means of engagement, representation, and action and expression of affective, recognition, and strategic learning networks. This then proceeded to the need to introduce flipped learning to staff and sharing of knowledge and information before the presentations and learning so they could be better prepared and sought to save time. shared spaces and introducing basic digital skills and concepts, schoolwide, to ākonga for hybrid learning.

With the basics of UDL being explicitly taught in the first iteration, this flowed onto the second iteration, focusing on implementing specific skills or concepts of design thinking and design thinking in our context. When implementing this approach, teachers were encouraged to watch the videos explaining the concepts in preparation. The third iteration was about integrating the learning from previous iterations together, teaching the concepts to our ākonga in purposeful ways so they can develop and establish habits of connections, feedback, and collegiality. I introduced a feedback model with the abbreviations of TAG (Tell them something they have done well; Ask a question to find out more detail and information; Give them a suggestion of how it could be improved). A positive approach was that we could adapt this to platforms classrooms were currently using, digital or non-digital, and that it allowed me time to collaborate with colleagues that I do not usually team teach with or have the possibility to. It enables me to provide individualised feedback and support to both ākonga and kaiako - albeit encouraging agency. Group and class discussions and activities were also facilitated to assist in developing an understanding of concepts through different platforms.

The fourth iteration was a staff hui to reflect on UDL, Design Thinking, and Digital Fluency in our context and how best to approach a school-wide resource using these concepts and skills to be sustainable. A Google Site was created between kaiako from different areas of the school, and revisiting this and discussing/revising, so ākonga could access a range of information, learning activities, and videos on the local curriculum and assist in developing learner agency and engagement. This also fed into developing a new school website driven by completing this action project.

Using qualitative and quantitative data, observations, field notes, and reflections, these were planned, created, co-constructed, trialled, reflected on, and became part of our culture. Supporting this through a collaborative learning approach enhanced and fostered cohesion, especially in regard to digital, collaborative, and contemporary skills with the scaffold of frameworks and using these to create a digital skills progression for our context.

Good teachers are responsive to students' needs and understand they are not empty vessels; the same must be said in an environment that creates "Pūmanawatanga" - the beating heart; This signifies pumping life into four considerable concepts: Building positive relationships (Whanaungatanga); Self-determination (Rangatiratanga); Unity and bonding (Kotahitanga); and the Ethos of care (Manaakitanga) (Macfarlane, 2004). Using the DigComp 2.1 and Universal Design for Learning frameworks helped co-construct a more cohesive culture of connectedness using contemporary approaches. These also supported the implementation of digital skills and worked towards digital fluency because the teacher



had sound knowledge and research that they could discuss together in a safe forum and adapt to the needs of themselves and their ākonga.

Students need to learn fundamental contemporary skills of digital fluency, collaboration, and design thinking and understand that these are crucial for the world in which they live. I believe their skills are a foundation for continual growth in their educational pathway, and my goal is to continue to work in collaboration with staff throughout our kura to develop this further and work alongside feeder kindergartens, intermediates, and across our Kahui ako to create a larger profile and profession, which enhancing a culture of connectedness.

The implementation of this project took place in a medium-sized, Decile 6 primary school in Taradale, Hawkes Bay.

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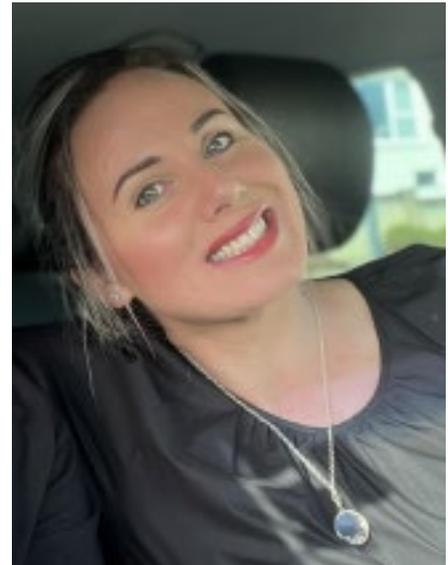
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## About the Author

Rosalie Stevens - [rosalie.stevens@hotmail.com](mailto:rosalie.stevens@hotmail.com)

Rosalie Stevens is a primary school educator in Napier, Hawkes Bay. Rosalie has a holistic approach to teaching, truly valuing the 'whole child' for all they are and all they bring. She is extremely passionate and determined to make genuine and positive connections with all and thrives with risk-taking, innovation, leadership, and collaborative practices.



## Executive Summary C8P

# Personalised ePortfolio To Strengthen Home-School Partnership

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## Tracey Brownlee

Classes change yearly, and schools continue to grow in social, academic, and cultural diversity. The challenge of how best to meet the unique needs of students affects all kaiako with each new class, each new year. According to research, 'belonging' is key to student success, and building strong relationships with students, whanau, school, and the wider community has been shown to increase favorable outcomes (Allen et al., 2018; Korpershoek et al 2020; Epstein, 2010).

With that in mind the primary goal of this project was to build and strengthen home-school partnership via a Personalised ePortfolio to support kaiako to meet the unique needs of the individual learner. The focus was on improving communication and connection, by creating opportunities for whanau to connect with their child's learning every day via Seesaw. The intended outcome was to ensure whanau felt valued and included in their child's unique learning journey and connected to their school day.

Specific goals included:

1. Creating a Personalised ePortfolio for each student via Seesaw.
2. For whanau to connect, communicate and collaborate via the portfolio.
3. For whanau to feel they are a part of their student's learning journey.

The objective of the implementation of an ePortfolio was that it could be used as a 'virtual classroom' enabling parents to connect, contribute and communicate with students' learning without having to be physically present. During this study Year 2 students were shown how to independently upload all their work from all curriculum areas. They were then able to select from a range of labelled folders to post it to, so that progress could be tracked by category e.g., maths, writing, reading, science, inquiry, Te Reo, Physical Education. The work did not have to be seen or marked by kaiako before being uploaded. The focus was on providing authentic insight to whanau as to what their tamariki were engaging in at school. Parents were able to see their child's learning in real-time throughout the day.

Using an Action Research design model, three iterations were implemented. Whilst all 22 students were set up with a Personalised ePortfolio only 11 of those students' parents opted to take part in the research process. Each iteration was based on feedback gleaned from surveys and informal interviews. Using Thematic analysis (Braun & Clarke, 2006), themes and patterns were drawn and then used to grow and adapt the ePortfolio.

The initial data gathered helped form an understanding of prior experiences and helped guide the implementation of the digital portfolio. In addition, surveys and informal discussions provided feedback to ensure appropriate changes were made for each interactive cycle. The final survey was used to gather final thoughts and perceptions of the digital portfolio's impact on home-school partnerships in terms of communication and connection to their child's learning. The surveys (and informal discussions) were a blend of closed and open-ended questions with an option for further comments to be provided.



The intention of the project was to strengthen home-school partnerships, to meet the unique and individual needs of the learner more fully. The vehicle chosen to drive this was the Personalised ePortfolio. The data and the comments were positive and clearly communicated that whanau wanted this level of connection, communication and collaboration. Whilst the feedback differed in how useful it was for tracking academic progress, they were clear that they wanted to continue having access to Personalised ePortfolio's in 2023. The future focus based on feedback will be ensuring parents understand next learning steps and can see the clear learning pathway for their child.

Meeting learners' varying and unique needs is a challenge that every classroom teacher faces. We have, via digital technology, the opportunity to invite those who know these children best to enter their world of learning. Whanau can contribute, share and collaborate with their child and their learning in real time and in a way that is authentic. This connection also supports tamariki to see themselves as successful learners.

Bishop (2019) discusses the importance of relationships being at the centre of learning and promotes the creation of an extended family-like environment. Although he was talking in context of the classroom teacher building caring learning relationships with students, I would add that by opening the classroom to whanau via an ePortfolio they were able to gain greater insight into their child's learning and therefore able to forge more meaningful and deeper connections. Whanau interaction added another level of depth and understanding to in class learning and supported the building of an extended family-like environment.

Personalised ePortfolios open the classroom to whanau allowing them to connect, communicate and collaborate in a way that is contextual and authentic. The bricks-and-mortar barrier that have prevented family connection and contribution to student learning in the past can be removed, and a Personalised ePortfolio can be the bridge that reconnects home and school to work in partnership to achieve best outcomes for our tamariki.

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## About the Author

Tracey Brownlee - brownleet21@gmail.com

Tracey Brownlee is an experienced classroom teacher in the Bay of Plenty. She is passionate about creating an open classroom environment where students and their whānau can confidently connect, communicate and collaborate with the classroom teacher and the school community. Tracey believes it is in creating an extended whānau-like environment for learning that students develop a deep sense of connection and belonging that allows them to take risks, be problem-solvers and become passionate about their learning journey.





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## Executive Summary C8P

# Personalised Learning

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Bernard Horne

Personalised learning is widely regarded as a future-focused, student-centred pedagogy. (Bolstad et al. 2012; Swan 2017). My change project focused on the implementation of a personalised learning programme in Mathematics and the use of Project Based learning in our Inquiry programme. I teach a year 7/8 composite class in a culturally diverse setting. The purpose of the project was to promote greater student engagement by making the learning student-centred and piquing student interests by designing the learning around their needs. The goal of the project is to develop heutagogical skills with students to make their learning relevant and thereby raise their achievement level.

Two additional classes agreed to run the programme simultaneously which effectively meant that a third of the school participated in the change project. The current practice of the school was generally a teacher-centred approach, especially in Mathematics. Teachers scaffolded learning for their students by teaching in ability groups. Inquiry topics and units were planned and decided by management. Students had no input in their learning. As a result, students were at times disengaged with what was presented. Personalised learning structures the learning around the learner. (Bolstad et al. 2012; Leadbeater, 2006; Reigluthé & An, 2011; Swan, 2017).

Students completed a knowledge pre-test to determine their current level in the strand of mathematics. They were then provided with a resource sheet which contained the learning criteria and expectations. They used the sheet to determine their next step and set their goals. Workshops were planned around their goals and students opted into the workshop that addressed their next step. Those who did not need to attend a workshop demonstrated their knowledge by completing the planned online activities. When students completed their goal at the end of the week, they completed an evaluation task which was uploaded onto their spotlight site which is part of our student management system. After they receive feedback from the teacher, they would highlight the learning intention as achieved on their resource sheet.

We used the prevailing structure of school wide Inquiry to run our project-based learning programme. Students completed a survey to probe their interests so that they could be provided with a wider choice of inquiry topics. They worked either individually or in pairs on the research project and then continued to build a solution to their problems. The topics were aligned to their interests, and they followed an action plan which guided them through their project. The research took the form of Action research as described by Carr and Kemmis (1986) as a self-reflective inquiry where the researcher seeks to improve their practice.

I followed the Framework put forward by Manion et al. (2018) which has the following sequence. Problem Identification - Possible intervention to address problem - Decision on Particular intervention, Plan intervention, with Success Criteria - Implement of the intervention - Monitor and Record the intervention - Review and evaluate intervention - How well the intervention solved the problem. (Manion et al, 2018,p 451).

Students completed a student engagement survey at the beginning as well as at the end of the project. To gather data on engagement I also recorded two lessons using Iris Connect. I used an observation sheet adapted from Shapiro (2005) to analyse the data.

At the end of the project, I conducted a focus group interview with randomly selected students from all three participating classes.

In my analysis of the data of the engagement surveys, I used the statistical analysis on google forms. Through the comparative data on student engagement, I could make deductions to what extent student engagement changed. The observation tool provided information on on-task and off-task behaviour. I used thematic analysis to analyse the qualitative data from the focus group. The main purpose of the project was to promote student engagement. Leadbetter (2006) postulates that students who are involved in the curriculum design are more engaged in their learning and subsequently achieve better academic results. Another goal was to develop heutagogical skills. Blaschke (2012) describes heutagogy as a form of self-determined learning. These students will have capabilities to effectively and creatively apply skills to adapt to an ever-changing and complex world.

The data reflects that students' engagement improves with the implementation of personalised learning. The thematic analysis from the focus group revealed that while all three classes improved in student engagement, skills such as student agency and self-efficacy varied in each class. One class placed greater focus on the completion of projects while the other two classes worked on the inquiry process and following the action plan. The success of the project can be greatly attributed to the amount of time spent on honing skills such as self-efficacy, student agency and self-directed learning. Within my class there were students who were more dependent on teacher assistance in the completion of their task. One group, however, elected to do the community garden and managed to run the project almost independently. They were assisted by a teacher aide for adult supervision, but their garden yielded two harvests.

Bolstad et al (2012) suggests that deep personalization is possible with a systemic transformation. I believe that our school has taken the first step to such a transformation. A Third of the school participated in this project. The teachers are already au fait with the advantages as well as the procedure of the projects due to our corridor talk. Our principle places the benefit of the student at the centre of his decisions and places much weight on the value of research-based practices. To move towards a systemic transformation will take time but is a real possibility.

The implementation of project-based learning will only be truly successful if students have developed student agency and self-efficacy. Students made significant progress in setting smart goals and reflecting upon them.

I believe that the two years that students spend at our school can be invaluable to the development as heutagogical learners.

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### About the author

Bernard Horne - [berne1964.bh@gmail.com](mailto:berne1964.bh@gmail.com)

Bernard Horne is an experienced Intermediate classroom practitioner. He teaches a Year 7/8 composite class at Pakuranga Intermediate School. Bernard has a passion for life-long learning and strives to equip his learners with 21<sup>st</sup> century skills. He completed his Masters in Contemporary Education at the Mindlab in 2023.

When he is not at school, Bernard practices his second passion namely music. He is a church organist and choir director.



## Executive Summary C8P

# Place-Based Education as a means for improving sense of place and Tangatawhenuatanga

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Brendon Shaw

This project aimed to develop Place-Based Education experiences for my students, with the primary goal of improving their Sense of Place and Tangatawhenuatanga. This was to occur by using PBE experiences to expand their understanding of their local history, the geographical area they inhabit, their connection to the local environment, and how they connect to the wider community and each other.

The main participants of this project were the Year 3-6 students at my South Auckland Primary school. However, other beneficiaries include their families, other teaching staff at my school who could learn from this project, as well as members of the wider community who were involved with the project.

Through work I had done with my students around pepeha, local curriculum (Geography / Inquiry), as well as general discussions and questioning, many of my taura were unable to provide substantial knowledge around their connections to our local area or general knowledge about the local history and geography of our local places. I saw an opportunity to increase local knowledge by creating activities related directly to local history and their local neighbourhoods' geographical and historical importance.

Place-Based Education is an educational philosophy that utilises local place as a primary resource for learning. It is inherently connective in that it joins not only people to their place but also people to other people (Penetito, 2009). Then, the major hypothesis of this research became "Can Place Based Education activities improve sense of place and tangatawhenuatanga amongst my students?"

The Research Design for this project was mixed methods action research. Mixed methods were necessary due to the quantitative and qualitative data resulting from the study (Shorten & Smith, 2017). Action Research was chosen due to its flexible and iterative nature (Cohen, Manion & Morrison, 2018) and its focus on observation and reflection (Kemmis & McTaggart, 1988). As the project occurred over the course of a Term and included several iterative cycles, mixed methods action research was the most suitable combination.

To allow for situations where I could reflect on the successes and failures of the PBE learning activities and then adapt the learning based on the previous iteration, I designed three separate PBE learning activities (with opportunities to reflect and adapt during each one) and a period of feedback/forward and future planning at the end. The learning activities took place over the course of Term 2, 2022, with the feedback/forward sessions happening in the following Term after data analysis.

In the first activity, students created a set of questions that they wanted to investigate about the history of the school, and then later in the Term, a local expert was invited to talk about these questions.



In the second activity, the students took part in a Photovoice-focused experience, where they took digital photos of areas of the school that were meaningful to them and then used these photos as the basis for reflection and comparison. In the third activity, students learned about our school's connection to our local Māori history, marae and how our waterways connect us to the greater Auckland area. Surveys were also given towards the beginning and end of the Term to gauge any shifts in attitude and allow them the voice to help shape their continued learning.

Data from these surveys as well as the results from the PBE activities, were analysed, and following this analysis, the results and findings of the learning were shared with the students, school leadership and whānau at a Whānau hui, along with integrating their identified areas of interest into the learning as it progressed through Terms 3 and 4.

Summative student assessments and closed survey questions provided qualitative data for pre- and post-paired t-test analysis. Photovoice and open-ended survey questions provided qualitative data for Braun and Clarke (2012) style Thematic Analysis. The mixed methods analysis showed improvement in students' sense of place and tangata whenuatanga in academic aspects (formal assessment) and self-reported confidence and connection to the local area (photo voice and surveys).

Assessment-related tasks one and two showed average score increases of a factor of 3.12 and 12.5, respectively. Activity two had very low average scores before the PBE learning experience, indicating that students' prior knowledge of local history and geography could have been better. Thematic analysis showed a more subtle rise in confidence and levels of connection. However, it did universally increase. Survey data also showed that students do not view learning outdoors as solely an activity for Physical Education, but are eager to do activities such as Maths, Writing and Digital Technology outdoors.

A significant focus of the literature around Place-Based Education and sense of place is how an understanding of place leads to belonging. The findings from my project corroborate this in that by increasing knowledge of their surroundings and giving students opportunities to discuss and reflect on their connections to their places, their self-reported confidence and connection to place also increased. Over the course of the project, elder members of the wider community also mentioned how important it was for the younger generation to retain this knowledge as it was important for the community. This echoes another theme from the literature, PBE as a tool for connecting communities.

The research project has shown that Place-Based Education activities improved sense of place and tangatawhenuatanga amongst my students. A limitation of this project (aside from scale and length) is that it is currently difficult for me to say how these PBE activities would have increased sense of place and tangatawhenuatanga compared to standard open-book comprehension activities that one may find in a traditional history or social studies lesson.

Regarding the next steps, the most significant takeaway for me during the project is the importance of connecting schools and students to their local communities. As the team leader for a Māori bi-lingual unit, the next big step for my school is to develop, strengthen and maintain relationships with local iwi, hapū, marae and manawhenua.

I hope this project has shown that Place-Based Education activities can improve students' sense of place and local knowledge, regardless of the area. Despite being an urban school, activities that focus on connecting students to their history and geography have helped my students better understand their place in their world. Place-Based Education is not only going on field trips and studying local rivers but a focus shift that can happen within the school gates. PBE has the potential to connect not only people to their place but also people to their communities.

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## About the author

Brendon Shaw - [brendonshaw.pub@gmail.com](mailto:brendonshaw.pub@gmail.com)

Born in Northland but raised in Southland and Canterbury, Brendon Shaw (Ngā Puhī) currently works as a team leader for Māori bi-lingual classes at his South Auckland primary school. After 15 years of teaching abroad in Asia and Latin America, Brendon returned to Aotearoa to teach in his home country and reconnect with Māori culture and language. His master's project is centred around Place-Based Learning. His research interests focus on Te Reo Māori in the classroom and improving engagement between schools and mana whenua.





## Executive Summary C8P

# 21st Century skills: Collaboration and communication in a year four and five class

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### Bronwyn Clegg

An observation that I had in my context was that as children enter senior school (years 5 and 6), they display knowledge and skills based on traditional teaching and learning methods, for example, rote learning, instant recall, answering low-level/ simple questions and seeking teacher approval during every part of the day. This inspired the project's original focus, which was 21st-century skills – collaboration and communication.

The overarching goal was to assess the impact communication has on collaboration. Initial steps were based on knowledge development of 21<sup>st</sup>-Century skills – collaboration and communication – and how year four and five children learn the essential skills. The second goal included the implementation of a structured oral language programme based on the Thinking Together programme from the University of Cambridge (2021), Mercer Talk Types (Evans, 2020) and the essential speaking and listening resource: Talk for learning at key stage 2 (Dawes, 2008). The effectiveness of the programmes was assessed in the three iterations. Implementation occurred during terms two and three with 18 participants in a small rural school. Stakeholders included six staff members and six adults from the participant's families.

Mixed method action research gauged the cause-and-effect relationship communication (oral language) has on collaboration to gain a deeper understanding of how to enhance communication and collaboration. Observations, photographs, anecdotal field notes, and online survey methods were selected as instruments, as they provided the data required, accessibility and reduced time pressure for the sample size while providing robust quantitative and qualitative data. Class data was gathered three times, and staff and parent data were gathered twice during the project. Participants were involved in specific oral language skill development lessons based on Thinking Together (University of Cambridge, 2021), Mercer Talk Types (1996) and the essential speaking and listening: Talk for learning at key stage 2 (Dawes, 2008).

The research followed three iterations, which were all based on children's needs. These needs directed the research into focus areas at the end of iterations. The first iteration included communication baseline data, research and teaching of three critical lessons from the Thinking Together Project, (University of Cambridge, 2021), and further data collection. The data showed that the children were talking politely to each other and following the rules, however still using disputational talk (Evans, 2020). Further research uncovered The Essential Speaking and Listening. Talk for learning at key stage 2, Dawes (2008) Book. Iteration two involved teaching five Class Talk skills lessons.

Further data collection highlighted cumulative and disputational talk without teacher reminders. As cumulative talk had increased, iteration three continued with The Essential Speaking and Listening. Talk for learning at key stage 2, Dawes (2008). Iteration three included the repeating and continuation of lessons.

Children's verbal interactions were recorded, transcribed, and coded during each iteration against the Talk Types (Evans, 2020). The use of these skills outside the classroom was gathered using an online survey, which staff and whanau completed. Student voice was gathered using a survey form. Quantitative data was transferred into percentages. Qualitative data were coded into themes and transferred into numerical data, then percentages. Further qualitative data (anecdotal records, teacher observations, and photographs) were left as recorded and included in the findings. Key findings in the project were;

- Data gathered in this project supports findings in the literature.
- Talk Types indicate the effectiveness of communication in collaborative groups, indicating the effectiveness of collaboration. (Evans, 2020)
  - Efficient communication (speaking and listening) skills increase the ability to collaborate effectively.
  - Teaching specific oral language skills increases children's level of sophisticated talk.
  - Increasing oral language skills increased the children's understanding of what collaboration looks and sounds like in a classroom.
  - Children communicated when working in groups and interacting with adults and class members during the school day. They were active, efficient and collaborative members when working in small groups.

As an insider researcher and a classroom teacher, my practice has changed. I now understand the importance of teaching specific oral language skills, resulting in specific times for teaching speaking and listening skills included in the daily timetable. Every classroom teacher in New Zealand should teach these skills to children; they are 21st Century skills needed now and in the future.

Project findings support Denston (2021) and Wegerif (2018). Vital listening and speaking skills enhance the Talk Types, developing effective communication and increasing collaboration competency (Wegerif, 2018). However, New Zealand lacks specific research, understanding, and educational programs to support the effective development of listening and speaking skills in ākonga (Denston, 2021).

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## About the author

Bronwyn Clegg - [clegg722@gmail.com](mailto:clegg722@gmail.com)

Bronwyn started teaching in her early 20s, completing her Bachelor of Education, Primary Teaching at Auckland College of Education. Teaching experience has included working in London, England, and in North Waikato and South Auckland. Bronwyn has a special interest in helping all children to succeed, reaching their personal best. Teaching interests include physical education, special education needs, and contemporary learning.



## Executive Summary C8P

# Computational thinking through real-world project-based learning

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Christopher Clapham

I have designed and implemented real-world project-based learning to develop computational thinking and digital outcomes with Year Nine students.

The aim was to implement a new project-based Digital Technology program that met the National Curriculum progress outcomes. In addition, it allowed students to meet Computational Thinking and Develop Digital Outcomes in the revised Digital Technology curriculum. My goals were to produce a digital technology unit plan that met outcomes. The project was focused on the new digital technology outcomes and was centred around project-based learning. I carried out five iterative cycles allowing me to evaluate the program at the end of each cycle. The project's benefits were that all Year Nine students could become digitally literate. Had a record of achievement from their time spent in Digital Technology. The school had a program that met the requirements of the Ministry of Education.

The Ministry of Education introduced changes to the New Zealand Curriculum in 2020. Before this introduction, the New Curriculum progress outcomes (2018) were developed to strengthen the position of Digital Technology in the New Zealand Curriculum. The main aim of this change was to ensure all learners can become digitally capable learners. In addition, this change provided a greater focus on building our students' skills and preparing them for the modern workforce. My project focussed on year nine students. The project allowed me to address this and examine the pedagogy used to deliver the curriculum. (Cocco, 2006, p2, as cited in Kokotsaki, D. and Menzies, V. and Wiggins, A. 2016) states that project-based learning is student centred and focused on learning a context, actively involved in the learning process and interacting throughout the process.

I carried out Action Research that enabled me to design, implement, and analyse my project. This allowed me to determine its impact on Year Nine students at my school. Cohen, Manion, & Morrison's (2018) eight-stage model was a framework that guided my research. Key aspects of this reading included identifying a clear problem, being clear and generating a timely plan in collaboration with others and setting realistic and ethical outcomes. Additional Literature by Kemmis and McTaggart (1992, p.43) as cited by Sue Johnston (1994) state that action research is to plan, act, observe and reflect. Doing this allowed me to reflect more rigorously and critically over a series of five iterations.

Part of my action research was to improve the practice of our teaching at school. By putting a plan into action. Belle and Wallace in 2001 TASC wheel (Thinking Actively in a Social Context) (Wallace, 2001, as cited in McNiff & Whitehead, 2010) enabled me to use a framework that allowed me to gather what we already had a non-functioning unit of work. Assemble a team and generate ideas around the issue. Select the best idea which was then implemented. At each stage we evaluated and established how well we did. We reported this to Senior leaders and have now started to plan for 2024 and roll out of a similar program in Year ten.

Two aspects have been a critical focus of my project. I collaborated with a professional learning company to identify what we needed to do—aligning a project-based learning program with the new



Digital Technology requirements. I then assembled a small design team in school to develop and produce a digital technology project-based unit plan. The JISC Digital Capability (2018) framework helped me establish what digital capabilities our students needed—allowing them to be proficient. I ran the unit plan over five weeks, including four one-hour weekly lessons, thus a total of 20 hours. Five Year Nine classes took part in the project—approximately 114 students. All students had sufficient time to complete a design and make project-based learning outcomes.

All students evaluated the project at the conclusion. This was done through an online google questionnaire. Part of the evaluation process allowed students to play each other's games and give feedback. In addition, some students took part in an interview with me after their project concluded. All students were assessed against the two critical NCEA criteria: Computational Thinking and Developing Digital Outcomes.

I analysed the data by collating the student questionnaires at the end of each iteration—the questions on the questionnaire aligned with many of the project's learning objectives. As the project developed, I found that most students enjoyed the course content. However, some students would have been happy to have more time (a week was the common consensus). The project allowed students to create their digital solutions. They have developed their digital capabilities in computational thinking by breaking down several problems whilst looking for similarities within the issues, focusing on the critical information and developing a step-by-step solution to their problem. As a result, they have developed Digital Outcomes that have created solutions to problems—producing an outcome that they have stored digitally.

The Year-nine project will continue in 2023. However, the findings from the data and research meant we extended the project time from five to six weeks in 2023. This will allow more students time to meet the progress outcomes, particularly developing digital outcomes. We will continue to collect achievement data.

A similar project will be launched in 2023 aimed at year ten students. This project will focus on attaining the progress outcomes needed in year ten. The Social Sciences department will run a project-based digital technology unit of work. We have been working with the department since 2022. Digital Technology is standard in all areas of the curriculum at our school; we aim to incorporate the focused Digital Technology progress outcomes into our Social Sciences program in 2022. The unit of work will be a teaching tool in technology but also an exemplar for other departments to use in future digital technology planning. [chrisclapham90@yahoo.com](mailto:chrisclapham90@yahoo.com)

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## Executive Summary C8P

# Implementing Place-Based Learning to Strengthen the Local Curriculum

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Davinia O'Callaghan

Place-based learning is a pedagogy that focuses on grounding students' learning where they stand; the place they are living (Sobel, 2004). By immersing students' learning in their local environment, their learning becomes more meaningful, and they have a deeper understanding of the curriculum content.

The purpose of this project was to implement place-based learning pedagogies in the classroom to strengthen our local curriculum and develop students' sense of tūrangawaewae - belonging.

There were 4 project goals in this project:

- 1) Develop place-based pedagogies to be used in the classroom in order to increase learner's local curriculum knowledge.
- 2) Use place-based pedagogies to increase learner's sense of tūrangawaewae-belonging to Palmerston North
- 3) Use place-based pedagogies to increase learners' engagement.
- 4) Integrate place-based learning into the school local curriculum document.

Through observations, discussions with school staff and whānau, and within the Kahui Ako, it was established that our school curriculum was not catering to the needs of our students. Using the National New Zealand Curriculum, it was not tailored to our demographic of students or their needs. With 47% of students born outside of New Zealand or not speaking English at home, there was a real need to overhaul the curriculum and help learners connect with the place they are now; Papaiouea, Palmerston North. Research from the Ministry of Education (2019) showed that a local curriculum needed to be developed with rich learning tasks to help celebrate students' strengths and their place. Therefore, this project developed the hypothesis that place-based learning would help meet these needs.

Three iterative action research cycles based on Spencer (2017) were implemented in a Year 5/6 classroom. Each cycle involved one or two excursions to a different place in Palmerston North.

- Cycle 1: Cathedral of the Holy Spirit. Students embarked on a hikoī through the Palmerston North Square and to the Cathedral to learn about the Cathedral. They learned the history of the Cathedral and the Square and made virtual tours to share with their whānau at conferences.
- Cycle 2: Our Lady of Lourdes Church. Students spent time going through the archives of the church that is onsite at school. They sorted through photos and watched old videos learning about the history of the church and its relationship to our school. Students made questionnaires for the parishioners about what life was like when they attended our school and helped serve them tea and coffee at Mass.
- Cycle 3: The Manawatū River. Students visited Te Manawa Museum to learn about the river and independently researched different aspects of the river: from history and legends to



geology and erosion. They participated in a river clean-up of Te Kawau stream that runs behind the school, learning about stewardship and how it runs into the Manawatū River.

The classroom curriculum learning was developed around these visits and each place visited. Alongside the three action research cycles in the classroom, were regular meetings with the principal to develop a local curriculum document. Data and informal feedback helped integrate place-based pedagogies into the school's Curriculum Implementation Plan.

Quantitative data measuring students' feeling of belonging to each of the places visited was gathered through Google forms at the beginning, in the middle and at the end of the three iterative cycles. Qualitative data was collected alongside each statement as students had the option of explaining their answer. Data was also collected through a weekly progress journal, which recorded anecdotal notes of the students' learning and behaviour, as well as informal feedback from staff and whānau.

Quantitative data from the surveys was automatically collated on Google forms and reproduced into graphs. Qualitative feedback from the students was highlighted and coded using Braun & Clarke's (2022) thematic analysis. The progress journal also provided supporting evidence for each of the major findings in relation to the project goals.

- Learners' local curriculum knowledge increased: They felt like they knew more about Palmerston North because of the visits.
- Learners' sense of tūrangawaewae increased: The surveys showed they felt more connected to Palmerston North after visiting the places in person.
- Learners' engagement in learning increased. Due to experiencing the places first-hand, they were more interested in the classroom content as it was more relevant to their experiences. Observations noted in the progress journal also supported this finding.

Sobel (2004) found numerous benefits to place-based learning in the curriculum, including increasing academic achievement, helping students develop stronger ties to the community and becoming more active citizens. These findings are also supported by Demarest (2015) who found that using local areas of interest will enhance understanding of a topic. By visiting in person and experiencing the places first hand, they became more engaged in their learning. This literature supports the findings in the project.

In conclusion, place-based learning can be integrated into classroom learning. When done so, it can increase students' connection to their place (therefore strengthening the local curriculum) and enhance engagement.

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## About the author

Davinia O'Callaghan - [daviniaocallaghan@gmail.com](mailto:daviniaocallaghan@gmail.com).

Davinia O'Callaghan is an experienced primary school teacher in Palmerston North. She is a committed educator who pursues modern pedagogical practices to set ākonga up for the 21<sup>st</sup> Century. Davinia completed her Postgraduate Certificate in Digital and Collaborative Learning through The Mind Lab in 2020, which ignited a passion for 21<sup>st</sup> Century learning and reshaping the school curriculum. This led to her completing her Master of Contemporary Education in January 2023, just in time to welcome her first pēpi in February.





## Executive Summary C8P

# Enhancing Engagement Levels Through Learner Agency and Project-based Learning

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Jotika Devi

Many factors have been identified to cause the need for more interest in engagement with school and written work. Research conducted by the Ministry of Education on the engagement of students during the middle years of schooling in New Zealand reveals that student engagement in school and learning decreases during the middle years of schooling. In New Zealand, disengagement with school is evident in truancy, stand down, suspension and expulsion rates, which increase rapidly from age 11 (Ng, 2006). Students' attitudes towards reading, writing and mathematics decline as they move through the middle years, they become more critical about some of the teaching they experience (Cox & Kennedy, 2008). Further evidence from the 'Competent Learners at 14' studies (Wylie et al. 2006) indicates that a third of the 14-year-old participants did not find school engaging, and a fifth wanted to leave school as soon as possible. These statistics align with the trend noticed at my school.

This action research project was initiated from observations of my learners over the past four to five years, whereby I had noticed a trend of disengagement towards their written work. McNiff & Whitehead (2005) define action research as a common-sense approach to personal and professional development that enables practitioners everywhere to investigate and evaluate their work and to create their theories of practice.

My research aimed to investigate how engagement levels in written work among my English language learners could be enhanced through developing learner agency and self-directedness in a project-based learning environment. The project goals were as follows:

- 1) To identify the factors that lead to fluctuating engagement levels among the students during their written work.
- 2) To identify the pedagogical changes needed to promote learner agency and self-directedness that could eventually lead to increased engagement in written work.
- 3) To promote project-based learning where students' voices are prioritised, resulting in learners displaying increased responsibility for their learning.
- 4) To create a learning environment that incorporates strategies and tools needed to overcome disengagement towards written work.
- 5) To develop strategies that encourage students to build on their confidence level so that they are willing partners in their educational journey by taking responsibility for their learning.

This ongoing and periodic data could provide my school management and other teachers an ability to judge and respond by understanding the need for increased student agency, self-directed learning and project-based learning in enhancing engagement and promoting student learning and for allocating further resources towards meeting these goals.

My project was an iterative process reflecting The Mind Lab's Teacher Inquiry Framework of gathering knowledge, implementing a needed change, then gathering updated knowledge and using that knowledge to inform further changes. Further to this, I was inspired by Fullan's (2020) New Pedagogies for Deep Learning and have closely referenced their Collaborative Inquiry Cycle, which

explains the various levels of student and teacher involvement and explores the roles each play in enhancing collaboration and student engagement.

The participants were twenty-four students from a year eleven English class. A project-based approach towards completing written work was adopted. Project-Based Learning (PBL) is a student-driven, teacher-facilitated approach to learning. Learners pursue knowledge by asking questions that pique their curiosity (Bell, 2010). The topics of work and assessment covered during this action research were part of the curriculum for level One English, and the students were involved in their written assessments as per the requirements of NZQA. After each internal assessment and primary written work submission and feedback, students were asked to use this information to self-regulate their learning and success in their written work. The learners, in their reflective journals, recorded this process, and students could work on the next steps. The assessment and feedback information were designed to be informative for the learner rather than allocating a pass or fail grade. This information and feedback enabled the learner to understand their strengths and weaknesses, giving them the opportunity for personal reflections and amendments to their approaches towards their learning.

Both qualitative and quantitative data collection methods have been used. Data through pre-implementation surveys, personal interviews, class observations, talanoa sessions and assessment results were used to inform classroom teaching and learning, as well as periodic data to support policy and practical decision-making at higher levels of our school system.

The results of this project were varied. Students flourish under this learner-driven, motivating approach to learning and gain valuable skills that will build a strong foundation for their future in our global economy. The students had the opportunity to reflect and evaluate their engagement levels and then work on it to better themselves during the different iterations of our research. Observations and discussions reveal different levels of learner agency were displayed by the participants. Many displayed proficient levels of taking responsibility for their learning, while some were still developing learner agency. Then some needed guidance and were taking the first steps towards displaying agency. Many participants also shared experiences and personal strategies for self-directed learning and displaying learner agency. Many talked about increased collaboration, teamwork, and organisational skills like creating a study timetable, following it, using a class planner, and adhering to the dates and deadlines.

Finally, many learners are still a long way from being self-directed. These learners will still need motivation and encouragement from their teachers and peers to adapt to online educational technologies (El-Gayar et al., 2011). My journey does not end here. I intend to undertake further studies and professional development sessions to experience and unearth context-specific solutions to the underlying problem of the lack of Māori engagement in my school. I wish to gain insight into the skills, knowledge, understanding and attributes I may gain through experiencing life in such a cross-cultural space.

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### **About the author**

Jotika Devi - jotikadevi79@gmail.com

Jotika Devi is a teacher of English at a high school in South Auckland. She moved to New Zealand in 2010 and has served in various South Auckland schools. She believes in inclusiveness. Through her observations and experiences within the New Zealand school environment, she believes that every teacher has the potential to change the lives of their learners. Her hobbies include gardening, art & craft, reading, watching movies and travelling.





## Executive Summary C8P

# Student voice in transition

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### Kellie Waller

The purpose of this project was to design and implement a website for teachers and a transition passport for students working with the Health School to facilitate personalised learning and teacher agency to support students' transition back to their school of enrolment. The project's specific goals included:

- 1) Creating a website to be shared with Health School staff and sharing best practice information to support teachers in personalising learning for students with health needs.
- 2) Creating a Transition Passport based on student voice that could be used to scaffold personalised learning for students as they transitioned back into school.

These goals would benefit students transitioning back to their school of enrolment from Health School and the staff working directly with the students.

By implementing scaffolds for transitioning students, we wanted to address a gap in the information in our current practice as students transitioned back to school. This project was carried out in a New Zealand Health school, with five students who were actively transitioning back to their school of enrolment. Students would have the opportunity to share their voice and needs, and staff would have access to information they could use to help students succeed in their transition. The belief was that student voice could be used to scaffold personalised learning in student transitions.

An action research model was used in building a website and developing a Transition Passport document supporting student voice and resources as students transitioned back to their school of enrolment. The website was built, and relevant health resources were added to the bank of resources as they were introduced to support student health needs throughout the project. The project's emphasis quickly shifted towards the Transition Passport due to the barriers faced in distributing the website outside of Health School.

Students collaborated on their Transition Passport with their Health School teacher. Final approval of the completed document was obtained from the family and Health School Senior Leadership before the document was marked confidential and distributed to the staff working directly with the transitioning student. Most students personally delivered their Transition Passport to school staff with Health School support, allowing them to visit their classrooms and begin connecting with their teachers face to face.

There were five iterations of the project. Each iteration of the Transition Passport was based on cycles of designing and implementing the document, using feedback to improve the design and ensure all stakeholders' needs were met. Feedback was sought from participants, their school of enrolment, and Health School stakeholders using; surveys, critical conversations, and natural work products such as



emails and the Transition Plans. Most of the data collected was qualitative, although quantitative data was sought using surveys in the form of a Likert Scale. School of enrolment contacts indicated the Transition Passport's efficacy in enabling staff to scaffold personalised learning for transitioning students.

Data was collected by mixed methods and was analysed by themes that would reveal patterns (Braun & Clarke, 2022). These patterns were then coded within the project data and collated to clarify how the themes developed.

The literature suggested a gap in health information available to schools as students transition back into mainstream education. Leadbeater (2004) is explicit about the importance of services to work together when transitioning students. By working together to employ personalised learning, we can support families who have been disengaged from learning to feel more empowered, share their needs and reconnect with the education system.

Durie (1985) provides the Te Whare Tapa Wha model around which I have been able to base a holistic scaffold for providing student voice for schools to gather knowledge and plan personalised learning for transitioning students.

After five iterations of this project, the findings showed that by providing schools with a Transition Passport, and more detailed student voice during transition, schools could use that information to employ personalised learning in student transitions.

The Transition Passport will continue to evolve with the question bank changing over time as cultural norms shift and as we look at how to embed the document into whole school procedures. The next step is to look into the appropriateness of other models, such as the Pacific Fono Fale health model or look into whether there are other models that we could base our work around, given the multicultural nature of New Zealand society.

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## About the author

Kellie Waller - [kelliep3@gmail.com](mailto:kelliep3@gmail.com)

Kellie has been teaching in the primary sector for 20 years, and through her experience has developed an interest in supporting students to have a voice in their education and in developing supportive transitions for students at key stages in their education. She has a Bachelor of Education (Teaching), a Diploma in Child and Adolescent Psychology and a Post Graduate Certificate in Digital and Collaborative Education.





Master of  
Contemporary  
Education

Executive Summary C8P

# The Effects of Gamification on the Writing of Children in a Year 5 and Year 6 Class

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Kylie Fullerton

I set out to prove that I could improve my students' writing exponentially in one year by using the software 'The Writers Toolbox' (then Write that Essay) and it was my hunch that it would be the gamification elements of The Writer's Toolbox that would have the greatest impact on my learners improved writing, not simply the content of the resource.

In a time when trying to connect with our students and have them genuinely engaged in the content delivered is of utmost importance, when some issues of truancy can be addressed by making school meaningful to those choosing to opt out, it has never been more important for those institutions to connect to the "lifeworld's" (Apperley & Beavis, 2011) of the students who must exist within its walls.

Should we be successful in gamifying education by using a games-based model of learning we will begin to address some of the issues our education system faces now, such as falling academic results and falling attendance. In turn, this will have a positive impact on our students (Abrams & Gerber, 2014).

Games-based learning enhances student engagement (Abrams & Gerber, (2014) and improves academic results and retention. To put this to the test I delivered similar content in a variety of ways. The styles of delivery sat on a continuum of Only teacher directed - Only student directed, simultaneously on a continuum of Completely offline - Completely online. Pairing different parts of each continuum up enabled me to ascertain what part of the teaching and delivery were having the most impact on the writing results of the students involved in the action research. I gathered this information via surveys, interviews, observations, writing samples and casual conversations. The action research project was conducted over the better part of three school terms with a class size of 22/23 in the year 5/6 cohort. The main issues in conducting this action research are the inability to completely isolate delivery styles, and the influence on the child between online and offline experiences.

Comparing data collected before embarking on this action research with data collected at approximately mid-point, and again near the end of the project, I was able to confidently state that the gamification elements had an impact on the students' writing. As indicated above I was not able to completely isolate the data to say that this was the ONLY reason. Certainly, from the students' point of view it was the games-based nature of the programme that they enjoyed and kept them engaged in their learning. This aligns with the literature I read on games-based learning and the gamification of learning which can be summed up in one sentence covered in several readings. Games-based education and gamification of learning connects school with the "lifeworlds" (Apperley & Beavis, 2011) of students.



I conclude that a “games-based education is the best platform to connect and engage with our students now and in the future” (Walsh, 2010). While further action research projects would be required, using first small, then medium and finally large sample sizes, I believe that the findings of my research project support my hunch that using an immersive games-based approach to education would resolve the need for students to be at school from ‘9am – 3pm’ in our traditional ‘bricks and mortar’ spaces.

I am also more than ever interested in collaborating with someone or a company who could help ‘build’ a school within the immersive gaming world. One where the interface is experienced by students like any other “immersive gaming world” (Dyulichева, 2018), but where teachers are easily able to load content, and deliver content easily without needing to know how to code extensively.

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## About the author

Kylie Fullerton - Kylie.fullerton@gmail.com

I tipu ake ahau i Onehunga  
Ko St Joseph’s Primary me Onehunga High ōku kura  
Kei Waitākere Township ahau e noho ana ināiane  
Ko Taupaki me te MindLab ōku kura  
Ko Fullerton tōku ingoa whānau  
He whānau rongonui o Aotearoa mō te tere tere  
Ko ngā motopaika Fullerton kei Kumeu nā te whānau  
Ko Robin te ingoa o tōku Pāpā  
Ko Gressell te ingoa tōku Māmā  
Ko Bryant taku ingoa mārena  
Ko Tim te ingoa o taku tane  
Ko Kylie tōku ingoa  
Nō reira, tēnā koutou, tēnā koutou katoa.

Kylie Fullerton has been in Education for 22 years. She has taught in New Zealand and in the United Kingdom. Very early on, she took on the responsibilities of being a tutor teacher for Beginning Teachers (now referred to as Provisionally Registered Teachers – PRTs), and as the Head of Department for Physical Education and Audio Visual.

Upon realizing that her passion for education lay with positions that offered more of a wider, strategic lens, she set a pathway forward. This led to taking on the role of Head of Literacy. It was after many successful years in this position that she was able to move into her first Deputy Principal role. As 'computers in classrooms' appeared to finally be getting the traction it needed Kylie enrolled in the DCL programme at The MindLab - Diploma of Applied Practice: Digital and Collaborative Learning. Her successes as Deputy Principal led to an opportunity as a Deputy Head Teacher of Key Stage Two in the United Kingdom.

Returning to New Zealand in 2019, for what was then only a short trip home to visit, turned into an extended visit, and then even longer with the first Covid19 Lockdown of 2020. Aware that shaping education outside of the walls of the classroom was still where her stamina lay, Kylie ensured her educational steps back in New Zealand would put her back on the career pathway she had chosen. Having made the decision to recommit to living and working in New Zealand, Kylie took on roles as Team Leader, and enrolled in The MindLab's Master of Contemporary Education.

Kylie has a passion and skill at connecting with students on an individual basis. Much of her research for the DCL programme were in search of alternate education systems and the benefits they had on disengaged students, and so it is not surprising that her action research project to complete the MCL was on games-based education and the gamification of learning.

Kylie's next steps are to move back into a senior leadership role as a Deputy Principal and then onto Principalship.



Master of  
Contemporary  
Education

## Executive Summary C8P

# Raising Literacy through Integrated Learning

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Linda Rubens

We face a global literacy crisis. Qian Tang, Assistant Director-General for Education at UNESCO, stated that over 745 million people are struggling with illiteracy (UNESCO, 2017). Research acknowledges the increased need for literacy in today's knowledge economy (Merga, 2022). New Zealand is not exempt from this crisis. Thus, the overarching goal of this change project was to raise literacy through purpose-based learning (PBL) in an integrated Year 11 English- Mechatronics class.

I aimed to improve my teaching practice, and the methodology incorporated reflection on the efficacy and outcomes of my interventions. Following an Action Research approach meant that I could be flexible, adaptable, and reflective, fulfilling the role of a research practitioner (Cohen et al., 2018; McNiff & Whitehead, 2005). Students were active participants in the planning and implementation of this course. In addition, I developed a model for other teachers, from diverse curriculum areas, to follow, adapt and emulate. From an analysis of relevant literature, I developed PBL resources with authentic outcomes. I implemented and evaluated learning progressions through practical work and internal assessments. The mini projects had driving questions to focus the writing, and each iteration followed the design thinking framework. This was streamlined to dovetail with the technology curriculum, given that we integrated two courses into one.

Thus, this project implemented purpose-based learning to improve literacy skills. Although I ran the change project and collected data on the entire class, the iterations were based on a focus group of six students. Qualitative data was gathered through surveys and Socratic seminars. Quantitative data was gathered through formative and summative NCEA (National Certificate of Educational Achievement) grades. The change that this project aimed to achieve was that students could see purpose in their writing and thereby raise the standard of their literacy. If this were easy, we would not be facing the national and international problem of low levels of functional literacy.

Through PBL and design thinking, teachers could identify with individuals, maintaining their distinctive identity, thereby giving them agency. If done correctly, agency allows for a power shift in the classroom, and this means shared power rather than power over students. This influences the way we talk and interact with students. It starts with *manaakitanga* - care and respect for the students in the class (Laing, 2013, p.1). Quite simply, students produce their best standard of work when they feel empowered with and invested in their work. Student feedback suggested that sprints and mini projects were more apt than extensive projects. By term 4, data revealed increased teacher collaboration and improved student outcomes.

Additionally, the Ministry of Education launched a nationwide Literacy and Communications Strategy (Ministry of Education, 2022). This strategy stated that changes should balance a consistent literacy approach, with schools making adaptations according to local context. Effective pedagogy will need to be established and maintained. A major challenge in my setting is to empower all teachers to affect significant, school-wide change. Thus, throughout this change project, I have given direction, advice

and resources to professional learning groups and a variety of curriculum areas. This will not be a quick fix and support from senior leadership is vital for this initiative to succeed.

I developed a website with an evidence-based model for teachers to adopt in their setting, with data underpinning the approaches. Subject integration at the college level has challenges, but the outcomes for students make the collaboration rewarding. Increased awareness of literacy skills improves results, as shown by the improvement in writing data. This has to be sustained and repeated, and seems most effective with a real-world link. Students created websites to showcase their work. In addition, they became more invested in the tasks when they realised that their opinion mattered concerning course design and delivery.

Thus, encouraging staff with literacy strategies is important. However, just as important is heightening students' awareness. In addition, student empowerment and self-determination are crucial to developing confidence in literacy. NCEA grades, surveys and Socratic seminars revealed that my focus group was the gold standard, with the question remaining of how to instil this same drive for excellence in all students. Even though the class largely outperformed previous years, this level of success was not reached by all students in the class, although they were given equal opportunities. This may be a limitation to working closely with a focus group.

I analysed data in a deductive way through coding and theme development, directed by existing ideas. The existing concept regarding literacy indicates that reading for pleasure is strongly correlated with better comprehension because it allows students to access a broad array of vocabulary and knowledge (Hood & Hughson, 2022). Qualitative and quantitative data revealed that the focus group was successful with their unanimous goal to reach Excellence grades in their work. In addition, they are self-directed students who take the initiative with their work and show resilience to see work through to completion.

The latest research indicates that "around half of the 15-year-olds in New Zealand do not read for pleasure, with around a quarter viewing the practice as a waste of time" (Merga, 2022). At first glance, this seemed true of my focus group. However, I discovered that these students read daily, but almost exclusively non-fiction school-based texts. Thus, it was school pressure that negatively impacted their reading-for-pleasure, not as the research suggests, their attitude.

There is no denying the huge impact improved literacy has on our everyday lives. Reading, writing and verbal communication dominate modern society, be that in an academic setting, or simply typing a text. We are continually drawing on our literacy skills (Merga, 2022). Inherent in the word skills is the idea of ability, aptitude or expertness. But as with all skills, we lose mastery when we fail to practice. Reading and writing matter, and the more we foster literacy at school, the greater our chance of fostering literate adults.

Tāraia te mahara, ka tāraia ai te rākau / Carve the mind before carving your path

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### **About the author**

Linda Rubens - l.rubens@icloud.com

Linda is Head of the English Department at Orewa College, Auckland. In addition, she has the role of Assistant Principal (*Acting*) Leading Literacy and Numeracy for 2023. Linda aims to empower students to improve academic quality and outcomes through digital enablement and sound pedagogy, with a focus on raising literacy through purpose-based learning. She keeps her practice current and relevant through research and by connecting with global educators. Linda has vast experience in secondary education and has led several exciting initiatives. She is motivated and committed to facilitating engaging and personalised learning for all her students.





## Executive Summary C8P

# Delivering an agentic technology classroom using metacognition

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## Marty Richter

21st Century learning is imperative in the classroom today. Agentic learning along with metacognitive development empowers learners. Learner agency is about learners choosing and learning their next steps. Metacognition is the process of monitoring and assessing learners own learning. Metacognitive knowledge is about understanding how to learn, and metacognitive regulation focuses on making the choices of what to learn next (Main, 2022). This understanding is essential for the 21st-century teacher to move from the unempowering transfer of knowledge model from the teacher to a heutagogical model (Hase & Kenyon, 2013).

The purpose of this project was to take one class from my feeder schools, in hard materials, developing agentic learning using a collaborative approach by setting their own learning goals and collaborative assessment criteria.

The goals of the project were:

1. To develop a class where students are confident to choose their technological direction for the day thus taking ownership of learning. To measure the change through student observations, focus groups and quantitative data.
2. To develop the language and confidence within the learners to use agency, collaboration, and peer assessment to gain learner ownership, rather than rely on the person at the front of the class.
3. To develop a pathway for other technology teachers to replicate, as well as the Year 9 and Year 10 teachers to develop their pedagogy as the learners will already be trained and conversant with the metacognitive process.

The problem in my class and Intermediate Department was that learners follow modelled steps. Therefore, student agency does not happen. Students were following a pedagogical approach of teaching. Learners ask for help on projects to determine what to do next. When students were behind, they followed other students and made mistakes because they have not kept up with the process. Evidence of this came from the students acknowledging they were bored because they have finished their work to date and were waiting for others to catch up. Local kaumatua and principals of feeder schools have acknowledged this boredom and have argued for the need to meet individual cultural needs. I was concerned because individual experiences and cultural understanding were not being developed in the classroom learning process.

The implementation of the project took place following the voice from feeder schools and students. A short literature review enabled me to find other researchers on similar issues. Leonard's (2017) research, in a New Zealand school, enabled a platform for me to change my practice. The understanding that the metacognitive practice of learner agency involved agency, collaboration, peer



assessment and flipped learning were central to success. These understandings had to be collaboratively owned (Harasim, 2012). Data was collected in an action research model by interviewing each learner with a set of questions on their perceptions on these topics at the beginning, as well as the end of the project. A self-evaluation of how students learnt using Hart's ladder provided change from the beginning to the end. The Griptape model provided observational analysis of agentic empowerment over the project (Griptide, 2017).

The project iterations were over 10 weeks and started with students creating a brainstorm of the meaning of agency, collaboration, peer assessment and flipped learning. This was followed by teacher directed understanding where the learners owned the meaning and actions involved. Over the 10 weeks, each week learners were given four choices of hard materials practices to learn. A flipped video was sent to the feeder school and implanted on their Edmodo anywhere anytime digital platform to view before coming to school. The video was also available as a blended choice in class. Students chose a learning intention, found a group with the same choice, collaboratively discussed it and wrote down four tasks to make the learning happen. This was written down on there "I can "sheet. This is the point where each learner went through the sheet and another learner ticked and initialed the sheet as to competency. At the end of the day each learner had to articulate their learning.

At the end of the project the same questions were asked to the students and data collected. This gave me a comparison on the effectiveness of the use of agency and metacognition.

The data was collected as 'before and after' data, using a mixed method approach. Firstly, student numbers were measured on Hart's ladder and compared. This showed a substantial change in ability to start and do work without the teacher telling them what to do. Secondly, the Griptape scale using observations showed growth in self-awareness, confidence taking opportunities and activation showing the empowerment the concept of metacognition and agency had given each learner. The practice of the students had changed to be self-directed learners. Thirdly, interviews, using qualitative data, showed the biggest change where learners felt successful, understood the power of self-assessment, collaborating and self-choosing next steps. The change in student perceptions changed to 100 percent in some questions.

The plan of attack came from good literature research. This empowered my direction to solve the problem. Leonard, (2017) created a pathway to start the process of change. I found that using the ideas of collaboration, peer assessment and flipped learning were jointly a piece in the jigsaw that made agentic learning and metacognitive knowledge and regulation effective. My next steps in my project for next year are to simplify documentation for the learners so book work is not the end focus but realistic assessment instead.

My goal is to use the intermediate learners as effective models in the Year 9 classes in our high school.

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### About the author

Marty Richter - [marty@richter.co.nz](mailto:marty@richter.co.nz)

Marty Richter is a technology teacher in a rural New Zealand high school. He moved into the teaching profession 25 years ago after several years as an electrical inspector. Marty has an enthusiastic and infectious approach to being at the cutting edge of education. Learners are at the core of anything educational.





## Executive Summary C8P

# How to glocalise, podcasterise and otherwise supersize your inquiry units

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Shannon Watson

Upon setting out to complete this project I wished to garner a better understanding of what the glocalisation of inquiry units would look like if the end product was a Podcast and the start point was a collaboratively designed Big Idea. What I set out to do was create inquiry unit plans that blended the three important educational concepts together as expressed by Penitito (2009) and begin to construct entry-level social media podcasts to share their learning, showcasing glocalised concepts.

I had five goals for the project.

1. Create digitally savvy teachers that can utilise the internet.
2. Making the inquiry unit link together through a collaboratively constructed Big Idea.
3. Ensure that the team could explain what Glocalisation was.
4. Decomplexify Podcasting making it simple to create, upload and share a podcast.
5. Collaboratively construct a set of guidelines for the students around how to interact online.

The benefits of the project would be felt by two groups. Firstly, teachers involved in the project would go through professional development for digital capabilities. This is due to the technological challenges that they would be up against in this project. The teachers in the project would also be able to plan using a glocalised curriculum based on a big idea. This would make the units of learning robust. Secondly, students would benefit from inquiry units being planned through a glocalised curriculum. When podcasting, the students are given another avenue to share their learning and would be taught basic skills of how to give good feedback.

For a long time, my school has used a localised curriculum based upon a few Big Ideas that were constructed in isolation. These Big Ideas have been decided by Senior Management, based on the New Zealand Curriculum. This has changed recently to some essential learnings as the school has been looking at the work of Ann Milne. These ideas that she has, of flipping the script and teaching through a Māori Lens, have been filtered into these essential learnings. Milne, (2013). All I see in my practice is that the content knowledge and skills in my classroom are getting very specific and they don't seem to support the notion that we live in a global world.

My aim was to construct entry-level social media podcasts to share their learning that showcased that glocalised concepts made learning more vibrant.

This project aimed to develop teachers' skills in Google workspace. For those teachers to be able to effectively plan using a big idea. To have created a unified understanding among the teachers as to what a glocalised curriculum may look like. Furthermore, to take all the learning and showcase it in a team-wide podcasting site.

I investigated and found narrative qualitative data against the five goals. I used three different semi-structured interview questions for parents, teachers and students. I repeated the interviews three times. I used a browser-based application called Flixier to transcribe interviews. I also used a survey to collect

data, comparing it on three occasions. I analysed available data from the Google Workspace admin panel. Also, available data on the Anchor Podcasting app was examined. Lastly, data from students' feedback on podcasting was analysed. My data suggested that the parents of the students were more interested in the podcasting benefits than the students. A pivot table constructed over the three terms indicated that all participants in the project were in favour of including global concepts in the curriculum if they were blended with local ones.

The literature review was a challenging effort as there is not a vast amount of information available about globalisation of a curriculum and podcasting at an intermediate age. Big ideas had more literature to review but did not really explain how to create a big idea to start an inquiry unit. They talked more about the philosophies and pedagogies behind the reasons for having a big idea.

One similarity between the research and podcasting was that the student-created podcasts were more powerful than any other type of podcast. A longitudinal study on the effectiveness of and whether they hold their educational worth would be a valid pursuit. I would like in five years' time to be resuing podcasts created as exemplars. Given that all the podcasts created are now on the cloud it would be interesting to see how quickly the students get over their embarrassment of hearing their own voices and in the future come back to reflect upon their learning.

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## About the author

Shannon Watson has been teaching intermediate students for 22 years. She works in a decile 4 school in Northland. She has 500 cows and thinks sheep, although stupid, are pretty funny. Shannon is fond of camping, taking perfectly good fabric and chopping it up into little bits and sewing it back together, and her three children. She's fond of her children and doesn't chop them up. She would like to have some chickens again, but the expensive farm dog likes to make chicken sushi out of them. She reads too many books and probably should find something else to do with her time, like teach her pet pig to do dressage.



## Executive Summary C8P

# A research report into the professional development of teachers in teaching ethics

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Stephen Woodnutt

New Zealand teachers want more professional development in teaching ethics. With increasing challenges in our world which often find their cause in failure to engage ethically, we sometimes find that people today are technological adults but ethical children (Revkin, 2014). The purpose of this study was to create a professional development in teaching ethics and being ethical for teachers. This is to help teachers to be ethical and to engage with students about ethics.

This study had three goals:

1. To create an introduction to ways to teaching ethics to students.
2. To help teachers identify rational and emotional responses to ethical challenges.
3. To make use of contemporary approaches to pedagogy in teaching ethics.

This is useful for school leaders and those who work in professional development for teachers. This included exploring the different learning theories of Heutagogy and Andragogy and how they can help develop learning.

This project looked at the call in the New Zealand curriculum (Ministry of Education, 2015) for the teaching of ethics. This was a small action research project that involved 9 teachers involved in three 50 minutes professional development sessions. This project looked at how collaboration and Critical thinking helped teachers in their professional development to respond rationally to ethical systems.

I created a small action research study by firstly creating a plan to create a session for Professional development for teachers. I gave the session 3 times. Before each session I gave out a survey to each participant. Once the session had been completed, I gave out a survey. I also conducted one further interview with one participant about their experience in professional development and how it applied to their practice.

We found that teachers had clearer understanding of how to identify rational responses to ethical issues. We also found that teachers were more confident to teach ethics. What was discovered in our study revealed that Critical thinking (Lai, 2011) and a collaborative approach (Millett & Tapper, n.d.) helped teachers to engage with ethics.

We found teachers felt more confident to engage with the teaching of ethics after receiving professional development. Further research in this area with a larger sample size would be interesting but it shared a similar outcome to studies done in teaching ethics (Arthur et al., 2022) It would be good to develop further resources such as a website to support teachers interested in teaching ethics. It

would also be interesting to work with students in learning about ethics, as was originally planned and envisioned for this project before circumstances pushed the research in a different direction.

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## About the author

Stephen Woodnutt - [stephen.woodnutt@hotmail.com](mailto:stephen.woodnutt@hotmail.com)

Stephen Woodnutt is Head of Religious Education at Catholic Cathedral College. He has been a teacher of secondary students for 10 years. He has worked in the field developing national assessment in ethics and creating national curriculum resources for Religious Education with the National Centre for Religious Studies in New Zealand.





## Executive Summary C8P

# Teacher Appraisal: through a multifarious lens

Teresa Hannard

This change-project investigated the possibility of modifying Teacher Appraisal in the Primary setting. Often using a hierarchical approach, appraisal practices are done 'to' teachers. Consequently, my focus was centred on teachers becoming part of the process. One of the key outcomes; teachers working collaboratively to critically reflect on their relationship-based practices.

Therefore, ensuring a succinct process through each iteration was a key aim of this project. To ask 'why?' framed our leadership direction. The Project Team considered both Sinek's (2009) 'Golden Circle of Leadership' or 'Why, How, and What' (figure 1) and the alignment of this with the NZ Curriculum Refresh Progress Outcomes, 'Understand, Know, and Do (Ministry of Education, 2022).' The Project Team aimed to highlight teachers are professional leaders with the potential to grow other teachers' capabilities while being leaders in the field. Image 2 shows alignment, beginning with 'why' and 'understand' sitting at the centre and forefront of process implementations.' Following the establishment of 'why,' attention should then be given to 'knowing how the process would be implemented.' Finally, 'What actions will be taken? What will be done?'

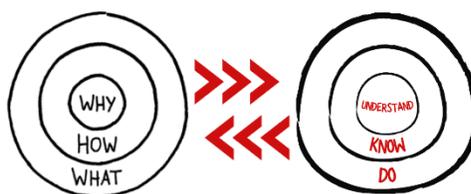


Figure 1. Effective Leadership Begins with Why Sinek (2009) & Ministry of Education (2022)

Key research and CoL (Community of Learning) 'Relationships First' (Cognition Education, 2020) professional development implementation, were the catalysts for this project. Written in his latest book, 'Teaching to the North-East' (2019), Professor Russell Bishop's discourse for Relationships-based practice resonated. The second sentence of the preface is, "Our very well-being and mental health relies upon our developing positive and effective relationships (p. ix)." This sentence, within the body of the text, is about students. However, it defines my project, for teachers.

Upon conception of the project, Participatory Action Research was adopted as the approach and a Project Team was created. The team of 6 participants included 3 teachers and 1 Teacher Aide. The project team leaders were 1 teacher with a middle leadership position and me, a Deputy Principal. A whānau survey and a staff survey, found some misconceptions and perhaps areas of improvement when communicating with families. With a focus primarily on culturally responsive relationship-based practices, the project team collaboratively created an appraisal approach to suit their context (Cohen et al., 2018) and did not intend to dispute the integrity of the professional development the CoL was undertaking.

By the final iteration, the participatory style of research led the project team to believe enough evidence had been collected to show they had an appraisal approach which met the goals of the project. These goals; firstly, produce a conceptual framework for implementing and evaluating

relationship-based learning and appraisal; secondly, create an observation template which has a relationship-based focus; and finally, to adopt a coaching framework based on 'The Effective Teacher's Profile, to co-construct professional personalised goals (Bishop & Berryman, 2009).

Being that Bishop's research was longitudinal, the validity of evidence outweighs the scope of this project. The overarching goal was appraisal that would be explicit and transparent in nature. Teachers would be seen as reflective practitioners who can appraise one another through a culturally responsive lens. Further research would be beneficial to garner how teachers perceive the approach and to gauge the quality of goals constructed and whether these goals are being effectively demonstrated.

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## About the author

Teresa Hannard - [trhannard@gmail.com](mailto:trhannard@gmail.com)

Tēnā koutou e hoa ma

Ko taku tātai whakapapa e hāngai pū'ana, ki a Ngāti Kootimana, ki a Ngāti Hainimana

engari he iti noa āku mōhioranga ki wēhei iwi ōku he tipuranga wīwī wāwā nōku nei

kē taku tuāngawaewae whāngai

Ko Pukematekeo tōku maunga.

Ko Waiwhauwhaupaku tōku awa.

Ko Teresa Hannard tōku ingoa.



Teresa Hannard has been in Education for 20 years. As a beginning teacher at a small school in Huntly, she took on leadership roles quickly. With a lead position in the PEN (Performance Enhancement in the North Waikato) school improvement project, she started her career with a strong



grounding in collaborative conversations. She learnt the importance of positive relationships and strong pedagogical practices.

As a Primary Teacher, Middle Leader and Senior Leader, she has experienced appraisal practices at a variety of schools both nationally and internationally. Drawing on this experience and current relationship-based research; her project team collaboratively adapted a predominantly high-school based appraisal approach, to a model fit for her Primary-level context.



Master of  
Contemporary  
Education

## Executive Summary C8P

# Tech Club: Collaborative Leadership for Digital Equity and Sustainability

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Yvonne MacKinnon

With the advent of Covid-19 lockdowns, the digital divide became a magnified issue predominantly for Māori and Pasifika ākonga who comprise over 70% of our roll. Approximately  $\frac{1}{3}$  of ākonga had no access to any device and those with access were often sharing a parent's phone. If our community cannot access digital technology, the digital divide will continue to widen and they will be excluded from participation in, and contribution to, an increasingly digital world (OECD, 2019).

The purpose of this project was to bridge the digital divide for our ākonga. To achieve this, I collaboratively designed and led implementation of a culturally responsive, sustainable learning programme which taught ākonga how to repair a Chromebook and, on completion, gave them the Chromebook to take home. Key goals were to 1) increase the amount of learning devices in the homes of ākonga and 2) create a sustainable learning programme that met ākonga needs, which could continue beyond the scope of this project. Success would see us equip ākonga with a) their own device, b) the skills to perform simple repairs, and c) the knowledge to utilise a device responsibly. It would also be reflected in a sustainable Tech Club, where ākonga could learn digital skills and be involved in both the learning design and in the sharing of knowledge with others.

A collaborative relationship was formed with Zeal, an Aotearoa-wide community organisation focused on equitable outcomes for young people. Together we partnered with Ask.Q, an IT expert, to support us initially to build a digital-repair programme for Year 4-6 ākonga and guide Zeal youth workers to facilitate this new learning. Four iterations of Tech Club's 7-week programme were completed, with ten ākonga per group. Content was aligned with Magaña's (2017) T3 Framework for Innovation, with the aim of reaching the Transformational level through self-assessment and peer coaching. Essential elements of culturally responsive practice were woven throughout, enabling ākonga to interact, collaborate, co-construct, reflect and see themselves in the space (Berryman, Lawrence and Lamont, 2018) using our kura's values as the basis for all mahi. Key artefacts supported lesson delivery; these were planned, reviewed, and altered in response to student feedback and observed needs, to maximise ākonga engagement.

A cyclical framework of Emancipatory Action Research was followed. Data was collected from 39 participants in Years 4 to 6 utilising a mixed-methods design via a weekly self-evaluation survey to measure programme impact. Most survey items required a written response, with one question requiring self-rating on a scale from 1-5 following the Structure of Observed Learning Outcomes taxonomy (Biggs & Collis, 1982). Surveys were collated to enable ākonga to view their progress over time and create a tangible learning resource to refer to in each session. Qualitative survey data was



collected from students' whānau, from iterations one and two, to determine the impact of Tech Club on their tamaiti's ability to use their device independently at home and trouble-shoot issues. Data from open-ended questions was post-coded to identify themes. All ākonga responses from individual reflection booklets were collated in a Google Sheets spreadsheet. Recurring themes were identified through repeated readings and tallied to determine the number of each type of response. One-off random responses were not included in the data set.

Tech Club has impacted positively on ākonga; to date, 66 devices have been distributed, including 26 devices repaired through the programme's trial phase. The ability to identify key Technology concepts varied from session to session, with more content-heavy, technical sessions appearing to prove most difficult to pinpoint the essence of the learning. Despite this, ākonga reported an average 90% self-efficacy rate across all sessions. Whānau responses mirror those of ākonga in that both groups consistently rated the programme highly and requested more of the same. Even though session design incorporated a strong focus on culturally responsive practice, these aspects were not identified as particularly important by ākonga; rather than assuming a lack of regard for culturally responsive practice, it maybe they were simply an expectation of our usual way of working and did not stand out as being of significance. The Tech Club programme sits comfortably within the Transformational level of Magaña's (2017) T3 Framework for Innovation although there is still work to be done; whilst reflection and self-assessment are clear components, the Tuakana-teina aspect has not progressed as fully as planned.

Leadership in a collaborative space is a complex juggle. Whilst an Adaptive Leadership approach was essential, success depended on the cohesive team that underpinned the endeavour. Building such a team whilst essentially being a team member was a tricky position to be in at times and, although not normally advised (Morsaky, 2019), it did actually work in the end; in hindsight, it would have been prudent to more firmly establish individual roles at the outset to avoid the blurring of responsibilities.

This research project has further highlighted the importance of the continued development of Tech Club to address this significant inequity challenge. Tech Club will continue with our kaiako taking the lead; they have been training alongside Zeal facilitators to develop our sustainability and enable Zeal facilitators to take the programme to other kura. Our kete of learning materials are currently being trialled with much success in one kura with another due to commence in Term 1, 2023. Successful implementation requires additional technical expertise beyond the scope of this kete and this is where community partnerships have been imperative.

Ākonga now can increase Technology knowledge and gain more hands-on experience in device-repair through Phase 2: Tech Club Repair Cafe. Some ākonga have also contributed to the design of a permanent device-repair space at our kura, funded by Auckland Council. The strong collaborative networks developed with our community partners must be nurtured to ensure longevity of this project. To reach the Transcendent level of the T3 Framework, we still need to raise ākonga awareness of where digital inequity exists within their community; Tech Club Repair Cafe is hoped to be the forum where ākonga can drive this innovation and create change.

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### **About the author**

Yvonne MacKinnon - [yvonnemackinnon73@gmail.com](mailto:yvonnemackinnon73@gmail.com)

Yvonne MacKinnon is the Deputy Principal of a primary school in West Auckland. A committed educator of more than twenty years, she leads curriculum, assessment and innovation and is passionate about nurturing ākongā to become drivers of their own learning journey. Yvonne strives to level the playing field, ensuring equity of access for all ākongā to the skills and tools required to engage in rich learning experiences.

Yvonne holds a Bachelor of Education (Hons) from the University of Glasgow and a Postgraduate Certificate in Education from Massey University. In 2023, she gained a Master of Contemporary Education from The Mind Lab.

