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Executive summary

‘Building Successful Learning Foundations’ was a Teacher-Led Innovation Fund (TLIF) project led by Waiouru School in collaboration with Waiouru Kindergarten and Care. The project grew from an existing approach to an Innovative Junior Learning Environment at Waiouru School. The establishment of a ‘Junior Learning Community’ within an Innovative Learning Environment in 2015 had a significant positive impact on the achievement of ākonga at Waiouru School. These gains had not been seen from any other intervention used previously. This project sought to examine and identify the factors that contributed to the gains made by ākonga, develop a clear understanding of the factors that contributed to this success, and then ‘scale up’ these factors to benefit Year 1 to 8 students. The project also identified early on that transitioning four-year-olds as they move into our Junior Learning Community from Waiouru Kindergarten and Care would be a key component to its success. Our ‘puzzle of practice’ was to better understand how to utilise the theoretical approaches associated with Innovative Learning Environments to deliver improved achievement results. Together, over two years, we sought to answer the following questions:

- What factors appear to have influenced improved learning outcomes and why?
- How can these factors be replicated and adapted so that improved learning outcomes continue to have an impact beyond the junior years at our school?
- How can we use these factors to positively influence transitioning students from early childhood education (ECE)?

The Waiouru School Leadership Team’s vision for the project was that teachers would take ‘authorship’ of the changes in their practice. We structured our project so that teachers had the autonomy to inquire into their own passions while still collaborating to achieve the shared vision and values of the team. Teachers used a collaborative action research-based inquiry process that involved cyclical ‘drilling down’ to explore topics and the emerging interests of our teachers in increasingly greater depth (Cochran-Smith & Donnell, 2006).

The key findings of this project were diverse and wide ranging. While formal student achievement was always at the back of our minds, we purposefully sought a much deeper cultural change in our school. We identified early on that working with just quantitative data, such as ‘movement against National Standards’, was not going to help us answer our inquiry questions. While this type of data is tempting in its simplicity to graph and comment, we utilised a range of qualitative data sources to help us understand and tell the real story of our journey with this TLIF project.

Our key findings revolved around:

- **Relearning for a learner-centred curriculum.** We rediscovered the forgotten front half of our New Zealand Curriculum and responded by truly getting to know our students through a range of creative strategies.

- **Key competencies as capabilities that matter.** We learnt about the connection between Te Whāriki and the New Zealand Curriculum through the key competencies. Enrichment occurs because of the ways the key competencies and the learning areas work together.

- **Continuity of learning and experience.** We discovered the value of having a relationship between early childhood and primary teachers, and that supporting transitions is a ‘two-way street’. We no longer talk about children being ready for school; instead we ask, ‘are we ready for our children?’

Over the course of two years teachers took deliberate steps to develop key competencies, introduce more enriching activities, and increase engagement by introducing a learning through play (LTP) aspect to their programmes. As we delved into our explorations we found that improved learning outcomes occur when the learner is at the heart of the curriculum. When we directed our focus towards fostering the key competencies, we in turn fostered the learner as a whole, not only the learner as a reader, writer or mathematician. By using the concept of a learner-centred curriculum with a focus on key competencies and learning areas, we were able to design a highly successful transition-to-school programme.

This report illustrates the ways we tested the ‘how’ in our classrooms, with lead teachers undertaking individual inquiries that focused on the following.

- **Maths teacher – Cath:** Making mathematics more real for students through enriching activities and creating a learning environment where making mistakes is necessary.

- **Writing teacher – Marlene:** Making learning relevant and meaningful increases engagement for all.

- **Reading teacher – Carie:** Finding a purpose for reading beyond pleasing the teacher.

- **Learning through play – Stacey:** Recognising the power of play for Year 0-2 learners. Creating a child-centred and child-led approach to learning.

- **Transitions to school – Rita:** Connecting early childhood experiences with the school setting to ensure successful transitions for children starting school.
● Waipoua Kindergarten and Care – Emily: Supporting successful transitions to school are impossible without strong relationships.

We constructed a series of case studies to exemplify the impact of our innovations.

● Impact on learners: The ways student achievement is supported when teachers respond to a child's needs, celebrate their strengths, and respect their identity.

● Impact on learning and teaching: Deliberate acts by the teacher to support students to take the lead, resulting in magical learning experiences for all.

● Impact on National Standards achievement data: Positive student progress against the National Standards suggests that it is through authentic approaches, as described in the front half of the New Zealand Curriculum, that all learners can experience achievement.

Teachers’ confidence as pedagogical leaders developed throughout the project. By using the research model, teachers became deliberate about what they did and why they did it. They became confident in sharing their knowledge with the conviction that they had carried out research to support what they knew. At least one staff member is now working towards her Master’s in Education, another has had writing published on a global website, and others are considering further tertiary education.

While this project was a journey that was unique to the Waipoua community, we believe our journey and learnings will be relevant and useful to others: not only those who are deeply interested in making school a more meaningful and worthwhile place for all ākonga, but also those who may wish to undertake a collaborative inquiry.
Introduction

‘Building Successful Learning Foundations’ was a Teacher-Led Innovation Fund (TLIF) project, which grew from an existing approach to an Innovative Junior Learning Environment at Waïouru School. In 2015, we created a Junior Learning Community within an Innovative Learning Environment. This change had a significant positive impact on the achievement of our students, with results that surprised and delighted us. All of our students made significant gains – gains that we'd not seen from any other intervention used previously.

During the application process for the TLIF, our teacher inquiry identified two innovations that led to improved outcomes for our 2015 cohort.

- The first innovation was based around strong relationship-based practice between students and teachers. Due to the nature of our community as a military base, Waïouru School must contend with a significant turnover of students every year. Most years, our roll has a one-third turnover of students between November and January. Relationship building is an absolute priority for all staff at Waïouru School. Children are not able to learn until they have built a positive and strong relationship with their teacher and peers.
- Our second innovation stemmed from strong twenty-first century teaching pedagogy, using passion-based teaching in core learning areas with priority placed on the key competencies of the New Zealand Curriculum as the key to assessing learning in all areas (Ministry of Education, 2007).

This TLIF project allowed us to examine and identify the factors that contributed to the gains made by ākonga in 2015. We developed a clear understanding of the factors that contributed to our success and then ‘scaled up’ these factors to initially benefit Year 1 to 4 students. This included transitioning four-year-olds as they moved into our Junior Learning Community from Waïouru Kindergarten and Care. We tried new practices in addition to those currently implemented and tracked their impact to inform ongoing innovation.

Our ‘puzzle of practice’ was to better understand how to utilise the theoretical approaches associated with Innovative Learning Environments to deliver improved achievement results. Our ‘puzzle of practice’ guiding questions were:

- What factors appear to have influenced improved learning outcomes and why?
- How can these factors be replicated and adopted so that improved learning outcomes continue to have an impact beyond the junior years at our school?
- How can we use these factors to positively influence transitioning students from ECE?

Throughout the project, our inquiry focused on continued positive gains for all ākonga particularly boys across all ethnicities. We sought to:

- monitor and track gains through the use of formal diagnostic and summative assessment tests and concrete data forms currently used in our school assessment and reporting schedule. We did recognise the limitations of these traditional and narrow forms of tracking positive gains across a group of students in a restrictive group of curriculum areas and actively aspired to find ways to capture a more holistic view of gains.
- evidence positive attitudes towards learning with high learning expectations.
- transition ECE ākonga to ensure they had a strong sense of belonging, by ensuring opportunities to enable strengthened engagement of members of the Waïouru school community.

During the final six months of our research project, we scaled up our project to involve all teachers and therefore all ākonga in attendance at Waïouru School. Throughout the project we were forced to examine the evidence gathered by ourselves and other teachers. Often this evidence challenged our original thoughts and assumptions around why the original shifts in positive achievement occurred. As a result, the physical structure of our project at the conclusion of the TLIF had changed significantly compared to our original intent.

It was with the funding and support of the TLIF that we were able to engage in deep analysis of our teaching practice and school curriculum. Allowing teaching staff time for thought and reflection with the support of our inquiry expert (Keryn Davis, CORE Education) provided the greatest catalyst for innovative change in our school. Through Keryn's support we all gained a deeper understanding of the question, ‘what is evidence?’ She forced us to examine the wealth of information presented to us everyday and to recognise the moments when ‘the magic happens’.
Methodology

A brief history of innovative time at Waiouru School

Waiouru School is in the unique setting of a military base. The Waiouru community is dominated by its engagement with the New Zealand Army and its ‘posting cycle’. While the challenge of transience is not unique to Waiouru School, our point of difference is that the majority of families moving to Waiouru do not want to come here. Not only must we settle our new children into our school, but we must also help whole families to feel welcome in a community where they often have no connection. It is a point of pride for our school that often, at the end of their posting cycle, families do not wish to leave.

While our approach to transition has always been strong, change became the unintended driving force behind our TLIF project. At times, the forces of change have threatened the momentum of our project. In particular, three unintended areas of change placed significant pressure on the project. These were: high staff turnover, high student transience, and changes in school and kindergarten leadership during the timeframe of this project.

Both Waiouru School and Waiouru Kindergarten and Care experienced significant staff turnover during the period of the project. The kindergarten’s involvement in this project reduced significantly after the resignation of a key centre leader who was involved in our TLIF application process. This made it difficult for Waiouru Kindergarten to gain traction, as it is not an independent institution (as Waiouru School is). With the change of leadership, the vision behind Waiouru Kindergarten and Care’s involvement was somewhat lost. The need to constantly balance their TLIF project goals with the overarching goals of their association became increasingly difficult, particularly with the lack of staff continuity. By the conclusion of the project, none of the original kindergarten project team were left.

Waiouru School also weathered high staff turnover – three project members, including the Principal, went on maternity leave at various stages of the project. The key difference for the school, compared to the Kindergarten, was that the project leadership team remained intact. As a result, the key values and understanding behind the intent of the project continued to drive it forward. The support of the Board of Trustees and our status as an independent institution also allowed us the flexibility to make cultural and systematic changes beyond that of just teacher practice.

Student turnover featured significantly in the process of choosing case study students. Our original choices often ‘posted away’ unexpectedly. Meanwhile, other students who had come in part way through the project provided significant data and positive stories. Unfortunately, these had to be passed up as we did not have the necessary pre-project data on these students. In one case, the data gathered about a particular student was too good to leave out and their teacher chased down parental permission and informed consent from the family, who had moved to Europe.

So while change has thrown up many moments of frustration, it has also revealed many opportunities for growth. Coping with these changes forced the project leadership team to take the unexpected ‘slow movement’ approach to innovation. At each of our meeting points, we were committed to reexaming our approach, our values and our goals. We had to retell our stories at every mini-conference, just to integrate our new members of the project. It was always very obvious in the teacher inquiries if we had rushed or abridged our reflection time for our new members. We believe that the inadvertent slowing down of the project led to a stronger collaborative approach to our teacher inquiries, leading to sustainable and enduring changes for our school community.

Jason Clarke, founder of Minds at Work, talked about embracing change at TEDxPerth in 2011 (see https://youtu.be/vPhM8lxibSU). In his talk, Jason discusses why people and organisations resist change. At one point, he discusses the difference between ‘authorship’ and ‘ownership’. Does leadership design the change and hand it on to their people to ‘own’? Or has leadership given their people authorship? He notes: ‘You empower them to design the change for themselves. Suddenly they’re not responding to change, they’re taking control of change.’ (Clarke, 2011)

The structure of the TLIF project and the Waiouru School Leadership Team’s vision was fundamentally about teachers taking ‘authorship’ of the changes in their practice. While our values were shared, teachers had the autonomy to inquire into their own passions while still collaborating fully throughout. As a result, the evolution of our project and the changes made in our school have grown organically in response to careful evidence-based thought and reflection by all teaching staff.

The leap from a hunch to a collaborative teacher inquiry project

Our project officially commenced in July 2016. Our 24-month project moved through five planned phases, with at least one two-day ‘mini-conference’ per phase. This worked out to be roughly one kanohi ki te kanohi hui per term. The leap from traditional teacher inquiry to the rigorous requirements of a TLIF project was quite daunting at first. Thankfully, our Keryn dedicated a significant proportion of our first mini-conference in phase one (the ‘Evaluate and Discover’ phase) to unpacking ethics and informed consent, upskilling our staff in our new inquiry approach and imparting the importance of gathering evidence, and leading us through a powerful reflection process to gain a shared vision for the future of our project. For those reading this final report, we would recommend that unpacking those three things is essential to the success of a robust TLIF project. There are many different methods of deep inquiry which may or may not be suitable for a school setting.
Ethics and informed consent

A TLIF project goes beyond the usual use of data on children at schools and kindergartens. We knew we wanted to share our findings widely, therefore we needed to have the processes in place for a successful application to CORE Education's Ethics Committee. These processes included working with whānau and all teachers at our school and kindergarten to carefully explain the project and how we intended to use the examples and stories it generated, both as we went and at the end of the project. All parents/caregivers and teachers completed consent forms indicating the level of involvement they wanted for themselves, and in the case of parents/caregivers, for their children. Consent was further negotiated with parents/caregivers and teachers along the way and children were always informed of when teachers were gathering data and why. The wishes of students who did not want to participate were always respected.

The ‘story of now’

One of the first things we did when we got started was to work together to explore the ‘story of now’. We wanted to better understand the journey we had been on over the previous 18 months and to really dig down to see if we could work out what aspects of our innovation had made the difference for our learners up to this point. This process raised many more questions for us. As we set out to answer these, we began to explore the questions further by turning to literature, other research, and by gathering real examples of learning and teaching from our own contexts to analyse. This was the part of the project where teachers gained real ‘authorship’ of the future changes they wished to make through their individual inquiries.

The teachers take ‘authorship’

The approach Keryn led us through was a collaborative action research-based inquiry process that involved cyclical ‘drilling down’ to explore topics and the emerging interests of our teachers in increasingly greater depth (Cochran-Smith & Donnell, 2006). From early in 2017 until April 2018, each teacher undertook their own self chosen mini projects or mini inquiries (Peters, Paki & Davis, 2015; Davis & McKenzie, 2018) to test ideas and approaches with the children they taught. Keryn continued to help us with this process, as while we all were used to doing inquiries, we weren't used to gathering and analysing data in this way. Keryn supported us with an approach that she is very familiar with. It is designed to meet Kemmis and McTaggart’s (2000) criterion of useful action research, in which participants develop a stronger and more authentic sense of understanding and development in their practices and the situations in which they practice (Davis & McKenzie, 2018).

Gathering the evidence

We used a range of data collection methods to capture our own teaching, ākonga learning in action, whānau perspectives and ākonga perspectives, as well as our own views of our teaching. We analysed the data we gathered of ourselves and our own learners individually as we went, and when we met together as a team we shared what we were finding out. From here we were able to identify specific problems to tackle, empowering each teacher to pick a particular aspect to explore. Together we designed actions and tested these out with our learners, gathering data to see if these iterations were having the outcomes we were hoping for. From here, we were able to instigate an almost continual process of designing and testing changes to our teaching and environments based on the data we were gathering and analysing along the way. We met each term (sometimes twice) for two days at a time to share our inquiries and reflect on these together. This process led to us identifying and designing our next actions. These meetings, or mini-conferences as we called them, were critical as they allowed us to stop and take the time we needed to really dive deeply into the examples we had gathered and into our beliefs and assumptions about our teaching and ākonga responses and work. Making sense of what was and wasn't working was challenging at times, and while some of what we did didn't lead anywhere, it wasn't until we gained more confidence and skill in undertaking this process that we could really start to make some bigger shifts in our practice and really drive the process ourselves.

Finding our case study students

At the beginning of the project we identified 28 ākonga across year groups from New Entrant to Year 5 to track as a means of understanding and monitoring the impact of our actions on ākonga and their learning. These children were chosen because when the project started:

- they had only experienced the innovation their whole schooling life
- they were expected to stay at Waikouru School for the duration of the project
- they were either achieving below their peers according to the National Standards, or were achieving above their peers according to the National Standards
- we felt they appeared to demonstrate competence in at least one key competency, which seemed to be impacting positively on their literacy and mathematics learning; or we felt they appeared to need support to
strengthen capabilities in relation to the key competencies in order to support their literacy and mathematics learning.

After identifying our case study ākonga, we wrote short descriptions of what we knew about their learning and why we had chosen them. Throughout the duration of the project we collected achievement data related to literacy and mathematics, observations of their key competencies-related behaviours and actions in the classroom, work samples, and our own reflections along the way. By the end of the project we had a strong data set for 14 children. We have written four of these as short summaries, which are presented later in this report.

Our data sources

We used a range of data collection methods to capture our own teaching, children’s learning in action, whānau perspectives and children’s perspectives, as well as our own views of our teaching. These included the following methods:

- Documentation from both school (s) and kindergarten (k), for example, documented assessments:
  - analysed tests and other achievement-based assessment measures used by teachers (s)
  - overall teacher judgements in relation to the National Standards (s)
  - learning stories and narratives from children’s ePortfolios (s and k)
- planning
- Photographs and videos
- Team meeting notes and audio recordings
- Parent focus group notes
- Surveys to parents
- One-to-one or small group in-class conversations with children
- iPad recordings of perspectives, created by children
- Children’s work – for example drawings and other things they made or created
- Teachers’ notes and reflections
- Observations (both formal and informal)
- Tracking attendance and behavioural trends using eTap and regular school policies and procedures
- Measurable Gains Framework – Māori learners connected and engaged
- Appraisal information about teacher and leadership practice including in appraisal blogs
- Educational Leadership Practice Survey – The New Zealand Council for Educational Research (NZCER)

While the vast majority of analysis happened as we worked on our mini inquiries and at our meetings, we also met virtually between whole team meetings with Keryn to discuss and analyse data together. The lead teachers at Waipoua School also worked intensively over a number of days to complete an overall analysis of data in preparation for this report.
Findings

The key findings of this project are diverse and wide ranging. While formal student achievement was always at the back of our minds, we purposefully sought out a much deeper, cultural change in our school. It would be easy to boil down our ‘findings’ to numbers, graphs, and percentage points – movement against the ‘National Standards’. Working with just quantitative data is tempting in its simplicity to graph and comment. However, since our initial mini-conference we have kept in the forefront of our minds that, actually, it is the qualitative data that tells the real story of our journey with this TLIF project.

What follows is a discussion about the impact of our innovation including what has changed about our teaching practices and thinking, and what we noticed about the impact on our learners and their learning. This discussion is broken into three parts.

1. Our key findings
   a. Relearning for a learner-centred curriculum
   b. Key competencies as capabilities that matter
   c. Continuity of learning and experience

2. Testing the ‘how’ in our classrooms – our individual inquiries
   a. Maths teacher – Cath
   b. Writing teacher – Marlene
   c. Reading teacher – Carie
   d. Learning through play – Stacey
   e. Transitions to school – Rita
   f. Waikur Kindergarten and Care – Emily

3. Case studies of impact
   a. Impact on learners
   b. Impact on learning and teaching
   c. Impact on National Standards achievement data

1. Our key findings

a. Relearning for a learner-centred curriculum

Before we started this TLIF project we felt we were already forward-thinking innovators. We believed we were creative teachers who looked for opportunities to excite and engage our students, and who included practical application in learning wherever possible. We had experienced the passion-based teaching model for two years and we felt we were becoming expert teachers in each of our respective fields. We theorised that the reason for the positive lift in achievement for so many had a lot to do with our teaching. To test this theory, we video recorded ourselves in action using our Swivl camera during lessons to see how our students were responding to how we were teaching. We watched our own videos and reflected on these individually. Then we picked some clips to share with the team. It was through this work with video that we realised that, despite our best intentions, in reality our practice was quite teacher led.

Cath was the first to share her video and made the following observations:

‘I do most of the talking and ask the questions, and even answer them before the students have a chance to.’

While it is easy to pick holes in your own teaching when watching yourself on video, it was Cath’s willingness to share what she noticed about her own teaching that helped us all to see that it was us, the teachers, who did most of the work. Even problem solving was controlled within the confines of how we thought the problem was best solved. While Cath wanted her students to think like mathematicians, she realised she needed to give them more time to process and share their ideas in a way that supported them to develop the thinking capabilities she wanted them to develop.

As we planned to try some new approaches, we talked together about how we saw ourselves as teachers and our fears for our students’ achievement. We worried that if we allowed too much time on one aspect of learning, they wouldn’t ‘get there’, in other words, they wouldn’t hit the achievement markers we had set them, and furthermore we wouldn’t get through the curriculum content we needed to. As a result, we were pre-planning the programme and steering the direction of the learning in ways that, in our minds, limited any risk to our students’ achievement. While students did have input to some degree, these fears about our students’ achievement and coverage of the curriculum played out with us taking control.

Taking action and what we learned

This early work with video led us to design and test a number of adaptations to our teaching, which would shift more of the control of learning and the direction of learning into the hands of our students. Over 18 months we took many actions and learned a great deal about our teaching and our learners. Not all of these worked well for all of our students, but they certainly helped sharpen our understandings of how to create a more learner-centred curriculum. When we realised things weren’t working we acted quickly to weigh things up: Why is this not working? Do I just need more practice? Do my
students need more practice? Do I need to try again or change an element? All the while, we collected data to reflect on the impact on ourselves and our students.
### Table 1. Summary of our shifts: Relearning for a learner-centred curriculum

<table>
<thead>
<tr>
<th>What we did</th>
<th>What we learned</th>
</tr>
</thead>
<tbody>
<tr>
<td>We placed stronger emphasis on engagement of learners by creating meaningful, enjoyable learning experiences that focused on their interests, such as:</td>
<td>Students were often more focused and engaged for much longer when the lesson was connected to their home lives.</td>
</tr>
<tr>
<td>- building a class maimai for writing motivation</td>
<td>These lessons often spilled over into other curriculum areas with ease. In other words, it was easy for both teachers and students to carry the learning into other subjects when it focused on the students’ interests rather than a new, unfamiliar topic.</td>
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<tr>
<td>- adapting tasks based on what children know from home, e.g. changing a maths task to working out the number of sheep rather than kittens in mittens.</td>
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<tr>
<td>We changed the ways we talked with children during lessons and changed the language we used, such as:</td>
<td>Talking less and listening more took effort and didn’t come easily in the beginning. It also took relearning for the students. In the beginning, they didn’t seem to know how to respond and were hesitant to share their ideas as they waited to be told. Our analysed videos of tasks where we tried these strategies showed that our students talked more about their ideas, and their behaviours made us believe they were thinking about the problems for longer.</td>
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<tr>
<td>- asking fewer questions</td>
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<td>- giving children longer thinking time</td>
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<td>- facilitating conversations between students rather than a to-and-fro exchange between individual students and the teacher</td>
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<td>- talking about ‘learning’ instead of ‘work’.</td>
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<td>We designed lessons that were playful, creative and real, such as:</td>
<td>Not all of our attempts to be playful, creative or real worked. Sometimes, what we thought was ‘real’ and meaningful was, on reflection, not ‘real’ enough to have any noticeable impact. For example, on reflection, using lolly snakes because the maths task was about snakes climbing up a pole was less ‘real’ than two students deciding to be the snakes and walking through the exercise outside.</td>
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<tr>
<td>- using new and novel materials and equipment like dough and lolly snakes to help make meaning</td>
<td></td>
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<tr>
<td>- turning a paper-based maths question into a running race</td>
<td></td>
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<tr>
<td>- writing stormy-themed poetry outside in the weather as a storm was looming</td>
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<tr>
<td>- playing with the timetable to find longer stretches of time to ‘fit in the other stuff’, like time to explore ‘moments of wonder and play’, e.g. the giant spiders found in the old tyres.</td>
<td></td>
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<tr>
<td>We created more opportunities for collaborative learning controlled by students, such as:</td>
<td>Video evidence of collaborative problem solving showed increased student engagement, sharing of ideas, listening and working together. At the same time, it meant that the teacher had to make deliberate choices regarding the type of problem and the amount of support given in order to encourage student independence. This included consciously deciding to stand back, wait, or give only just enough guidance to promote thinking.</td>
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<tr>
<td>- creating a shared class recipe book</td>
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<td>- designing and building rabbit traps in teams</td>
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<tr>
<td>- setting class challenges</td>
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<tr>
<td>- designing problem solving tasks in maths that took a team to solve.</td>
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<td>We tuned in to what our students were telling us directly and indirectly (through their actions and behaviours) about what was working for them and what wasn’t. We did this by:</td>
<td>We learnt that our students like their teachers. They appreciate the high expectations we have for them, as well as the support we endeavour to provide when they are stuck. Often students talked about the strategies and tools teachers gave them in order to help them solve their learning stories themselves.</td>
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<td>- inviting our students to tell us what they liked and didn’t like about their classes, using questions asked via a talking tin and students recording their responses on iPads</td>
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<tr>
<td>- planning and undertaking individual and group conversations with our students about what helped them learn and and why</td>
<td>The feedback from the senior students in early 2018 was that they enjoyed getting to know a range of different teachers, and the expertise of each individual teacher. They also commented on and strongly appreciated the change in our system where the teachers move classrooms, not the students.</td>
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<tr>
<td>- observing our students more closely, more often.</td>
<td></td>
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<tr>
<td>We put a greater emphasis on learner identity by:</td>
<td>Twenty-first century pedagogies include being culturally responsive. Becoming more culturally responsive for Māori requires specific action by teachers to honour the culture of the child and their whānau. Up until phase four of our project, to a degree, cultural responsiveness had been assumed. Analysis of conflict over protocols at group times at the kindergarten sparked a significant shift in the desire of the team to more deeply understand their contribution to the cultural needs of their Māori learners in particular. The team saw the need to continue to deepen their responses to the ways their practice is culturally responsive, and to make sure the culture of the child is visible in learning and throughout the class and school. Learners are now seen as valued thinkers.</td>
</tr>
<tr>
<td>- making sure the child could see themselves in the learning</td>
<td></td>
</tr>
<tr>
<td>- learning about how to be more culturally responsive for Māori learners by seeking advice and guidance from some of our Māori whānau and external experts</td>
<td></td>
</tr>
<tr>
<td>- involving students in documenting their learning</td>
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<tr>
<td>- moving to groupings based on relationships, to support tuakana-teina. We now base classes on teacher observations of who students get on with and who they play with.</td>
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</tbody>
</table>
At the same time that we were investigating our practice, we were also unravelling our students’ achievement stories. We wanted to pull apart the achievement of our students to understand it better. Student achievement at Waiouru School was tracking along with the national norms when compared with other schools of a similar size and situation. Students seemed happy and their academic achievement was progressing within expected levels. We appeared to be be seeing very strong achievement gains since starting our innovation, but we weren’t exactly sure why. When we dug into this data and removed the students who had not been at Waiouru throughout the duration of the innovation, those gains weren’t as prominent. Instead, the age-old question puzzled us: Why were some students achieving academically while other seemingly bright, articulate children still struggled? As one teacher put it, ‘It’s easy to teach the kids who get it’. At the same time, we could see that strong academic achievement was not a predictor of the other things we valued, such as how well the student enjoyed school, their ability to engage positively with others, or their perseverance. We unpacked what we knew about the ‘how’ of learning and cross-referenced this with our achievement data. It was from this discussion and process that our focus on key competencies emerged. When we thought about the children who ‘get’ learning, we could identify these competencies immediately. We knew these things mattered, which led us to start wondering, ‘How can we strengthen these capabilities in our students?’

**Taking action and what we learned**

We decided to go on the hunt for examples of key competencies in action in our classrooms. When we sat back and observed, we saw huge amounts of rich learning so we began playing around with methods to capture this. Over time, we began to see the key competencies as the building blocks that supported academic learning. We began to see these as the tools the child built up to support other learning. We now see achievement as the relationship between the learning areas and the key competencies.

Later, we compared the key competencies in the New Zealand Curriculum with the learning dispositions (Carr, 2006) of Te Whāriki. We found similarities between the two and eventually we went on to work with the kindergarten teachers to construct a ‘key competencies at Waiouru School’ framework that aligned with the Waiouru Kindergarten and Care’s approach to Te Whāriki.

### Image 1. The Waiouru School key competencies framework

<table>
<thead>
<tr>
<th>Participating and Contributing</th>
<th>Relating to Others</th>
<th>Understanding Self</th>
<th>Communicating</th>
<th>Thinking</th>
</tr>
</thead>
<tbody>
<tr>
<td>I take on new challenges.</td>
<td>I am aware of my actions and words and the effect they may have on others.</td>
<td>I am persistent and have strategies to help me when I am stuck.</td>
<td>I know that people can communicate their stories in many different ways.</td>
<td>I am curious. I ask questions.</td>
</tr>
<tr>
<td>I am an active member of our community.</td>
<td>I am comfortable with difference.</td>
<td>I have confidence in myself.</td>
<td>I can show my understanding of what things mean.</td>
<td>I use my imagination and creativity to play with ideas.</td>
</tr>
<tr>
<td>I share my culture with others.</td>
<td>I negotiate and compromise.</td>
<td>I know how I learn.</td>
<td>I explore and express many ways of communicating for a purpose.</td>
<td>I make choices and decisions.</td>
</tr>
<tr>
<td>I show who I am. I am capable of.</td>
<td>I can work in a team.</td>
<td>I know how to manage myself.</td>
<td>I find ways to share what I know.</td>
<td>I work with others, to share and grow our ideas together.</td>
</tr>
<tr>
<td>I make, create and innovate with others.</td>
<td>I listen actively to what others have to say.</td>
<td>I set goals and reflect on my learning.</td>
<td>I use print and symbols with meaning and purpose.</td>
<td>I ask myself: what do I know that can help.</td>
</tr>
<tr>
<td>I am able to work within cultures other than my own.</td>
<td>I make respectful connections with others.</td>
<td>I care for myself and others.</td>
<td>I share my personal stories with pride.</td>
<td>I am a critical thinker.</td>
</tr>
<tr>
<td>I understand that I am part of a global community and that my actions have impact.</td>
<td>I put myself in other people’s shoes.</td>
<td>I take risks and challenge myself to be my best me.</td>
<td>I connect with others to hear their stories with respect and empathy.</td>
<td>I can adapt my thinking to find solutions and responses to what I know.</td>
</tr>
</tbody>
</table>

**Our Values are our Code of Mana:**

- **Passion for Learning/Arohatia te Mātauranga:** We use curiosity, imagination, and innovation to open our minds to new ideas and situations.

- **Citizenship/Tangata Whenua:** We are proud of our community and contribute to its development and well-being, while celebrating our diversity.

- **Leadership/Hautūtanga:** We can be leaders no matter how old we are! Leaders make positive choices and display mana.
### Table 2. Summary of our shifts: Key competencies as capabilities that matter

<table>
<thead>
<tr>
<th>What we did</th>
<th>What we learned</th>
</tr>
</thead>
<tbody>
<tr>
<td>We expanded our knowledge of the key competencies and similar kinds of learning by:</td>
<td>We realised that although we had a shared theoretical understanding between ECE and school, we did not yet have a shared language. There were points of real connection, but also points of disconnection. For example, some similarities emerged within the competency of ‘Thinking’, around the ideas of students challenging themselves, trying new things and figuring things out. However, the gap was wider for ‘Participating and Contributing’, with the primary teachers picking up on the ECE ideas of belonging and identifying language and culture.</td>
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<tr>
<td>● learning about the learning dispositions of Te Whāriki</td>
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<tr>
<td>● reading and discussing the work by researchers and authors such as Rose Hipkins, Guy Claxton and Margaret Carr</td>
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<tr>
<td>● working with the kindergarten teachers to unpack the key competencies and learning dispositions of Te Whāriki, and looking for similarities and differences</td>
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<tr>
<td>● having a go at designing a shared language framework for this learning that we could use both at the kindergarten and school.</td>
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</tr>
<tr>
<td>We decided to consciously teach to both the key competencies and learning areas by:</td>
<td>Teaching maths with a key competencies lens requires teachers to adapt their practice. Supporting the development of the key competencies may require a conscious shift in mindset, from assessing and testing to scaffolding learning. Incorporating key competencies into learning experiences will often require a flexible, adaptive approach. An emphasis on the key competencies will often require the deliberate development of new strategies, scaffolds and tools, as many maths learning experiences do not naturally support the development of this learning. This dual emphasis on key competencies and learning areas required us to review how to assess and report learning to ensure methods were in step with the school’s vision and pedagogy.</td>
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<tr>
<td>● designing and giving lessons a go that supported both kinds of learning</td>
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<tr>
<td>● embedding the language of learning key competencies into our practice and classroom culture</td>
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<tr>
<td>● front-loading creativity and thinking, rather than front-loading content.</td>
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</tr>
<tr>
<td>We involved our families and students in conversations about the key competencies by:</td>
<td>Setting our classroom behaviours based on the key competencies seemed to work. As one teacher reflected in her blog, ‘I don’t have to work hard on behaviour management. As much as I can, I let them work it out. Solving conflict is an important skill. Funnily enough, the less direct input I have, the less problems there seem to be.’</td>
</tr>
<tr>
<td>● asking parents to contribute to a survey that asked what each of the key competencies mean to them</td>
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<tr>
<td>● having whole class discussions with students about what these look, sound and feel like</td>
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<tr>
<td>● setting expectations of key competency-related behaviour in the classroom, e.g. how do you think you could sort out this argument yourselves?</td>
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<tr>
<td>We started to value key competency learning as worthwhile and important. We showed this by:</td>
<td>Previously, our sole indicator of progress was whether or not students were achieving the ‘National Standard’ after one year of school. Now, we take a more holistic view of the child. We make observations of their starting point and measure progress from there. For some children, literacy and mathematical achievement follow once they’ve made significant gains in other areas of their development. For some children this achievement may not been seen until well into their second year of school, but when it occurs we have it noted to be accelerated.</td>
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<tr>
<td>● documenting key competency learning</td>
<td></td>
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<tr>
<td>● trialling methods to assess this learning alongside the methods associated with the learning areas</td>
<td></td>
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<tr>
<td>● changing our reporting to include a stronger emphasis on key competencies.</td>
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</tr>
<tr>
<td>We developed a Waiouru School key competencies framework in collaboration with the kindergarten teachers. It:</td>
<td>In developing our key competencies framework (see Image 1) we had to resist the temptation to just throw these into a rubric. While these are a useful assessment tool, it is too easy to misunderstand that someone can become an expert in a particular ‘competency’. Key competencies are situated capabilities. Depending on a learning situation, a child may display one or all of the competencies; but when the situation changes, so too might the capabilities. We chose to create a framework of statements that can be used to describe the learners choices and actions in many different situations.</td>
</tr>
<tr>
<td>● is unique to our place</td>
<td></td>
</tr>
<tr>
<td>● uses language that has meaning to us</td>
<td></td>
</tr>
<tr>
<td>● includes a set of ‘child speak’ indicators associated with each of the key competencies.</td>
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</tbody>
</table>
c. Continuity of learning and experience

At the beginning of our project we had a mixed gender new entrant class. This class rotated through three teachers for their core subjects of reading, writing and mathematics. We had a number of traditional methods of transitioning children to school as a new entrant. Our main method was our ‘Fours on Friday’ programme, where incoming five-year-olds would spend the morning taking part in the new entrant classroom’s activities. We used other opportunities to visit as needed.

During our first hui we discussed at length the similarities and differences between a child’s ECE experience and their beginning school experience. We quickly recognised that our environments were miles apart, and that there was little continuity between how they learnt at ECE and school, especially when it came to how learning happened: in ECE, play was the predominant approach to learning, whereas at school it was much more lesson focused. We also realised we were expecting a lot from a child new to school. So we began a journey of change.

Taking action and what we learned

The journey started with all staff visiting the local kindergarten to get a feel for the environment that our newest students had been part of before joining ours. The new entrant teacher in particular visited several times for short periods so that the kindergarten children got to know her. Play was the predominant approach to learning at the kindergarten. At this point we made a decision to withdraw the new entrant class from our passion-based rotations. We felt there were too many transitions for our youngest learners to make in a week, and perhaps some children weren’t coping well with so many changes so early in their school life. We wanted to ensure every child had a successful start to school and for us this meant that the child needed to get used to one teacher, one classroom, and one set of routines in this new environment of school before we should expect them to branch out into the passion-based way of being. Plus, we could see that if their early childhood had been dominated by play-based approaches to learning, we needed to create opportunities for learning through play too. Thus, the Reception class was created; and so, too, our decision to change school so that it was ready for the child, rather expecting the child to be ready for school. Much later, this morphed into a kind of motto that played on our military context. When an officer enters a space, the lower ranks stand at attention. When ready, the officer will say, ‘As you were’, meaning return to what you were doing. We twisted these words to remind us of our shift in beliefs about our need to embrace the child who comes to us – hence our motto: ‘As you are’.

<table>
<thead>
<tr>
<th>Table 3. Summary of our shifts: Continuity of learning and experience</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>What we did</strong></td>
</tr>
<tr>
<td>We built our knowledge and understanding of our students’ learning experiences and learning in ECE by:</td>
</tr>
<tr>
<td>• getting to know the kindergarten teachers better</td>
</tr>
<tr>
<td>• visiting the kindergarten to see what a typical day is like</td>
</tr>
<tr>
<td>• unpacking the similarities and differences between school and kindergarten with the kindergarten teachers</td>
</tr>
<tr>
<td>• investigating what ‘school readiness’ means to us and discussing findings from contemporary research in this area</td>
</tr>
<tr>
<td>• talking with our kindergarten colleagues about how and why they do what they do and vice versa</td>
</tr>
<tr>
<td>• inviting the kindergarten teachers to spend time in the new entrant classroom.</td>
</tr>
<tr>
<td>We created continuity in learning and experience for students between kindergarten and school by:</td>
</tr>
<tr>
<td>• introducing a more play-based approach to their independent activities</td>
</tr>
<tr>
<td>• incorporating learning through play within homeroom and the junior writing rotation</td>
</tr>
<tr>
<td>• removing our new entrants from the passion-based learning rotation</td>
</tr>
<tr>
<td>• establishing a learning-through-play Reception class</td>
</tr>
<tr>
<td>• having Skype dates between the kindergarten children and the Reception class</td>
</tr>
<tr>
<td>• holding a Reception class open day a few days before school officially began</td>
</tr>
<tr>
<td>• exchanging letters and drawings between children via a ‘post box’ that travelled between the two settings</td>
</tr>
<tr>
<td>• beginning to actively educate parents about when they could start their child at school. Each new enrolment was approached with the lens of what is</td>
</tr>
<tr>
<td>We were more proactive and came together to find solutions to the barriers that were preventing transitions to school practices, including:</td>
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</tbody>
</table>
| ● making swift changes to release time to ensure that students starting school soon could come for a school visit  
● designing a group entry approach for three students due to start school within a few days of each other  
● creating a shared learning portfolio that students bring with them to school from kindergarten. |  
We recognised the need to support continuity for learning, not only for children transitioning to school from ECE but also between Waiouru and other military schools. Actions taken included:  
● creating a book about Waiouru for the kindergarten children  
● producing a set of slides about Waiouru School to use at events for military families on the move. |
| | Our newest students enjoy the opportunities to connect with their friends and teachers they left at the kindergarten and vice versa. We found it relatively easy to develop ideas for shared projects and interests. Sustaining these in the longer term takes deliberate and ongoing commitment from staff and leaders in both settings. When staff change or there are competing priorities for teacher time, these are the times of risk to maintaining these practices. |
2. Testing the ‘how’ in our classrooms: Our individual inquiries

As discussed previously, each lead teacher chose and authored a mini teacher inquiry specific to a particular passion or context as it related to the wider TLIF project. Over the course of the project, these inquiries also became the focus of their annual appraisal process. Teachers were careful to ensure that these inquiries directly related to either:

- exploring twenty-first century pedagogy using passion-based teaching in core learning areas
- placing priority on the key competencies of the New Zealand Curriculum; and/or
- creating greater continuity in learning for children transitioning to school from Waiouru Kindergarten and Care.

Each teacher picked up on a particular aspect of one or more of these areas and as the project and inquiries have evolved, many of the ideas explored have resulted in cross-fertilisation. For example:

- the work undertaken around transitions to school and the development of the play-based Reception class led to learning through play being explored in some way by the writing and maths teachers too
- working with Margaret Carr (University of Waikato) led to the exploration of ways to assess and make visible the key competencies and dispositional learning. Some primary teachers trialled the use of learning stories, which are used in the kindergarten
- the kindergarten team’s sharing of a challenge around mat and hui time tikanga has lead to the whole team seeking advice from those who hold expertise in Te Ao Māori both from within and outside of the team.

Over five terms, each teacher was responsible for collecting data, analysing it, and making decisions around next steps. Most of this work was captured through a set of Google Slides that each teacher kept. These could be easily revisited and added to. At each mini-conference, these inquiries were shared, discussed and analysed collectively. Frequently, this process led to new insights and further ‘next step’ decisions. The process proved particularly effective at keeping everyone on task and focused on making meaningful changes based on what was being learnt from the data. At the time of writing this report in mid 2018, these inquiries continue to be a work in progress.

Following are short summaries of each inquiry written by the teachers leading them.

a. Reading teacher – Carie (term two only, now on leave)

After videoing my lessons, surveying the students and reflecting on my practice, three issues became evident.

- Students were only reading because they were asked to
- Many were reading for no purpose
- Students were disengaged during independent activities, particularly ‘struggling students’

Despite previous deliberate attempts to use my knowledge of the students’ interests to choose appropriate reading material and activities to engage them, the reality of my programme was that not all students were engaged and many were carrying out the tasks as a form of compliance. I decided to focus on two key ideas.

- To create meaningful and enjoyable reading experiences for students
- To introduce more of a play-based approach to independent activities

Using ideas from our hui discussions, I set out to introduce meaningful activities that allowed for choice, practical application and playfulness. During daily five reading activities I included a range of activities for students to choose from including dressing up as their favourite character, researching ideas that emerged from the book, and always a creative task such as making a rabbit trap or a snowball launcher. Another whole class activity that we undertook was creating a class recipe book.

In conjunction with our ‘We are Waioru’ topic study, we read, researched, wrote, trialled and created our own recipe book that reflected the many families and cultures of our class.

The outcome of these changes was that students were more enthusiastic and engaged in reading activities. In fact, as I reflect on my next steps, I realise I need to consider how to get students to leave their independent activities to join the guided reading lessons with the teacher.

In addition to my classroom program inquiry, as a team we decided to gather students’ voices and ask them how they felt about their classes. Using a Talking Tin and iPad for videoing, each child responded to the question, ‘What do you like about your class?’ The data gathered in this exercise gave us a glimpse into the children’s perspective of their classroom experience and became part of the overall picture of learning that was informing our practice.
b. Maths teacher – Cath

After initially videoing myself and reflecting on my teaching, I realised that I was controlling the lessons and the students were completely reliant on me.

My initial inquiry focused on two main areas.
- To encourage independence and thinking skills through the development of key competencies
- To introduce more enriching activities

This involved a process of exposing students to problem solving, modelling and supporting their problem solving skills, and developing a culture of sharing, talking and trialling ideas. Pedagogical shifts involved a change to the structure of lessons, more variety in the activities and a change in the culture of the class. Students were encouraged to try different ways of solving problems, rather than the ‘strategy’ currently being taught.

The following case study observation demonstrates the difference that happened in a student’s understanding and ultimate achievement when the problem was deliberately changed to be relevant to the learner.

Year 4 boy S, 25 May 2017, in maths: He seemed very unfocused and disinterested in a maths problem about a mother cat and three kittens. I changed the problem to incorporate ten sheep having twins and the lambs being sold for $100 each. S demonstrated the ability to solve the problem. With no hesitation he knew what he needed to do. This showed me he understood the context and the problem. Mostly, he does not seem to know where to start, but when the problem had relevance for him, he was confident.

Moving into 2018, I was very conscious of needing to take the lessons I had learnt into a new learning area and a range of year levels. Reflecting on my colleagues inquiries, there were many common factors that could be easily transferred: developing the key competencies; having real life, relevant experiences; deliberate acts of teaching; and incorporating aspects of playfulness. I also looked at some of Murray Gaddis ideas (Gadd, 2014). He identifies eight dimensions of effective practice and instructional strategies for writing. Those that particularly rang true for me were having purposeful learning tasks, clear expectations, some direct teaching, and involving students in selecting their own topics.

During term one, I explored these ideas and felt the students were engaged and enjoying their literacy experiences. My usual personal struggle continued as I wrestled with feeling I was not covering what was needed. Although no longer bound by National Standards, I worried, particularly about those students who were ‘below’ where I would like them to be, particularly in reading. I was blown away by the ideas that the students had in writing, but was concerned with their transcription skills – some handwriting and spelling was barely legible.

After our Longworth PD (see ‘Our experts’ later in this report) and during our planning days during the holidays, I was again confronted by the idea of learning through play. Although it all made sense, I was still struggling with ‘how’, ‘what’ and ‘how do I’.

At the beginning of term two, we reflected again on the time restraints we had when we tried to rush the children through a fixed programme. We adjusted our rotational timetable to allow longer blocks of learning time with each group. This also allowed two days where we could work with our individual classes and trial ideas around learning through play and playfulness. The experience for me has been extremely positive as I finally committed to giving it a go and took the time to sit back and watch my students. A shift to assessment through narrative has opened my eyes to the nature of learning: What does it look like? Can I recognise it? One particular example of recognising the delight of learning was when the children discovered spiders while getting tyres for making a hut. The Waiauru spider hunt case study (see next section) highlights the story over a series of weeks as children investigate Waiauru spiders. It starts with an unconnected learning experience and what is described is the story, the learners’ responses, and also the teacher’s thinking and pedagogy.

As the teacher responsible for literacy, the journey has not been plain sailing. While the Year 3–4 class seemed to respond to anything we explored (for example it was easy to dive into nonfiction and information report writing as a response to the spider investigations) the two Year 5–8 classes have been more challenging. On reflection, I believe that is because I am still getting to know these students. They are two diverse groups and although I initially set up an opportunity to find out about their interests (a survey early in the year) their responses were very limited. I know their broad interests, but I don’t know them as learners. Although I have had some positive literacy experiences, especially through shared reading and poetry writing, I am not happy with their overall engagement. I can almost feel the cringe when I enter their rooms. I resorted to my tried and true teacher delivery mode, but this has not sat well with my new understandings of how students learn best and has been sharply reflected in their motivation, engagement and ultimately their achievement. My next step in this part of my journey is to work more collaboratively with their teachers and explore opportunities for authentic engagement.
c. Writing teacher - Marlene

At the beginning of this journey, I noticed three key things.

- Boys, particularly Māori boys, were often disengaged in writing
- Vocabulary seemed to be a weakness across all students
- A focus on acceleration not remediation with students tracking ‘below’ was necessary

Initially, I focused on engagement in writing and extending student vocabulary. I based my planning on short, high interest clips and stories, followed by short sessions of discussion and vocabulary extension activities, which were then followed by student writing and publishing time. When I filmed myself leading class discussions, I saw that I wasn’t giving students time to think and very few students were able to contribute in the time allocated. This was a problem, as I knew that it was important that they each developed their thinking in these sessions so they could then write freely. After attending an oral language workshop with Louise Dempsey and Sheena Cameron, I implemented a number of strategies based on ‘think/pair/share’ and students learning to talk to each other using precise language. Students were then able to use their newly learned language in their writing. It took some practice, but students became very good at explaining their thinking and listening carefully to each other. The think/pair/share strategy gave students much more confidence in their own thinking, and moving to groups of four to discuss their thoughts with a larger audience gave the learning more impact.

I simultaneously introduced learning through play with provocations aimed at giving opportunities for students to role play, to further the development of vocabulary and increase engagement. Much thought was given to the interests of the students, particularly the older boys, as this was the group that was more vulnerable to disengagement with writing. With the onset of the duck shooting season, the classroom came alive with the construction of a full-scale maimai.

I was surprised by the variety of conversations that emerged in the play environment. Students rapidly moved into socio-dramatic play where they negotiated how they would play and then acted out roles (e.g. some students would be the ducks in duck shooting scenarios, and their role was negotiated and explained beforehand). I found the most powerful provocations were those generated by the students. Once they had an idea, I helped set the scene for students to have planning discussions. I then thought about what I could add to the play in terms of equipment, and I taught/displayed the associated vocabulary. However, if I set up a provocation (e.g. the café or the supermarket) without the initial student idea, it fell flat. When N asked if we could have a hair salon, the class continually reinvented that corner, for example, adding a reception desk with appointment cards and a cash register. I was blown away by the creativity and energy of the play, and made the following observations.

- Some students played obsessively with the same equipment every session
- The verbal negotiation about how to play together was fascinating
- The Year 4-5 students wanted to play as much as the younger students did, and their play was not significantly different

I extended student vocabulary during the provocation setup phase by discussing and displaying topic-related words. Initially, this style of learning was very challenging for me – I felt I should/needed to be more central to the learning. After some practice, I was able to sit, observe, think about what I could put in place to keep the learning going, and take notes for the learning stories. The benefits of play-based learning were obvious in the students’ engagement and their focused, expressive oral language.

I noticed some impacts in our case study children. For example:

February 2017: J started school at Waiouru in February 2016 and experienced the rotated system as a new entrant. He was tracking ‘below’ in Reading at 20 weeks but now is tracking ‘at’ in all areas.

Initially, J seemed to be making slow progress and he struggled a bit at the beginning of the year in a class with only four boys. His buddy had not yet returned to school and he seemed very unsettled. He responded well to being given jobs to help with, and has proven to be extremely reliable and consistently takes on responsibilities such as getting the milk every day and getting the milk bin. He is very engaged in his learning. He is focused, keen and works quickly. He likes to please and receive positive feedback.

30 May 2017: J is suddenly, rapidly gaining independence in writing. He has become much more engaged and confident in the last month. He loves the fact he can write and will often choose to keep on writing when other students have finished. He uses his personal dictionary well and also attempts to spell new words independently.

Incorporating the play-based learning in my homeroom class and the junior rotation gave opportunities to explore the development of key competencies alongside the learning area, rather than the previous emphasis which was more focused on content knowledge. This then lead to a significant shift in my thinking about assessment. I needed to let go of fixed outcomes to allow students the space to be creative and learn in their own way. This shift in
thinking meant that I began experimenting with writing learning stories rather than only using achievement-based assessment relating to National Standards. I used the model shared with us by Margaret Carr as an exemplar, but I initially kept defaulting to achievement outcomes instead of focusing on key competency development. Support from my colleagues helped me understand more about what I was observing. I had to monitor myself in my observations of students. I also needed to look differently at my Swivl video recordings. I felt some anxiety that students weren’t ‘learning enough’. Eventually I was able to learn much more about my class as individuals, the ways they related to others, and their needs, because I had the time to closely observe them in their imaginative play. Teaching students to say, ‘I don’t know how to do it, yet’ (growth mindset) helps to allay their frustration in play, particularly with Duplo and at the woodwork table. I will continue to persevere with writing learning stories. I recognise the need to consistently get close to the play and understand more, particularly about dramatic play, before I begin to write a learning story.

Moving into 2018, I was facing new year levels and a subject change into the S.T.E.A.M (Science, Technology, Engineering, Arts, and Mathematics) approach. Our journey of passion-based teaching and play-based learning was forcing us to reconsider our whole school structure, and resulted in the decision to combine reading and writing, move the passion-based rotation programme into the senior school, and to introduce STEAM rather than teaching reading and writing separately. It was exciting to have the opportunity to take what I had learnt into the STEAM classroom. Of course there have been challenges as both students and I find our way; however, the excitement and engagement of students is extremely promising. The professional development I’ve had for play-based learning has encouraged me to keep the design briefs open so that students can be as creative and innovative as possible. My formative assessment is now focused on the key competencies first, then the achievement outcomes.
d. Learning through play – Stacey

Following a visit to the kindergarten, a spark was ignited to create a similar approach to learning for our incoming five-year-olds as I had seen there. I started with a pretty structured approach and quickly realised that this wasn’t going to work. I took a step outside my comfort zone and let free play take over. I started with a couple of blocks of learning time and gradually extended this out to all day. My focus was around facilitating the learning through the lens of free play. The shift in my pedagogy has been around letting the children lead the way in terms of their learning by taking a learning through play approach in my classroom. This has allowed me to see the real potential of my learners.

Below are two examples of the impact the shift in teacher practice and expectations is having on learners/learning.

Teacher observation and reflection, Year 1 girl Y, week 3, Term 2, 2017:

The children were having lunch on the mat. They were having some disagreement but I wasn’t taking much notice. Someone must have been going to come and tell me what was going on. I heard her clearly state, ‘No, we have to work it out ourselves’ (An example of the shift children have made in relating to others and managing self)

During Term 3, 2017, because of student numbers, it was necessary to transfer five students to the Year 1–2 class. These students had either had, or were very close to, their sixth birthday and as per school policy each child completed a six year net. Despite their six year net data indicating that their concepts about print and reading age data was of concern, teacher reflection was that, on joining the class, these students confidently entered established reading groups with their peers who were six months older than them. The somewhat worrying trends noticed in the six year data did not match what we were observing about their reading behaviours in class, and therefore there was no need to create lower reading groups.

In 2018, we extended the learning through play approach to the Year 2 class after removing them from the passion-based rotation. We decided to do this because we could see benefit in getting to know these children as ‘whole learners’ while they were still in the beginning stages of literacy and mathematics understanding. At Year 2 they are focused on learning to read and write rather reading and writing to learn.

Included in this group were a number of children who started their school life as part of the Reception class created in 2017. This has led to further development of my pedagogical knowledge in relation to learning through play. Pivotal to this development was our full-day workshop with Longworth Education, which provided a welcome refresher and highlighted that what I was already doing was on track. It also provided me with some new ideas. My next wondering became about how I could best foster rich learning through play. I started exploring invitations to play and found pretty quickly that when the child is in the lead, the richer the play and the learning will be. However, this didn’t mean I should remain uninvolved, just that my role as the ‘teacher’ changed and there were deliberate actions I would need to take in order to support their play to become a rich learning experience. The case study Leading our learning, driving our own curiosity in the next section of this report follows what starts as an invitation to play and quickly morphs into a rich student-led experience. It demonstrates the shift in teacher thinking and pedagogy and shows that when the student is at the centre, the learning becomes richer.

A further wondering, perhaps carried over from 2017, related to the progress of learners in the play-based environment. Among this particular class were a group of ‘slow starters’. These were children who, in their first year, hadn’t made the academic progress we’d hoped for; however, they had made significant social and emotional gains through play. They also possessed an interest in learning and a risk-taking disposition. I observed with keen interest the progress these ‘slow starters’ were making. What interested me most was a trend I had noted in relation to literacy. Children tracking ‘behind’ in literacy after 40 weeks of school had started to make rapid progress about the time they reached 50–60 weeks, which was generally about the time they also had secure phonological knowledge. This trend supported mountains of reading I had undertaken during my journey, which over and over stated that evidence shows that the brain is better equipped for learning literacy closer to age seven than age five. This observation, along with reading The Sacred Urge to Play by Pennie Brownlee with Kimberly Crisp, led to a deeper confidence in my practice. As put so well in the book, ‘as long as children are emotionally satisfied, as long as the environment is rich for play, and as long as children can choose their play the brain that handles complexity and development will make sure children do what they need to do to go beyond, to transcend where they are now.’ (Brownlee and Crisp, 2016, p. 76). It has also brought me to the understanding that as long as I provide the right environment, with the child at the centre, they will do the rest.
By the time I joined the Waikouru team as the new entrant teacher in the middle of 2017, Stacey had set up a very neat learning-through-play environment and I had to learn to adapt to it and build on to it. I began making myself more aware of the principles of Te Whāriki, and became more conscious of the need to continue to build on children’s learning dispositions. I also had to do my research on teaching for play-based learning.

The play-based learning environment is fantastic in the Reception class as it is not too dramatically different from kindergarten. The children have time to explore and ‘play’ – similar to kindergarten – while still receiving targeted teaching in numeracy and literacy. My own inquiry was to continue with this way of teaching and help close the gap between kindergarten and school. I visited the kindergarten to observe where the children had come from and what they did with their time. This was very informative and gave me fresh ideas to set up in our classroom.

I came to the conclusion that transition is a two-way street. This prompted my solo kindergarten visit, and a follow up visit with my class. They loved their visit and while there presented the kindergarten with a gift. This was a book that we had created to tell the children there what it was like at school, to help with their transition. The book included pictures and child-speak about what to expect at school. It was very popular and ended up becoming part of the school’s enrolment pack for incoming students.

From this point I worked closely with Emily from the Kindergarten to investigate transitions to school. We came up with the idea of Skype dates because although we are within a five minute walking distance, it isn’t always practical to physically visit. Skyping the kindergarten provided a platform to bring each place closer together, and make them less ‘unknown’ to each other. The children enjoyed sharing their work and it gave them a sense of pride and accomplishment.

Below is an example of the type of reflective observations I recorded about the impact of these Skype dates on children from both school and ECE.

Skype was set up on the big screen in the classroom, and children could choose to chat to the kindergarten or continue with the play and reading they were doing. I was taking a small group reading lesson. One of the boys decided he wanted to show his handwriting from the previous day to a kindergarten girl. He was proud to show his work, and you could see his confidence fly when he got such a positive reaction from the kids at kindergarten. This then prompted one of the kindergarten girls to run off screen and came back a minute later with a bit of paper. She had just written her name on it and wanted to share it as well. This child-directed sharing of work was great for the children’s confidence and self pride in the work they had done. It gave them a lot of ownership of their mahi.

The work Emily and I did during this time helped us develop positive relationships and gave us a bit more experience of what a successful transition looks like.

Along the way, my inquiry has faced some hiccups. One of note is that, naively, I forgot to continue communication with parents about how play-based learning works. I had one parent come in and ask about its ‘purpose’ and she informed me she wasn’t the only parent with concerns. From this, I learnt to display outside our classroom each week our numeracy and literacy goals, and a ‘how we learn’ display. I have also been using Seesaw more effectively. A play-based learning environment is very different to what the parents are used to, so more whānau communication was vital. Once I started to do this, the feedback I had from parents was that they liked my more detailed posts.

As I came to feel more comfortable in the play-based environment, I started to be more selective with some of the posts on Seesaw aimed at ‘educating’ the parents about play-based learning. I didn’t do these longer posts every day, but tried to aim for an educational post about once a week. In my everyday posts I still tried to highlight the learning that was happening, just not in as much detail.

Examples of Seesaw posts for parents.

Why play in the sandpit? Sand play helps develop basic maths and science concepts like exploring, classifying, estimating, experimenting, measuring and constructing. As they dig, shovel, lift, carry and rake the children are developing their muscles and gross motor skills. When they pour, sift, mould and pat the sand they are working on enhancing their smaller muscles in their fingers and hands - fine motor skills. Sandpits also provide excellent opportunities for social interaction as children play alongside each other, or in a group. There can be many conversations as children work together, talking about what they are doing, role playing and sharing equipment. They can also learn concepts such as “gritty”, “fine”, “coarse”, “texture” as adults sit with them and talk about sand.

When children play with bubbles they learn about cause and effect, visual tracking and reading skills, hand eye coordination, shapes, imagination and creativity, science facts and skills. Today when the children were out ’playing’, Stacey and I heard them talking about the different properties of water, and the types of shapes they were making.
Initially, I was working closely with a fellow colleague and our inquiry was focused on ‘How can we best support our tamariki in their transition to school?’ In order to explore this, we trialled a number of actions including sharing times, transition portfolios, and school visits/skype dates. These initiatives were central to the deepening relationship between the two sectors.

During the last two weeks of October we trialled some Skype calls. After a few technical issues, we ended up using FaceTime, and were able to connect a laptop to the TV in our classroom so that our tamariki could see and hear what was happening. Our most recent call (31 October 2017) was wonderful. Our tamariki really enjoyed being able to see their friends who had recently transitioned to school, and they were so excited about being able to see and talk to one another.

Once the excitement wore off for the school children and they had all said hello, they began to bring up some of their work to show us. We were able to see the writing they had done, and some children were also sharing some of the things they made. After seeing the school children’s writing, one of our tamariki went off and wrote her name down so she could come back and show everyone.

As we progressed through the year, a lot of discussion arose around the mat times. This became a catalyst to us reworking our inquiry focus to look at ‘How effectively are we documenting and co-constructing individual children’s identities as learners to support successful transitions?’ Through this process, the topic of cultural responsiveness and bicultural practices emerged, which resulted in the implementation of hui time as well. Shortly after this, my colleague moved on and I continued the inquiry on my own. Overall, the main focus seems to have been on sharing and hui times, as I continue to unpack some more effective ways in which we can enhance our children’s learner identities. A change to the centre’s environment with the merging of the two rooms to create a 0-5s environment has presented some challenges in being able to consistently implement the things we had begun trialling.

When Rita and I had our first transition meeting, we both felt that it went really well and that we all got a lot out of it.

Upon reflection, I feel the best approach to these transition meetings would be to first have the whānau teacher meet with the parents/caregivers to have a discussion about their child’s upcoming transition. This would be the ideal time to hand over the transition booklet and ask if there are any questions or concerns. If the parent/caregiver has any concerns, then this would be the time to arrange a meeting with Rita, the new entrant teacher.

This initial meeting highlighted how beneficial these meetings are for children who may need additional support, and made us consider that not all whānau would need this level of support. I wrote the following reflection on the importance of this relationship with Rita and the school for everyone involved:

Without even purposefully planning for it, this process has highlighted that just like our philosophy at kindergarten, successful transition to school is impossible without strong relationships. We have found that by being able to regularly call in, and catch up with teachers, staff and students that we have been able to have regular conversations and exchange of information about upcoming and current students. This has been vital in learning about how our focus children have settled, and it has been really beneficial being able to discuss future children with Rita (talk about their skills, abilities etc).

My involvement in this project and changes at our centre have made me even more passionate about finding ways to ensure smooth transitions for our tamariki, and as a result I have centred my appraisal goals this year around transitions and learner identity. Even though the project is coming to an end, I have been inspired to modify the strategies we trialled throughout the project to create a really robust transition to school process. I have met up with Rita on two different occasions to share my ideas, and she has been really keen to work alongside me in developing them, which I am really looking forward to. They are summarised below:

- I am continuing to explore learner identity and how we can support the development of the identities of our tamariki within our unique kindergarten environment
- I am developing a way to document the progression of learning that occurs at kindergarten, to better demonstrate to our families and tamariki the learning that is taking place
- I am hoping that through the process of creating this document with the input of my peers that everyone will start to become more aware of what learning is going on, so that they are able to better identify it when they see it, and can in turn point it out to the children through day-to-day interactions and dialogue and within their learning stories
- I am also planning to show links to key competencies, to again highlight to our whānau that what we are doing
3. Case studies of impact

The following are case studies of the impact of our innovation. These case studies are exemplars of:

- a) Impact on learners
- b) Impact on learning and teaching
- c) Impact on National Standards achievement data.

a. Impact on learners

**Case study: Ethan learns to write**

This case study highlights the journey of a student becoming a writer in a learning-through-play environment. It demonstrates how building strong foundations through play ultimately fosters positive learning experiences.

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<th>Case study: Ethan learns to write</th>
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<td>Ethan started school in February 2017, the first child of his family to do so. He was one of three students who started their school journey in the Reception class. He spent his day with one teacher in a classroom where high value was placed on learning through play. When Ethan arrived at school he showed interest in wanting to learn to read and write.</td>
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After nine weeks of school, Ethan was starting to show the ‘sponge moment’ when reading and could already identify what some punctuation marks were from shared book learning. At this stage he had started participating more in class discussions. He was more confident in himself and his ‘place’ in the class.

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<td>During his first 15 weeks of school, Ethan demonstrated the beauty of a learning-through-play approach when his teacher spotted him counting using the 100s board. With minimal input from the teacher he was able to count well past 50. This was something that surprised her as she had been focusing on numbers to 20.</td>
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Learning through play allowed Ethan to show what he knows, and learn what he needs, when he needs it. It has also given Ethan space to develop necessary social and emotional skills as he has learnt to regulate his emotions.

During his first two terms of school, Ethan showed an eagerness to work on his literacy learning. He would often sit nearby when the teacher was working with other students on reading and listen in, or choose to do some story writing with teacher support. Sometimes he would work with his peers to practise writing.

Later in his first year of school, Ethan’s parents noted that at home he had started to show frustration with working on his reading homework and it would often end in tears. While this wasn’t evident at school, it was noted that his progress in literacy learning had stalled. In spite of this, Ethan’s teacher continued to provide positive experiences to help foster writing development.

Then Ethan turned six, completing his first year of school. At a meeting with his parents, they spoke of the fact that he seemed to be better at regulating his emotions, especially when frustrated. At this point, his literacy progress still wasn’t progressing as expected; however, his teacher had noticed a significant increase in confidence. At this point it was agreed to monitor his progress closely until the end of term one and make a referral for support if no movement was evident.

After five terms of school, Ethan’s teacher made a referral for literacy support as his progress was still slow. He tried hard but it seemed he just wasn’t retaining information.

Then suddenly, in his sixth term of school, it all just started to ‘click’. He went from needing a high level of teacher support to write his sentence to being able to sound out words on his own and had developed his own strategies to help. At this point his teacher noted that she had high hopes that Ethan would ‘get’ literacy eventually, in his own time. Within two weeks, Ethan was writing two to three sentences independently. His latest
phonological assessment showed a huge improvement, with Ethan knowing 23 out of 26 letter names confidently and 32 out of 33 letter sounds.

As Ethan nears the end of six terms of school, he has learnt to regulate his emotions and is an empowered learner. He has grown into a confident boy, keen to share what he knows. Now that these foundations are laid, Ethan is set to do great things.

**Case study: Naevia ‘gets’ what school is about**

This case study shows the shift over time of a student as she transitioned to school. It follows her journey through the first two years of schooling as she blossoms into a learner who understands what school is about.

### Case study: Naevia ‘gets’ what school is about...

Naevia started school in June 2016, following an older brother and sister. Her class was part of the passion-based rotation, so while she had a homeroom teacher, she also interacted with two other teachers. She arrived to school a social butterfly and enjoyed the company of others.

At 20 weeks, she could write up to six words but wasn’t keen to write on her own. She presented with some anxiety about writing and relied on the teacher scribing for her. At this point, vocabulary building became the focal point. Sustaining focus during learning tasks was also a key area for development. Naevia was part a group for whom engagement in learning was an issue.

With daily support from the teacher aide, who promoted the learning of early words, Naevia began to gain writing confidence. Once she had 12–15 words that she could read and spell, Naevia took off and flew. It was at this point that she started using tools such as a personal dictionary to assist her. The more praise she was given, the longer the stories became and she was seeking to extend her known vocabulary.
Naevia had tonnes of bright thinking that she was now able to communicate in writing. Within the writing environment there was front-loading of vocabulary as well as time for free play. Writing time was 20 minutes maximum. Play is where Naevia thrived. Her confidence had begun to grow, especially her perception of herself.

At 30 weeks, there was a noticeable change in her focus, and her ability to complete set tasks improved. Her confidence was developing.

After five terms of school Naevia demonstrated increasing confidence in herself and her ability, and in turn started supporting others in their learning.

By six terms of school, she was driven to achieve goals set for her. At this point, Naevia’s year group moved out of the passion-based teaching rotation and into a full-time learning-through-play classroom environment for their next year of school. In the play environment, Naevia has continued to flourish. She demonstrates a real sense of creativity and especially loves role play and narrative play.

As Naevia nears eight terms of school, she shows leadership potential. She is actively seeking new knowledge, especially in writing, and applies learnt knowledge easily. She ‘gets’ what school is about and has the foundations to fly from here on in.
Case study: Cyprus shows what she’s capable of

This case study follows the journey of a creative student with a great oral vocabulary who seemed to be lacking self confidence and not progressing as we thought. It describes the changes observed as she flourished into a writer, a reader, a designer and a creator.

Cyprus started school at Waiouru as a five year old. She lives with her family on a local farm. She is an ‘outdoors’ kid with strong oral language and shares her ideas confidently.

After about 60 weeks at school, her teacher was concerned that Cyprus lacked self confidence, and that this was having an impact on her behaviour. She had poor self esteem and was acting out in class. This was affecting her learning, particularly in writing. Spelling seemed to a particular concern. She was like ‘a possum in headlights’ for writing.

In maths, she was still engaged and keen to share her ideas for solving problems.

‘I always thought she was a clever little girl who found reading and writing a bit tricky.’ - Cath

Her maths teacher’s gut feeling was that maybe she was dyslexic. She demonstrated good maths thinking skills, but her digits were hard to read and often reversed.

We thought that Cyprus may benefit from some outside expertise so referred her to the Resource Teacher for Literacy (RT Lit). This included individual support as well as whole class lessons. The focus became more on engagement rather than mileage, with an emphasis on strong language development.

Cyprus particularly enjoyed the socio-dramatic experiences of the learning-through-play environment trialled in the writing classroom. It gave her the opportunity to excel at problem solving, as seen when she and S created a seesaw in the trees.

Entry from profile

2 June: Cyprus has been graduated by the RT Lit. She is outperforming all other students Judith teaches. She is writing with far less anxiety and now begins tasks straight away. The ‘acting out’ (strange noises etc.) that was prevalent before has disappeared. Her improved confidence is showing in every aspect of homeroom activity. There are issues with her spelling – we need to support her by helping her sound out words. MS

In mid-2017, Cyprus graduated from RT Lit.

‘It was the spelling that was the issue, once she had some words she was ok’ - Marlene

In the enriched activities trialled in maths, Cyprus had ample opportunities to demonstrate her developing mathematical thinking. In one particular case, she used several different strategies to confirm her original answer. Despite her buddy coming up with alternatives, Cyprus didn’t waver.
2018

Early in 2018, Cyprus had several occasions to demonstrate her growing competency in literacy. During a Seesaw reading fluency activity, she was given the opportunity to choose a book then record her reading online. I was very impressed with her confidence in tackling some tricky words. Some phrasing was hesitant but overall she was quite fluent.

During writing she has also demonstrated an interesting way with words in poetry writing – the focus was on ideas, not spelling or handwriting.

I believe Cyprus sees herself as a capable writer.

‘Icing Horses’ learning story

Cyprus was thinking of the things that could go wrong and was working hard to avoid making a mistake. She is a confident problem solver and is able to clearly explain her process and her learning.

Accidental running record

When doing a series of running records with the students, I gave Cyprus one I did not intend to use for her. Her last running record had been a PM benchmark L22 reading age (7 ½–8 years). I gave her a Probe 8 ½–9 ½ years. She completed this confidently with 94% accuracy and 87% comprehension. At the time she had just turned 8 years.

Cyprus continues to amaze me with her thinking, her way with words and her interest in learning. She is a writer, a reader, a designer and a creator.

‘The rain smells fresh, it’s so damp and misty’

‘Pop, pop, pop go the bubbles
Bubbles they go round and round
Showing their beautiful colours
They go slow, then go fast
They don’t like hands
And I agree’

Maths outside graphing activity

In maths, we had been learning about graphs and surveying people to get more information about them. Everyone else in the class asked ‘favourite’ questions such as ‘favourite colour, favourite food’ but Cyprus choose to ask about pets that they owned. This showed her creativity and thinking outside of the box. She then confidently drew her graph and was able to analyse the data.
Case study: ‘Takiwātanga’ – ‘In his own time and space’

This case study describes the journey of a student who, with support from whānau and school, finds his place in our school environment. It demonstrates the power of relationships in making school a safe space for our learners ‘as they are’.

Ahurei began school in October 2014. By June 2016, Ahurei was displaying behaviours that reflected his distress in situations he was uncomfortable with during the average school day. These included hiding under the table, hurting others, disrupting the class, and swinging his jacket around. Mum was often called in to school and he began having part days. He didn’t eat or use the toilet at school.

After some discussion, we put together some support mechanisms for Ahurei including assigning him a buddy and beginning a whole class focus on space (a learning area he enjoyed), which engaged him to some degree. However, school remained a pretty stressful place for him.

Term one and two, 2017

Ahurei was assigned to a class of older students in the hope of supporting his integration into classroom activities. He got on with the older students better and particularly enjoyed playing rugby at break times. Kicking a ball with a buddy calmed him when he became distressed.

At this time, he was reluctant to join the class. He wore his jacket with his hoody up and did not speak to most school adults. He had outbursts of physical behaviours and frequent incidents of stimming, particularly if the teacher’s voice was loud or he was upset by his peers.

In writing, Ahurei’s engagement and the engagement of his key peer group (who were also reluctant writers) became paramount. Term two began with learning about hunting and their creation of a duck shooting maimai in the classroom. This gave the opportunity for socio-dramatic play, and also a physical space where Ahurei could withdraw. He was highly involved in the play, often leading the others, and he increasingly took on a number of roles.

In reading, his teacher focused on meaningful reading activities to engage the student when they were not specifically in a guided reading teacher-led activity. Ahurei got involved in these with his close group of friends.

In other curriculum areas there was a focus on hands-on or ‘playful’ activities to support oral language and key competencies.

In maths, we were trialling enriched activities and thought was given to include activities that would interest Ahurei. He was becoming more reluctant to come into the room but he would sometimes join in if he was interested in the activity.

At about this time, we stopped insisting that Ahurei join his class in moving for each subject and set him up his ‘space’ where he made a hut and was supported one-to-one with a teacher assistant.

This was where he spent the majority of his day, sometimes working with a buddy. We worried less about his academic progress and focused instead on his feeling of well-being at school. We were beginning to get a better understanding of the triggers to his unsettling behaviours and specific steps were taken to minimise these. Things that added to his discomfort were smells in other rooms. We tried to ensure the room was kept clean and smells minimised.

He was given time to kick a ball around with a mate.
Ko te ahurei o te tamaiti arahia ō tātou mahi – Let the uniqueness of the child guide our work

In mid-2017, Ahurei had a change of teacher. Potentially, this could have been a very stressful time. However, over a relatively short space of time Robbie developed a gentle, positive relationship with Ahurei. His interest in Minecraft was sparked and Ahurei found a place in the class as the ‘expert’. Robbie had inventive ways of getting Ahurei to engage in some of the learning and did a quite unconventional reading assessment by getting Ahurei to sit alongside another child doing a running record, with Ahurei butting in with the correct word when the student stumbled over a word.

During the last term, we saw a glimmer of Ahurei in action during the children’s mission of moving the sand to the new sand point. He was actively involved and was observed at one point directing students using a cone as a megaphone: ’Take the yellow lane, take the orange lane…’

2018

In consultation with his whānau, Ahurei was placed in a class of older students with his friends. A decision was made to not continue to move the students from room to room, but that the teachers would move, thus allowing the students to have their own classes and develop a greater sense of belonging. Ahurei began the year working with a teacher aide in his separate adjoining room. He continued to be reluctant to join the class and did his learning with a modified programme with one-to-one support. He developed another relationship with a supportive buddy.

In March 2018, Ahurei went on camp with his class. At camp, Ahurei was in a group where his mum was the leader, but as the camp went on, he became more independent. During a game of ’Go home, stay home’ he went and hid with friends and joined in. This was a turning point for him in his engagement with his class and obvious sense of well-being at school. His jacket and hoody have come off, and he is joining in class and speaking to teachers. He no longer withdraws from the classroom and he has allowed his ‘hut’ to be taken down.

A sense of whanaungatanga had been gained for Ahurei. His relationships with his classmates and teacher were strengthened outside of the usual classroom structure, which has really opened up opportunities for him to want to, and feel comfortable to, participate and achieve as a class member of ‘The Zones’.

Ahurei now

Ahurei joins in with the learning, where once his safe place was his hut in the wet room. His confidence to sit on the mat alongside the class and join in with class activities now is significant progress. Formerly, the wet room was his safe space and where he spent the majority of his time with his teacher aide. Now, he will sit on the mat with the other students and join in maths work. He prefers to work one-on-one with either teacher or in a small group with friends. He stood up and presented one bit of work to the class with homeroom teacher support. He completed a GLOSS test with his homeroom teacher and confidently explained his strategies. He is in charge of distributing the milk daily to each class and dealing with the recycling, and will speak to the teachers while doing this.

Where once he only played rugby with his specific group of friends, he now plays different games and in other areas of the playground. His great sense of humour is visible, including seeing him in the office area trying to sneak up on Marama and Kerry and thinking this was a huge joke.
A parent perspective: Poipoia te kākano kia puawai, Nurture the seed and it will blossom

This case study, written by his mum, tells the story of Ahurei from his pre-school experience to the point where he finds his place in school, from her perspective. It highlights the importance of building strong relationships between school and whānau.

Poipoia te kākano kia puawai, Nurture the seed and it will blossom

Whiringa-īnuku, October 2014

Kua tae te wā ki te haere ai a Ahurei ki te kura.

The time had come for Ahurei to begin school. The time I had spent at kindergarten as a teacher aide while he and his baby sister were there was hugely beneficial for observing his play outside of our home. I had noticed that he had warmed to his whānau teacher more than other teachers who he hadn’t had the opportunity to get to know one on one. I observed his frustration and awkwardness during disagreements with his kindy friends; he followed them around the kindergarten, clearly frustrated with them but not knowing how to resolve his troubles. During these ‘cool off’ times he was able to spend time with the under twos at the kindergarten, where I was situated with his baby sister.

Ahurei’s first days at school were hard. He did not want me to leave. This new experience and school life proved difficult for him to cope with. During the first week, the teacher aide managed to contain him as I left, his arms and legs flailing through hers; he was clearly distressed. Each day I would take him into class and try to form a routine of hanging his bag up, shoes off, brain food and book bag out, understanding that he felt safe in routines, as he knew what to expect next. We left his sleeping baby sister in the car waiting while we did this, and this was the only reason he allowed me to leave his classroom without too much fuss. Attempts were made to share what I had learned about Ahurei with his teacher. For him to engage with you, one-on-one connections need to happen before feels comfortable to form a relationship with you.

2015

Observing a kapa haka session at school, I could see the māmā Ahurei was feeling. He was lethargic from standing too long, fighting back tears. He was blocking his ears as it was too loud for him and the voices and instructions of tutors he didn’t know were all too much for him to bear. He was attempting to cover his nose as a full school hall with adolescents in the summer proved to be a sensory overload. His teacher aide, Lizzy, was a much-needed source of comfort during these times, and throughout the school day, most days. Ahurei relied on her and a close friend to get through the school day.

2016

Half-days at school were negotiated as Ahurei began to act out, illustrating his discomfort, his frustration and his angst at different scenarios throughout the school day. He was not eating at school and was a little anxious to use the school toilets, so by 1pm he had had enough and could not cope. He was ravenous and bursting by the time he got home. The smells of other kids’ lunch boxes put him off eating and anxiety was staving off any hunger pangs during school time. His close friend in his class had posted out of Waibouru with whānau. Ahurei’s cap and jacket with hoody were must-have requirements before leaving the house, which we discovered were indicators of his comfort levels.
At whānau kaupapa away from home and events out and about, Ahurei seemed very shy and stuck close to me or his Pāpā. He wouldn’t respond to ‘Kia ora’ or ‘Hi!’ from people in shops, or aunties or uncles who he had spent time with previously, and he would lower his gaze. He wouldn’t eat around a large table filled with whānau at Christmas times, preferring to wait until people had left or to eat around the corner out of sight.

If, however, somebody initiated a game of catch or kick with a ball he would engage with them, starting to laugh, giggle and talk with them. Common ground seemed to be the key to connecting with him and revealing the fun-loving kid that we knew he was.

With me beginning a new job, Ahurei’s Nan moved in and took care of school drop off and pick ups so that Māmā and Pāpā could go to mahi full time. This way, there was a constant carer who he knew and was comfortable with, which ensured that life was easier in our whare for everybody. School holiday programmes did not appeal to him, as he didn’t know the people and he was uncomfortable going on extra curricular activities away from Waiouru without his whānau.

Ahurei was opting out of classroom activities a lot. Communications from school were about concerns with trying to ascertain where his reading, writing and maths levels were, as he wasn’t in class and wouldn’t talk to most of his teachers. Texts and phone calls from school were constant. Ahurei needed me to calm him down or pick him up – other kids were at risk when he lashed out.

After honest and emotional kōrero with the principal, a paediatrician appointment was made for Ahurei in order to continue to have access to the support that he clearly required at school. This revealed his autistic tendencies, confirming the research I was doing that kept me awake most nights and consumed my thoughts.

Whaea Margie, a teacher aide, began a relationship with Ahurei, as he had moved from the junior class where his previous teacher aide remained. He began to trust her, relying heavily on her tautoko. He was able to work one-on-one with her to get his classwork done, and would join the class when there was something of interest to him. Break times in the playground with his classmates he loved, although he carried frustrations back inside with him, therefore retreating again to this space.

When Ahurei was reacting to discomfort, he would retreat under desks or in an adjoining space between the class and another class. Hui between teachers and whānau saw that this space was opened up for him to use as a safe space when he could feel himself losing control. He doesn’t like being alone, and doesn’t like the dark and hates any attention on him, and would hover with the door partly opened at times.

2016–2017: Forging a relationship with the school, his teachers, and his mates was the key for me. I was the one Ahurei was downloading to, sharing his innermost thoughts and feelings with, and I was the safe passage through which all of this was shared with his teachers. He was not comfortable speaking to his teachers, so they were unable to ascertain any information that they needed to know. I joined the Board of Trustees, assisted with classroom activities through my mahi with the museum education team, and was a regular face in the school grounds – the hope being that if he saw that I had a relationship with his teachers, and that I was comfortable there, then hopefully he would feel that school can’t be such a bad place to be.
Afternoons continued to be a noticeable time where he would lash out in built up frustration. Whaea Margie only worked part time and so Sarah, another teacher aide, was bought into the mix to tautoko Ahurei in the afternoons. Kicking a ball around with her outside and bonding over his all-time favourite hobby ‘hunting’ saw him connect and have a great relationship with her. Ahurei responded to the tuakana, the older boys at school, preferring to spend time with them and forming a tight relationship with one of those boys who acted as his voice at times. Therefore, teachers saw the benefit in placing him in a class with older students. Ahurei began to respond to one of his teachers who he had seen previously in kindergarten where she relieved and on the last day of term (before she went on maternity leave) – he blew her away by answering his name when she called out the roll! Before that he wasn’t confident or comfortable to do this.

HE WAKA EKE NOA – We’re all in this together

AKO – teaching and learning was an amazing journey in action for Ahurei, his whānau and his teachers. His teachers were learning all about him, from him, and implementing change after kōrero between themselves, with whānau input that would see Ahurei begin to realise his potential.

WHANAUNGATANGA – Respectful partnerships were blossoming. Connections between Ahurei’s school world and his world with whānau at home were made. All were on board with shared aspirations and understandings of Ahurei’s learning needs.

Before the 2018 year started, his new teacher Miss Porter welcomed us into his new classroom before school had begun for the year, understanding that this would help to settle him in and become familiar with his new class. He was shown where his bag hook was and where his new safe space was if he needed to use it.

I was invited to join the team’s TLIF research roopu for whānau voice and in a governance capacity (in my Board of Trustees role). The school’s innovative learning approaches began to transpire and really opened my eyes to the possibilities within this – a door was open for them to begin to understand more and more of how Ahurei and others like him could benefit from the learnings of this.
March 2018 camp – Game changer!

School camp was announced. Ahurei wouldn’t go without me. His concerns about not liking the kai, not knowing what to do, and being anxious about the activities were at the forefront of his mind. He would be a Year 4 amongst Year 5–8 tamariki on camp. ‘I’m not doing kayaking! What if I fall out?’ I put my hand up to be a group leader.

‘Stay on shore with me at kayaking ok Māmā? We’ll watch’.

Ahurei loved the outdoor activities, bushcraft, swimming in the lake and even got in a kayak after a quiet coaching moment with me lakeside. He now wants a kayak for Christmas! He saw his teachers in a different light outside of the school environment. He observed his Māmā and teachers laughing and enjoying each other’s company – something BIG clicked for him at school camp! Overcoming fears of being somewhere different, conquering kayaking alone and being the ‘Go home, stay home’ champion saw his confidence grow!

Ahurei witnessed his teacher Miss Porter and I team up during the ‘Go home, stay home’ game, sharing jokes over our competitiveness and combining strategies to make sure we caught all of the children! (All but him – he outsmarted us!)

The first day back at school after camp saw instant, remarkable changes. Ahurei began the school day by sitting on the mat alongside his classmates. (He was never comfortable to do this before.) He began to join in and become an active member of his class, ‘The Zones’. His safe space was able to be taken down and used for others who may need it. He began to play with other kids in the playground, learning how to play the games they were playing, rather than sticking to his usual games of rugby with the core group of boys he knew.

His cheekiness, his humour and wit that his whānau see, know and love about him, he now shares freely with his teacher Miss Porter and other school staff. He is eating at school and goes to the toilet when he needs to. His ‘must have’ cap is forgotten, his jacket is off (he even left it behind at school one day!). He will tolerate relieving teachers and remain in class, and when frustrations arise in the playground they are noticeably quicker to dissolve. He is beginning to write in class time and asks to practise this at home. He will join in and do mahi for other teachers also. I no longer reach for my phone after lunchtime expecting a call to pick him up. Instead, I am overjoyed to receive photos of Ahurei sitting in assembly comfortably alongside his mates, joining in and belonging.

Onwards and upwards e tama! Your happiness, your joy in overcoming huge obstacles – your relationships with teachers and feeling happy with life at school radiates through your gorgeous, infectious smile.

Ngā mihi nui ki ngā kaiako, nui te aroha ki a koutou.

*Kia kaha, kia maia, kia manawanui : Be strong, be brave, be steadfast*

You were brave and courageous to accept me on board the TLIF journey –
an emotional learning journey of your own – and for that I can’t thank you enough. Emotions ran high, everybody dug deep, and our tamariki were at the heart of the matter. Believe in the mahi you are doing; it is working, and our tamariki are thriving.

Special mihi to our tumuaki Marama and also our relieving tumuaki throughout this, Stacey, koia kei a kōrū! Without your tautoko, your aroha and your understanding for our tama, we wouldn’t be where we are today. Ki a koe Marama, if every school could have a leader such as you taking on forward-thinking approaches to learning from the top, I can’t help but think of other tamariki like Ahurei who would be flourishing now. Nō mātou te whiwhi, how lucky are we?!

3. Case studies of impact

   b. Impact on learning and teaching

Learning story: The answer in the end is ‘irrelevant’! – A teacher’s ‘fixed mindset’ journey

This case study learning story highlights the gems of learning that are right under our noses and how they can be easily missed if we are too focused on our preconceived ideas.

The answer, in the end, is ‘irrelevant’!

A teaching and learning story

A teacher’s ‘fixed mindset’ journey

After reflecting on the student’s ability to understand mathematical problems, I wanted to encourage them to draw what was happening. I tried this with several problems.

KEY: Teacher Reflection  Student Response  Moment of Magic

Flag run

One problem required the students to understand that the runner had several flags to run to, and when he reached each flag he need to return to the start. The problem was to work out how far he had to run altogether. We spent some time drawing and explaining, but most of the students still had a problem actually understanding what the actual problem was. Finally I gave up on the drawing and we went outside and acted out the problem using cones instead of flags. This didn’t suddenly have amazing results with everyone solving the problem; however, amongst the enthusiastic chaos most of them then understood what was actually happening.
I wanted to find more activities they could act out, so I used a problem about a snake crawling up a pole and slipping down a bit everyday, and they had to work out how long it would take for the snake to reach the top of the pole. I had the bright idea that I would give them a snake lolly and a straw, and they could act out the problem and therefore understand what was going on and be able to solve the problem.

Giving students food always captures their interest so I was guaranteed some buy in; however, the practicality of getting the snake to move up the pole didn’t really work. The straw was a bit small to really get the idea. The snakes were eaten enthusiastically and we still had the same problem of understanding what was happening. We resorted to trying to draw what was happening in our books.

While I was focusing on a group of students whose progress I was monitoring, two of the girls asked if they could go outside to work. I wasn’t keen as I didn’t want a whole lot of kids outside off-task. I asked why they needed to go out and they said they needed lots of room to measure. Because they were very self motivated girls, who I had taught for many years and who I knew I could trust to just get on with it, I let them go out and continued working with the others. They were sort of getting the hang of it by drawing in their books, but I had to support them all the way.

After some time, I went outside to see how the two girls were getting on. I sat back to watch for a while. When I saw how they were trying to solve it, I realised what a gem I had for an example of self directed learning and started to video them. The whole process took over ten minutes as they measured the length of the pole along the ground and then one read as the other acted out the problem.
After measuring the 12 metres, they decided to go back and make their marks clearer so they could read them. Throughout the solving they came across several problems, as they got so enthusiastic about acting out the snake’s movement that they forgot to count out how far he had moved. ‘So come back and restart because – were you counting?’ – M

There were lots of giggles and laughter as they realised that they hadn’t counted again. They demonstrated amazing persistence as they worked through every step of the problem. At first glance, it seemed like the student taking the lead role was doing all the decision making but watching carefully I realised how the other student was quietly adding suggestions when things were coming unstuck.

After acting out the problem to get up to the 12 metres, they thought they had solved the problem but I brought them back to read the instructions again. As we stepped through the first part of the problem, they realised they had actually just measured the distance the snake had slid, not the time and they needed to work out a way to record the time that had passed. They decided how to do this and then reenacted the problem again. They still needed support as they worked through the problem but this was in the form of questions: ‘Are you sure? What does the problem say? How far has he gone now? Are you at the top?’

As I reflected on this example, I realised how often I am still fixed on there being a certain way to solve maths problems. If you give kids a chance to do it their way, there comes greater understanding and satisfaction for them, and the whole learning is far richer. The ‘answer’, in the end, is irrelevant. I never did check to see if they got it ‘right’. I was so blown away by their method and persistence to work it out that I didn’t even think about it!

Learning story: Leading our learning, driving our own curiosity – ‘Where my students led, I followed…’

This case study shares the moments of magic that occur when students are given authentic opportunities to lead their learning.

Leading our learning, driving our own curiosity:
A teaching and learning story
‘Where my students led, I followed…’

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<th>Student Response</th>
<th>Moment of Magic</th>
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**Tuesday, ANZAC table set up with red and green paper for making poppies**

We are a school with a large number of children whose parents are employed by or enlisted in the defence force, so ANZAC is an important part of our community.

**Student Response:** Two girls sat down to make poppies at the table.

**Teacher Response:** I joined the girls as they sat making poppies and drawing poppy-related pictures. We talked about ANZAC Day and the services we attended. One told us stories about her sister’s experiences as a new recruit. We
talked about what they were making.

**Student Response:** The girls went off to the crafting table in the classroom and the one in the wetroom. This was their choice as part of play.

**Student Response:** They sustained this play for the entire day.

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Wednesday, the crafting continued upon arrival to school

**Student Response:** Making coffee mugs for their parents. Left crafting for a little bit.

**Teacher Response:** Supported Y to make a lid for her cup, laminated some paper she had decorated.

**Student Response:** Later they were back crafting. ‘We’re making toys. We’re going to share with the class.’

**Teacher Response:** I dropped a suggestion through conversation about making a ‘for sale’ poster and setting up a stall outside the room.

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The shop theme took off the following day (Thursday)

**Student Response:** The girls started writing signs for their shop before the school day began. In fact, they had to be seriously encouraged to join the class for karakia at the start of the day (with the promise of an immediate return to their task afterwards).

**Teacher Response:** I joined the girls at the table as they wrote signs. We discussed what next... would they like to create their shop in the classroom? Here are two tables that you can use for your shop.

**Student Response:** The girls set about making their shops. They busied themselves with making merchandise and setting up the shop, including an eftpos machine. They pushed the tables across the room to right next to the teaching station.

**Teacher Response:** My role became about approving what they could and couldn’t use for their shop. I was thinking this wasn’t the best place to put their shop but I ran with it. Later, I found the tray of play money from the store room and introduced this. We talked about the different types of money and applied skip-counting to count it. I introduced the idea of giving change. I noted that their concept of money stemmed from cards not physical money. They were very confident swiping cards and knew what that meant.
The girls want to share what they’re doing with the class

**Student Response:** The girls decided they needed to tell the class about their shop. The four of them stood at the front of the group and spoke about their shop, the opening hours etc. Each was given a chance to speak. They asked if anyone had questions.

This prompted two boys to stand up and tell the class about their idea of making soup to share.

**Teacher Response:** I provided the opportunity for the girls to share with the class and acted as a ‘facilitator’.

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The next day (Friday): one particular girl persisted with continuing the shop idea, even when the others’ interest waned

**Student Response:** Problem: how to get people to come to her shop?

**Teacher Response:** We talked about how shops get people to come. This led to creating an advertisement via video. We co-constructed the script and recorded together. She was very clear that I must have a role in the advertisement and told me what I had to say. We shared the video with the class.

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Role play with the shop

**Student Response:** The children participated in role play with the shop: opening, closing, customers, robbers, using the receipt book.

**Teacher Response:** Marama and I, at different times, engaged in role play with the shop. Marama introduced the girls to a receipt book and showed them how to use it.

A large chunk of the role play seemed to be about preparing the shop for opening, but not actually opening the shop for long periods

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**Case study: The Waiouru spider hunt – Discovering that literacy can help you open a whole new world**

This case study learning story grows from an accidental spider hunt to the discovery of the power of reading. It also describes a teacher’s journey in recognising and responding to learning in a play-based environment.

**A teaching and learning story: The Waiouru spider hunt**

**Discovering that literacy can help you open a whole new world**

After the Longworth Professional Development and Teacher Only Day in the holidays, I decided to take the opportunity to try learning through play in our Year 3 and 4 class. I spent a small amount of time organising some basic resources: lego, playdough, a train set. I knew from previous days that the kids enjoyed creating with boxes, so we had plenty of those available too. I spoke to the kids about what was available and told them they could use whatever they wish and to go for it.

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<th>What Children Did – Student Response</th>
<th>Moment of Magic</th>
<th>What I did/said – Teacher Response</th>
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Day 1 Thursday: S came and asked if they could make a hut, and whether they could use the tarp they had used before (term one, World Play Day).

O and L came to join S. They seemed a bit lost about what to do next.

The kids headed off to get tyres. They stopped off to chat to Stacey’s class. They started to get tyres, which were wet and a bit overgrown.

L decided he wanted a big tyre. O helped, and S helped a little but was more on the sideline. L started noticing the spiders and screamed. They continued moving the tyres and there was a lot of yelling, screaming, and laughing. They were convinced that they were white tail spiders and they were poisonous. Every time they saw one they dropped the tyre and yelled.

Once they got six small tyres around, they wandered off from the hut. They had abandoned the large tyre with spiders on the field.

About an hour later, interest resurfaced with other children joining in. M saw the tyres and tarpaunin. He said, ‘I know how to do that’ and immediately started piling the tyres on top of each other. He piled up two lots of three and pulled the tarp over. At this point, S suggested they move one pile closer because the tarp wasn’t fitting. Marshall pulled it back off and took the top tyres off, put the tarp back over and then put the tyres back on top to secure the tarp. They then spent the rest of the session playing under the cover. Activities included hiding so they could shoot the enemy, and interaction with the cafe group who came and took their orders for food.

Day 1 Thursday: I said yes and pointed them in the right direction to get the rope and tarp. I made the suggestion that they could get the tyres from by the garden and bring them around on to the court.

They were away a while, so I went to find them and they were with Stacey’s class looking at what they were doing. I redirected them to the garden and went and got some tyres myself.

I was tempted to help but decided to just watch and let them work together. I was most interested by what L was doing and was impressed with the lead role that he was taking. I looked at some of the spiders and tried to convince them they were not white tails and they wouldn’t hurt them. I left them to their hut making.

I asked S what was happening with the hut. She said she was waiting for the boys. We had a brief conversation about the possible options for making the hut but she wasn’t interested in doing it by herself. We left the hut idea.

I just sat back and observed what they were doing.

Day 2 Friday: Immediately when they got to school, the kids noticed the table. Of particular interest were the books and the magnifying glasses. They spent some time browsing through the books and experimenting with the magnifying glasses.

Day 2 Friday: After thinking about the children’s interest in the spiders, and in particular their assumption that they were white tails, and also knowing there was a Ready to Read book on white tails, I decided to set up an ‘invitation’ for them to explore spiders further.

I put out on a table books on spiders (Ready to Read and from the library), magnifying glasses, clipboard and paper, drawing paper, drawing pencils and pencil drawings of spiders taken from the internet. I had in my mind that they could continue searching for spiders, identify them, and maybe draw them, adding labels for the parts of their bodies. I was hoping to support their curiosity but also encourage them to use literacy skills – both reading and writing – to support their knowledge gathering and sharing their knowledge with others. This fitted with my literacy plan to find an authentic purpose for reading and writing.

I said they could use the magnifying glasses, as that was why I found them for them.

I showed them the book on identifying NZ spiders and asked if they could find what sort of spider it was.

At this point, other children joined them. There was much excitement and frenzy as they all headed outside and discovered the
O asked if he could use an iPad to take photos and then later to google ‘Waiouru Spiders’. Marshall asked if he could take the book outside with him.

The girls were mostly screaming and C was being a bit daring attempting to touch them. L was poking at them and trying to catch them. O was taking photos, and Marshall had the book in his hand and was referring to the photos. O said it was a cobweb but Marshall was browsing through the book and said, ‘No, it isn’t.’

Marshall continued to consult with the book and said to me: ‘Ohee, It looks like one of those ones but with longer those and not so hairy.’ C also showed an interest in looking at the book.

L continued on his quest to catch a spider using an ice cream container, and got O to video him. O videoed with a running commentary. C expressed concern for the spiders’ safety.

When I added, ‘It’s probably more active than was,’ I almost read the passage, then noticed that it was written in fairly easy words and decided that Marshall could probably read it to himself. It was a split second decision. I said to him that I thought he could read it himself.

I covered the compound name orbweb into two parts with my finger: orb / web, and said, ‘I think you can read that part... and that part.’ He successfully read the name then continued reading the passage to me, reading most words independently. During his reading of the water spider example, he turned to the other kids and exclaimed: ‘They can go under the water for up to half an hour – the books says!’

I was really excited to see Marshall realise that he could read the text in the book as well as just look at the pictures. I reiterated this to him and to the other kids that they were quite capable readers and could read almost anything they wanted to.

I suggested that they head outside again and left the iPads, and said that some things on YouTube aren’t always appropriate.

Marshall brought the book up to me and showed that he had found the spider. He asked me to read it to him.

O and L wanted to google spiders, so they were watching some YouTube clips on spiders. This was starting to divert off to unusual animals, and some of the content was not appropriate for them.

I had some discussion with O about whether googling ‘Waiouru spiders’ was going to come up with anything but he was insistent so I decided to just leave it and let him go for it.

I went out to the chicken coop to observe and take photos. Listening to their conversations, I noted that many of the children were focused on finding them and then trying to catch them. Amongst the screaming and shouting, I was saying to them: ‘What sort of spider is that?’ and ‘how can we find out?’ I just sat back and watched. I had previously noted I was interfering, asking questions too much, so I was making a deliberate attempt to just watch, observe and take notes on what the children were doing and saying.

Following week, literacy, Day 3 – Tuesday 8th May (not a LTP day): Interest was high with all members of the two groups. They thought they knew a lot about white tail spiders, but discovered that not all they thought they knew was correct. C tried to change his ‘before’ ideas but the teacher aide shared with him that that was part of learning – that we don’t know everything.

I suggested that they head outside again and left the iPads, and said that some things on YouTube aren’t always appropriate.

Literacy planning for the following week included books and articles on spiders, especially for O and Marshall’s reading group.

Planned reading activities included a before and after web and gathering topic words for spiders.

During our literacy session when children had some time for independent reading of their choice, I noticed Marshall and F pouring over a spider book. They were reading it together and talking about the spider.

The writing side of literacy was modelling, followed by students writing their own information report. I had hoped that when given the opportunity, the children would write on spiders – sharing their knowledge.

This was not what happened with the children I thought, but F’s writing did demonstrate both understanding of structuring paragraphs of like information, and included specific knowledge of spiders. On reflection, when I consider the photo of Marshall and F, I am not so surprised it was F after all. It is so easy to not notice what is going on in front on your nose in the classroom.

Day 4 Thursday (LTP session, reliever in): O, C, Marshall, and S spent time on Chromebooks researching spiders. There was lots of sharing facts together and use of great vocab – venom, fangs, palps...

C made the comment, ‘This is blowing my mind – this spider is eight inches long and can take down lizards and snakes.’

Day 4 Thursday: Having a reliever, I was reluctant to try to add anything new. I talked to her about their interest in spiders, and how L and O had shown an interest in googling for more information. We decided they could do...
Day 5 (LTP session) Teacher: Still fixated with the idea that the children could draw pictures of the spiders and make labels, I thought I would give them the opportunity to make models instead. This also developed from the observation that many of them had spent a lot of time playing with the dough. I provided clay and although I said they could ‘do whatever they liked’ with it, I popped in the suggestion that they could make models of spiders to share what they had learnt about them. The clay was very popular, with most of the class experimenting with it in some way. Most creations were vessels of some sort for mums for Mother’s Day and O made, and supported L to make, a very detailed ‘dagger’. Marshall played with the clay briefly but then spent most of his time role playing with the lego and blocks. S became the ‘expert’ with her previous knowledge of working with clay.

This is an excellent example of the difference in the interests of the children and the pre-planned direction imposed by the teacher.

Prologue
Several weeks later, some of the kids were still keen to research about spiders. After spending some time viewing YouTube clips, I said they had to find a way to share their information. First, they said they were going to make a book. We made some foldable booklets. Then they decided they were going to make models. They had been particularly interested in the trapdoor spider laying in wait for its prey, so this is what they made.

3. Case studies of impact

4. Impact on National Standards achievement data

End of Year (EOY) National Standards data 2014 to 2018
This data is for the whole school. It is important to note that every year one-third of the numbers are new students.

Total data commentary
Prior to the commencement of this project, Waiouru School end of year data in relation to the National Standards followed national trends. The disparity between Māori student achievement and all other ethnic groups was wide. The gap was often at least 20 percentage points in all three subjects. While significant professional development during 2012 and 2013 had narrowed the gap, Māori students were still disproportionately represented as ‘below’ and ‘well below’.

In 2015, the changes made in the junior areas seemed to result in a significant narrowing of the ‘achievement gap’; in fact, in both reading and writing, Māori students began to achieve as well as or better than all other ethnic groups. It was this data which prompted us to apply for and win the TLIF research project. Our project commenced in 2016, with data collected throughout the project up until term one, 2018.

When reporting back to me, she was amazed at their enthusiasm and the quality of their vocabulary in their conversations.
All three National Standard data areas reflected the three passion areas chosen in our junior rotation. All three areas were affected by a change of staff during the project. However, of the three areas, mathematics maintained the same passion teacher for the years 2016 and 2017 (the years for which data is displayed). The writing passion area had four different teachers over the course of the project and reading had three.

The curve in all three graphs showing a drop in 2016 is interesting, as this represents the most stable year in terms of teacher consistency. Showing the progress of the target group over time is difficult as the target group expanded over the duration of the project. The qualitative data on our target kids through our case study analysis is rich and provides an excellent picture of the impact the project had on these students.

**Reading changes**
The reading passion area was taught by the same reading recovery-trained teacher from 2015 until term three, 2017. In 2015 and 2016 her homeroom was the New Entrant class. 2017 saw her moving into the Year 4 and 5 class for the first two terms of the year. When she left for maternity leave it was decided that her relief teacher would not formally take part in the research project other than contributing the National Standards end of year data.

**Mathematics changes**
Mathematics had the same passion teacher from 2015 to 2017. Her home class was the Year 1 and 2 class for all three years. In 2018, she moved to a Year 3 and 4 class and took over literacy as the innovation moved up to the senior school.

**Writing changes**
Writing had a changeable start with four teachers cycling through. The first writing teacher worked in this passion area from 2015 to term one, 2016. Next there was a shared teaching situation with two provisionally registered teachers in term two, 2016. Finally, an experienced teacher took over the writing passion area from term three, 2016 until the end of 2017. She then moved to STEAM passion in 2018 with the innovation progression to the senior school.

**Conclusion and discussion**

**The Waouro School Curriculum – Where innovations meet, magic happens**

At the beginning of this project we set out to explore the factors that were influencing improved learning outcomes. We wanted to know how these factors could be scaled up to continue improving outcomes throughout the school. We also wanted to explore how we could apply these factors to provide positive transition experiences for children coming from ECE. Over the course of two years, teachers took deliberate steps to develop key competencies, introduce more enriching activities, and increase engagement by introducing a learning-through-play aspect to their programmes. As we delved into our explorations, we found that improved learning outcomes occur when the learner is at the heart of the curriculum. When we directed our focus towards fostering the key competencies, we in turn fostered the learner as a whole, not only the learner as a reader, writer or mathematician. By using the concept of a learner-centred curriculum, with a key competency and learning areas focus, we were able to design a highly successful transition-to-school programme.

It is from the word ‘and’ that we were able to create something special for the children of our school. Rather than one or another innovation being the catalyst for achievement in our school, we noticed that it was in fact when one innovation intersected with another innovation that powerful learning and teaching moments occurred.

**The magic is in the intersections between innovations**
This Venn diagram was originally drawn on the back of an old manila envelope during a discussion about what had really made a difference. This drawing has become the best visualisation of not only how our innovations have worked together but also of how we were at all times able to keep all of our students at the heart of everything we do.

Each circle represents one of the three innovations that evolved out of our TLIF research project. The evolution of our innovations throughout our project was unexpected but placed us on a pathway of strength we could never have
imagined prior to our journey. At the intersection between each innovation we see an area of strength that has come out of our research project.

The intersection between the key competencies and learning through play has created a nurturing and supportive way to transition at Waiouru School, where all those new to our school feel welcome, settled and familiar. We no longer talk about children being ready for school; instead we ask, 'are we ready for our children?'

The intersection between learning through play and passion-based teaching engages ākonga to experience a teacher’s passion and expertise in their passion area in a developmentally meaningful and playful way. At Waiouru School we know that the most powerful and enduring learning occurs when it is co-constructed as a learning community: teachers and students are in fact equals in our learning community, and each has just as much of value to contribute as the other.

The intersection between the key competencies and passion-based teaching provides enrichment for the learner. At Waiouru School, our curriculum is a learner-centred approach, where the learner takes responsibility for driving their own learning. The learner seeks out the knowledge they need and uses that knowledge for a purpose.

Finally, at the centre, where all three innovations meet, we see our commitment to all learners to uphold whakawhanaunga, tuakiri, and mana. At Waiouru School you have a place here AS YOU ARE. At Waiouru School, you will be welcomed as whānau; you will wear your culture and your mana with pride, and will not be lost in the 'white spaces' (Milne, A. 2017); we will be respectful and responsive to your tuakiri. It is through our connections with our learners’ identities and sense of self that they will be empowered to lead their own learning into their own futures.
Often the best destinations are the unexpected ones

At the outset of the project our environment looked significantly different to what it does now. The initial passion-based rotation included Year 1-3 students only, with single cell composite classes for the remainder of the school (Years 4, 5-6, and 7-8). The children in the passion-based classes rotated around three teachers to learn reading, writing and mathematics. The actual classrooms themselves varied in what they looked like, with some teachers beginning to branch into flexible learning spaces; however, the majority had a tables-and-chairs approach. At this point, some teachers were also starting to dabble in the idea of learning through play, using concepts such as ‘Makerspace’ or ‘make-days’ as the basis for this.

As the project progressed, we reflected on how to create the best learning environment for our learners. The passion-based rotation has shifted to include Year 3-8 students. We have created classes based on relationships rather than achievement, in an attempt to create a place where children feel comfortable and safe. We’ve moved away from traditional composite splits and now have two Year 5-8 classes and a Year 3-4 class. Teachers now rotate between classrooms, which allows our students to develop real ownership of their learning environment. Student feedback shows that they enjoyed having multiple teachers, but preferred not to shift classrooms. Our learning spaces have become more relaxed with a ‘choose your workspace’ approach taken.

A large part of our learning environment is now made up of diverse spaces for a learning-through-play approach. Our Year 0-2 classes operate in a unit with children being free to play in and out of the classroom on a daily basis. Where possible, teachers of these students get alongside the play and at times will work with small groups of children on learning targeted to their needs.

Perhaps the biggest of all the changes we’ve made to ensure smooth transitions is the implementation of a learning-through-play approach. Initially just in the Reception class, this approach has now been adopted throughout the school. For our new entrant children, providing a learning-through-play approach has given them greater continuity between the ECE and school settings. It allows for the development of key competencies and means that teachers are able to provide learning experiences targeted to specific learning needs. We have noticed a definite difference in our new entrant children. They are confident not only within their class environment, but in the school environment in general. Through play, the children are able to show what they truly know and as a result teachers have raised their expectations.

Lessons learnt and unintended consequences

The process of slowing down our learning to prioritise our reflections and keep our ‘Story of Now’ at the forefront of our minds enabled us to remain true to our purpose. Relationship building between ourselves, our students, our whānau, and our community remains an absolute priority to all. Yet in the end, we felt that it was the unintended consequences which strengthened our project the most.

For some staff there is an almost unrecognisable view of how to teach and how to learn. While we knew our thinking would be challenged, we didn’t anticipate just how much we would change. For Stacey, the approach of learning through play has become more than an approach, it’s become a way of being. This excerpt from her blog is an example of the shifts made in thinking.

> This last week the children have taken a shine to the 100s flip board in the classroom. They have been practising counting numbers to 100. Children I didn’t think would be able to are giving it a try. And succeeding. Some are extending this to writing the numbers, in order. I’m hearing from parents that children are trying out counting to 100 at home too. So what’s the difference? How is this different to how I would normally approach classroom learning? Well, if we weren’t learning through play I would’ve never been able to see them counting on the number board in their own time. In the past I’d be head down with a ‘group’ of children while the other children worked on ‘busy’ learning tasks. Now my approach to maths is to try integrate it with their games and play. We still have times where I grab groups of children for focus teaching, however I’m making sure I’m freeing myself up more often to just sit alongside and observe or join in their play. In the past I would’ve boxed the children into their groups… numbers to 10 first, numbers to 20 second etc., and probably wouldn’t have thought to push them harder than this until they had fully ‘mastered’ those early numbers. Sometimes you just have to let the reins go and see where the ride takes you.

Having actively sought to improve pedagogical understandings through continued study and having an interest in research, Cath came into the project quite confidently realising that she would be required to critique her teaching, but she was unaware of the upheaval in thinking that would take place. At times, the reflection and critical discussions undertaken within the team caused us discomfort and required us to reflect on what we were trying to do and the thinking behind our actions. As shared in Emily’s inquiry, ‘Our thinking was ‘disrupted’ so we could see things from another perspective’.

In many ways, the project destabilised us as teachers. It became a case of ‘the more you know, the more you feel you don’t know’. So much of what we were learning about the child as a learner and learning through play made sense, and it seemed to us, ‘if we believe in this, why would we stop at a certain age?’ The passion-based teaching model appeared to be having positive effects on learning outcomes for children, but why or how could we continue to separate reading, writing and mathematics into blocks of learning time? Should we embed our literacy within all learning areas? These big
questions continue to challenge us as we head towards the end of the project. Despite a slight hope that we would now be able to sit back and relax, we now realise that this is by no means the end, but a continuing journey to see how passion-based learning and teaching can or should fit into the direction of learning through play that we are currently moving towards.

Our confidence as pedagogical leaders has been developed through the project. Through the research model we have become quite deliberate about what we do and why we do it. We question the ‘why’, and we aren’t afraid to ask challenging questions of ourselves and our colleagues. We are confident in sharing our knowledge with the conviction that we have research to support what we know. At least one staff member is now working towards her Master’s in Education, another has had writing published on a global website, and others are considering further tertiary education.
Implications for assessment and reporting

What we realised very quickly was that there is a huge tension between what is actual useful assessment data for teaching and learning, and what parents want to know about their child’s learning and experience of school. We had to look for a way to be able to show progress in learning without confining achievement to an age group or year level. Through this process we were able to find and fill any gaps we had, as well as cull any unnecessary assessments. It quickly became apparent to us all that narrative assessment is a form of assessment, which would enable us to honour the purpose and intent of the New Zealand Curriculum.

Prior to our project we had a standard assessment and reporting cycle in line with the requirements of the National Standards. We used an anniversary reporting cycle for our Year 1-3 students, reporting against the standards at milestone points 20 weeks apart, and a twice yearly reporting cycle for Years 4-8. The main focus of the report was reading, writing and mathematics with a tick box approach to key competencies. We met for ‘parent teacher conferences’ with whānau twice per year. The first meeting was early in term one to discuss learning goals and get to know the family. The second meeting followed depending on the age of the child, either on their anniversary or mid-way through the year. Very little information was sought from parents about their knowledge of their own children.

With such extensive exploration of the key competencies and focus on the development of their enrichment, it was only natural that we started to think more about assessment and how we report progress to whānau. We wanted a way to share a journey and create a keepsake that would be treasured. We sought assessments that would better inform our practice and ultimately the outcomes for our learners.

We added a range of ‘building block’ assessment frameworks from The Wilkie Way (The Wilkie Way, n.d.). These fit with and include skills developed in learning through play. These frameworks have continuums right through to Level Four of the curriculum, which is so good and saved us a truckload of work. They show a very clear progression for each child during the year, provide immediate planning and teaching steps, and can be shared with parents to give a clear picture of their child’s learning progress.

We added in a couple of developmentally appropriate screening points for oral language, spelling (which can be a barrier to communication), and junior reading (sight and print issues). These frameworks allow us to clearly set targets and goals for our learners. They incorporate the skills required to build a solid base for literacy and mathematics learning, allowing us to better track progress of those children entering at pre-Level One of the curriculum. Being able to track progress at all levels, no matter how small, lets us celebrate success for all learners.

As our project neared an end, we made a plan around our approach to developing our school-wide targets for our charter, as these were directly affected by our developing curriculum, our assessment and reporting system, and our planning for learning.

We were fortunate that one of our board members, Verity, had a background in education and offered to attend our mini-conferences and act as our liaison with whānau and the community. We never anticipated that the Board would want to be so closely involved. However, by the end of 2017, the Board was so strongly invested in our project that it decided to evolve our entire charter to reflect the transformation in pedagogy and practice amongst our teachers. With the removal of National Standards, the Board seized the opportunity to create targets which truly reflected the New Zealand Curriculum and the progress made throughout our project.

Our charter targets for 2018:

**Target One: Mathematics (Year 6 boys)**
- At the end of 2018, all students will make positive progress to successfully learn within at least Level Three of the New Zealand Curriculum in Mathematics.
- All Year 6 students in the target group will confidently use strategies and retain knowledge from Numeracy Stage Six Advanced Additive, Early Multiplicative to allow them to engage fully with Level Three of the New Zealand Curriculum in Mathematics.

**Target Two: Learning Through Play (Year 2)**
- At the end of 2018, all students will make positive progress to successfully learn within Level One of the New Zealand Curriculum.
- All Year 2 students in the target group will use and develop the Waiouru School Key Competencies across a range of learning areas to enable full engagement with Level One of the New Zealand Curriculum.

**Target Three: Transition To High School (Years 7 and 8)**
- At the end of 2018 and 2019, all students will find transitions to high school positive and have a clear sense of continuity and direction.

This is a two year timespan goal. All Year 7 and 8 students in the target group will use and develop the Waiouru School Key Competencies across a range of learning areas to enable a positive transition to high school.
Our experts

At different points during the project we identified the need to call on ‘experts’ in areas that arose from our inquiries and discussions. The information, support and encouragement that we received from a wide range of educational experts was invaluable. We have summarised these below.

Longworth Education – Individually, and then collectively as a whole staff, we participated in a variety of workshops. They forced us to really drill down to the ‘how’ and ‘why’ of what we were doing in our classrooms and completely re-envisionage teaching, learning and play. All staff have now been part of one or more professional development days delivered by Longworth Education. From Marlene: ‘The Longworth PD put the idea of over-scheduling into my mind and now I’m looking for it in my practice and trying not to feel anxious about doing less. There is something in here about how, as teachers, we are rushing our students to milestones and losing our sense of how young they are.’

Professor Margaret Carr – After our intensive discussions in early 2017, we realised how important it was going to be to have a greater understanding of the key competencies on our journey to unpack learning. Margaret Carr joined us for our June 2017 hui and shared her expertise. Some of us hoped that this would give us the magic ticket; instead, her knowledge and expertise provided a firmer foundation for us to take our earlier attempts of unpacking the key competencies and develop a useable framework that had meaning for us at Waiouru School. Alongside this, we also began our journey with narrative assessment and using learning stories to better document student learning.

Whare Isaac-Sharland – Throughout much of the project, ‘cultural awareness’ was presumed rather than specifically addressed. Our time with Whare affirmed what we were already doing, but also provided us with aspects to consider as we moved forward with the project. One of the key messages we took away from her visit was, ‘Do our students see themselves in the learning?’

Keryn Davis – Gathering qualitative data is daunting. What is it actually? How do you capture it? How do you store it? What about consent, permissions, access, and finding it at the other end? And when you get through all of that, how do you make sense of it all? Keryn’s guidance in this process was invaluable. Her advice and our checkpoints throughout the project meant that, while still daunting, it was doable in the end. We were fortunate to have her lead us systematically through a very un-systematic pile of data.

Application to other educational settings

While this project was our journey and unique to the Waiouru community, we believe our journey and learnings will be relevant and useful to others who are not only deeply interested in making school a more meaningful and worthwhile place for all ākonga, but who may wish to undertake a collaborative inquiry. Below are our top ten tips for others.

Our top ten tips for others embarking on this journey

- Video can be a very powerful tool for self-reflection and understanding your own teaching. Don’t be afraid to video yourselves, learn from this process and share it with others. It can be a powerful force for change.
- Take time to observe your students. Observation is critical for understanding learning.
- Challenge your own assumptions. Ask yourself: What are they learning here? How are they learning here?
- Transition to school is a two-way street. Build strong relationships with your early childhood centres – they will be a powerful resource.
- Foreground the key competencies in your thinking. This can have an impact, not only on academic achievement but on the engagement of your children in learning.
- Don’t be afraid to play. Let it go. Play and playfulness in learning can have a profound impact on the engagement of learners.
- Don’t be afraid to change. In fact, be prepared and expect change. You will start in one place and end up in an entirely different place.
- Make time for robust collegial discussions. Be prepared for your thinking to be disrupted.
- Deep inquiry will not only positively impact your school, but will also be deeply satisfying for your own practice and professional learning.
- Have confidence and trust the inquiry process, even when the destination may seem unclear.
Concluding thoughts

Hapaitia te ara tika pumau ai te rangatiratanga mo nga uri whakatipu.
Foster the pathway of knowledge to strength, independence and growth for future generations.

Through the TLIF we embarked on a pathway of knowledge. The destination was unclear to us all at the beginning of our journey but we knew we needed to make a difference for our ākonga. We believe that the key to the success of this project has been our willingness to wander along the often winding path that collaborative action research-based inquiry can take us down.

It is important that any school embarking on a journey such as a TLIF project accepts that, indeed, learning is messy. It doesn't travel in straight lines. It is more like a giant ball of tangled string with a million different connections that will either lead to the end or create a new beginning. At the conclusion of this project, we can honestly say that we are actually at the beginning of something new and exciting. We feel that the new understandings that we have gathered will lead us into a new space that will indeed prepare our children for their many futures.

References


