

# Teaching approaches and strategies that work

He rautaki whakaako e whai hua ana

KEEPING CHILDREN ENGAGED AND ACHIEVING IN THE UPPER PRIMARY SCHOOL

**NOVEMBER 2017** 



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Keeping children engaged and achieving in the upper primary school

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#### Contents

	aching approaches and strategies that work: Keeping children gaged and achieving in the upper primary school	5
VVI	ny did we undertake this evaluation?	6
Нс	w did we undertake the evaluation?	10
W	nat we found	13
	hools where effective approaches and strategies were plemented across the school	15
	hools where effective approaches and strategies were and only in some parts	16
WI	nat are our findings telling us?	17
Те	n narratives	18
1	Achieving excellence and equity to reduce disparities	21
2	Taking responsibility for the success of all learners	31
3	Putting the children at the centre of all curriculum decision making	41
4	Successfully responding to an achievement issue in mathematics	53
5	From a culture of care to a culture of caring about children's learning	65
6	Using inquiry in a relentless drive to improve outcomes for all children	75
7	Fully engaging children in learning through an innovative curriculum	85
8	Empowering children's learning, efficacy, aspirations and success	97
9	Developing student agency and motivation through effective teacher practices and inquiry	105
10	Children, parents and teachers benefiting from teaching as inquiry	113
Αn	pendix 1: Evaluation framework and guestions	125



# Teaching approaches and strategies that work

KEEPING CHILDREN ENGAGED AND ACHIEVING IN THE UPPER PRIMARY SCHOOL

This evaluation looks at teaching approaches and strategies used in schools where there has been a significant increase in the number of students at or above National Standards in the upper primary school years (Years 5 to 8). We wanted to learn more about any short-term interventions or long-term strategies that may have been influential in bringing about these positive achievement trajectories. We have shared and discussed our findings from some of the 40 schools we visited.

#### Why did we undertake this evaluation?

National data shows that while many New Zealand children make good progress during their first three to four years at primary school the rate of progress slows during Years 5 to 8.

Like the National Education Monitoring Project (NEMP) before it, the National Monitoring Study of Student Achievement (NMSSA) has found that many more Year 4 than Year 8 students are achieving at the expected curriculum level. Its 2013 report on mathematics and statistics found that 81 percent of Year 4 students were achieving at or above the expected level (Level 2) while only 41 percent of Year 8 students were achieving at or above the expected level (Level 4). Its 2012 report on writing found that 65 percent of Year 4 students were achieving at or above the expected level compared to only 35 percent of Year 8 students. The results for writing were very similar regardless of gender, ethnicity, decile and school type.<sup>1</sup>

Figure 1: Percentage of students achieving in writing

Level	Year 4 (%)	Year 8 (%)
5	0	8
4	2	27
3	18	37
2	45	23
1	35	5

Source: NMSSA English: Writing report, 2012

**asTTle** (assessment Tools for Teaching and learning) data from schools using e-asTTle reveals a similar trend. By selecting questions that meet their specific criteria, asTTle allows teachers or leaders to create tests that differ widely in content, spread and difficulty. When test scores are generated, they take into account the level of the questions asked. The norms are not specific to curriculum level or question type but are derived from the combined data from all tests within an appropriate curriculum range.

<sup>1</sup> NMSSA reports are based on a nationally representative sample of approximately 2000 students from each Years 4 and 8.

Figure 2 shows e-asTTle norms for reading and mathematics by quarter. The norms are derived from data collected between 2007 and 2010, when the most recent calibration was done. The writing tool was fully revised in 2012 and the norms have changed to reflect this. Each of the asTTle levels is broken into three sublevels: beginning (B), progressing (P) and achieving (A). It is reasonable for a student to progress through three sublevels in two years. However, when a student needs to accelerate progress it is realistic for teachers and students to set a goal to move up by two sublevels in a year.

If most children were progressing well, our national norms would show changes of about three sublevels every two year. However, data for the reading and mathematics asTTle norms for the 2010 cohort indicated that the achievement trajectory does not ensure most children reach Level 4A by the Term 4 in Year 8.

Figure 2: asTTle norms for reading and mathematics

		Rea	ding	Mathematics			
Year level	Quarter	Mean score	Mean curriculum level	Mean score	Mean curriculum level		
	1	1301	2P	1358	2P		
4	2	1306	2P	1364	2P		
4	3	1317	2P	1375	2P		
	4	1333	2P	1389	2A		
	1	1346	2P	1400	2A		
5	2	1360	2A	1410	2A		
5	3	1372	2A	1420	3B		
	4	1390	3B	1430	3B		
	1	1403	3P	1441	3P		
6	2	1416	3P	1451	3P		
0	3	1425	3A	1460	3P		
	4	1426	3A	1466	3P		
	1	1430	3A	1472	3P		
7	2	1436	3A	1479	3A		
/	3	1447	4B	1489	3A		
	4	1453	4B	1500	3A		
	1	1462	4B	1512	4B		
8	2	1474	4P	1521	4B		
0	3	1489	4P	1529	4P		
	4	1494	4P	1535	4P		

Source: e-asTTle norm tables Sept 2010

International assessment studies show that this pattern of progress continues into secondary school. According to recent **Programme for International Student Assessment** (PISA) data, the reading achievement of our 15 year olds is on a steady decline and New Zealand is one of very few countries in which the mathematics and science achievement of 15 year olds is on a trajectory of accelerated decline. PISA data also shows that within the same school, young people can experience widely divergent opportunities to learn. This within-school inequality is amongst the highest across the countries that participate in PISA assessments.

To ensure that students are achieving at the expected curriculum level by the time they leave primary school, there must be change, particularly in the upper years. Declining rates of achievement must be reversed so students are prepared for the demands of the secondary curriculum and, later, for success in further education and employment.



Accelerated improvement requires a whole system to function as a collaborative learning community that is advancing progress on the four areas of leverage: pedagogy, educationally powerful connections, professional learning and leadership.

Alton-Lee cited in Mathematics in Years 4 to 8: Developing a Responsive Curriculum

Recent ERO publications have identified variability in these four areas of leverage means that, within and across schools, children experience widely divergent opportunities to learn. The relevant reports and publications are:



# Accelerating the progress of priority learners in primary schools (2013)

This report found that highly effective teachers had a strong focus on ensuring their students understood how they could apply their learning in different contexts across the curriculum. They developed partnerships with parents and whānau to support students' learning. They were reflective practitioners and proactive in identifying the skills they needed to develop.



#### Raising achievement in primary schools (2014)

The effective schools in this report were highly strategic and evaluative when trialling new approaches and innovations. Factors that contributed to their effectiveness in accelerating student progress were leadership capability, teaching capability, assessment and evaluative capability, the capability to develop relationships with students, parents, whānau, trustees, school leaders and other teaching professionals and the capability to design and implement a curriculum that engaged students.



#### Raising student achievement through targeted actions (2015)

This report found that effective schools had a clear line of sight to the students most at risk of underachieving. They knew who to target and what actions to take to accelerate progress. They monitored their actions to see if they had the desired outcomes for the students. Other factors contributing to success included a strong commitment to excellence and equity, leadership, teamwork and quality professional learning conversations and capacity building with the aim of sustaining improvement.



# Educationally powerful connections with parents and whānau (2015)

Through conversations with parents and whānau, teachers aimed to learn about each child in the wider school and home context and then use their knowledge to develop holistic learning goals and authentic contexts for learning. In the best instances, teachers involved parents and their child in setting goals and agreeing on next learning steps. They responded quickly to information gained from monitoring progress. They persisted in trying to find ways of enabling students to succeed and to involve the parents of those at risk of underachieving.



#### Wellbeing for children's success at primary school (2015)

In schools where wellbeing was a key focus, students were able to make decisions and be accountable for their outcomes. The school values were evident in actions, interactions and documentation. The wellbeing of all students was actively monitored and their individual needs responded to in a timely fashion. The curriculum was designed around valued goals and outcomes, and actively monitored. Within a high-trust culture and stimulating curriculum, teachers and leaders provided students with opportunities to participate, collaborate with others and be resourceful.



## School evaluation indicators: effective practice for improvement and learner success (2016)

Educationally powerful connections and relationships and responsive curriculum, effective teaching and opportunity to learn are the domains that have the greatest impact on outcomes for students. Their influence depends in turn on the quality and effectiveness of stewardship, leadership for equity and excellence, professional capability and collective capacity and evaluation, inquiry and knowledge building for improvement and innovation. Effective schools are characterised by high-quality practices in all domains and by the coherent way in which they are integrated.

The most relevant school evaluation indicators are listed in each section of the investigative framework found in Appendix 1.

#### How did we undertake the evaluation?

In Term 4, 2016 we visited 40 full primary or contributing primary schools across New Zealand. These were selected from a database of 129 schools, with rolls over 200. These schools were chosen because increased numbers of students were achieving at or above National Standards in reading and writing or mathematics (or both) as they moved through Year 4 to Year 5. These schools' achievement levels were also higher than the average for their decile.

Before each visit, we sent the school a set of discussion points and questions for leaders to consider. In many schools, the whole staff looked at the discussion points together and identified areas that we might want to investigate further.

At each school, we asked leaders what they saw as the reasons for their positive achievement trajectory. They then looked for evidence of the approaches and strategies used, and the outcomes, by:

- > talking with children, parents, teachers, leaders and, where possible, trustees
- > observing in classrooms
- > looking at documentation, student work, class displays and the school environment.



# How is your school helping students to keep making progress after Year 4?

We would like to speak to school leaders to discuss your school's achievement and are interested in how teachers, students, parents and trustees have been involved in any decisions or recent improvements.

#### We would like to discuss and investigate:

- > Why you think you are getting achievement gains from Year 4 to Year 5 and beyond
- > What is making the biggest difference:
  - at Year 5 (and beyond)?
  - in Years 1 to 4?
  - whole class, syndicate or school strategies?
  - small group or targeted interventions?
- > Innovations that could be shared with other schools
- > How you are using achievement information to decide what you need to work on, what has worked, and what you need to continue doing
- > The teaching practices that have contributed most to the improvements in your school.
  - What they are, where they are working best?
  - Why do you use these particular strategies or resources?
  - How do teachers share agreed or best practices to get consistency across year levels, syndicate or school?
- > Internal or external professional learning initiatives that have helped resource improvement:
  - How they have helped?
  - What challenges have you experienced when implementing new strategies across the school?

The investigative framework used by the evaluators is in Appendix 1.



# What we found

In an overwhelming majority of schools, we identified and observed specific, useful teaching strategies. In some cases, effective practices were visible across the school; in others, they were found only in particular syndicates or classrooms. Generally, leaders and teachers were interrogating and responding to their assessment data. They knew which children were not achieving at the expected level and were trying different things to bring about ongoing improvement.

Some leaders were able to confidently explain why their school's data was as it was. They knew what was working and what to do next. They knew why there were more children achieving success as they moved through to the upper primary school.

- > Some schools stressed early success as a strategy for minimising the number of children who might need additional support at a later stage. Strong relationships with parents in the junior school years meant that learning extended from the school to home and vice versa. Each child was expected to achieve well and to contribute to their own learning. They participated in a curriculum that engaged them and where learning was clearly linked to their interests and everyday lives. They knew what they had learned and what progress they had made.
- > In the middle and senior school, teachers with good pedagogical knowledge knew the children's interests, strengths and needs. Teachers provided innovative and motivating learning activities that children would often tackle in social groups. Children were well supported to make choices and share their ideas. They would discuss what they had learned and what they were currently trying to achieve.

# Schools where effective approaches and strategies were implemented across the school

In over one-third of the schools, leaders could articulate what they were doing that was raising or maintaining achievement and had successfully implemented the agreed approaches and strategies across the school. The leadership teams worked with and influenced a wide variety of people in the school community with the result that the children were engaged, motivated and achieving right through primary school.

These schools had teachers and leaders with a strong sense of collective responsibility for all children and an urgency to accelerate the progress of those who were behind. Learning started on day one of the school year. Well-paced lessons kept children engaged and learning. Achievement issues were identified and addressed quickly, with every teacher contributing to improvement strategies for priority learners. In some of these schools genuine learning partnerships with parents increased children's learning opportunities at home and at school.

Children generally enjoyed learning experiences across the full curriculum. Leaders and teachers carefully designed the curriculum to make sure core reading, writing and mathematics was integrated across learning areas. This meant children could develop their literacy and numeracy skills by engaging in activities that interested them. Consistent approaches and a common language of learning meant children did not have to work out what their teachers expected of them when they moved to a new class. Children experienced established, high expectations and knew what they had to do to achieve success.

The boards of trustees were equally focused on raising achievement. They were knowledgeable about the challenges and issues, often because leaders had presented them with well-considered cases for funding new programmes, professional learning and development (PLD), resources, or teachers' academic research. Trustees were able to ask good questions about why children were or were not progressing. They wanted to know how new funding was contributing to improved outcomes for children.

Leaders often focused on improving teachers' content knowledge as well as teaching practice. A collaborative and supportive culture encouraged teachers to identify knowledge gaps and learn together. Sometimes this meant adopting a new perspective as they came to realise they could make a difference, and that no child should be expected to fail. Teachers were also seen as learners.

Engagement and motivation were both crucial for supporting the learning and achievement of senior primary school children. Many schools were successfully giving students greater opportunities to work in multilevel groups and to make choices about their learning. Teachers grouped children for the purpose of learning about a particular concept, acquiring a specific skill, or exploring a context that interested them. They no longer grouped children by achievement level or reading age. In some cases, children were able to select which workshop to attend or which context to explore. Children were taught how to work well together, contribute, listen to others, and take responsibility for completing something successfully. Some children who had been working in a bottom group or even independently with a teacher made considerable gains when put into a multilevel group – they no longer felt designated as failures and enjoyed being supported by, and learning from their peers.

Teaching as inquiry was strong in many of these schools. Formalised systems prompted teachers to:

- > thoroughly analyse their data
- > consider research related to the particular strengths and needs of the target students
- > be clear about what actions they would take, and the rationale for them
- > monitor their own performance throughout trialling
- > rigorously review the impacts on the children who were expected to benefit
- > seek perspectives from children and parents
- > share practices and implement them across the school to benefit more children.

# Schools where effective approaches and strategies were found only in some parts

Leaders and teachers in almost all of the 40 schools had looked carefully at their assessment data, had been involved in PLD, and were working more collaboratively together. However, in some cases, they had managed to get effective approaches and strategies embedded only in parts of the school. The staff could be making many changes but were unsure which were contributing to a positive achievement trajectory.

Where good practices were evident only in parts, we identified a variety of factors that were limiting effectiveness. Credible PLD alone was not enough. Effective change management and monitoring practices were also necessary to make sure agreed new strategies were being implemented and they were working for both teachers and children.

In other cases, leaders had implemented or were considering implementing actions without researching how they influenced achievement. Some engaged in high-level thinking about vision, wellbeing and relationships, but did not similarly focus on achievement.

Leaders in some schools talked about the present and the future without paying much attention to what had gone before, including what may have been working. These schools risk dropping successful practices and wasting time replacing them with approaches that are actually less effective in raising achievement.

In a very small number of schools, leaders were wedded to an action or programme without evidence it worked or were stymied by individual leaders or teachers who refused to implement the agreed changes. In almost all of these schools, however, we saw some high quality teaching strategies working for students.

#### What are our findings telling us?

It is vital all schools have organisational structures, processes and practices that enable and sustain collaborative learning and decision making designed to continuously improve student achievement.

Many of the schools in this study were happy to share a wide variety of things they were doing, yet often with little knowledge about which of these were contributing to improved achievement. It is just as important to know what is working as it is to know what the achievement issues are. Schools that focused deeply on a small number of areas or systematically practised teaching as inquiry were better able to identify approaches that warranted continuation or extension. They were also better able to monitor the impact of new strategies to determine whether they were accelerating the progress of students who had been achieving below expectations.

In some schools, leaders assumed – wrongly – that whatever was being introduced as a consequence of PLD was being implemented as agreed and was working for the children. Others did regular classroom visits and observations, providing feedback and ongoing support for teachers. Through classroom observations and by talking to children, we found that agreed strategies had sometimes not been implemented, or that the children were unaware of them or how they might benefit from them. Without ongoing monitoring, worthwhile strategies may be abandoned, not because they did not work, but because they were never properly implemented.

# Teaching approaches and strategies that work

#### Ten narratives

On the following pages we have shared approaches and strategies that work from 10 different schools. In most cases, their positive achievement trajectories are the outcome of years of ongoing review and making changes to all aspects of practice. While the schools have chosen different approaches, all have been effective in terms of helping make sure children continue to make progress throughout their primary school years.

#### These approaches include:

- > developing a rich curriculum
- > managing change to make necessary improvements
- > undertaking systematic teaching as inquiry
- > responding to achievement issues
- > increasing student agency
- > developing learner-focused partnerships with parents and whānau
- > analysing and using relevant student achievement information.

#### 01

Achieving excellence and equity to reduce disparities

PAPATOETOE NORTH SCHOOL

- > developing a rich curriculum
- improving prior knowledge and academic vocabulary
- > establishing genuine partnerships with parents and whānau

#### 02

Teachers taking responsibility for the success of all learners

BLEDISLOE SCHOOL HAWKES BAY

- > building a reflective culture aligned to strategic goals
- > implementing in-class interventions where teachers take responsibility for every learner
- building collaborative decision-making processes and a common language of learning

## 03

Changing the focus to put children at the centre of all decisions and practices

**ALFRISTON SCHOOL** 

AUCKLAND

- > implementing a carefully considered change management strategy
- > making learning more visible for children
- > using a rich, integrated curriculum to engage children

04

Successfully responding to an achievement dip in mathematics

WEST GORE SCHOOL SOUTHLAND

- > using robust identification processes for responding to an achievement issue
- > implementing responsive short- and long-term initiatives

05

From a culture of care to a culture of caring for children's learning

ROSCOMMON SCHOOL AUCKLAND

- > changing teachers' expectations and mindset
- > working with outside providers to implement bespoke professional development
- > developing leaders' capacity to continue the ongoing developments
- > developing assessment capabilities

## 06

Using inquiry as part of a relentless focus on improving outcomes for all learners

#### SOMERFIELD SCHOOL

CHRISTCHURCH

- > using inquiry processes and testing the impact for children
- > developing leadership capabilities
- > fostering open relationships with the board to enhance strategic resourcing decisions

## 07

Children fully engaged in learning through an innovative curriculum

SYLVIA PARK SCHOOL AUCKI AND

- > introducing change management strategies to develop teaching practice
- > implementing a rich curriculum
- > developing positive relational and educational partnerships with parents and whānau

## 08

Empowering student learning, efficacy, aspirations and success

#### HOKOWHITU SCHOOL MANAWATU

- > using teaching as inquiry linked to the school's charter targets
- > making learning more visible for students
- > developing student agency

#### 09

Developing student agency and motivation through effective teaching as inquiry

**EAST TAIREI** OTAGO

- > increasing learner agency
- > reviewing curriculum and pedagogy in depth to introduce agreed practices

#### 10

Children, parents and teachers benefiting from teaching as inquiry

ORATIA SCHOOL AUCKLAND

- > introducing processes to effectively manage teaching as inquiry
- > trialling and reviewing practices, outcomes and impacts to improve parent and whānau partnerships, learning environments and class structures

TEACHING STRATEGY

01

# Achieving excellence and equity to reduce disparities

**Papatoetoe North School** is a Years 1 to 6 Auckland school. In July 2016, the roll of 821 students included 397 children from different Pacific groups, 231 Asian (mostly Indian), 171 Māori and 14 Pākehā/ European or other ethnic groups. Three hundred children were funded as ESOL (English as a second language) students.

The school's leaders and teachers had focused on giving the children, who come from a relatively low socioeconomic area, the rich social capital that is their right. They had:

- > investigated research about what works in schools where many of the children are ESOL students
- > implemented a spiral curriculum that built on children's background and prior knowledge
- > focused deliberately on oral and academic language instruction
- > involved parents and whānau as genuine partners in their children's learning
- > built a positive school culture where pressure from their peers encouraged children to do well.

These were closely intertwined strategies, each relying on the others for their effectiveness.

#### Using research to find a new approach

School leaders identified that for many children, progress slowed when they were working at Level 2 of *The New Zealand Curriculum*. In deciding what actions to take, they were strongly influenced by an article by Goodwin, *'Don't wait until 4th grade to address the slump'*, which summarises research findings that suggest the achievement slump often occurring for children aged around nine or ten years can be attributed to:

- > early reading difficulties
- > variations in vocabulary knowledge
- > lack of domain-specific prior knowledge
- > the rise of peer influence.

Mazano and Hadaway were further influences. In *Building Background Knowledge for Academic Achievement*, Mazano demonstrates that what students already know about something is a strong indicator of how well they will make sense of new, related material. In *A Narrow Bridge to Academic Reading*, Hadaway explains how focusing on one author or theme in children's literature can help language learners make the transition into academic reading.

Based on the findings of these researchers (and others), leaders saw the need for a school-wide approach to boosting the vocabulary of younger students, filling their background knowledge gaps, and developing a peer culture that prioritised learning.

# Implementing a spiral curriculum that builds on children's background and prior knowledge

Leaders made sure the teaching programme was structured so all children had maximum opportunity to learn and achieve success. Working with an external facilitator, they developed detailed guidelines that described skills, progressions and strategies across Levels 1 to 3 of *The New Zealand Curriculum*. These linked the children's developing skills: personal voice, prior knowledge, questioning, problem solving and solution seeking, decision making and presenting (all based on the key competencies) to the learning areas.

The progressions developed for the learning areas showed what the children were expected to learn at each level. The skills were integrated into the learning areas and skills progressions they created and showed teachers what students should experience through the years. A high level of integration across the learning areas was designed to maximise learning time, depth of learning and transfer of learning across the curriculum. The three teaching teams (syndicates) used the guidelines to collaboratively plan units of work. These gave all children opportunities to engage with the whole curriculum and to focus on the skills they most needed for success.

Towards the end of each term, the children engaged in activities designed to build the knowledge and academic vocabulary they would need for the following unit. Teachers related what the children already knew about these words to their science, technology, engineering and mathematics (STEM) meanings. The pedagogy of vocabulary development was guided by the six-step process described in Mazano and Simm's 'Vocabulary for the Common Core and New Science Standards' webinar.

Knowing the learner was integral to planning, the team worked to make sure the perspectives of the children's different cultures were understood and kept in mind. This team included teachers from the different cultural groups. They shared personal experiences, internet links and YouTube clips that explained the kinds of cultural competencies the children and their whānau would bring to the learning. They also led hui, fono and meetings with parents and whānau where they discussed what the term's topic or theme meant to them. The photos show examples of prior learning completed by three children on the theme of 'belonging'.

External experts challenged and extended the thinking and practice of both teachers and leaders. They showed them how to use internal evaluations

of current and recent teaching to inform their planning of the next unit. This, combined with 'knowing the learner' strategies, increased teachers' understanding of the knowledge children could bring to their learning and how they could build on it in a different context.







The inquiry concept chosen for each term provided wide-ranging opportunities for learning in such areas as innovation, wellbeing, sustainability and creativity. The aim was to repeat topics every two years so children could build on their earlier learning and subsequent experiences. Practice was guided by the theory that children need deep knowledge to ask rich questions and use higher-level skills.



"We asked a Year 6 child if it seemed repetitive to do the same inquiry topic three times while they were moved through the school. The child said, "No we never do the same things. When we were in Years 1 and 2 we sort of learnt about things that we could talk about and what we were interested in then. In Years 3 and 4 we had to think creatively and try to innovate new ideas. Now, when we are in Year 5 or 6, we do a lot more about technical processes and science and cycles and things like that. When we did innovation this year I liked it because we did science that was more technical and we had to design a new uniform for our school for 2031."

Teachers recognised collaborative planning was essential for making sure activities and skills became increasingly complex and children were not just repeating things they had already learned. Two provisionally certificated teachers told us how they managed the approach when they first came to the school:



"We really like the structure of the curriculum; it is an anchor we use to plan for our children. In Year 6 we can use the children's prior knowledge from previous studies but take them further out of their world. For example, when we did sustainability, we looked at the garbage patch or managing all the rubbish in some of the Pacific Islands. We also give kids the chance to do more independent work as well as time to work together. The inquiry is a great platform for the children's writing."

"When we came here we struggled a bit with the inquiry before we really understood the children, but the collaborative planning helped us. We also like the collaboration between syndicates at staff meetings as we get to see where the children have come from and what they are going to later."

# Focusing on direct oral and academic language instruction

Organisational structures, processes and practices enabled and sustained teachers' and leaders' collaborative learning and decision making. Learning outcomes such as using personal voice, using prior knowledge and questioning (from the skills progression), were associated with verbs such as 'talk', 'contribute', 'give feedback', 'share knowledge' and 'generate questions'. These formed the basis of the oral language programme that was tightly integrated into each unit.

At leadership meetings, leaders unpacked the 'big ideas' in the focus concept, deciding on the enduring understandings, academic vocabulary and essential questions. Each syndicate then identified the expected learning in selected learning areas. Ongoing discussions took place during the term. Units were reviewed at syndicate level and then school level. These reviews were the starting point for planning when the topic was revisited in subsequent years.

Leaders understood that teachers needed to know what they were teaching and children knew what they were expected to learn. Teachers deliberately boosted vocabulary and responded to gaps in background knowledge. It was expected they would integrate teaching across learning areas, and choose reading and writing activities that related to the focus concept and extended children's vocabularies. Comprehensive guidelines gave teachers advice about how to do this.

The skills progressions were well known and used. When planning for each term, teachers and leaders would discuss them in detail as they decided which concepts and skills they would focus on in their teaching.

Teachers shared the skills progressions and success criteria with their students. This helped the children know what they had to do to achieve success, and gave them the means to assess their own progress.

# Involving parents as partners in their children's learning

Children's learning at home was actively promoted through the provision of appropriate learning opportunities, resources and support. This focus on teachers and parents working together to improve children's learning was an outstanding feature of the school. Because teachers and leaders valued parents as their children's first teachers and as partners, parents were strongly committed to supporting their children's learning.

#### To parents

You are your child's first and best teachers.

You have the skills and knowledge to help your child learn and grow. Your wonderful language and experiences are gifts you can share. Helping your child learn at home has benefited you child, your family and the school.

What your child already knows about the content is one of the strongest indicators of how well they will learn new information and skills.

As the end of each term approached, learning activities related to the next inquiry unit went home for children and their families to work on during the holidays. These holiday activities, and learning tasks sent home during the term, supported parents to play an important role in building their children's academic vocabulary and, as a result, their background knowledge.



Part of one child's home learning on the theme of sustainability.

The three teaching teams created home learning activities. In Years 3 to 6, the

focus was on the children exploring with parents what they already knew, necessary vocabulary, and what they wanted to discover more about. As far as academic vocabulary was concerned, the emphasis was on hearing and valuing the family's perspectives, not on looking up the dictionary or searching the internet for meanings.

Each term parents were invited to the school to collect the home learning pack. Parents who wanted extra support could participate in workshops, where possible motivating strategies would be discussed, or meet with teachers to go through the activities. Meanwhile their children would be supervised in the school hall by teacher aides. Parents were welcome to take home any resources they required.

A photo below shows a child with a completed home learning task on the theme of 'belonging'. A lot of the children's home learning on this theme was displayed in the classroom to help teachers understand what was important in the child's life.





"We met with a small group of parents to hear their perspectives of the holiday learning. Although they all told us they hadn't done well at school they confidently shared highly effective teaching practices they had used with their children. In most cases they had worked individually with their children, using different approaches for their different age levels.

"It is straightforward what we have to do. I have one child who is very eager to do it and the other can be resistant. When they were younger they found it harder to write things down so I would get them to tell us and we write down whatever comes out of their mouths."

"Sometimes there are things in the sheets that we don't understand so we ask the children to check with the teacher or we check with the teacher ourselves. We have to be careful as sometimes we overthink something as a parent."



An assembly to celebrate the home learning partnership.

At the end of the year, parents of well over 600 children, who had completed more than 80 percent of the home learning, came to a special assembly to celebrate what had been achieved. As they entered, each child gave their family the lei they were wearing. Children from each teaching team then shared how they had benefited and what they had learned from their whānau. The home learning partnership strengthened their sense of belonging and connection to school, whānau, friends and community.

# Building a school culture where students experience peer pressure to do well

A genuine partnership with, and respect for parents contributed to the strengthening of care and connectedness (whanaungatanga) because:

- > learners had the right to self determination, where power is shared (mahi tahi)
- > learners' understandings formed the basis of their identity and learning (whakapapa).

On many occasions, we heard children explain how proud they were of their parents. Negative peer pressure was not visible because of the influence of, and children's respect for, whānau. Children talked about how they were expected to make the most of their learning time. They understood and valued their teachers' expectations of them. As many children explained, it was not only acceptable to do well at school, it was expected that you will do well.



"It is essential to try hard and do well. You are encouraged to do well and extra support is provided in reading, writing and maths, and even from a social worker if it is needed."

"Everyone is expected to be a good learner. Our teachers encourage us to always try more rather than give up and not give it a go. "

"A lot of us are independent in our work. Our teachers support us to use the strategies we have been taught."

"We have to get planned before we start (writing) so we don't spend the whole lesson just thinking."

"We like to learn and use our strategies to move up the levels. When it is challenging it helps us to learn. We find we can do it and then we get pushed to go further."

"Our teacher pushes us to be confident and try new things. She even pushes us to go in sports teams. She doesn't really like us to be a lazy person."

Year 6 children

The achievement of equity and excellence in ways that reduce disparity was a feature of the school. Equity was foregrounded in the practice of ensuring that children got the curriculum they needed. Teachers supported them with engaging activities in which they taught and/or retaught concepts and skills they needed for success. Teachers didn't wait for them to achieve everything before moving on. Strengths and gaps were identified and responded through:

- > the use of carefully analysed assessments
- > children sharing specific detail about what they had learned
- > children explaining or justifying their thinking to their peers.

High quality work was evident across the school. Children valued and were able to describe the high expectations teachers had of them to achieve well academically. They were aware of the strategies they had been taught and confidently used them. By the end of Year 6 a high percentage of students were achieving at or above National Standards.

Year 6 students at or above National Standards at end of 2015					
Reading	90.7%				
Writing	86.4%				
Mathematics	83.9%				

The following is a summary of the teacher beliefs that contributed to the children's success and kept them progressing from year to year.

- 1. Powerful learning happens across the curriculum, within all aspects of our learning community. We maximise learning when we truly know our learners through inquiry within a 'safe, inclusive and vibrant environment where children are supported, encouraged and challenged to achieve personal academic excellence, and develop their talents, so they are well prepared to be productive citizens in the twenty-first century.'
- 2. All learning is about making meaning and creating meaning.
  All powerful learning is underpinned by the foundations of literacy learning at Papatoetoe North School.
- 3. Teach oral language across the day where it is most relevant and purposeful.
- 4. A range of digital skills, literacies and fluencies are developed across all aspects of learning and our learning community.
- 5. Without a rich knowledge base, children don't have the information to ask questions worth investigating.
- 6. It is vital we embrace and relate to students' voice, their different learning perspectives, and their culture.
- 7. By shifting the focus of control from teacher-led learning, we enable students to independently drive a learning journey that they are truly engaged in.
- 8. Rich learning results from investigating and exploring big ideas, overarching essential questions and enduring understandings through multiple inquiry pathways and perspectives.
- 9. Presentations most effectively create meaning when they incorporate combinations of oral, written or visual language and the arts. Presentation is bigger than just the end presentation, it is the 'whole' package: taking the new information and synthesising it etc., thinking creatively, independently of the teacher.
- 10. The range of media used for presentations will spiral and develop across the levels.

TEACHING STRATEGY

02

# Taking responsibility for the success of all learners

**Bledisloe School** (Years 1 to 6) in Napier has about 350 students, of which half are Pākehā/European, one-third Māori, and the remainder predominantly Asian and Pacific.

The school attributes its positive achievement trajectory largely to the practice of teachers, leaders and trustees taking responsibility for the success of *all* learners.



"We have changed from a remedial model, where the child was withdrawn, to an expectation that it is the teachers' responsibility to respond to every child. No-one is going to come and take them out of the class and fix them. Alongside this is an understanding that it takes a village to raise a child and it is a collective responsibility to support all students. This support extends to teachers also; no-one is left feeling isolated and unsupported in finding solutions to achievement challenges."

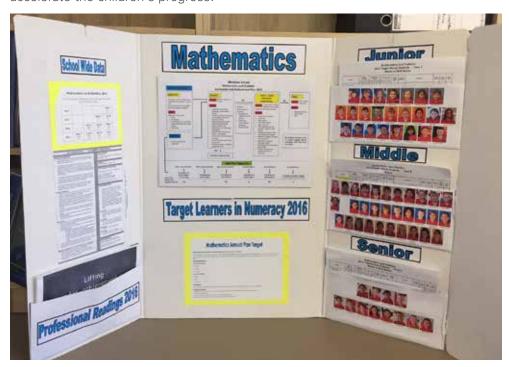
**Principal** 

A core belief of the school is 'we will provide a positive, esteem-building environment for children, staff and whānau'. They demonstrate this by:

- > building a reflective culture where evidence is used before and during the introduction of new strategies and approaches
- > ensuring coherence between practices, programmes and strategic goals
- > keeping trustees well informed and involved in decisions about programmes, achievement and progress
- > collaborative decision making about approaches to be used with individual
- > everyone taking responsibility for children's success through in-class interventions
- > ensuring children understand their learning strategies and goals through the use of a common language of learning.

# An unrelenting focus on improving teaching for children achieving below expectations

Leaders had built a culture that encouraged reflective practice by both children and staff. Every teacher was responsible for ensuring that all children can succeed. The needs of every child who is below the expected level were known and discussed by the teaching, literacy and numeracy teams before actions were agreed, and their progress was tracked. Actions were evaluated and changed as appropriate. Professional reading was valued as a source of new strategies to accelerate the children's progress.





"When we look at the data we are most interested in the children, who they are, and then what are we going to do collectively, and then what are we going to do for each of them. Data is always contextualised and the importance of knowing our students and their families and building effective relationships cannot be minimised."

Leaders

The numbers of children achieving below the expected level, particularly in mathematics and reading, decreased as children moved through the school. The positive trajectory is shown below as the school's achievement trend data for reading.

#### Children at or above National Standards in reading (2013–15)

	2013		20	14	2015		
	Number	%	Number	%	Number	%	
After 1 year	18	24.3	8	16.3	25	43.1	
After 2 years	53	88.3	49	86.0	39	74.0	
After 3 years	45	97.8	49	86.0	39	81.3	
At end of Year 4	45	90.0	46	88.5	54	88.5	
At end of Year 5	45	84.9	40	85.1	47	92.2	
At end of Year 6	37	92.5	42	84.0	45	90.0	

#### Coherence of intervention with strategic goals

Every new programme or resourcing decision had to clearly align with the school's strategic goals. This kept leaders, trustees and teachers focused on the agreed goals and guarded against the introduction of initiatives that might have distracted them. It also made the change process more manageable.

#### New programmes had to:

- > be supported by research that endorsed the idea, concept or programme
- > have a clear link to the school's vision, core beliefs and strategic goals
- > contribute positively to children's learning and achievement
- > take account of the financial, human and time costs of making the change
- > not distract from the core business of high quality teaching and learning.

Some of the recent strategies trialled and then extended across more classes included:

- > a phonics programme in the junior and then middle school to improve writing
- > reading comprehension strategies in the middle and senior school
- > accelerated learning in mathematics (ALiM) in the middle school and then other classes
- > peer tutoring in the senior school
- > a small Year 6 class for children who were not confident or have a strong 'learning voice'
- > accelerating literacy learning (ALL) for a small middle-school group, taken by the literacy leader; subsequently extended across school
- > a decoding strategy for senior readers
- > a writing programme for junior students.

# Informed trustees are involved in decisions about programmes, progress and achievement

At each board meeting trustees received information about student achievement, including interim achievement data, the progress of students named in achievement targets and the impacts of interventions.



"We get excited by the data and the progress. We look carefully into the data, especially for what's happening for Māori and Pacific children."

Trustee

Student learning, wellbeing, achievement and progress were the board's core concerns. Thanks to presentations and regular reports from staff, trustees knew a considerable amount about learning programmes, interventions, and what was happening in classrooms. Guided walks through classrooms were also common practice. Before the most recent guided walk, trustees were given information about the different interventions designed to support literacy development including:

- > what the intervention consisted of
- > the actions involved
- > the impact so far on the children
- > where to and/or what was needed next.



"All of us trustees were involved in a guided walk through all classrooms during literacy time. We talked to students and found out that they knew about their learning and could talk about what they were learning across all three of the teaching teams."

Board chair

The board resourced an extensive variety of interventions, initiatives and professional learning, but was careful not to "just throw money at anything". Resourcing decisions were made only after leaders had presented a case for funding, complete with rationale, purpose, expected outcomes and projected costs. Trustees were kept informed about the impact on student outcomes of all interventions and professional learning.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov
Strategic Focus		Share charter discuss "clear line of sight"	Achievement targets and leader, team and teacher actions	Health and Safety	5 YA planning discussion ALL intervention	Māori Student Achievement	Roll return, issues for BOT to manage	Review progress towards targets with BOT		Review Room 15 and 6.5. Discuss impact	Staffing and roll for 2017
Monitor and review		2015 data discussed Carol/Di/ Baz	SENCO report  Claire  E learning at Bledisloe School  Darren	Sport and active playground report Sue D The Arts Joy M	Share writing data (ALL) with BOT Baz/Claire	Māori Student achievement report <b>Darren</b>	Update on Charter goals Carol	GATE report Reading recovery report Sarah	Maths at Bledisloe <b>Di</b>	PB4L data shared Di Darren	

Part of the board's annual calendar of work.

The board had recently allocated funding for the refurbishment of an old dental clinic to accommodate 15 Year 6 children who had been withdrawn from senior school classes. The four-mornings-a-week programme focused on building these children's confidence in reading, writing and mathematics. Trustees understood the rationale for this intervention and regularly asked for information about the children's academic and social progress. Seeing its positive impact, the board committed to continuing the Year 6 intervention for a second year and decided to fund a similar intervention for Year 4 children.





"This school has the environment for every child to have their time in the light. Everyone can shine."

Trustee

# Collaborative decision making about approaches for individual students

As a rule, strategies were so well researched that, when implemented, they made a difference for many of the target students. The literacy and numeracy teams, which included staff from across the school, were often instrumental in researching and introducing new pedagogy. Progress was reported regularly to leaders and at team meetings.

Although strategies and approaches were discussed at senior leadership and staff meetings, team meetings that focused on teaching and learning were the most effective drivers of changed practice. It was in such meetings that teachers discussed children's progress and achievement and strategies that appeared to be succeeding. For example, data from the assessment resource banks (ARBs) showed what skills the children had mastered and how effective the teaching was. Teachers discussed target group children, what was and was not working for them, and what they as teachers could do next.



"I make sure I am at each team meeting also, either for some or all of it, as this gives me a good sense of who is on the radar, what is happening and the children involved. I am then aware of every student who is a 'target' student, the progress being made and the resources being used."

**Principal** 

Teachers used a NZCER webinar to increase their data literacy and their ability to analyse the standardised PATs (**Progressive Achievement Tests**) used. They looked for, and noticed achievement patterns and trends and then collaboratively planned to address the gaps. By examining questions children struggled with, they could see where deliberate teaching was needed.



"We think about what the children would have needed to be able to answer that question correctly. Doing this has provided us with useful insights to plan activities that will help children to do better and match the activities with their interests."

Teacher

#### In-class interventions

Interventions usually occurred in the classroom and were often short and sharp, focusing explicitly on the particular needs of the children concerned. Leaders had recently sought to reduce the time it took from setting a goal, to taking action, and then to evaluating impact. This assigned greater urgency to accelerating progress and it kept the target children engaged and motivated. For each intervention, the plan included:

- > the identified needs of the children
- > the goal and expected outcomes
- > expected progress
- > the specific action
- > relevant research and findings
- > how progress would be measured.

Mini lessons for agreed in-class interventions stated each day's focus and provided a step-by-step plan with discreet timeframes. Children always started by revising previous learning and ended by reflecting on what they had learned that day.



Teachers challenged students who needed support and made sure activities matched their age and interests. In mathematics, they didn't wait for the child to learn every strategy before moving to the next stage. They were aware of small gaps in the child's understanding and focused on these while working on more complex tasks. This allowed children to experience more of the curriculum and to see where they were progressing.



"Our maths learning is better this year because we know about thousands and hundreds now and we didn't use to."

"We are allowed to make mistakes because they grow your brain. We like being able to teach each other now."

"I used to be stink at maths but now I am good."

Year 4 children receiving additional in-class support

Instructional organisation, task design, modelling and group practices all promoted active learning. For reading activities, the text had to be interesting enough to engage less capable readers, but also sufficiently complex to be worthy of exploration and develop comprehension. Short, sharp and explicit teaching motivated and engaged students. Teachers knew what they were focusing on and used appropriate strategies. Classroom grouping was flexible, depending on the learning purpose and the interests and abilities of the children. Multilevel group activities allowed all children to engage with texts that matched the interests of their age group.



"The best thing we have done in reading this year is the literacy circles because we all get to have different roles and work with other kids. Sometimes you might be the illustrator or the connector who makes connections from the story to our own lives. Other times you can be the wordmaster or the passage picker or the discussion director. The discussion director thinks up questions that the rest of us race to be the first to answer. The questions have to be open questions so they are hard enough to make us think."

Year 6 child

Children in Years 5 and 6 enjoyed opportunities to choose which group they would be in and which novel they would study.



"We don't just read the same type of books. We read classics and non-fiction as well as other interesting stuff. It's always interesting to look at a great variety of books. At the moment we are reading a compilation of children's writing. We are going to do an e-asTTle test in a few weeks and it is good to have really looked at others kids' good writing."

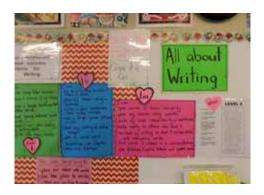
Year 6 child

Children liked the variety of texts and activities and opportunities to take on different roles in reading lessons. Activities like literacy circles, video clips with reading and discussion, and the fun actions used with the phonics in the junior school were particularly popular. In the senior classes, children valued the many opportunities to choose a topic that interested them or a novel to study. They were encouraged to problem solve, seek solutions and predict outcomes, individually or as a group. Teachers were viewed as facilitators and checkers or go-to people rather than fixers-up or people who would spell everything out for you. They empowered students to actively help their peers with their learning.

#### Children understand learning strategies and goals

Teachers and children co-constructed realistic but challenging learning goals and success criteria. Children understood the purpose of their lessons and the strategies they were focusing on.

Teachers sometimes delayed talking about learning intentions, waiting until a lesson was well underway before asking the children what skills they thought they were learning. In other situations, teachers asked children to recall what they had learned previously before setting their next goal. In the middle school, teachers deliberately 'front loaded' learning through their literacy programmes to support the team-wide inquiry. They found Rollins'



Learning in the Fast Lane useful for distinguishing between remediation and acceleration. Moving forward instead of stalling until gaps are addressed can be more beneficial for learners.

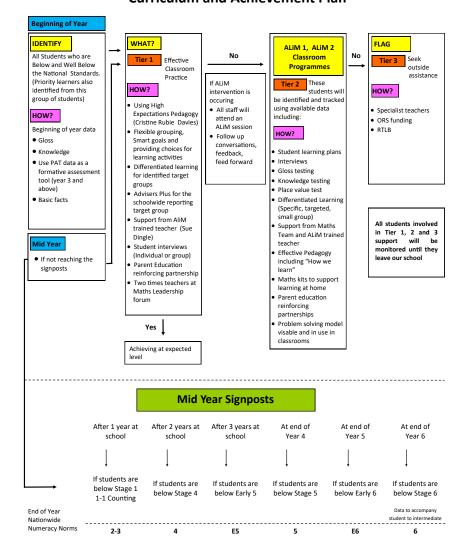
To achieve their learning goals children need a clear sense of what success looks like. This meant having exemplars on display and clear progressions students could read and use. Classrooms featured displays designed to remind children of the goals and strategies they were working on. Children were able to discuss their goals. They could say why they were in a group and what the group was trying to achieve.

Children involved in classroom interventions were also very aware of their goals. Teachers told them when they had achieved a goal and explained what they were now ready to move on to. These children could talk about how they had improved and about the enjoyment they were getting from learning. They valued being able to work with more complex texts or on more difficult maths tasks.



"When Year 5 and 6 students were asked why many of them achieved well, they said 'Our teachers expect a lot of us. Everyone is expected to put in effort. Our teachers are kind, though, and we are able to tell them when we need help.""

## Bledisloe School Mathematics and Statistics Curriculum and Achievement Plan



1 STRATEGY

# Putting the children at the centre of all curriculum decision making

**Alfriston School** in Auckland has a roll of about 350 children in Years 1 to 8. Approximately one-third are either Māori or Pacific, more than one-third Pākehā/European, and the remainder predominantly Indian.

Since the appointment of a new principal five years ago, the school has implemented many changes designed to make sure the focus is on the needs of the children rather than those who work with them. Improved student engagement and achievement reflect:

- > a carefully considered change-management strategy
- > a drive to make learning more visible for students
- > the use of a rich curriculum to fully engage students.

#### Change management

As a first step in managing change, the principal had to decide where to invest most energy. She decided to delay a possible review of the school vision and concentrate instead on the teaching and learning as this would have more immediate benefits for the children. The principal worked with the staff and community to make sure the new direction was clear.

A small number of teachers left and a strategic appointment process was introduced to make sure new teachers would be committed to the new direction. The assistant principal and deputy principal took on teaching commitments so they could understand what teachers needed to implement the improvement strategies. The school developed interim, non-negotiable expectations about practices designed to improve student achievement.

At first, the principal took the leading role in driving change to all aspects of teaching practice. She was part of every development in the school. Her close involvement in appraisals, team meetings and behaviour management issues helped influenced everything, including the thinking behind practices that needed to change. All change management decisions were arrived at following careful investigation into how best to promote student learning.

Teachers and leaders looked in depth at National Standards expectations. Moderation meetings were scheduled for the whole staff and syndicates. Through principal-led professional learning and development (PLD), teachers learned how to have 'dialogue conversations' in their meetings, using framing questions to scaffold achievement-focused discussion. Collegiality and collaboration improved, with the result that teachers were regularly discussing achievement and target students. A set of guidelines was developed to help teachers gather achievement evidence from multiple sources. These guidelines also highlighted things to be considered when reporting to parents and whānau.



"Relational trust allows us to talk numbers and data and for teachers to not feel threatened by that. 'Now these are our akonga that we need to shift from A to B.'"

"Weekly team meetings have a relentless focus on student achievement. Relational trust is at the base in this school."

Leaders

When looking in depth at National Standards, teachers found gaps in their knowledge that needed filling. They also identified the need (i) to broaden the curriculum so that it included more motivating and purposeful activities from across *The New Zealand Curriculum* and (ii) to make learning more visible for students.

Leaders and teachers engaged in a range of PLD initiatives designed to support the changes they were making. This included Accelerating Learning in Mathematics (ALIM), Accelerating Literacy Learning (ALL), and a focus on gifted and talented learners. A further PLD initiative aimed to build a team of teachers with e-learning expertise.

Leaders and teachers set out to find better ways of communicating with parents and whānau about their children's learning, achievement and progress. The school joined the **Mutukaroa** project with the aim of learning how to develop genuine learning partnerships, particularly in the junior school. We found processes introduced as a result of participation in this project were well embedded, to the

benefit of the children and their parents. Parents and whānau were well informed, had a good understanding of the school's approach to teaching and learning, were accessing learning tasks and homework posted by teachers on Google Classroom, and generally felt respected and valued as partners in their children's learning.

Leaders aimed to have new structures, processes and practices strengthened through focused PLD and collaborative activities. Managing all these changes in such a way that everyone felt ownership was a constant challenge. Relational trust was strengthened through the use of 'checkpoints' designed to find out which strategies were working and should be continued. Checkpoints involved collecting teacher and child responses to pertinent questions at regular intervals in a spiral of inquiry. Teachers told us they didn't tire of responding to the checkpoints because they recognised they helped leaders understand the full picture. The following table illustrates the checkpoint process: two teachers respond to questions that require them to reflect on how the writing progressions were making a difference for their learners.

May 2016	How have you been using the writing progressions this year?	How are these visible in your class? How are students using them? Do all your students know their current phase?	What questions remain for you about the writing progressions and their use?
Room X	I have talked about the poster and what writing looks like at different levels. Children are yet to put their pencils on where they are working at.	Displayed on the wall. Children are going to put pencils up where they are working at. The plan is to conference with the children and complete raindrops, which are going to be at the front of their writing books. Many children still don't understand how the posters link to their own writing.	Children find them hard to understand – can we make the posters clearer? The posters need to be simpler.

May 2016	How have you been using the writing progressions this year?	How are these visible in your class? How are students using them? Do all your students know their current phase?	What questions remain for you about the writing progressions and their use?
Room Y	Yes, students based their goals around the progressions and we have been discussing what our hotspots are according to what AT and ABOVE looks like for their year group. They will be checking things off on their digital progressions soon.	A range of phrases displayed in my writing are on the windows with students' names. They will have their individual digital copies soon. (I've held back from sharing the original ones with them because I want to know if we can use the compacted versions.) We have had many discussions around where they are, so hopefully it has stuck with the writers that need the most support. The more capable writers can all talk about their phases and one weakness.	Can we compact the other phases as well so it seems less overwhelming, in language that is a bit more child friendly for the writers that need extra support?

Once the new teaching and learning strategies were in place, and reviewed and refined, Alfriston leaders were able to make time to review and redevelop their school vision.

#### Making learning visible

The catalyst for this change was the recognition that the children weren't owning or taking responsibility for their learning. For teachers this meant a paradigm shift was necessary, one in which their role changed from 'holder of all knowledge' to 'facilitator of learning'. As first steps, they participated in visible learning workshops and looked at how other schools had made a similar change.



"This blew a lot of myths out of the water. Our teachers really lapped it up. You could see the light bulb go on for teachers. A teacher said 'It was like getting the keys to a treasure chest.' It was liberating. Teachers are challenged to know more about the learning process, because their students demand that of them."

Leader

The visible learning facilitator worked with the school to co-construct a PLD action plan. This required them to work out exactly what it was they wanted to achieve. It was to make the learning steps transparent to children before, during and after a task. Initially they concentrated on trying to do this in their writing programmes.

Some of the strategies they used were:

- > Developing children's confidence to critique the work of their peers and give useful feedback. The children recorded their oral feedback and then reviewed the clip to reflect on the quality of their critique. The youngest children started by giving feedback on handwriting; they then moved on to giving feedback on personal writing.
- > Sharing information in team assemblies about how they were making overall teacher judgments (OTJs) and moderating writing judgments and mathematics stages. The children were also told more about assessments such as e-asTTle.
- > Requiring children in Years 7 and 8 to complete a digital writing header descriptor (below) before creating a piece of writing. After completing their writing, the children recorded reflective comments and whether they had met the success criteria.

Write the learning intention	Identify the current writing phase	Explain the purpose for the writing
Outline the success criteria	Identify the writing phase you are working towards	Outline indicators from your future focus to work on
Highlight the rubric showing what success looks like	Decide the audience for the writing	Indicate any previous feedback from a peer or teacher you will work on

- > Teaching Years 7 and 8 children to interpret their own **e-asTTle** reading and mathematics results. They recorded their interpretation and included the clip in their learning portfolio. They used their analysis of the questions to identify what the different boxes in the report were showing, what they had mastered, and what gaps they needed to address.
- > Children were given increased opportunities to collaborate in their learning and to engage in peer coaching. For example, children in Years 5 to 8 ran instructional workshops in reading, writing and mathematics for children of their year level and across year levels. Some of the children who had leading roles in the school production coached younger students in their supporting roles.

Senior students told us how they valued having learning made visible. They confidently identified their own learning needs and used self-assessment skills to evaluate their own work.



"When we make our own Google Slides to explain our e-asTTle results, it helps you get an idea of why you got the score you did and what can do to improve."

"The learning intention sets the bar for our work and the success criteria give us standards to meet to reach that bar. We are able to set own learning intentions and success criteria by using the writing progressions we have."

"By using the progressions we are making decisions about what we need to learn. If it is transparent you have nothing to hide behind. I know I am below the standard in writing, however I have moved up two sublevels in writing this year and have moved from 'well-below' to 'below'. The progressions help me focus on what I have to do to improve."

Children, Years 5-8

When in 2012 teachers asked children what made a good learner, their answers were of the 'sitting up' and 'listening to the teacher' kind. Asked the same question in 2015, children would refer to the learning progressions, knowing where they were at, and knowing what they needed to do to improve.

Parents had noticed their children:

- > talked more confidently about their learning than their older siblings had; they knew what they were learning, why it was important and what they needed to work on
- > had a strong learning focus and were eager to talk about their learning

- > were engaged in healthy competition with themselves to improve, motivated by the success criteria and improving results
- > had relationships with teachers that were positive and learning focused
- > liked sharing information and learning tasks through the Google platform.

#### A rich curriculum to fully engage students

Teachers learned it was important to give children sufficient related opportunities over time to revisit and consolidate learning through practice and review, and to apply new skills in purposeful ways.

They worked collaboratively to plan and implement a curriculum that would engage children in experiences across the learning areas and use their own and the teachers' strengths.

In 2015, science was a major focus and was explored through the school's major production, 'This is Your life!', featuring a fictional science professor, and was integrated through reading, writing, mathematics, drama, dance and e-learning.



A scene from the school's production.

To begin the planning, teachers met in the holidays and considered a series of questions designed to elicit a shared understanding of what they wanted the children to learn and how they would go about promoting it:

- > What are the main scientific outcomes you want for your students?
- > Do you need to add to your own scientific knowledge? What is that knowledge?
- > What experiments will your students undertake and how will they be recorded?
- > What artwork will be integrated/displayed?
- > How will the physical appearance of your classroom promote science learning?
- > What format will the open afternoons take for your class?
- > What format will the open afternoons take for your whanau?
- > Have you addressed all the outcomes (oral language, written language, visual arts, digital etc.) specified in the planning templates?
- > How will you promote assessment capability and visible learning principles throughout this learning?
- > How will you manage the differing capabilities and levels of science knowledge in your class?
- > How will you cater for students who have a developed base of science knowledge?

Much of the teaching took place in the children's usual class group and setting, but on 'whānau Fridays' classes were split into cross-level 'whānau' groups to better cover the four science strands and allow for tuakana-teina learning, in which older children helped the younger ones. These Fridays were an established and successful strategy, particularly for integrated learning. Older students said working with the younger children improved their own learning, while teachers found their role morphing from teacher of content to teacher of learning.



The following table suggests how learning in the Physical World strand of the science learning area was integrated with learning across the wider curriculum.

Procedural writing	Oral language	Numeracy	
Building a rocket	Scientific discussions	Measurement – speed,	
Dehydrating food	Making predictions	distance, time	
Making volcanoes, ice	Hypothesising  Explaining results	Geometry – angles	
cream and 'goop'		Statistics – graphing experiment results	
Writing scientific experiments	Making conclusions	For Living World –	
Heat on the move – transferring heat through temperature difference		measurement, capacity, mass, number, observing plant growth, size of orchid roots etc	
Music	Visual art	E-learning	
Exploring sound wave,	Themed around 'light'	Google Apps suite to showcase and share learning with peer and	
visible sound waves in a guitar	Scientific sketching		
Light and mirrors song	Marble art force and	families	
performance, including dance	movement	Using Google Sketchup to design science lab and	
	Silhouettes – using light and dark	sets for the production	
Other music and dance from the production	ngire and dark		

Teachers observed children gaining confidence and skills during rehearsals for the major production and they continuously monitored their engagement and learning in the science activities. They used the following template to reflect on their practice and the children's learning, in this case, in the Physical World strand.

	How did you use Whānau Friday this week?	What hands-on science learning happened for your kids?
Week 3	Sound: We did individual work in the middle block, then in the afternoon got together. My class shared our learning from the morning and then we all did sound experiments with visible sound waves, using music to blow out candles	Making cup microphones that made creepy noises  Learning about how hearing works, ear diagram with labels and explanation  Singing wine glasses  Making salt jump from sound waves  Demonstrating the above to the others and then watching sound waves blow out candles
Week 5	This week we did a rotation in the middle block. We mixed up the four classes into three groups. Room 1 ran sessions on marble art, looking at force. Room 6 did electrical circuits. Room 11 did magnetism. In the afternoon we worked separately	Building electrical circuits  Using magnets and iron sand to create images  Marble art  Clay art-making vehicles to go with force and motion

Here the teacher observations relate to the planet earth and beyond strand.

	How did you use Whānau Friday?	What hands-on science learning happened for your kids?	Breakthrough moments?
Week 3	A lunch box was packed for the journey into space  This has been left to see what happens over a period of time. Going into space requires lots of food. How will it stay edible?  Rooms 7 and 14 split their classes for a rotation.	In Room 7 the students shared their oral language presentations, did some light research and played space trivia games  Intermediates also taught the middles how to create PowToons, e-Mazes and made Kahoot quizzes  Students were really engaged in these activities and it was great to see the intermediates and middles interact so well together. The middles were teachers to my intermediates as were the intermediates teachers to the middles	Students discussed why the matchstick rockets did not work as they should have. This sparked lots of interesting conversation from ideas such as how many match heads should or should not be used and which side of the tinfoil was or should have been used

Leaders and teachers said that integrating curriculum with a major production had many benefits for the children. These included developing their:

- > creativity imaginative play and performance stimulates and challenges the brain and encourages innovation and broadmindedness
- > self-discipline and self-motivation performing arts are physical and test the individual like sports or athletics; children see the value of practising at home and scheduling personal training
- > language and musical skills through exposure to culture and art, making for a richer, more liberal-minded adulthood
- > problem-solving skills and confidence performers learn to deal constructively with creative challenges and unexpected situations, such as when words are forgotten or things go otherwise wrong.





The students' enthusiasm for their learning, both in terms of science and the production, come through in their reflections:



"This year the production has been amazing. Like always, there is a mix of dialogue, dance and singing. This year I have learnt how to speak at a 10, which means 'speak very loudly'. I have learnt the lyrics to the periodic table, which was a challenge for me at first but once I learnt it, it was a piece of cake. I have enjoyed learning about some awesome new scientific facts. This is my second year in the singing troupe and I am enjoying it so much it is so much fun. It is a very enjoyable part to play in the show. At Alfriston School we do amazing productions because we take pride in them and our teacher that leads it all helps us all the time to practise and gives us tips to make us better."

"This year I am a lead part. I am Brian the ad host. This is my first year as a lead part and I am hoping to have a lead part next year. I have learnt a lot of things around science such as some of the live experiments the scientists have done such as adding lots of chemicals and dry ice makes a booming sound. I have also learnt 63 of the 118 elements only 55 more to go!"

"The combination of the visible learning and the integrated curriculum has meant the children are experiencing much deeper learning. They have the responsibility of sharing their ideas, achievement and progress with the community and this is making them really think about what they are trying to do and learn."

**Principal** 

The changes implemented by the school have led to greatly increased learner agency, with children engaged and motivated to learn and succeed, right through to Year 8.

TEACHING STRATEGY

04

# Successfully responding to an achievement issue in mathematics

**West Gore School** in Southland has a roll of around 250 students in Years 1 to 6. Most are Pākehā/European. About one-sixth are Māori.

Leaders believe that one of the features that contributed to their school's positive achievement trajectory is their focus on interrogating the data to determine how their teaching is impacting on children's outcomes. The rigour and honesty with which they do this helped them address an identified dip in mathematics achievement.

Addressing the issue involved:

- > identifying the achievement issue and the associated learning needs of children and teachers
- > deciding on and applying short-term strategies to help children who were below the expected level
- > introducing new teaching strategies and approaches to reduce the risk of an achievement dip in the future.

#### Identifying the achievement issue and related needs.

Achievement data always came under close scrutiny when reports were being prepared for the board of trustees. When scrutinising the data, leaders and trustees asked:

- > What do we know from the data?
- > How do we know this?
- > What do we still need to know?
- > What do we need to do?

In a report to the board in mid 2014, the principal identified that numeracy achievement was at crisis point. The finding of most concern was that 43 percent of children in Years 4 to 6 were below the expected level. Most of the children in this category had experienced some form of targeted learning at least once during their time at the school, so clearly this hadn't had the desired effect. More needed to be done, and probably something different, to help teachers accelerate their progress.

The principal and staff established a small set of questions for themselves to answer:

- > is our professional development making a difference?
- > is our teaching making a difference?
- > why are we seeing only shifts in achievement and no 'really accelerated' achievement?
- > how do we build whanau involvement with a focus on learning?



"There is no sweeping this under the carpet. This is what it is. What are we going to do about it? It's not about blaming, but putting it on the table."

Principal

## Responding to the data with short-term measures and longer-term strategies

The teachers and board scrutinised the data to determine whom to support and in what. The teachers discussed possible strategies and identified gaps in their own content knowledge. They felt they needed to know more about the numeracy progressions so they were always aware of what came before and what came next. They recognised that if they did not have this content knowledge it was unlikely that the children would be clear about their next learning steps.

The issues identified in this preliminary phase informed the development of a long-term strategy to reduce underachievement. The board discussed the data, possible strategies and recommendations. They updated the charter to respond to the report. Groups, especially year cohorts with high levels of underachievement, became charter targets.

Once unwieldy, with lots of strategies and actions, reports to the board now focused on the priority students and areas where the biggest difference could be accomplished within a specified timeframe. The aim was to focus on achieving deep learning in a small number of quite specific content areas and, in this way, to ensure substantial gains in achievement.



Teachers analysing data.

For example, the action plan for Year 4 focused on the 17 out of 39 children achieving 'below' or 'well below' the level for mathematics. A lead teacher worked with the Year 4 teachers and the 17 target children to identify specific content and teaching gaps and found, for example, that understanding of place value and knowledge of basic facts were two areas of need.

While the focus was on the target students, the board insisted that professional learning and development (PLD) and other improvement actions had positive benefits for all children, in this way making sure all children could fulfil their mathematical potential.

Here are two goals, together with initial actions:

#### Goal

All Year 4 children that are below and well below the standard will improve mathematics levels and stages.

#### Actions

- > Teachers of the Year 4 target group will provide explicit teaching and modelling of strategies children need to accelerate progress.
- > The lead teacher will work with the Year 4 group to monitor progress and advise class teachers of the next step.
- > The lead teacher will support the Year 4 teachers in the classroom with the target group of children.
- > Discussions about the target group's progress will occur in syndicates.

#### Goal

Develop systems and opportunities to involve whānau and the community with mathematics.

#### Actions

- > All teachers to have a current maths display in their classroom that reflects current learning and shows children's work.
- > Have a maths week in Term 3, week 4 with school-wide activities and home challenges
- > The school will have an open hour for maths in the classroom.
- > Hold a parent maths evening during the maths week.
- > During three-way conferences, children will share their maths leaning.

The board immediately provided extra teacher aide time to support the school's short-term strategy. This additional time was to be used to implement the targeted maths programme with the identified students, supported by the lead teacher. Further assessment of the 17 target students identified the extent of their knowledge gaps and plans were developed for the teacher aides to follow. The lead teacher modelled the teaching to the teacher aide and demonstrated how they should run the additional teaching session. The teacher aide generally worked with groups of four or five children who had similar learning needs.



Once the teachers had inquired more deeply into their own learning needs, leaders recognised external and internal expertise would be required to meet them, and PLD should extend beyond numeracy to include the wider mathematics curriculum. To supplement what their own lead teacher could do, they engaged a respected external facilitator to lift the quality of professional practice and deepen teachers' content knowledge.

The external facilitator focused on:

- > the mathematics progressions
- > moderation of teacher judgments
- > making sure children experienced the whole mathematics curriculum.

The facilitator used many of the strategies teachers were already familiar with from recent writing PLD. Teachers reported subsequently what they most wanted was to be totally familiar with the curriculum levels so they knew exactly where the children were at, and where they needed to be.



"My confidence around knowing the curriculum area grew really well and knowing the progressions that came before and after without even having to look at the book. It feels amazing. It's about giving the kids a good deal."

Teacher

The following are some of the approaches introduced by teachers into their classes because of the PLD.

Double and flexible grouping recognises children may need to practise using some strategies many times before they really understand them and can use them confidently. Flexible groups are organised around the mastering of specific skills. By participating in more than one group during a mathematics class, children can engage in new learning and revisit earlier learning.



"I have very flexible grouping. I double group all of the time. Sometimes children who are just lower, listen in and then I see what they think of that. Maths is so huge – some children might be great at an aspect but not good at something else, so they can flick in and out of a group depending on what they need. If the child already knows it, there is no point in keeping them there. It's about keeping the level of challenge."

Teacher

A spider graph can be used to show a child's level of achievement in different areas of mathematics. Teachers created a graph for every targeted child. They filled it in regularly, annotating it with notes about what the graph was telling them and the child's strengths, needs and interests. Those who were 'well below' the expected level had individual education plans (IEPs). Used in this way, a spider graph provides a picture of a child's achievement and progress, as well as their engagement with different areas of the mathematics curriculum. West Gore later extended the use of spider graphs to all students.



In backwards learning the teacher does not share the WALT ('we are learning to') with the children at the start of the lesson. Instead, children are asked at the end to share what they have learnt. This practice can help children become more reflective learners. It also ensures the WALT is written in language the children can understand and recall later.

Wherever possible, *authentic contexts* are used so the learning relates to real life and children can put themselves in the problem. This helps make sure they can make any necessary connections.



"I have three children in my class who have some knowledge of te ao Māori. The biggest thing for me was incorporating Māori perspectives into a normal maths lesson. On one occasion the children made a connection between the waka and the tens-frame. I wouldn't have even thought about that but they made the connection. The children would light up when they got to make those connections and share them with others."

Teacher

One teacher's inquiry focused on how to successfully help three Māori children who had come from a kōhanga reo. Recognising that establishing a partnership with whānau was going to be essential, the teacher began engaging with them more frequently.

The learning environment was managed in ways that supported participation, enjoyment and agency. Children were engaged in purposeful follow-up activities to practise and extend their learning. In some classes, the children were able to choose from several learning activities once the teacher had explained the learning they would be practising. In some classes, each group would have a box of learning activities for the children to do when they weren't working with the teacher. Some of these activities would focus on one or two specific skills while others provided opportunities for revision.

In Years 5 and 6, teachers created an environment where the emphasis was on progress rather than achievement. They recognised that if the children, especially the boys, were not experiencing success, they could think they were dumb and disengage.



"We make the celebration public in ways such as getting them to share their think boards with their previous teacher to show what they can do now."

Leaders

*talk moves* is a participation strategy designed to help children learn through talking mathematics. It gives them the tools to clarify their mathematical thinking and resolve disagreements. It can also help teachers reduce the time they spend explaining while increasing the time children spend explaining. One of the principles of *talk moves* is that talk must be carefully orchestrated to ensure equitable participation by all learners.<sup>2</sup>

#### talk moves

Teacher move	What a teacher does	Benefit of the move
Revoicing	Repeats some or all of what	Makes one student's ideas available for the teacher and other students to understand
	the student is saying and then asks the student to respond and verify whether it is correct.	Provides thinking space for students to track what is going on mathematically
Repeating	Asks students to restate	Gives students more time to process an idea, as well as another way to hear it.
	someone else's reasoning	Provides evidence that other students did indeed hear the idea of another student.
		Shows the students that mathematical ideas they have are important and taken seriously.
Reasoning	Asks students to apply their own reasoning to someone else's reasoning	Entry point to eliciting student thinking.  Positions student ideas as important mathematical ideas and builds on them.
Adding on	Prompts students for further participation	Encourages students to weigh in on ideas.
		Helps establish a norm around connecting mathematical ideas and building on them.
Waiting	Waits in silence	Brings important contributions from students into the discussion.
		Communicates an expectation that everyone has important ideas to contribute.

<sup>2</sup> Chapin, S., O'Connor, C., & Anderson, N. (2003). Classroom Discussions: Using Math Talk to Help Students Learn, Grades 1–6 (2nd ed). Boston: Math Solution.

Teachers reported that after using this strategy in mathematics they introduced it to other curriculum areas too.

Children's posters were an effective form of assessment when used to demonstrate what they had learned. In one class, the children were able to add to the teacher's modelling book and photograph themselves demonstrating mathematical ideas using equipment. Their photos were then displayed on the *learning wall* as evidence of their achievement and progress.

When making assessment judgments teachers were encouraged to use a wider range of evidence, including:

- > children workbooks
- > modelling books with formative assessment notes in them
- > photographs
- > videos of student voice
- > artwork relevant to maths with student voice attached
- > written assessment tasks (not just the test scores)
- > think board
- > GloSS and JAM assessments
- > children's written reflections.



"Yesterday in maths it was the first day of Term 4. We forgot the maths strategy so me and the other two went and got the maths books. I felt good because I problem solved. Next time I will get the book again."

"When I was learning my 5 times strategy I used abacus [Slavonic] to help me and I did it. Next time I will keep it up by using equipment to help me."

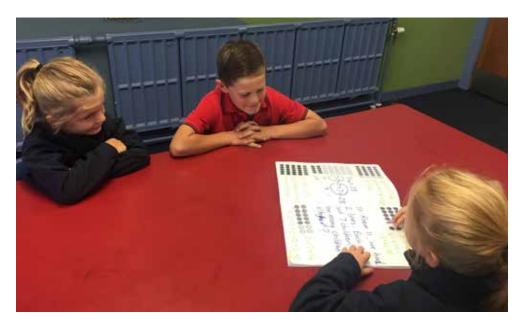
Children

Students thought that it was useful to reflect on their learning:



"We know what helped us to learn. Things like using the modelling book, asking a buddy, using a certain piece of equipment."

"By going back to our reflections to see what I said helped me last time I was doing this sort of problem – I can use that same thing."



The curriculum was reviewed and then fully revised to ensure that long-term plans and teaching guidelines incorporated all the strands and what must be taught at each year and curriculum level. For each topic (such as time and temperature), at each of the Levels 1 to 4, the curriculum now provided:

- > curriculum level descriptors
- > National Standards descriptors
- > progression of learning
- > number strategies
- > required mathematical language.

The school offered parents increased opportunities to be involved in their child's mathematics learning. They were invited to mathematics' evenings and open days to learn the games that children played in mathematics and to observe lessons. Games were then sent home for the parents to play with their children. If a child was selected to be in the targeted learning group the teacher or a leader would contact the parents and explain why.

Parents we spoke to felt well supported by the school and said that they now felt more confident and better equipped to support their child's mathematical learning at home.



"The evenings and open days made me understand where our daughter was at [with her maths learning] and gave me ideas of what to ask her and how to include numeracy in our daily conversations."

"It highlighted to us that at home we could work better with our child. For my husband, he realised he could support our child even though he felt he hadn't had a successful time at school."

"It was a lot more positive to get our son to do his homework. It got the family more involved in playing the games. His confidence grew because he had a better idea of his maths. He got his basic facts reinforced. He stayed on the target programme for one or two terms. He is at 'above' now and has stayed there for the last 18 months. It was a more positive experience at home, it was fun because it was games. Reinforcing at home helped. It was easy to see how much he had improved."

Parents

Although some teachers were still developing confidence with the new teaching strategies, reports to the board in 2015 revealed continuing increases in the number of students achieving at or above the expected level. By the end of 2014, 10 of the 17 target students were achieving at or above the expected level and only four had not improved their achievement level. By the end of 2015, 81 percent of students in Years 4 to 6 were achieving at or above the expected level. Reports to the board continued to describe what was working and where further efforts were required.

TEACHING STRATEGY

### From a culture of care to a culture of caring about children's learning

**Roscommon School** in Auckland has over 600 children in Years 1 to 6, taught in Māori-medium, Pacific-medium or English-medium classes. More than half the children are of Pacific ethnicity; most the others are Māori.

School leaders were quite definite about what had contributed to the improved achievement of their children, particularly those in Years 5 and 6. It was the significant and ongoing professional learning and development (PLD) designed to improve content and pedagogical knowledge, particularly in relation to senior reading and mathematics throughout the school.

The impetus for change came from the previous ERO review, which found that the school had a caring, collaborative and inclusive culture characterised by respect, empathy, relational trust and cooperation, but that it needed to care just as much about the children's learning, achievement and academic success. The teamwork and collaboration that were already characteristic of the school provided a sound platform for this new development.

The school went on to substantially improve the children's progress and achievement by:

- > working together to change teachers' mindsets and expectations
- > engaging and working closely with outside experts to implement bespoke, targeted PLD that catered specifically for their teachers and children
- > developing leaders' capabilities so that the professional learning would continue when the experts had gone
- > improving teachers' assessment capabilities.

## Working together to change teachers' mindsets and expectations

Given the culture of collaboration and teamwork, teachers were able to engage in honest and challenging discussion about where they were at and what needed to change. They knew that it was not sufficient to acknowledge the low levels of achievement and the only way to lift achievement was to improve their practice. They asked themselves 'What can I do?' and 'What do I need to do to make a positive difference to children's achievement?' They identified the need to:

- > increase their content and pedagogical knowledge
- > inquire into their own practice attitudes.



Many teachers were courageous enough to recognise they had not been taught mathematics well when at school themselves. As a result, they now avoided parts of the curriculum or rushed concepts without appreciating the connections children needed to make to ensure future understanding.

Leaders wanted teachers to explore and introduce teaching practices that would engage students in problem solving and promote deeper thinking and learning. They challenged teachers to define an 'effective teacher' and discuss what makes an effective teacher. They saw that they needed to move from being totally in control of the learning to:

- > doing the learning themselves
- > facilitating students' learning
- > learning with the students.

Some changes in practice were implemented without delay to increase children's opportunities to learn. In the past, teachers had taken the first few weeks of the school year to get to know their children and build relationships with them. Now they realised that they if they wanted to accelerate achievement they had to get learning underway much earlier. Teachers also committed to guided reading every day, to making every activity a learning opportunity, and to ensuring independent activities were always closely linked to whatever the children had been learning with the teacher. Now there would be reading, writing and mathematics every day and learning would start on day one of the school year.

Assessment data revealed a dip in reading achievement in Years 5 and 6 and generally poor mathematics achievement throughout the school. Although teachers had previously been involved in lots of general, school-wide PLD, they realised it was time to do something different. Year 5 and 6 teachers wanted PLD in reading, recognising their students were generally good at decoding but struggled with processing and understanding. They were able to participate in a Ministry PLD contract with the goal of developing more effective literacy teaching practice.

To improve mathematics achievement the school applied for Ministry-funded PLD in numeracy. An associate principal who had previously participated in Accelerating Learning in Mathematics (ALiM) PLD, argued what was needed was more intense, school-wide PLD that would simultaneously strengthen both content and pedagogical knowledge.

School leaders are responsible for making sure teachers are not involved in so many initiatives they cannot cope or have insufficient time to embed new practices. For this reason, Roscommon leaders were advised against trying to improve mathematics while also working on reading in Year 5 and 6. However, they and the board were not prepared to wait. With their new mindset and heightened expectations, they wanted to develop teacher practice on both fronts simultaneously.

The board funded release time for the teacher with **ALIM** expertise to work closely with the whole staff at the same time as they were involved in reading PLD. In a related development, teachers were also learning about teaching as inquiry and being supported to undertake mini inquiries. Leaders admitted it was a challenge to be engaged in PLD that had a number of different focuses, but they could see achievement increasing as effective practices were implemented across the school.



"It was a struggle for staff but every day learning and other aspects of some of our children's lives are a struggle for them."

Leader



"They pointed out that the school's whakataukī, whakapono ki a koe (believe in yourself), also gives reference to expecting great things for yourself and your whānau: unless you have had the opportunity to struggle and work through something, can you truly believe in yourself?"

**ERO** evaluator

## Working with outside experts to implement professional learning that caters specifically for teachers and children

#### Mathematics professional learning and development

The mathematics PLD was designed to give teachers the capabilities to develop mathematical inquiry communities (MICs). In a MIC, children work in mixedability groups to discuss, negotiate and solve problems. The emphasis on voicing thinking, asking questions and expressing ideas focused on new pedagogies teachers were keen to explore. The fact the mathematics PLD involved a major financial commitment made leaders even more determined it would have a positive impact on achievement.

The leadership team worked closely with the external providers to make sure the PLD promoted culturally responsive pedagogies. They explained the strengths, needs, sensitivities and ways of working of the different teachers as well as the cultural considerations they needed to be aware of when working in a school with Māori and Samoan immersion classrooms.

In team and staff meetings, maximum time was spent on collective inquiry into the effectiveness of teaching practices, using evidence of student learning. Many staff meetings and teacher-only days became mathematics workshops for the whole staff. School leaders closely monitored the teachers' progress and confidence. At the end of each PLD session or workshop they discussed with the providers what was working and for whom, who was disengaged, what needed to change, and what the next steps should be.

When we visited the school, teachers were still consolidating new strategies and practices, but many changes were already evident. Long-term overviews had been modified to make sure children experienced the full curriculum. Concepts and skills children were still not confident with (for example fractions) were now taught several times during the year. Teachers varied the amount of direct instruction and ran workshops to address gaps while making sure their students had frequent opportunity to solve problems in mixed-ability groups.

#### Reading professional learning and development

This PLD focused on developing teachers' capabilities to teach, assess and reflect on the reading comprehension of Year 5 and 6 children.

Personal reflection indicated children had many opportunities to practise their recall, and assessment data revealed they were generally good at it. It was clear, however, they needed more deliberate teaching related to comprehension.

The teachers adopted the practice of making sure children always read the relevant text before any instructional teaching, whether individual or in groups. This meant instructional time was optimised for improving comprehension, not taken up by silent reading or decoding, which the children could already do. Shared expectations of what should happen in a reading lesson were agreed among teachers.

Instructional time now focused on:

- > comprehension skills activating prior knowledge, predicting, self-monitoring, questioning, making connections, visualising, summarising and retelling, inferring and synthesising (as outlined in Sheena Cameron's resources)
- > having children discuss and justify their answers and the strategies used
- > providing specific feedback about the strategies the children have successfully used.

## Developing leaders' capabilities to continue professional learning after the experts have gone

Not only did leaders attend the reading and mathematics PLD, they also participated in PLD designed to develop their capabilities as leaders. This latter PLD focused on developing their confidence to observe teachers' practice, reflect on what they had seen, lead feedback conversations with teachers, and mentor them. Much of this learning took place in conjunction with the reading PLD. Leaders observed literacy teaching, then learned how to do in-depth observations followed by post-observation reflections with the teacher concerned.

Initial observations or walk-throughs focused on:



The literacy facilitator working with students demonstrating the use of modelling books during reading.



Then working with teachers.

- > the classroom learning environment
- > routines and classroom management
- > the organisation of resources for the programme
- > conversations between the teacher and children
- > student voice.

The external facilitator modelled observation and questioning techniques and supported leaders to develop the confidence to engage in challenging conversations about teaching practice.

Later, real-time classroom observations were replaced by videoed lessons. These were more successful as the teacher got to see the video first, and could quickly identify when, for example, their questioning moved from recall to inference or their feedback was general rather than specific. They were often able to recognise and discuss where they could improve.

They continued to use a practice analysis framework. Before the observation, the teacher and observer would meet to clarify the teacher's goals, discuss any pre-reading, and agree on what would be looked for. After the observation, they would jointly analyse parts of the lesson and discuss the thinking behind the teacher's actions. They would discuss the impact of the teacher's actions on the children and next steps or goals.



"One teacher talked to us about watching a video of herself taking an instructional reading lesson. When she had finished. She said to herself, 'Oh I am wasting their time. I haven't asked any inference questions. Now I know why my kids aren't getting it.'"

**ERO Evaluator** 

By 2016, the new reading and comprehension strategies were being used in Year 4 classes. Some were also being used with Year 2 children.

#### Improving teachers' assessment capabilities

As their professional thinking changed, teachers were expected to be involved in trialling new, more effective strategies and approaches. In doing so, they had the support of their curriculum team. Where specific needs were identified, specific PLD was arranged. If leaders could provide this PLD they did. If they were not sufficiently confident or knowledgeable, they would use external expertise. Teachers at different stages of implementing new practices would support each other. Teachers who had been implementing the **MIC** approach over the previous two years mentored and supported teachers who were new to it.

To improve their teaching-as-inquiry capabilities, teachers did mini inquiries in which they identified an issue, found professional readings, trialled a teaching activity, reflected on the impact for students, and then shared their findings with colleagues. Instead of relying on one particular teacher as the 'go-to' expert on curriculum, teachers learned to have collaborative, open-to-learning conversations in which everyone was expected to contribute and learn.

Teachers increasingly understood what was meant by 'teaching as inquiry'. They were honest about what the data was saying and accepted responsibility for making improvements. Some inquiries were undertaken collectively by teaching teams. One of these involved Years 5 and 6 teachers using a common assessment to investigate children's mastery of reading comprehension and their learning needs. They adapted and used a task from the assessment resource banks (ARBs), analysing the resulting data using a framework they had developed. They jointly planned a response to the findings but developed their own class plans to address specific areas of weakness identified by the ARB task.



After further teaching, the children were reassessed using a similar task. Again, the teachers identified areas needing further teaching, and planned actions to address them during each week of the following term. Any necessary resources were found so that teachers could confidently do what they had to do.

After working with external facilitators to develop better assessment practices, teachers were now using a greater range of tools when making **overall teacher judgements (OTJs).** They had also improved their practice of formative assessment as could be seen in the children's workbooks, class and group modelling books, and observational notes. As the children were increasingly able to explain their thinking and share their ideas, this also helped teachers make informed judgments about their progress and achievement.

The following framework was used by the school to support teachers to make informed OTJs:

Observations and conversations	Tasks	Tools
What sources of information have we included?	Where might these tasks be located?	Check the date of the testing: what is
What has been collected?		currently relevant for this student?

How does this evidence marry with National Standards?

Do we have sufficient evidence to suggest that this is where the student operated on a regular basis?

As their teachers' content knowledge and assessment practice improved, the children were increasingly able to set their own learning goals. This was especially true in classrooms where the learning progressions (for example, in the form of learning stage cards identifying the skills at each level) were visible. In these classrooms, children knew what they were learning to do and were given specific oral feedback on their progress. All children from Years 1 to 6 were expected to justify



answers and explain their thinking and reasoning.

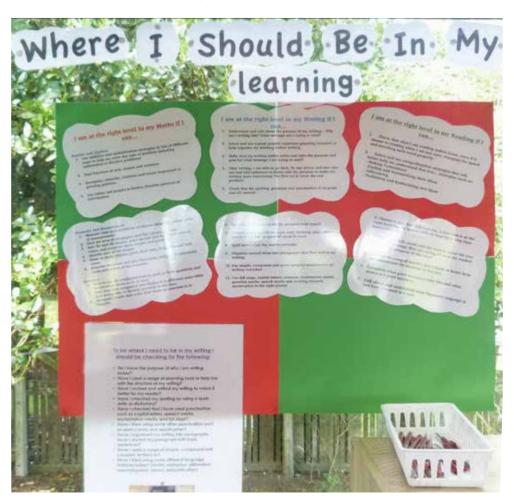
Students were now engaged in more purposeful learning, with the result that we saw Year 5 and 6 children on task and enthusiastic about their learning. With their teachers' support, they were seeing connections between their reading and what they were learning in other learning areas.

Children were secure in the knowledge that, even though their learning was set at a challenging level, they would succeed with the help of their teachers and their peers.

Some Year 5 and 6 children told us that their teacher was a learner too. They said this because they had access to their teachers' planning, which showed what they were working on as a result of the PLD. In one class, students told us their teacher was working on giving feedback related to the success criteria they had developed together. Sometimes they would remind him to do this, in this way helping him with his learning.

Year 5 and 6 children told us their learning was now set at more challenging levels than in the past. They valued being exposed to challenge. They were not afraid of hard learning and were more confident to ask questions when they didn't understand. They knew this is what good learners do.

Reading results in particular showed the progress students were making as a result of more effective teaching.



#### **Percentage** at or above reading National Standards

	2013	2014	2015
Reading	Percentage	Percentage	Percentage
After 1 year	17.5	29.3	25.7
After 2 years	62.4	47.4	64.0
After 3 years	87.0	66.0	55.0
End of Year 4	68.5	62.4	73.8
End of Year 5	54.5	68.7	71.4
End of Year 6	67.1	74.3	77.8



#### What helps us learn?

"Our teacher teaches us strategies like asking questions and challenging ideas."

"We have a maths wall that has all the strategy cards for stages 6 and 7 that we can use to see our progress."

"We have reading cards that remind us about remembering, understanding, creating, evaluating, applying and analysing."

"The teacher has a modelling book that we can use if we get stuck on something like fanboys [conjunctions] or sentence interruptions [aspects of punctuation]. If you have forgotten what to do you go to the modelling book and it will remind you."

Year 5 and 6 children

**06** 

# Using inquiry in a relentless drive to improve outcomes for all children

**Somerfield Te Kura Wairepo** is a Years 1 to 6 primary school in Christchurch with a roll approaching 500. While the school has children from a variety of different ethnicities, most are Pākehā/ European and about one-sixth are Māori.

The leaders and teachers in this school had high expectations for their own performance and actively sought support to address identified achievement issues. Their view was that the school's positive achievement trajectory was the result of their inquiry practices and working together to develop and apply consistent expectations, approaches and language. This consistency meant the children were confident about what was expected of them and what they were learning as they moved through the school. The teachers also knew what was expected of them and worked together to enhance outcomes for children by:

- > using robust inquiry processes to decide on any new strategies and evaluate whether they were actually accelerating children's progress
- > developing leadership capability across the school to share and improve teaching practices
- > maintaining open working relationships with the board and others so that strategic resourcing for ongoing improvement can be secured.

First, we discuss each of the above three strategies, and then we share strategies adopted specifically to improve outcomes for Māori students and writing and mathematics achievement for all students.

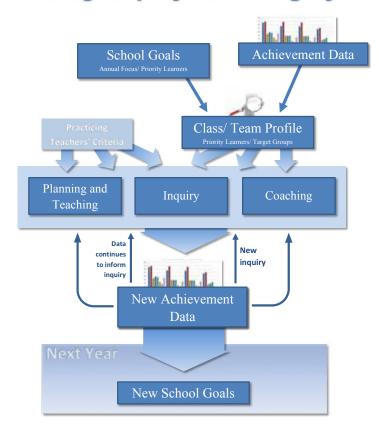
## Using robust inquiry processes

A culture of inquiry was evident at all levels across the school. Leaders developed a planning, inquiry and coaching cycle (see diagram) that linked structures and systems to priorities and goals. Inquiry cycles, appraisal, coaching and professional learning were all tools for improving student outcomes.

Leaders and teachers used data as a compass. They systematically gathered and analysed information relating to achievement and data obtained using the NZCER's Wellbeing@School survey tool. With the focus on student outcomes, they engaged in leadership inquiries, team inquiries, teacher inquiries, research-based inquiry, and action learning. These inquiries resulted in interventions tailored specifically to the needs of individual children and groups. Given the urgency of the need to accelerate progress for children achieving below the expected level, the aim was to quickly implement agreed strategies and evaluate their impact on student outcomes.

A culture of sharing and critiquing was well established in teaching teams, where the focus was on strategies rather than teacher beliefs. A common inquiry framework ensured that data and research-informed teaching was the norm. Every teacher expected to be challenged if the students were not progressing as expected.

# **Planning/Inquiry/Coaching Cycle**





"If you are not performing we are going to do something about it. We have no tolerance for poor performance. We don't promote dependency as we help teachers to unpack what is happening and are solution orientated. We give people space to do the work and support to do what we have agreed to do. Teachers now put pressure on themselves, as they have increased expectations for their performance."

Leader

Reading, writing and mathematics tracking and monitoring sheets clearly highlighted children's strengths and needs for teachers and teams. Teams used these collaboratively to review progress and consider alternative practices that might be more effective.



#### **Team Xxx Profile 2017**

#### **Footprint Information:**

Maori Students	Room	Strengths	Needs	Goal	Strategies	Monitoring/Evaluation
Pacifica Students						
Other						

#### Pastoral/Social:

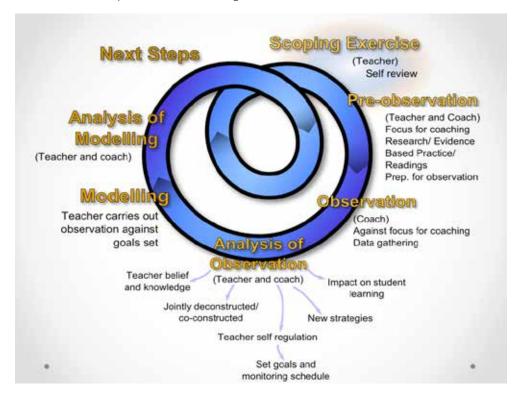
Students Name	Room	Date	Concern	Action	Monitoring

The tracking sheets used by teachers, teams and leaders highlight children's strengths and needs. They also provide a record of actions taken and their impacts.

## Developing leadership capability

To develop collaborative inquiry practices and build relational trust it had first been necessary to change the leadership model used by the school. Leaders became leaders of learning, tasked with supporting teachers to improve their practice. Starting in 2008, middle leaders began to focus more on data and student outcomes. They participated in training designed to support them as their job descriptions – and leadership expectations of them – changed significantly. Improving teacher practice within a development model became their core business, for which they were held accountable. They assumed increased responsibility for their own professional learning and development (PLD) budgets and for those of their teams.

An agreed coaching model (below) was adopted, which, linked to teachers' own inquiries, provided multiple opportunities to explore practices and beliefs and determine the impacts of new strategies.



Relational trust at every level supported collaboration, risk taking and openness to change. Team meetings were facilitated by middle leaders who kept the focus on teacher practice and made sure all voices were heard. The expectation was that all participants would come prepared. At the meetings, they discussed research related to the focus issue, worked collaboratively to identify target students and their needs, and agreed on strategies for accelerating their progress.

Time was made available each week for middle leaders to work as a team and to inquire into their own leadership practice. They looked in depth at their performance in relation to two of the dimensions found in the *School Leadership and Student Outcomes* Best Evidence Synthesis. They embarked on a comprehensive inquiry to answer the question, 'How do we lead our teams to explore their own practice and make pedagogical change to improve student outcomes?'

## Open working relationships with the board

The board had many opportunities to scrutinise the effectiveness of the school in achieving valued outcomes for its students. Prior to meetings, they received any papers or information senior leaders would be tabling. Each year they participated in a weekend retreat where they engaged in evaluation and strategic planning, their deliberations supported by educational readings.

The board used reports on achievement, progress, and the outcomes of interventions as the basis for allocating additional resources to interventions or funding new programmes. Their policy was to intervene early and make sure interventions were targeted to specific children. When achievement or wellbeing issues were identified, they examined the trends and wanted to know details of actions being planned.

The board had recently provided funding for:

- > trained teachers to run interventions, so children who needed additional support would have the best person working with them
- > a social worker and a youth worker who, among other things, were supporting children with very high behavioural needs in the playground
- > innovative teacher research projects focused on new practice
- > additional teaching (initially part of **ALiM** PLD) to continue with a small group of children who were making progress
- > significant PLD asked for by the teaching teams and linked to the school's goals.

The board was also working alongside **Ngai Tahu**, who, as part of the Christchurch renewal project had gifted the school its Māori name. The school was moving to place-based education that focused on the history, myths and significant of places in their community. The school names, logo and houses were all being changed to signal its bicultural commitment. This commitment was also underscored by the allocation of additional staffing to provide more advanced te reo Māori for those wanting it.

## Improving outcomes for Māori children

Somerfield School was part of a cluster of seven schools working together to change hearts and minds in the Kahukura Māori Achievement Collaboration (MAC) cluster. Principals and trustees discussed everything from programmes to engaging whānau. Lead teachers met regularly to work on or share major projects, celebrations, ideas and resources.

For Somerfield Te Kura Wairepo, major cultural change began when the board released a teacher to attend the Hōaka Pounamu course at the University of Canterbury. The teacher then developed programmes that were taught hui-style so that other teachers could learn more about the local history and traditions. As the school became more culturally responsive it put in place employment policies designed to ensure continued momentum. The MAC enabled lead teachers of Māori to grow in the role by creating opportunities for them to work together to develop new programmes.

Teachers' involvement in the MAC project and Hōaka Pounamu PLD encouraged them to learn new ways of connecting with students and getting to know them as individuals. They took time to find out their own histories and learned to express them in hui, mihi and pepeha. This helped them situate units of work and activities in contexts that Māori children could relate to. Teachers selected video clips and created resources that were shared with whānau and children. They modelled learning together and collaborative pedagogies. They sought to provoke children's curiosity about their past and give them opportunities to strengthen and express their identities.

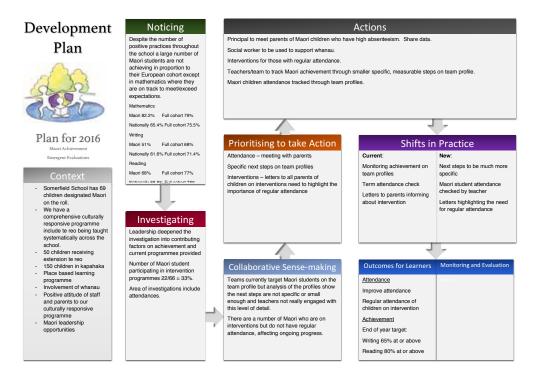


- "We can participate in extension Kapahaka and Te Reo."
- "There are te reo and tikanga programmes in all class as well."
- "It's normal to be Māori here no-one judges you."
- "We have library books in te reo."
- "Kids look up to you."
- "We get to present a mihi that relates to us."
- "We get to learn about Māori history."
- "Parihaka is an important unit to our area."
- "We participate in a cultural festival with other schools in our cluster."
- "Everyone does place-based learning."
- "We have lots of ways to learn."
- "We learn about our culture and what happened."
- "We do a Matariki celebration with our cluster."

Māori students

Concerned that some Māori children were achieving below the expected level, leaders decided to work on attendance and lateness. Supportive interviews and phone calls to family resulted immediately in greatly improved rates of attendance. The focus was on developing solutions together. By closely monitoring their Māori students, teachers were able to identify their particular strengths and issues with regard to wellbeing and achievement. More students were identifying themselves as Māori and expressing pride in being Māori.

Leaders and teachers worked actively to develop reciprocal, learning-centred partnerships with whānau. Whānau participated in focus groups designed to find out how the school could better support children's achievement. Whānau worked with leaders, teachers and the board to make the school more culturally responsive and, through the MAC project, to resource increased provision of te reo Māori. Whānau also contributed thinking via the school's website, where teachers, parents and whānau could access planning for the bicultural curriculum.



One of the investigations and development of actions to improve outcomes for Māori children.

Despite the increased emphasis on Māori language and values and increased involvement with whānau, teachers and leaders recognised that there was more to do:



"Some of our Māori students' achievement in reading and writing is of concern despite them being targeted in every module. This requires a rethink in our approach in terms of engaging with whānau to improve learning. Kapa haka and te reo Māori is not enough to impact on student achievement."

Teacher

## Writing strategies

To improve children's attitudes towards writing, teachers increased their positive talk about writing and looked for opportunities to praise. When children enjoyed noteworthy success, teachers told other teachers so that they also could praise them and boost their self-belief. Teachers had one-to-one conversations with children to motivate them and learn what they would like to write about. Each day they would explicitly model the kind of writing wanted.



"We don't get in the way of what they want to write about. One boy has been writing about plants versus zombies now for eight weeks and he writes at home. He did his first piece over several days and not a new piece every day. Children are more desperate to continue to write."

Teacher

Teachers started using their new authentic curriculum units, which were relevant to the geographical location of the school and the lives of the children. To make writing more individual and purposeful they focused on special trips, events and interests. They used high-interest film clips to spark creativity. Children published their work using **SEESAW**, in this way sharing it with their parents and whānau.

Teachers began allowing children to choose their own topic, medium and writing location within the classroom. Naturally, they wrote about topics that mattered to them. They used images to help them with discussions before writing to extend their ideas and make connections between oral and written language. Children formed their own small teams to create and share ideas. Having choices increased both their engagement and their achievement.



"We saw a child use a strategy called 'stepping it out' where, for each new idea, he took a physical step forward. This helped him develop and sequence his ideas. The physical activity also reinforced paragraphing and sentence structure for him."

**ERO** evaluator

Teachers were more flexible about the tools and graphic organisers they used. Because spelling was a barrier for some children (they were limiting their writing to words they could spell), they were allowed to do their writing on a device that would check and correct their spelling. The resulting work more accurately reflected their potential, and teachers were in a better position to challenge their word choices and encourage them to use of the vocabulary they had in their heads.

A key teacher goal was to provide more explicit, targeted and relevant teaching at the right time for the right learner. Booster classes helped target children to gain specific skills they needed for their writing. English as a second and other language (ESOL) students were provided with additional support to show them the different steps needed to complete a piece of writing. The board recently supported an inquiry into improving writing in Year 4 by funding time for the teacher concerned to do additional observations and small-group work with a group of reluctant writers. As a result of this initiative, the children were much more ready to scribe and generate ideas.



A Year 6 child showed us her goals, which she sets weekly. "My goals are there to help me make my writing more interesting by doing things like using different sentence structures and using more interesting vocab. We use our goal setting book each week to reflect on our goals and describe how we went and what went well."

**ERO** evaluator

To help children understand the skills they should be applying to their writing, teachers shared the **English Language Learning Progressions** (ELLP) with them, as well as school exemplars and actual examples of student writing. Formative assessment checklists performed a similar function. Teachers began using modelling books more consistently, along with examples of descriptive writing to help children build more imagery. Writing buddies provided feedback and shared ideas both before and during writing.

# Mathematics strategies

As a first step to improving mathematics achievement, teachers reviewed their practice in the light of readings from the *Effective Pedagogy in Mathematics/ Pāngarau* Best Evidence Synthesis. Identifying consistent use of mathematical language as critical for children's mathematics learning, they explored how they could achieve this, as well as consistent use of approaches and strategies, across the school. As a result, a variety of strategies and approaches were adopted. These had contributed to improved achievement.

The practice of having the children work in fixed 'ability groups' was abandoned and replaced by flexible grouping, where groups comprised children who needed to learn or practise a particular concept. The children now moved more quickly from stage to stage because they were no longer having to wait for others, or wait to move on to a new skill before mastering the current skill. During four-week, intensive teaching blocks across three classes, two teachers facilitated targeted workshops while the third worked in the collaborative space supporting children who needed individual help. Children worked together more collaboratively and sought help more independently.

Teachers made changes to their own practice. They explained the micro steps needed to solve problems and highlighted next learning steps, being more specific and explicit. They improved the quality of their questions, making them more open so children were required to explain their ideas. They were still gaining confidence in this area, as well as the confidence to summarise learning as it was happening and establish what strategies the children were using by getting them to clarify their responses.

Teachers increased the pace and variety of lessons to keep the children engaged and motivated. With less time allocated to each activity, the children wasted less time and understood the need to make progress. During 'Problem-solving Thursdays', mixed-ability groups worked together to solve problems. On 'Discovery Fridays', the children used practical mathematics to make constructions. Older students were able to learn online, using e-ako maths (a site within the nzmaths website). This encouraged independent learning and gave the teacher more time to work with children who needed extra help.

Inquiry and innovation were key strategies evident in all the different developments. They used evidence to generate improvement solutions, supported teachers to implement agreed practices and rigorously checked that they were having the desired impact on student outcomes.

TEACHING STRATEGY

# Fully engaging children in learning through an innovative curriculum

**Sylvia Park School** in Auckland has well over 500 children in Years 1 to 8. Almost half are of Pacific ethnicity and more than one-third Māori. Of the remainder, a significant number are Asian.

ERO saw that from the time they started school until they left at the end of Year 8, children were engaged in learning that motivated them because it linked to their homes and communities and to national and world events and issues. Learning was more than a pen-and-paper or information technology exercise; it touched the heart as well as the head. Many of the outcomes of this learning were visible in the environment, where the outcomes were helping improve the lives of the children and those in their communities.

Although the innovative curriculum has been a feature of the school for some years, the leaders have worked hard to transform a culture and learning environment not benefiting children into the vibrant and exciting place we saw during our visit. Currently, the proportion of children achieving success in reading, writing and mathematics is greater in Year 8 than at any other level.

To bring about this positive achievement trajectory the leaders had focused on three aspects:

- > pedagogy developing teaching practice
- > school culture developing a positive, relational culture
- > success for every child.

The following section describes the curriculum. Subsequent sections unpack the three focus aspects.

# The school's curriculum

Each term the children were involved in a whole-school inquiry designed to make them curious about what was happening in their lives, their community and the world. Contexts were selected for their current relevance.

The starting points for the inquiry were a statement centred on a curriculum area and a question that linked to the children's lives. See the table for recent examples:

Term 1, 2015	Term 4, 2015	Term 1, 2016	Term 4, 2016
Statement 'Keep calm and carry on'	Statement 'For every action there is an equal and opposite reaction'	Statement 'Growing a good idea'	Statement 'Sing out for change'
Ouestion  How can we deal with conflict?  The context was the centenary of World War I.	Question  How can we use force to create a successful fitness course?  Resulted in a new fitness course with elements designed by children.	Question  How can we ensure that we don't need Mars as our Plan B planet?  Resulted in an outdoor classroom and other new environment and built features designed by	Ouestion  How can we make our story sing?  Students composed, performed and created music videos for school Grammy Awards held at the local Hoyts Cinema.

An inquiry team and a literacy team comprising of teachers and learners undertook the planning and monitoring. Joint planning by the two teams made sure consistent practices built on what had gone before, and that children experienced learning opportunities across *The New Zealand Curriculum*.



The New Zealand Curriculum is a fantastic and innovative curriculum designed for people to make their own local curriculum. But it needs progressive and innovative people to elevate it to what it could be. It is encouraging to always work with your community, think about your children, think about the place you are situated, and then knit those together.

**Principal** 

The inquiry was often broad, offering opportunities for children to explore different contexts and to relate learning to their lives and aspirations. Sometimes each whānau group would take a different aspect of the topic, as they did in the 'Keep calm and carry on – How can we deal with conflict' inquiry. In this case, children not only immersed themselves in and explored the events of World War I but they also **examined their own role in conflict situations**.

The teachers in each whānau team would take the curriculum overview and, using their creativity, devise innovative activities to support the children to pursue the inquiry into the different learning areas. If it was identified that staff did not have the expertise to fully explore the inquiry question, leaders would use their networks and the web to find appropriate external expertise.

Each new inquiry would begin with an activity designed to provoke the children's thinking and get them asking questions related to the topic. These 'provocative' activities have included a trip on the first day back at school, a market where teachers sold products to children, and a disco to evoke feelings about dance and movement.

One child told us they were always excited to come back to school after the holidays and find out what their teachers had in store for them.

The children were involved in the planning and contributed their ideas about what they would like to learn. They were also continuously involved in decision making relating to the direction of the inquiry and possible answers to the inquiry question.



"Throughout the week we have been asking questions about our inquiry question, which is 'How can I become a champion within?' We looked at and discussed about what we know. We have been thinking about key words like 'talent', 'champion' and 'character'. We talked about what those key words mean. Next we asked questions about what we wanted to know. We asked questions about the Olympics, talent within ourselves and the character you need to have to reach your dreams and aspirations!"

Years 5 and 6 children

An **inquiry about equity** started with the statement 'It's worth the fight for equal rights' and the question 'How can we make a dramatic impact?' Children learned about leaders such as Dame Whina Cooper, Martin Luther King, Kate Sheppard and Rosa Parks who fought to reduce inequality. In visual arts, they explored and drew freedom quilt designs used by Harriet Tubman. They worked as script writers, costume designers, set designers and actors to create and stage a major production that highlighted what they had learned, namely, that they should be treated equally and should treat others equally.

Sometimes the children's ideas took an inquiry into areas their teachers had not anticipated, as these two examples illustrate:



Children planning their question to explore in the inquiry.



This group of children enact Dame Whina Cooper taking a stand against inequity.

In the 'Growing a good idea' inquiry, one suggestion was to have a space where children could get together for forum discussions. This idea morphed into designs for an outdoor classroom. Because the inquiry also had a sustainability focus, everything in the classroom was built with recycled materials.



This outdoor classroom was an outcome of an inquiry.

During the 'Step up, step out – why dance?' inquiry some senior boys shared an interest in parkour, which involves moving across and between obstacles. Their teachers found a local expert to assist the boys and others to develop their physical skills.

Teachers deliberately sought ongoing feedback from the children about each inquiry, while a review at the end gathered perspectives and ideas from each whānau group. Using an audit framework, teachers asked the children what they had enjoyed the most, what had challenged them, and what topics they would like to learn about in the future. Information from these reviews fed into future inquiries.

Wherever possible, reading, writing and mathematics programmes were tied into the inquiry topic. Before the start of an inquiry, the literacy team would provide detailed plans about how to relate teaching to the focus. Whānau groups filled in the specifics. In 2016, one of the school's charter targets concerned improvements in writing. In response to this, whānau leaders entered details of each week's writing activities into the electronic plan. The literacy leaders then monitored what was being taught and how well it linked to the inquiry question and success criteria.



The fitness circuit under construction.

At the same time the children's progress in terms of writing levels and success criteria was also tracked. In this way, teachers and leaders could see which activities were associated with the greatest progress. At weekly assemblies, children shared what they had been learning and this was also a measure of how the planned activities were working.

Funding was sourced to action the very best ideas, with the board of trustees being involved in such decisions. Recent permanent structures built as a result of an inquiry included a fitness circuit, art works, outdoor classroom and a buddy bench for the junior school. Resources were also sought and obtained from the wider community.

The Auckland Council funded many worthwhile improvements to the wider environment. These were in response to letters sent by the children in conjunction with the inquiry, 'If you want traction, you have to take action: what is your path for change?' This inquiry led to improved traffic signage, calming tables, changes to street parking, a completely renovated alleyway and staff parking signs designed by the children.

Working with the community has made learning come alive for the children. Every inquiry concludes with an end-of-term 'Big Reveal', when the community comes together to celebrate the outcomes of learning – often things that benefit the community too. Children were empowered to do their best as they knew the outcomes from their inquiries were appreciated and highly visible in their community.



"Things we do help the community, and the community helps us too with our learning."

Year 8 student

## Pedagogy – developing teaching practice

When the current principal was appointed a few years ago, the school was plagued by poor behaviour, graffiti, and lack of community confidence. The first step was to work with teachers to examine the expectations and current practices before redefining teachers' purpose. Leaders stressed that if children were not succeeding, teachers had to do something different. Leaders recognised good teaching every day and in every classroom would make the difference. The principal highlighted there was plenty of research evidence about 'what works' and teachers must use it to ensure the children's success. Leaders decided to get the core teaching right before moving into other areas of the curriculum and school-wide inquiry.



"Reading, writing and mathematics are critical for being a successful inquirer."

Principal

Firstly, the staff undertook PLD to improve their content knowledge and data literacy. Early emphasis to improve data literacy was a deliberate strategy used by the principal who wanted teachers to use the data to identify the outcomes resulting from their changed teaching actions. When teachers could see the impact of changed practices, their views about the children's potential also changed. Early, but unmistakable, evidence confirmed for them the teaching was responsible for the success or failure rather than the child being seen as solely responsible for the failure. This realisation contributed to a groundswell of change.

Leaders used external experts extensively to build school-wide review and development. Each PLD programme (reading, writing, mathematics) started with a situation analysis in which school leaders asked:

- > What do we know already?
- > What do we need?
- > How will we do it?

Their initial analysis would usually be modified as they worked with a facilitator to construct a plan that responded to the gaps identified. The plan was monitored to see if the actions were having the intended positive outcomes. If the PLD was not working, it was terminated.

Prior to the start of each of the different PLD programmes, leaders made it clear to facilitators they were not being engaged to impart knowledge to teachers but to mentor them in the skills of carrying out observations, leading developments, monitoring progress, supporting and reviewing change. One of the biggest financial costs was that of releasing people to do the analysis, observations and mentoring. However, the cost was considered necessary to make sure the improvements were sustained and continued after the external experts left.

#### Responding to children's diverse cultures

Leaders and teachers cultivated a deep knowledge of the child as a learner and as an individual to recognise and value what the children brought to their learning. They developed responsive inquiries and learning by:

- > setting challenging expectations and providing contexts in which children could reach them
- > providing many opportunities for children to work with their peers
- > using the children's interests and things they bring from their home life
- > pushing children's boundaries.

Each year, a new mantra was introduced to unify the school around a common purpose; for example, 'It's our time to shine'. Each whole-school inquiry linked to the mantra and supported the positive culture.

Leaders and teachers recognised the children came from a variety of different cultures but avoided stereotypical assumptions about their interests or attributes. The focus was on children learning *through* their culture not *about* their culture. Teachers expected to learn from the children. Leaders got teachers to identify differences and similarities and to value what they could bring to their learning. The children valued other cultures and enjoyed being part of a diverse community. Teachers tried to treat the children in their class as a big family.



"Children told us another of their mantras: 'Once you join the whānau you never leave the whānau'."

"They talked about how they liked having all the different cultures and hearing different languages."

"During an art lesson with Year 8 boys we heard the teacher encourage the boys to value their own ideas and culture: 'Your story is your story – own what you have inside you.'"

**ERO** evaluators

The school environment, where children's artwork, designs, stories and artefacts were proudly on display, contributed to a sense of purpose and high expectations. Senior students showed us around the school, talking about their learning and explaining the different artworks, presentations and structures. They demonstrated that at this school, doing well was not only OK, it was expected.

Respectful relationships and collaboration were the norm. Respectful, reciprocal relationships with parents and whānau benefited everyone: child, teachers and whānau. Teachers shared all assessments and the children's responses with their parents. Teacher and parents would discuss what an assessment revealed; next steps; and how the parents could support the child's learning at home. The parents were also given appropriate resources.

Whether children arrived at the beginning of, or during, the year, the expectation was they would start learning straightaway. They were assessed during their first week of school, again at six and 12 months, and after two years. Teachers shared assessment data with the children and parents, and used the data to determine appropriate learning activities for both home and school.

Parents we spoke to appreciated the sharing of information and resources. They felt it was a significant reason for the increasing numbers of children reaching the expected level in the senior years. They liked having specific information about their child's learning and goals. They felt, too, the regular changes of inquiry topics kept students motivated in the senior school.



"I have just come to this school and it is here with my seventh child that I find out that there is a basic word list children need to know in their first year of school. I should have known that with my first child. The school has to tell us so we can help. Thank goodness they do that here."

Parent

Strong community support has seen experts coming into the school to assist with inquiry learning. Besides the parkour instructor already mentioned, visitors have included dance specialists from **The University of Auckland** and the **Pacific Dance Company**, and art gallery staff. Parents have also come in and helped children with construction projects that have been outcomes of inquiries.

Many parents take the opportunity to attend daily morning assemblies, the bigger Friday assemblies and end-of-term Big Reveals. The latter became so popular that the school needed to hire the cinema at **Sylvia Park Shopping Centre** as a venue for screening video clips made by the children in which they shared the outcomes of their inquiries.

Parents we spoke to were proud to see their children's learning prominently displayed in the school environment. They brought visiting friends and whānau into the school during the weekend so they could share their children's achievements with them.

#### Success for every child

To promote success for every child, teachers had first to accept responsibility for every child. One early move was to discontinue withdrawal and mini programmes. Leaders made it clear, from now on, all children would learn in their class, with their peers and their teacher. If a child was not progressing as expected, teachers would examine the issues in the whānau group and discuss possible strategies. Taking responsibility for every student, knowing them well and responding to their strengths and needs became 'business as usual'.

Children worked together, sharing their thinking and developing their ideas. They knew their contribution mattered and was valued. The pace of learning encouraged focus. Because mixed-ability groups were the norm, students were constantly learning from and teaching each other.





Children voting for the best fitness circuit designs and then working together to construct one of the chosen designs.



"Our teachers keep us interested in our learning. You're not waiting to do new things."

Year 8 student

For example, students designed all the activity stations for the fitness circuit. The circuit was divided into seven stations, each to develop a different part of the body. Senior students chose which station they would research and then developed a prototype. All the children and parents then voted for the construction of equipment that best met the previously determined criteria for the seven fitness activities. A similar approach where parents and students voted for the best option was used for other inquiries.

Children maintained portfolios containing evidence of their learning in reading, writing, mathematics and inquiry topics, and these were shared with the parents. To increase their understanding of their own learning, the expectation was that as children moved through the school they would increasingly be involved in assessing their own work. When in Year 1, the work samples in their portfolios would be accompanied by teacher comments. In Year 2, the teacher would write in consultation with the child why they had chosen to share this piece of work and how it related to the success criteria. From Year 3 onwards, students were responsible for explaining why they had chosen to share each different piece of evidence.



"I have chosen this piece of evidence because it shows I can use doubling and halving to help me work out multiplication problems easily."

Year 5 boy

"I have chosen this piece of evidence because it shows I have used paragraphs, commas and exclamation marks when writing a recount."

Year 3 boy

This process helped children understand what they had achieved. It also simplified the assessment and tracking process for teachers.

Students talked about the value of knowing what they needed to learn to progress and the pride they had in their learning.



"Knowing everyone's learning levels encourages you to help those in need. The progressions tell us the information that helps you help others so you can all cross the 'finish line' together."

"Our inquiry questions make us work outside our comfort zones. It sets you up for lifelong skills."

"Our learning is having an influence on our community."

"I guess you could say we are a pretty 'out there' school. We are always asking how we can have a dramatic impact."

Year 8 students

08

Empowering children's learning, efficacy, aspirations and success

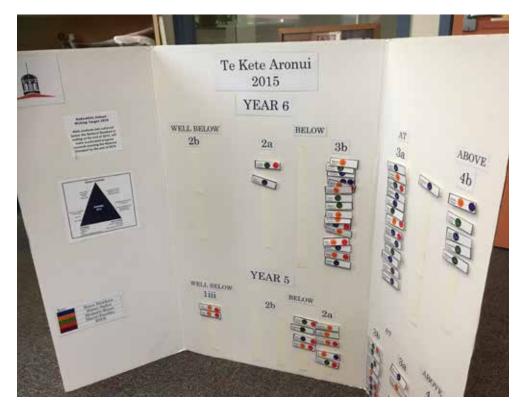
**Hokowhitu School** in Palmerston North has approximately 350 children in Years 1 to 6. About half are Pākehā/European and one-fifth Māori. The remainder are from more than 30 different cultures.

Members of the school's leadership team were able to explain why the achievement trajectory of their children was trending upwards. Teacher and leader inquiries had quite specifically identified what was working for their students, what should be extended across the school, and what further developments were required. In their assessment, the practice of teaching as inquiry, professional learning and development (PLD), heightened expectations and new pedagogies and guidelines had collectively made the difference.

During the previous five years the school had gone through considerable leadership, teaching and environmental changes. Teaching was now more innovative, taking place in more flexible learning spaces. The children had increased choice about how and what to learn. Crucially, robust systems were put in place to make sure evidence informed all initiatives and changes to practices, and their impacts carefully monitored and tracked. Successful changes were extended across the school and became expected practice.

# Teaching as inquiry to improve teaching and outcomes for students

Systematic, collaborative inquiry processes and challenging PLD aligned with the school's values, goals and targets. Leaders encouraged a culture of continuous improvement, with a resolute focus on 'what works for the kids.' A key innovation was the linking of teaching as inquiry to appraisal, school targets and target students, which led directly to improved practices that were then embedded across the school.



Leaders and teachers used data boards (as shown here) to show the names, achievement levels and progress of students. These were reviewed and adjusted regularly to reflect the children's progress.

When discussing, for example, writing, teachers looked at and moderated writing samples, compared judgments, and then agreed which students had progressed. In this way, they were easily able to identify their target students.

All teachers undertook inquiries related to charter targets and the needs of the target students for which they had particular responsibility. These inquiries started at the beginning of the year. Teachers reported and discussed progress at team meetings throughout the year and as part of the formal appraisal process. An inquiry timetable incorporated:

- > deadlines or times for research and investigation
- > types of assessment and their use
- > ongoing reflections about progress and challenges
- > discussions in team and staff meetings
- > observations by team leaders
- > presentation to staff about the inquiry and its impacts for children.

For example, a school goal for 2015 was to accelerate the writing progress of boys who were below the expected level. Each teacher set specific goals for the children in their class. In some cases teachers found as many girls as boys were below the expected level so they included them in their inquiry too. These goals varied, as did the teacher's actions and strategies, depending on the needs and strengths they identified in their students.

#### One teacher's end-of-year reflection

#### I have implemented:

- > Daily free writing time
- > Free writing prompts on the wall
- > Free writing ideas and questions
- > Whānau modelling of writing 'think alouds'
- > Google Docs set up
- > Writing goals developed alongside the children and stuck in books
- > Celebrations of writing on blog, walls, and in newsletter
- > Writing for authentic purposes (letters to Prime Minister and newspaper, posters for Wildbase Recovery)
- > Interest-based writing groups.

#### Inquiry plans included eight sections:

- > initial data and analysis of data
- > goal(s) for the target students
- > to achieve these goals, the target students need to...
- > to facilitate learning, my high-quality practice focus is...
- > I need to...
- > a summary of what I am going to trial
- > by the end of this cycle I expect my learners will...
- > I will know they have achieved (or not achieved) the goal because...

During the year, teachers reviewed and recorded the impact of their deliberate acts of teaching on the students' achievement. They also identified challenges. Some interviewed children to gain their perspectives on what was working.

At the end of the year teachers documented changes they had made to their practice, successes enjoyed and challenges encountered, and they proposed further steps for the next year. These reviews were collated for each team and summarised for the whole staff. Updates of the school's teaching and learning handbook, *Key Foundations for Pedagogy*, incorporated findings from these reviews.

Teachers of most year groups worked collaboratively in flexible learning spaces. Three teachers shared each space and worked together to lead workshops and act as learning coach. The learning coach reinforced workshop learning or coached children while the others led workshops. All teachers continuously reviewed how their teaching aligned with high-quality practice as described in *Key Foundations for Pedagogy*. PLD focused on strengthening agreed pedagogical practice.

The primary focus of the board was the achievement, progress and wellbeing of the students. Members were well informed about the progress and achievement of different cohorts.

Since effective tracking and reflection



systems had been put in place, the quality of information in board reports had improved. Trend data and teacher presentations about practice, programmes and innovations informed resourcing decisions. Trustees interrogated the data, sought clarifications and challenged school leaders:

- > What are we doing for children who have not moved?
- > Are these children the same in each set of data?
- > What else can we do?
- > Are we being effective in supporting identified students?

# Tools to guide teaching practices

School leaders deliberately and strategically supported teachers to develop the systems and structures needed for successful implementation of agreed practice. Decisions relating to teaching practice were documented and incorporated into a multi-layered change agenda.

A record of long-term improvement strategies was kept with the strategic goals where they would contribute to the reframing of teaching and learning expectations.

Teachers had focused on changing how they operated in flexible learning environments and how they collaborated to meet student learning needs.

Over time, they had developed clear understandings and shared expectations, which were collated as 'Curriculum Essence Statements'. These outlined expectations for:

- > the classroom environment
- > what teachers should know
- > what the class programme should consist of
- > instructional strategies to be used
- > what teachers should say and do
- > effective pedagogy in the learning area
- > assessments and overall teacher judgements.

Essence statements were fully developed for reading, writing, mathematics, and health and physical education. They were partly developed for science, te reo Māori, and becoming digital citizens.



#### **Effective pedagogy at Hokowhitu School**

- > The whole school maintains an unrelenting focus on student achievement and learning.
- > Whole-school alignment is around evidence-based practices.
- > Teaching is responsive to students' learning processes.
- > The relevance of learning is transparent to students, with links made to their daily lives.
- > Teaching builds on students' prior experiences and knowledge.
- > Tasks and classroom interactions help students understand each incremental step they need to take to make progress.
- > Students receive specific, frequent and positive feedback.
- > Students have a strong sense of involvement in the process of setting specific learning goals.
- > Teachers collaboratively reflect on practice to improve teaching.

#### **School document**

# Writing strategies introduced as a result of inquiry, and other changes

The learning environment was managed in ways that supported student participation, engagement and agency. Teachers offered children choices and opportunities to learn in flexible ways. School-developed progressions and explicit feedback made learning – and strategies for learning – visible. During writing lessons, two teachers would usually facilitate workshops while the third acted as learning coach supporting children working independently or in pairs. Authentic writing tasks would be situated in a familiar context (for example, the family), or related to learning in the wider curriculum (for example, in art or science). The thought that their writing could be published in the school newsletter was a huge motivator for children.

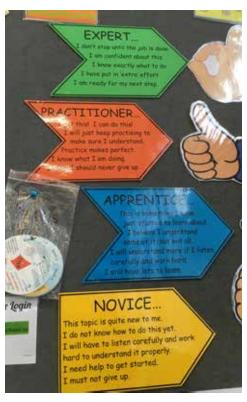
Children would sometimes self-select a workshop, but teachers would usually guide their decision making to make sure children targeted the skills they most needed to learn. Children would indicate their workshop choice by placing their photo in the appropriate column on a chart (see below).

In one flexible learning environment, we saw children moving with a sense of purpose to begin and progress their learning. They used a template to plan their week and had decisions to make about what they would do and when they would do it.

Children were able to explain to us their 'must do/can do' sheets, the concepts they were working on, and what they needed to complete.

Teachers used the writing progressions as a tool to sharpen the focus of their teaching. They also explicitly shared them with the children in the form of goal sheets so children knew what they were trying to master and could self-manage their learning in workshops and conferencing activities. Children would evaluate their own progress and the teacher would indicate with an arrow when they were close to moving up a level or sub-level.





Behaviours that support learning were described under the headings Novice, Apprentice, Practitioner and Expert (NAPE). The children knew what these behaviours were and to what extent they were exhibiting them. They could see how independent they were in their learning and what they needed to do to become more independent.

Short, sharp lessons and a wide variety of teaching activities kept children highly engaged and focused.

Teachers had high expectations of their students. In Term 3, the deputy principal worked with a group of Year 3 and 4 Māori and Pacific boys. The aim was to have those who were below the expected level move to 'at' or 'above', and those who were 'at' the expected level, to 'above'.

The nine boys used comics, building a tree hut, and superheroes as contexts for writing. They also did writing tasks related to the wider curriculum, for example, visual arts and science.

Other strategies included:

- > the use of digital technologies to remove scribing barriers
- > previsioning and vocabulary building
- > exemplars and modelling books or sheets for individual students
- > hands-on, making and doing activities followed by writing about the experience
- > increasing student reflection using the school's writing matrix.

Five of the nine students had met the target by the end of the intervention; the other four were still being supported to do so.

Another innovation involved holding several open days in Term 4 so parents could see for themselves what their children were experiencing. This gave school leaders an



opportunity to 'share the journey' as they explained flexible learning environments and how the students were increasingly managing aspects of their own learning and collaborating with others to achieve learning goals.

Changes in teaching practice and an emphasis on learner agency helped keep students engaged and motivated as they moved through the school. Teachers understood clearly what was expected of them, and were working collaboratively to make improvements benefiting all children.

In 2015, the percentage of Māori students achieving at or above the expected level was the same as for non-Māori in both writing and mathematics and only slightly lower in reading. Over 92 percent of all Year 6 children were at or above the expected level in reading and writing.

The following case study illustrates how Hokowhitu School's teaching and learning strategies empower children, lift aspirations, increase self-efficacy and accelerate achievement.

#### **Ariana**

Ariana moved to the school fairly recently. When she arrived her mother pointed out that she was very young for her class and was struggling quite a bit in that year level. Together they decided to place her in a composite class and classified her at the lower year level.

This change, combined with a focus on understanding her learning and achievement, has benefited her. She is motivated and engaged in her learning and talks knowledgeably about the assessment tools and processes she uses to get the information she needs to set goals and monitor learning.

"I am on Level 2A and my goal is to use grammar and tense better so I can move on to my next goal." "I know if I get an arrow by my name I am close to moving up." She points to the goal sheet she is using to track her progress. "Every time I write I look at my goal sheet and use that." Teachers "help us if we need help." "Sometimes I can't think that well so I think again and write my ideas in my book to make them work and then I write them up and edit them."

Ariana knew and could talk about the school's values (expressed using the acronym **STRIVE**):

Step up and be the best you can
Try new things and persevere
Respect self, others and things
Investigate, wonder and learn
Value others

Enthusiastically live by our virtues.

She could also discuss strategies that encouraged students to take risks, work independently and 'give it a go'.

"In maths my goal is to improve my division. It took me four weeks to 'get' place-value so now it is division I am working on." "We have tests in whānau class. They tell us in workshops how we did and say these are helpful tests for learning." "I am at the standard and I want to get better and get a scholarship to be a teacher."



Children in front of the school's STRIVE values display.

"I am happy here; people speak my language." "The teachers are not Māori but they speak te reo every day." "The three classes have Māori names and we have three teachers now, not just one." "We always have more time with a teacher. You can get to know your three teachers."

She liked the fact the school had a Māori name. She had a strong sense of belonging at this school.

n g

Developing student agency and motivation through effective teacher practices and inquiry

**East Taieri School** in Mosgiel has a roll of around 300 children in Years 1 to 6. Most are European/Pākehā; approximately one-tenth are Māori.

The number of children achieving success rises as children move into the upper primary school. In reading and writing, about 60 percent of children achieve at or above the expected levels in Year 1, while around 90 percent reach or exceed the expected levels by Year 6. Leaders explained the positive trajectories occurred as they focused on:

- > increasing learner agency
- > examining the effectiveness of curriculum and pedagogy
- > developing teacher evaluation and inquiry systems.

In this narrative, we look specifically at how the school has gone about increasing learner agency.

# The initial inquiry



"At East Taieri School learner agency is about using pedagogical approaches that enable students to take change of their own learning. A positive and structured environment is created to enable students to develop the skills and attitudes to become active learners. Through choice, reflection, goal setting and assessments, learners will be empowered to take ownership of their own learning."

**School statement** 

The leaders of the middle and senior syndicates were participants in the **National Aspiring Principals' Programme**. During a weekend course, they heard leaders from another school talk about their collaborative teaching and learner agency practices. Subsequently the leadership team (and later, other staff) visited the school and saw some of the practices in action. As part of their involvement in the programme, the two syndicate leaders then initiated a joint leadership inquiry in which they sought to further their understanding of collaborative teaching and learner agency.

The school already had a culture of continuous improvement. Teachers had high expectations of themselves. They continually looked for ways to make a difference for their learners. They willingly helped each other and shared strategies they were using with children who needed extra support. They enjoyed opportunities to inquire into areas they were passionate about and would share their findings with others. Through honest and open conversations in syndicates and staff meetings, they acknowledged each other's efforts, while at the same time, scrutinising them to evaluate their impact on student outcomes. A natural next step was to develop collaborative teaching practices that would support the implementation of new teaching and learning strategies.

The changes were led by the two syndicate leaders. Their inquiry gave them the opportunity to research further the relationship between learner agency and improved student outcomes, and to consider how they could lead implementation of new practices. They found **Julia Aitken** helped clarify their thinking about the 'why' of change while **Simon Sinek** gave them ideas on how they could enlist the cooperation of their colleagues to bring about far-reaching change.

Recognising experience and knowledge were prerequisites for significant change, the syndicate leaders decided they would start with teachers who were keen to be involved. There were four in this category, plus a fifth who wanted to limit their commitment to the reading programme.

## Knowing and reflecting on achievement and progress

Leaders and teachers identified that, to have agency, students must understand the learning progressions, be able to recognise what they have mastered, and know what to do next. So they broke the curriculum into bite-sized portions and progressions and then introduced 'learning pathways' for use in reading, writing and mathematics.

Using the pathways, the children identified and then highlighted in yellow what they had already accomplished, in purple the steps for which they had proof of capability and in green their next steps.

Teachers and leaders also examined their own assessment beliefs and practices to make sure they supported learner agency. They identified the following as key principles:

- > teachers and children gather and analyse information and then use the findings to adjust their teaching or learning
- > assessment involves a collaboration between teacher and student, with the purpose of determining what the student knows and what their next steps should be
- > where possible, children should be involved in decisions that relate to assessment. They will value assessment results as pointers to their next learning steps
- > assessment, both formal and informal, helps teachers and students identify trends in achievement and progress.

Following the introduction of this more collaborative approach to assessment, the children became familiar with and understood the learning progressions, and they used them with some confidence to develop goals. Children also reviewed how they were going with the **Key Competencies** and set goals in relation to them. They spoke knowledgably about the 'testing' they did 'to see where we are'.



"There are different types of assessments. Snapshots tell teachers where we are; they are about strategies we know. Snapshot tests are also used to find out how we are coping with a new strategy. After a test we go into our guidebooks and put in our goals for maths, writing and reading. After every knowledge test our goals change and we highlight more in our learning pathways. Our goals come from this pathway tracking."

"PATs [Progressive Achievement Tests] are painful to do, but it's good to see the results. We talk to the teacher about our results."

"Our writing samples are 'marked' by teachers using a code and a 'score', e.g. 3B, which shows us where we are at. The teacher told us where we should be, e.g. 3A. She said to not to freak out – it tells her where we are at so she can push us along."

Students

Children in the middle and senior syndicates had assessments from earlier years in their learning journals (portfolios) and could refer to these. These included exemplars with teacher feedback as well as **PATs** and other diagnostic tests. The extensive use of Google Docs ensured that each child's achievement and progress was visible and could be discussed, analysed and monitored by the class teacher, in syndicate meetings, and by leaders.



These two children are tracking their progress.

The learning journals were also extensively used by the students and their parents.



"We have two to three years of learning in our learning journals now. We can look back and see how we are going. We use them in our reports and three-way interviews. We are in charge of them."

"I can look to see what I've done. I noticed I had been two years on the same stage. In the third year I moved up to the next level because I tried. I tried a new strategy because I was always getting the same score and was doing the same thing. Plus we had freedom to choose and have more control of our work, so that helped."

"Our learning journals help us make decisions about our own learning. We can go back and see what we need to work on and we choose an activity to do this. The pathways let us know what we are strong at and what to work on."

"Our journals help us doing reports with parents. Our parents work on things at home – things we are not good at. We take them home after our interview so we have more time to show them and talk about the things in them."

"We have mentor buddies. They help us by talking with us about what we can do and help us decide our goals. We also role play parent interviews. Our buddies help us improve what we share."

Students

## Understanding the learning processes

Classrooms displayed vibrant looking learner prompts and checklists to encourage independent learning and reflection.

Each week children monitored their progress and identified their next steps with the help of curriculum overviews. They were supported to take risks with their learning and were open to feedback that would improve their work. Systems and processes, often formalised as in the example following, provided structure and support for independent learning. (Note the influence here of the **Key Competencies**.)

			r Group		
	Name	managing	my learning		
Supported Learner		Self-managing Learner		Self-directed Learner	
I need being to determine sit, or most of  With I do it  With I do it  With I do it  With WISER I do it  With WISER I do it  I need being to direct support me in my personal and community responsiblese. I need to the direct support and scallfield my behaviours and actions. I reflect on and succeed in my learning when I am told what to do.		I am open to support in deciding someial of  WHAT I do it  HOW I do it  WHERE I do it  WHERE I do it  WhERE I do it  I am becoming more aware of my personal and community responsibilities. I advisely toop track of my own behaviours and actions I reflect on and succeed in my learning with frequent feedback and guidence.		I determine  WHAT I do  WHYT do it  HOW I do it  HOW I do it  WHERE I do it  I will WHOM I do a  I am conscious of, and act on personal and community responsibilities I activity direct my own behaviours and actions and encourage others to do the same. I reflect on and succeed in my learning, knowing when to seek and accept paralises and effectively.	
WHAT	WHY	HOW	WHEN	WHERE	WHO
Do Fest measurable, achievable, specific personal goals? Do Factively plan to achieve my goals? Do Fest generical challenges? Do Freillect and act? Do Fest my learning.	Can I identify the motivation, importance and worth of doing what I am doing? Do I understand my intentions?	Am I propored? Do I know how to start? Do I know how and what to do? Do I know how to fareth 6? Do I know how to work with others?	Do I know how long it will take? Can I create timeframes? Can I meet deadlines? Do I choose when in the deylweek? Can I create a timefram? Can I menage my time?	Can I choose where it's bost to walk? Can I choose where to go to get thread done?	Can I choose who I will learn with? Can I decide who I need? Can I choose whom I work with best? Can I dentify who can help? Do I lead?

In classrooms, we saw children working independently, in small groups, and with the teacher. Children revised earlier learning, did lots of work in pairs, and quickly completed critiquing activities before beginning their own writing. The teachers worked collaboratively and seamlessly; when the one leading the activity needed to work with individual children, another would take the lead.





Joint planning and shared expectations gave teachers the confidence to move into shared teaching. We noted too, that teachers had a deep understanding of how to tap into each child's interests and engage them. They used approaches that promoted inferential thinking, expanded comprehension, and highlighted connections across the curriculum.

Classrooms provided rich environments where children were able to learn where, how, and with whoever they wished. Children talked about the fun, creative activities they were involved in. They felt their teachers pitched their work at the right level. They particularly enjoyed using information technologies for research, e-ako maths, and contributing to their own website.

Monitoring and evaluation systems highlighted improvements, while cycles of inquiry were well embedded, sustaining and increasing student agency and wellbeing.

# Developing agreed expectations

For any new development to succeed, leaders and teachers need to develop shared understandings about what is wanted or expected. In this case, they developed shared expectations about effective pedagogy and more detailed expectations for teaching reading, writing and mathematics. The following table lists some of their shared understandings about effective pedagogy.

#### **Effective pedagogy at East Taieri School**

#### WE CREATE A SUPPORTIVE LEARNING ENVIRONMENT BY:

- > encouraging risk taking
- > giving positive feedback
- > positive relationships between pupils teachers and parents
- > encouraging children to take responsibility for their own learning
- > peer-support systems within classes and across the school
- > having confident, happy children
- > staff collaboration, syndicate/school-wide planning and activities
- > having an inclusive, caring, sharing culture
- > drawing on strengths.

#### WE ENCOURAGE REFLECTIVE THOUGHT AND ACTION BY:

- > having an inquiry approach to learning and teaching
- > encouraging children to articulate their learning
- > modelling reflective practice
- > questioning/discussing/feedback
- > encouraging students to self assess and set goals for themselves
- > involving students in parent-teacher interviews in Years 4 to 6

#### WE ENHANCE THE RELEVANCE OF NEW LEARNING BY:

- > ensuring students understand what they are learning, why they are learning it and how they will be able to transfer their new learning
- > challenging children to take their new learning further
- > making links to prior learning
- > sharing students' learning with the community and celebrating new learning in a variety of ways
- > using open question
- > exploring wonderings
- > encouraging students to apply new learning in real life situations.

#### WE FACILITATE SHARED LEARNING BY:

- > learning together teachers seen as learners as well as students
- > respecting each other's views and opinions and accepting differences
- > using a range of thinking tools
- > involving students in peer teaching
- > using a wide range of assessment tools
- > having collaborative discussion about results and asking 'Where to from here?'
- > providing a range of support/extension programmes.

The school's organisational structures, processes and practices allowed two leaders to develop their interest in new teaching approaches. Collaborative learning and decision making made sure the new approaches were well known and were implemented for an increasing number of children.

TEACHING STRATEGY

10

# Children, parents and teachers benefiting from teaching as inquiry

**Oratia School** (Year 1 to 6) in Auckland has a roll of over 500 children. Most are Pākehā/ European, approximately 60 identify as Māori, and 50 are either Pacific or Asian.

School leaders were clear the school's positive achievement trajectory was a result of implementing very specific, targeted strategies in response to data and evidence. With well-managed teaching-as-inquiry processes in place, leaders, syndicates and individual teachers had undertaken inquiries and shared their findings with the wider staff. These inquiries contributed to ongoing innovation and improvements, and resulted in enhanced outcomes for students.

In this example we share the:

- > processes introduced to manage teaching as inquiry
- > some practices, outcomes and impacts resulting from these inquiries.

## Processes to introduce and manage teaching as inquiry

Leaders encouraged teachers to trial innovations in the classroom and across the school. The expectation was that they focus inquiries to improve teaching and learning, especially for target students. Trials related to their inquiries could be either short or long-term, but it had become apparent the most successful innovations came out of longer trials. Experience showed it usually took two years to implement an innovation, make necessary modifications, and evaluate its impact.

School leaders and the board encouraged and supported teachers to put proposals forward for consideration. All proposals were expected to:

- > clearly align with the school's vision, goals and priorities
- > be backed by sound research
- > focus on promoting learning and raising achievement
- > include expected outcomes for students
- > show how the actions could be sustainable
- > meet clear accountability expectations.

The accountability requirement meant teachers had to report to school leaders and the board about achievement in relation to National Standards and about student engagement (defined in the school's strategic plan as 'students taking a role in their learning'). In their twice-yearly reports to the board, teachers shared quantitative data about progress and achievement, the strategies they were using, what had been successful and why, and proposed next steps. These reports were an essential means of making sure the board knew which strategies, practices, and approaches were working and should therefore be continued. The trustees were actively involved in decision making and wanted to see a clear line of sight from the school's vision to actual teaching and learning.



"Everything starts with the strategic plan and achievement data."

Leaders

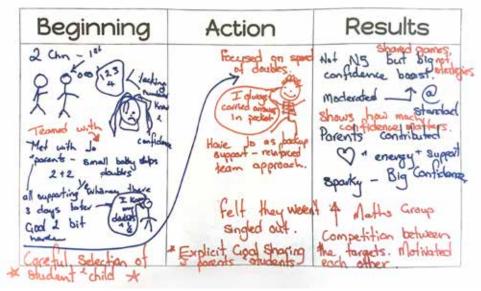
Teachers used a digital template for their inquiry proposals. Proposals had to include or cover:

- > the inquiry question
- > the purpose
- > a description of the strengths and needs of the target children
- > research
- > ongoing reflections
- > impacts for students
- > mechanisms for reporting to the board and to staff.

The principal and deputy principal undertook professional learning and development (PLD) to strengthen their own understanding of teaching as inquiry and then all staff engaged in externally facilitated PLD with a strong teaching-asinquiry component. A designated senior leader had responsibility for building the practice of teaching as inquiry throughout the school. Their clearly defined role included supporting teachers, modelling actions, observing strategies, and sharing inquiries with the wider staff.

# ODS Story Hui - Target Student Discussion

- Use initials for recording student names
  Use one colour to draw/write information gained from the uninterrupted story
  Use a second colour to draw/write information gained from answers to questions



As an example of how this worked in practice, a class teacher engaged in an inquiry that successfully accelerated student progress by building educationally powerful connections with parents and whānau. Recognising its success, leaders asked all teachers to trial it for a term.

Teachers shared the ongoing progress of their inquiries with colleagues in syndicates and professional learning groups (PLGs). They shared their actions, outcomes and findings formally via a 'story hui' co-constructed with the other members of their PLG (see image).

When starting or extending an inquiry, leaders would discuss their intentions in carefully planned consultations with parents and whanau.



"This is one of the toughest challenges we face when we want to introduce any innovation. We can't take it for granted that whānau and families will support what we do. We know they will question and challenge us, so our preparation and groundwork has to be thorough and strongly grounded in research evidence. As part of the process we use focus groups and personalised emails. We also host information evenings and invite selected parents, who will be constructive, to be involved as critical friends."

Leaders

# Some inquires and outcomes for children

Recent inquiries included working in partnership with parents to accelerate the progress of target students; introducing modern learning environments; trialling a boys-only class; and the benefits of composite classes where students had the same teacher for two years.

These inquiries all complemented each other and contributed to the goal of children accepting agency for their own learning.



#### An inquiry to strengthen working with parents

A teacher wanted to try something different to accelerate the achievement of the reluctant writers in her class. Like her colleagues, she had read *Educationally powerful connections with parents and whānau*. She used the findings from that report to inform her inquiry and saw very significant gains for her target students.

The teacher selected a small target group, all boys. She then hosted an information evening for the parents and whānau to explain what she planned to do and what this would mean for her, the boys, and their families. The evening took the form of a presentation followed by a question-and-answer time. Prior to the evening, she shared part of her presentation with the boys, as she wanted them to understand her intentions and be active parties in the inquiry.

#### **Letter to parents**

Oratia School encourages teachers to engage in a personal inquiry designed to improve their practice.

My inquiry this year is 'how do I get my students to put into practice what they have learnt in lessons and apply it to independent tasks'. My goal is to raise achievement in writing. I am focusing on a target group of 11 boys, which includes your boy. I have already started the process and I am enjoying working with the group as they have a lot to offer.

I believe that school-home partnership has a significant impact on children's learning. Because of this I would love it if you could come to a parent information evening on Thursday ... in the staff room.

At this meeting we will cover:

- 1. How I approached the boys about being part of this group.
- 2. What my aim is.
- 3. What I am doing in class to support the boys' learning.
- 4. How you can help.
- 5. How you can access the boys' blogs and use the Read/Write app.

I will provide drinks and nibbles!

From the beginning, she was open with the parents about the intervention being part of an inquiry and her ongoing learning.

The following slides are from the teacher's presentation:

#### How can you help?

#### Be an audience

- Positive feedback Respond to writing, i.e.
- Ignore the stuff you want to fix sit on your hands!
- Talk about goal
- Share it with family

#### Planning - generating ideas

- E-mail home every Friday about what genre I am teaching, i.e. recounts - talk about what they can write that week, bring in photos, objects, home video etc
- Talk, talk, talk, talk, talk

#### Types of Feedback

- Respond to story
- What is your goal?
- Can you show me?
- . What kind of help do you need?
- What do you need to do to achieve your goal?

POSITIVE! POSITIVE! POSITIVE!

Feedback from parents and whānau confirmed they felt empowered to support their children with their writing. Following the success of this inquiry, senior leaders decided to initiate a whole-school inquiry with the aim of addressing the underachievement of some Māori students, particularly boys.

Early in Term 3, the parents of the target students met with their child's class teacher. The teacher discussed their specific concerns (achievement in reading, writing or mathematics) with the parents and showed them what their child needed to be doing to be achieving at the expected level.

Every two weeks the teachers would make contact with the parents (either face-to-face or by phone or email) to discuss what their child had achieved and check whether the parents felt they were ready for another goal. Parents were also given resources, such as flash cards, to use with their child. In their feedback, parents said these regular communication opportunities improved their relationships with their children's class teachers.

Parents we spoke to said they felt their input and ideas were listened to and valued by the teachers, and they were empowered to support their children's learning at home:



"I definitely felt like a partner in the learning process."

"All of us [child, parents, class teacher, and mathematics support teacher] had the same learning goals. We all knew the games and activities to support the learning goals. With this consistency, all of us were on board to work together."

"As a parent I felt involved and felt valued and in the loop of the whole process. Previously I had known our daughter had reading to do at home but didn't know what to focus on. This gave me the confidence to ask more questions and be more involved. If I know what she is working on then I can help her."

"Our daughter is much more involved in her learning at school. She has more confidence. She used to say she isn't clever but is now much more confident."

"I felt my thoughts and opinions were really listened to and valued. The teacher listened to any concerns I had about how my son was handling a change of reading levels and they made adjustments to his reading books."

A **YouTube video** provides further insight into this initiative, together with excerpts from a discussion in which a mother talks about how it has benefited her son.

#### A modern learning inquiry

Inspired by a conference and a school visit, two teachers began changing their practice with the aim of getting students to take greater ownership of their own learning. The results were sufficiently encouraging for them to put a joint innovation/inquiry proposal to the board. The proposal was clearly linked to the school's strategic plan and focused on pedagogies that had the potential to raise achievement.

#### Aim

To raise student achievement

#### Links to the strategic plan

Provide teaching that inspires curious, creative and critical thinkers who each achieve to their potential.

Raise achievement in reading, writing and mathematics.

Provide individualised, high-quality learning and teaching in all curriculum areas and encourage student voice.

Use inquiry-based learning, incorporating the key competencies and school values to equip students with broad holistic life skills required for success in the 21st century

#### Goals

To use modern learning pedagogies to raise student achievement.

To show accelerated progress for children who are below or well below National Standards.

To extend children at or above National Standards.

To provide children with the tools and skills to be successful learners.

To promote a collaborative, inclusive and supportive learning environment.

To provide a learning environment that is physically, socially, culturally and emotionally safe.

The proposal was accepted, and implemented the following year.

In their midyear report to the board, the teachers shared summaries of research articles relating collaborative teaching and described what they had done to date:

- > embarking: how they initially trialled this in the morning block and then extended it to other teaching blocks
- > embedding: as a sign of success, one class convinced their relief teacher to use the new approach rather than follow the structured plan provided by their regular teacher
- > embodying: strategies used included modelling, children instigating discussion, times for both explicit teaching and individualised learning/practice

- > evaluating: skills students were more confident using, plus results from a student survey
- > extending: what they had done to get other teachers' perspectives, and their own next steps

#### What have we done differently...

- Students plan their own day: prioritising time management, making decisions, having choice, accountability
- Students set purposeful and relevant goals in reading, writing and mathematics. The goals are personalised and set in collaboration with the teacher.

#### What we have noticed...

- > Significantly increased engagement and motivation to learn
- > Better understanding of their own learning
- > Increased independence
- > Improved time management and organisation skills
- > Ability to work collaboratively and in a team
- Students wanting to continue their learning at break times, before school and at home
- > Significantly decreased behaviour problems

The inquiry resulted in the desired changes for children. As they became increasingly able to manage themselves independently, they were able to plan the order of their learning within the overall framework. They used digital technologies to support their learning. They selected workshops appropriate for their learning needs and level. They engaged in follow-up activities closely linked to the teaching they had just had. They could talk about recent learning and make connections across different learning experiences. Parents commented on the work that their children were doing at home to achieve their goals.



"Our teacher puts us in charge of our own learning, if we are stuck she doesn't just give us the answer, she talks about other strategies I can use."

#### Year 5 child

"I knew what my numeracy goal should be because from a test done earlier I had found groupings within 100 tricky."

#### Year 4 child

"Students are driving their own learning, and are wanting to learn. They nag me if I don't get to a workshop on time."

#### Teacher

#### In the 12 months of this inquiry...

Twelve students made accelerated progress in reading. Four moved from 'well below' to 'below', six from 'below' to 'at' and four from 'at' to 'above' the National Standard.

Ten students made accelerated progress in writing. Two moved from 'well below' to 'below', four from 'below' to 'at' and four from 'at' to 'above' the National Standard.

Fourteen students made accelerated progress in mathematics. Four moved from 'well below' to 'below', five from 'below' to 'at' and five from 'at' to 'above' the National Standard.

The modern learning approaches trialled have since been extended to other classes. Leaders are using achievement information and responses from the *Me and my School* survey to evaluate ongoing outcomes.

#### Band of Brothers: an inquiry into educating boys

At the end of 2012 leaders noticed, for a particular cohort of Year 5 to 6 boys, there was a close correlation between engagement data (from the *Me and my School* survey) and achievement data. Achievement and engagement levels were significantly lower for the boys than for their female peers.



Leaders approached three teachers and invited them to participate in a two-year trial of a boys-only class. These teachers visited schools with boys' classes and reviewed research findings, which supported their belief that, for such classes to succeed, choice of teacher was critical.

Two teachers began preparations for a boys-only class that was to start at the beginning of 2013. In year one of the trial they aimed to raise engagement and achievement and, in year two, to sustain engagement while further accelerating achievement. Throughout the two years, they would report regularly to parents, teachers and the board.

Leaders made sure parents were well informed about the planned trial and the supporting research. They held information evenings for the parents of Year 4 boys and provided links to relevant research. They made up information packs with more detail and invited parents with questions to meet with the principal to discuss them. Information about the probable composition of the class was included in the school newsletter for the information of the wider school community.

The progress of the boys was accelerated during the two years of the trial but it was decided that, rather than begin another boys-only class, successful strategies would be introduced to other classes so more children would benefit. As a result, opportunities for independent and group work increased, as did opportunities for the children to choose their working environment. However, as leaders acknowledged, there were still more boys than girls needing support to reach the expected level.

#### An inquiry about children staying with the same teacher for two years

A teacher wanted to investigate how well Years 5 and 6 children progressed if they stayed with the same teacher for two years. This 2014–15 inquiry linked into the boys-only class inquiry (see above) and was used as a comparison in the second year.

The teacher carefully tracked the children's achievement and found, at the end of the two years, more children were achieving or exceeding the expected level. Some of the increase in maths achievement may have been because all mathematics planning was now being shared online as part of an initiative to help parents support their children's learning. However, in writing, the numbers of children achieving success had also increased, and the numbers judged to be 'well below' the expected level had been halved by the end of the two years.



"Firstly, there was a very quick start to our daughters learning in the second year as she knew the teacher and the teacher knew her. Secondly, the teacher has really got to know what helps her learn and her learning has really progressed because of this."

#### Parent

"My son is a bit shy but feels more confident with his teacher as they have gotten to know each other well. The teacher understands my son well and has customised tasks and projects to his abilities."

#### **Parent**

The school has continued keeping children for two years with the same teacher and have recognised this promotes tuakana-teina relationships where the older children support the younger ones. Leaders and teachers saw, too, that it was much easier to develop educationally powerful home—school partnerships when teachers could get to know whānau over a two-year period. This finding linked into another inquiry exploring how educationally focused partnerships with parents and whānau could enhance learning.



# Appendix 1: Evaluation framework and questions

ERO investigated: How schools were ensuring more of their students are achieving at or above National Standards as they move through the middle years of schooling (after Year 4).

#### Investigative questions

#### Leaders

What were leaders doing to increase the numbers of students achieving success as they move through the year levels at this school?

- > what they had focused on that is contributing to the success
- > the strategies trialled/agreed on
- > the short and long term improvement strategies
- > knowing which strategies were working that should be continued or stopped
- > moderation and confidence with OTJs
- > embedding and sustaining the practice/s
- > strategic resourcing decisions
- > external and internal supports/people used
- > monitor achievement trajectories and plan for target students to reach expectations.

#### **School Evaluation Indicators:**

- > builds relational trust and effective participation and collaboration at every level of the school community
- > ensures effective planning, coordination and evaluation of the school's curriculum and teaching
- > identifies and develops internal expertise and accesses relevant external expertise to respond to specific needs
- > supports the school's strategic direction, goals and priorities
- > organisational structures, processes and practices enable and sustain collaborative learning and decision making.

#### **Teachers**

What specific strategies teachers were using to increase the numbers of students achieving at or above expectations at class level, syndicate level intervention group and/or school wide?

- > teachers' involvement in identifying any achievement and progress issues and then contributing to the agreed improvement strategies
- > moderation and confidence with OTJs
- > knowing who and what to focus on
- > involvement in trialling, innovations, planning, reflection and sharing good practice.

#### Deliberate teaching actions:

- > providing a caring, collaborative and inclusive learning environment
- > using the effective strategies across the richness of the curriculum
- > ongoing monitoring of progress to scaffold and adjust teaching and learning.

#### School Evaluation Indicators:

- > students learn, achieve and progress in the breadth and depth of The New Zealand Curriculum and Te Marautanga o Aotearoa – including key competencies
- > students participate and learn in caring, collaborative, inclusive learning communities
- > effective, culturally responsive pedagogy supports and promotes student leaning
- > students have effective, sufficient and equitable opportunities to learn
- > effective assessment for learning develops students' assessment and learning to learn capabilities.

#### **Students**

How are students participating and contributing to their learning to increase their progress and achievement?

- > understand their learning progressions and negotiate and set their learning goals
- > know what they need to improve and how they can make the desired progress
- > understand that their teachers have high expectations for their achievement and are there to help them
- > enjoy motivating and engaging learning activities
- > participate in a variety of independent, group, class and team learning activities.

#### **School Evaluation Indicators:**

- > students learn, achieve and progress in the breadth and depth of The New Zealand Curriculum and Te Marautanga o Aotearoa
- > students participate and learn in caring, collaborative, inclusive learning communities
- > students have effective, sufficient and equitable opportunities to learn
- > effective assessment for learning develops students' assessment and learning to learn capabilities.

#### **Parents**

How are parents engaged and involved in school activities that are contributing to their children's learning?

- > are respected as valued partners in their child's learning
- > receive information and participate in learning opportunities to enable them to support their child's learning
- > parents and teachers are involved in joint activities and interventions to support learning.

#### School Evaluation Indicators:

- > learning centred relationships effectively engage and involve the school community
- > communication supports and strengthens reciprocal, learning centred relationships
- > student learning at home is actively promoted through the provision of relevant learning opportunities, resources and support
- > leadership builds relational trust and effective participation and collaboration at every level of the school community.

#### **Trustees**

How are trustees involved in supporting an increase in the numbers of students achieving at or above expectations in the middle years of schooling?

- > trustees receive a range of student data to identify what is working and what needs to improve
- > strategically resource to support the agreed priorities.

#### **School Evaluation Indicators:**

> the board scrutinises the effectiveness of the school in achieving valued student outcomes.



