

Leading Innovative Learning in New Zealand Schools

April 2018



Ko te Tamaiti te Pūtake o te Kaupapa

The Child – the Heart of the Matter

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Leading Innovative Learning in New Zealand Schools

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Executive Summary

The world that our learners will enter when they leave school has changed dramatically from the world that traditional education prepared students for. The changes are ongoing and our education system must meet the challenges they pose.

The Education Review Office (ERO) visited 12 schools to see how they were preparing their students as 21st century learners. Leaders were innovative, rethinking and transforming teaching and learning to equip students with the knowledge, skills and qualifications required for their future. In doing so, they also maximised learning opportunities offered by digital technology and flexible learning spaces.

ERO's findings show that to be successful innovators school leaders:

- are proactive in working with the whole school community to develop a strong, future-focused vision for their school
- ensure the vision has learner outcomes at its centre
- are well-informed, so that decisions build on best practice for 21st century learners
- have a growth mindset
- are supportive of experimentation
- quickly address elements of strategy if they are not working
- develop a school culture of continuous improvement to support the vision
- maintain coherence across all domains of the school, aligning everything to the vision
- are effective change managers able to take staff with them on the improvement journey through timely professional development and good communication

Teachers:

- have a growth mindset, committed to working in new ways
- work collaboratively
- personalise curriculum and pedagogy tailored to individual learner needs.

The report also describes how different schools addressed challenges they encountered.

Some of these schools have traditional classrooms, some have older buildings that have been renovated, and some have new buildings; some have digital devices throughout the school and some do not. Digital technology and flexible learning spaces can certainly aid innovation but are not in and of themselves the critical elements. What is critical is the teaching, personalised and focused on valued student outcomes.

While all schools are different, each school can nevertheless establish its own innovative learning environment¹. How it does this will be unique, but it is likely to align with the examples of good practice described in this report.

The appendices to this report provide resources that can guide thinking, promote discussion, and assist with internal evaluation.

¹ This refers to the whole context in which learning takes place. It encompasses the physical space, the social aspects and the pedagogy experienced by the learners.

This report should encourage school leaders and teachers to be innovative, to see:

- that student success is more than academic achievement
- that effective teaching and learning always has a future focus
- the necessity to personalise learning to meet diverse student needs
- that continuous improvement is not only possible but necessary
- where they need to focus their improvement efforts
- ways in which they can make a difference, whether or not they have modern buildings or digital devices for everyone
- that change can reignite them as professionals.

Above all, we hope the report gives leaders and teachers the confidence to change what they need to change, and to put in place evidence-supported practices that will equip all their students to be successful in their future.



Context

To prepare for this report, the Education Review Office (ERO) visited a group of 12 schools to see how they were addressing the challenge of teaching modern learners. These schools were selected because they were known to be exploring ways of using *The New Zealand Curriculum*, digital technologies and flexible learning spaces to educate their students for future success. While the sample is too small to be representative of every type of school, the schools that are included are very different from each other. Two have new buildings with purpose-built, flexible learning spaces; others operate in buildings designed for a previous generation.

We asked leaders in each school to tell us the story of their journey so far:

- Why they started on this journey
- How they set the conditions for success
- What informed their decisions
- How they managed change
- What difference it had made (in terms of teaching and learning, use of spaces and digital technologies, and student outcomes).

Although the schools were all very different their stories had common elements, which we share in the FINDINGS section of this report. The contextual differences are described in the SCHOOL STORIES section that follows. In the EFFECTING CHANGE section leaders describe the challenges they faced and how they overcame them, and, in ADVICE FROM SCHOOL LEADERS, they offer advice for other leaders embarking on similar school-wide initiatives to improve teaching and learning.

We are grateful to these schools for allowing us to visit and to hear and see what they were doing. We appreciate the time they gave us and commend their drive to do the very best for their learners. While we are unable to tell every story or include every detail, each school has contributed in important ways to the overall findings of this report.

Before we share our findings we outline the imperatives for change, drawing on both international and national research. Research evidence provides a compelling case for ensuring that teaching practice in our schools equips every young person for the future.

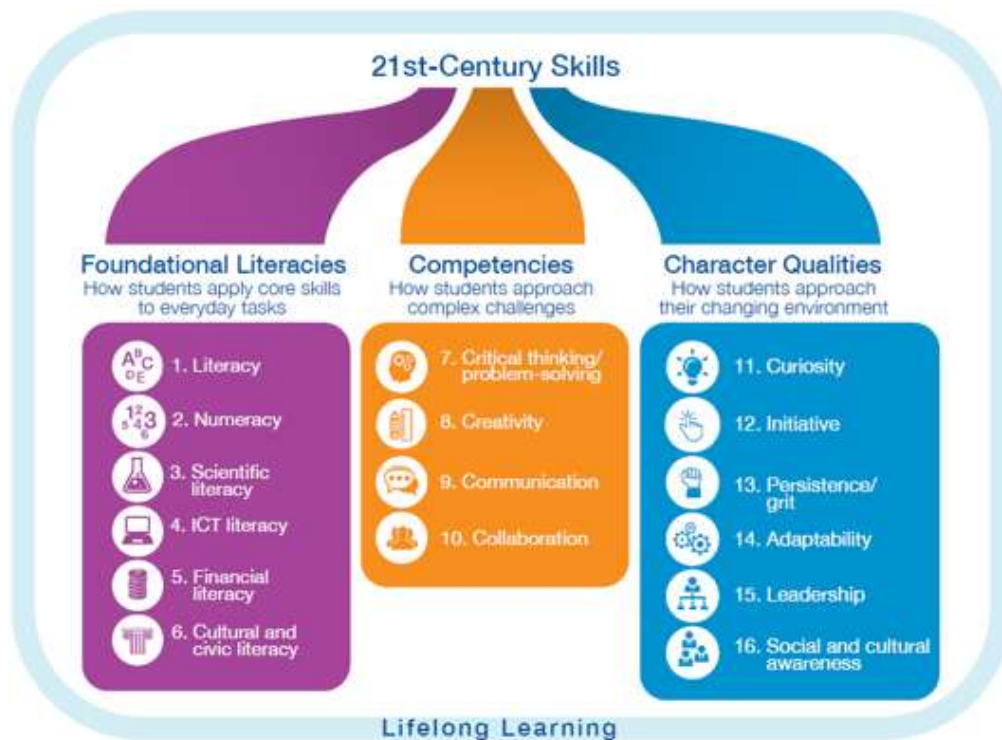


Imperatives for change

When today's students leave school they will enter a rapidly changing world. More than ever, academic success and personal competencies will be the key to their future success. Most students now have ready access to a vast amount of information on the internet but they have to learn to make sense of what they find, examine it critically, and use it appropriately and wisely. The demands imposed by both rapid change and ever-expanding knowledge have major implications for educators, who are responsible for helping students develop the attributes they need to thrive in such a world.

Challenges facing modern learners

*New Vision for Education: Fostering Social and Emotional Learning through Technology*² argues that, to 'thrive in the 21st century, students need more than traditional academic learning' – they need, in fact, 16 'crucial proficiencies', which are developed through social and emotional learning.



Students need 16 'crucial proficiencies' for the 21st century

Such aspirations for learners are not new. Indeed, [The New Zealand Curriculum](#) has a vision of young people

... who will develop the competencies they need for study, work and lifelong learning and go on to realise their potential.

Similarly, te āhua o te ākonga ka puta (the graduate profile) found in [Te Marautanga o Aotearoa](#) lists a broad range of attributes that young Māori need to participate, contribute and succeed.

² *New Vision for Education: Fostering Social and Emotional Learning through Technology*, World Economic Forum (2016)

In their report, *Supporting future-oriented learning and teaching: A New Zealand perspective*, Bolstad and Gilbert (2012) eloquently discuss the need for the education system to respond to the volume of information and ongoing technological, social and economic change that characterise the 21st century. They highlight the importance of developing new understandings about learning, rethinking the role of both teacher and learner, and connecting learning more closely with the world beyond school, with all its unknown challenges. There is much in this research that teachers and school leaders can act upon to provide teaching that is inclusive, more responsive to the needs of individual learners, their cultures and ethnicities, and addresses inequity of opportunity and outcomes.

Increasingly New Zealand schools are viewing the acquisition of knowledge and academic success within the broader context of the student's whole development. As a result they are adapting, changing how they operate, and finding ways to innovate and improve the effectiveness of teaching and learning. Many schools, such as those in the [Manaiakalani community](#)³, are making good use of digital technology to extend and enhance learning. To enable a wider variety of teaching strategies some schools have been purpose built with flexible learning spaces,⁴ others have successfully created flexible learning spaces by remodelling existing buildings.

While students in effective schools are learning how to learn and developing the key competencies this is not happening widely enough or fast enough, particularly in secondary schools. Wylie and Bonne (2016) found in 2015 that

little progress had been made since 2012 in equipping students with the ability to *learn to learn*—a key principle in *The New Zealand Curriculum*—and in inclusion of the key competencies in students' learning opportunities.

Achieving equity and excellence in student outcomes remains a major challenge for New Zealand education (OECD, 2013a). Students who are achieving at or above expectations for their year level can successfully engage with the curriculum, and, as a result, they are more likely to leave secondary school with qualifications that reflect their potential and to be able to participate in and contribute to the social, cultural, economic and environmental future of our country⁵. The learning journey from childhood to adulthood is critically important and any inability to access the curriculum has long-term implications for both the individual and society.

³ The Manaiakalani Community aims 'to tackle the learning challenges via highly effective teaching practice using the appropriate tools of the digital age'.

⁴ A flexible learning space is a space that can be reorganised for different purposes so teachers and students have opportunities to work together in a variety of ways (see ERO's [Modern New Zealand learning practice: glossary](#)).

⁵ *The New Zealand Curriculum* (2007): p. 8.

Pedagogy for modern learners

Much is now known about the conditions and strategies that maximise learning. Relevant information can be found, for example, in *The New Zealand Curriculum* and the OECD's *Innovative Learning Environments (ILE)* project. While the language and presentation of these two documents are different, the ideas resonate strongly with each other, providing valuable insight into best practice. ERO's own *School Evaluation Indicators: Effective Practice for Improvement and Learner Success* draws on expertise from a range of sources to promote the development of schools' internal evaluation capacity, leading to improvement.

The role of leadership

While the single biggest in-school influence on student outcomes is high-quality, learner-focused teaching, the second biggest is the quality and capability of school leadership (Leithwood et al, 2008).

The *School Leadership and Student Outcomes Best Evidence Synthesis* (Robinson, Hōhepa, & Lloyd, 2009) stresses the importance of leaders building relational trust in their schools. Effective leaders also require the knowledge, skills and dispositions to ensure that school-wide decisions are based on sound research and evidence. Only then can they foster the levels of inquiry, risk taking, and collaborative effort that school improvement demands.

Effective leaders have a clear vision of the transformation they wish to bring about, identifying what the key skills and learnings are that will best equip their learners for their future. They are effective change managers, managing the significant change necessitated to transform pedagogy and maximise the benefits offered by modern learning environments and digital technology. Leaders have to take their school community with them, so they appreciate why change is happening and can support it, and make sure the change is sustained.

There are many resources and a wealth of research to assist leaders determine their change journey. An outline of the key elements to be taken into account follows.

Leadership that is focused on achievement and productively shared is crucial for sustaining school improvement. ERO's *School Leadership that Works* resource and *Improvement in Action Te Ahu Whakamua* videos remind us of important ways in which leaders can improve teaching and learning in their schools.

The OECD ILE project has also developed resources to help school leaders and teachers see what effective schooling, teaching and learning looks like. Importantly, the project acknowledges the multifaceted nature of knowledge: 'the quality of knowledge and understanding is of utmost importance rather than just how much knowledge is acquired' (Dumont, Istance, & Benavides, 2012).

As well as [eight basics of motivation](#), the project has identified [seven principles of learning](#) that focus on developing skilful learners with adaptive expertise.⁶

⁶ Adaptive expertise goes beyond mastery or routine expertise. It is the ability to apply meaningfully-learned knowledge and skills flexibly and creatively in different situations. It is central to lifelong learning.

The seven principles are:

1. Learners at the centre
2. The social nature of learning
3. Emotions are integral to learning
4. Recognising individual differences
5. Stretching all students
6. Assessment for learning
7. Building horizontal connections.

The ILE project acknowledges that there is nothing original in its ideas. Indeed our own *New Zealand Curriculum* predates its work by five years.

The ILE project asserts that the key to school effectiveness and improvement is to realise the seven principles as a whole rather than work on one or two at a time. How a school does this will depend on leadership capacity and capability and on its particular context. The Ministry of Education has developed a [tool](#) that schools can use to scan for evidence of the seven learning principles.

Developing student agency

The foremost of the ILE's seven principles is '[learners at the centre](#)':

The learning environment recognises the learners as its core participants, encourages their active engagement and develops in them an understanding of their own activity as learners.

For Green, Facer and Rudd (2005) this means that the education system

... should be reshaped around the needs of the learner rather than the learner merely conforming to the system.

Learners need to be encouraged to become actively involved in decisions about their education and there must be appropriate ways for them to do so.

There are significant benefits for students when they have a say in what they learn, how they learn, and what help they need. Hargreaves (2004) notes that where their voice is sought and heard students are more likely to have enhanced learning partnerships with teachers, be more motivated to learn, think more deeply, and understand and develop their skills as learners. In other words, they take more responsibility for themselves as learners.

Teachers who engage with their students in this way come to understand them better, gaining insight into their aspirations and the communities to which they belong. This makes it easier for them to meet their students' needs and ensure that learning is both relevant and challenging. When students are engaged in their learning, teachers are able to make the fullest use of their professional skills as educators.

By sharing power and the responsibility for learning, teachers set their students on a path to fulfilling the vision we have for them, with the ability 'to secure a sustainable social, cultural, economic and environmental future for our country'. (Ministry of Education, 2007).

It is clear that there is no one-size-fits-all practice that can be considered current best practice in teaching and learning.

Rather, schools need to adapt multiple practices to fit their unique context, utilise teacher capabilities, and – above all – respond to the needs, abilities and interests of each of their students. It is because *The New Zealand Curriculum* gives schools the flexibility to do this that it is the envy of educators in other countries.

The role of teachers

With quality of teaching the single most important school variable influencing student achievement (OECD, 2005), teachers are central to all school improvement efforts. ERO (2016) identifies ‘Responsive curriculum, effective teaching and opportunity to learn’ as one of the two domains that have ‘the most significant influence on outcomes for students’. Given the shifts in curriculum and pedagogy required to meet the needs of the modern learner, the teacher’s role has never been more important.

Good teachers have always listened as well as lectured, but now this skill is more vital than ever. While traditional education systems fostered the obedience demanded of the manufacturing workforce, the Education 3.0 system must nurture creative and collaborative skills. Knowledge is available at the click of a mouse, but learning to apply it requires a teacher who can instruct, facilitate, guide, and support as needed (CISCO, 2008).

The New Zealand Curriculum describes teaching actions that have been shown to consistently have a positive effect on student learning. Students develop adaptive expertise and learn best when their teachers:

- create a supportive environment

This includes building strong home–school partnerships so that parents and whānau are actively involved in their children’s learning.

- encourage reflective thought and action

Inquiry-based approaches help students to be creative, engage in research, think critically about material they use, collaborate and reflect on outcomes.

- enhance the relevance of new learning

Authentic contexts for learning are especially powerful if they are locally based.

- facilitate shared learning

Students have opportunities to work with and support each other, and, as they do so, learn to work collaboratively and co-operatively.

- make connections to prior learning and experience

Knowledge and skills can be scaffolded.

- provide sufficient opportunities to learn

It is important to include learning with technology because, when used properly, it can empower students and enrich and extend their learning.

- inquire into the teaching–learning relationship

Formative assessment provides evidence for the learner and teacher about progress and about areas that need to be addressed, and suggests how the curriculum itself might be refined.

These seven teacher actions share common ground with the approaches identified by the ILE project.

Hattie (2015a) ranked 195 influences on outcomes for students according to their effect size. The top ten, ranked in order of influence, are listed in the following table. Of these ten, eight are directly related to teacher actions.

Influence	Explanation (Most are adapted from Glossary of Hattie's influences on student achievement)
Teacher estimates of achievement	Students are more likely to achieve well when teachers hold high expectations for their achievement.
Collective teacher efficacy	Teachers work together to learn from each other and increase collective expertise and capability.
Student self-reported grades	Students predict their own performance and gain confidence in their ability to learn when, extended by the teacher, they exceed their expectations.
Piagetian programmes	Programmes of learning are tailored to match Piaget's developmental stages as children develop the capacity to think abstractly and reason deductively.
Conceptual change programmes	Teachers plan programmes that take students from surface learning to deeper conceptual understanding.
Response to intervention	Teachers act to prevent academic failure through early intervention and regular monitoring of progress.
Teacher credibility	Students know which teachers help them learn; if a teacher does not have credibility they disengage from learning.
Micro-teaching	Teachers' lessons are videoed; a subsequent debriefing focuses on improving the teaching and learning experience.
Cognitive task analysis	Teachers analyse the tasks they give to students and identify the specific thinking skills students will need when performing them.
Classroom discussion	Teachers involve the whole class in discussion to improve students' communication skills and give them opportunities to learn from each other. Classroom discussion also allows the teacher to hear whether key concepts have been grasped.

These and the other positive influences on Hattie's list highlight how important it is for teachers to continuously work at [improving their practice](#), deliberately scaffolding students' thinking skills, building powerful learning relationships, and empowering students to understand and manage their own learning.

However, Hattie (2015b) also identified within-school variability in teacher effectiveness as the single greatest barrier to student learning: some students experience effective teaching and thrive while peers in other classrooms experience ineffective teaching and languish.

The evidence from many decades of research on what really enhances student learning reflects this and points to solutions such as improving teacher and school leader expertise, ensuring that teachers and leaders work together on common understandings about progress and high expectations for the impact of their teaching, school leaders who focus on developing collective expertise among their teachers, systems that have robust discussions to decide the purpose and desired outcomes of their schools and students who want to learn the skills they need to become their own teachers.

Effective leadership combined with school-wide effective teaching means all students have equitable access to quality learning opportunities, which leads to improved outcomes that are sustainable over time.

Support for school innovation and improvement

Communities of Learning | Kāhui Ako

Communities of Learning | Kāhui Ako (CoLs)⁷ can play an important role in enabling education providers to collaborate to improve learner outcomes and create coherent learning pathways: from early childhood through the school years and onto further study, training or employment – pathways that help learners to realise their potential. The government has supported CoLs through several initiatives, including:

- the provision of [resources](#) for CoL leaders and lead teachers
- the [Teacher-led Innovation Fund \(TLIF\)](#)
- [principal recruitment allowances](#) for schools that meet [specific criteria](#)
- [expert partners](#)
- centrally-funded [professional learning and development \(PLD\)](#)
- a variety of [teaching tools](#).

Ministry initiatives designed to support modern learning

The Ministry of Education supports the development of modern teaching practices by providing infrastructure, both physical and digital.

[Network for Learning \(N4L\)](#) is a crown-owned company that operates a managed network for schools: every school can access government-funded fast broadband with uncapped data. N4L also offers a range of other services that are designed to support the use of digital technologies in the classroom.

[Enabling e-Learning](#) is a Ministry website for schools wanting to grow their e-capability. Links include rich examples of how schools are using digital technologies to future-focus, extend and enhance learning.

To ensure that students learn about and become creators of digital technologies, the Ministry is adding a [Digital Technologies / Hangarau Matihiko \(DT/HM\)](#) curriculum to *The New Zealand Curriculum* and *Te Marautanga o Aotearoa*⁸, to be implemented with all Year 1–10 students from 2020. The Ministry will provide resources and professional learning and development (PLD) to support teachers as they integrate DT/HM into their local curriculum.

⁷ For more information see [Communities of Learning | Kāhui Ako: Working towards collaborative practice](#) (ERO, 2017).

⁸ At time of publication there was no link to digital technologies in *Te Marautanga o Aotearoa*. Digital technologies will be recognised as a whenu (strand) within the Hangarau Wāhanga Ako.

While not compulsory in the senior school, the DT/HM curriculum extends to Year 13. The New Zealand Qualifications Authority (NZQA) is developing achievement standards for those who wish to gain formal qualifications.

School building projects, both renovations and new builds, have seen the introduction of flexible learning spaces (FLSs) into some schools. When planning new projects the Ministry works with the school concerned to arrive at a design that will support their vision for teaching and learning, though any design must be sufficiently flexible to allow for repurposing in the future if required. FLSs facilitate, indeed necessitate, changes in the curriculum and pedagogy. In an FLS, teachers are better able to share responsibility for learners and collaboratively identify and respond to the needs of individual learners. Learners in an FLS are often able to make choices about where they work, with whom, and what furniture and resources they will use.

Many schools have used Ministry programmes such as PB4L Restorative Practice, PB4L School-Wide, Te Kotahitanga with its the Effective Teacher Profile material, and He Kākano to develop school cultures that are conducive to learning (see [Appendix 5](#)). A positive school culture is closely linked to two ILE principles: the social nature of learning and emotions are integral to learning. These programmes are most effective when integrated into the school's existing systems; to have a lasting impact any programme must be adapted to suit the context (Chapman, 2014).

The above Ministry initiatives all support changes in teaching that will enrich and extend learning.⁹

Fullan (2011) states that the right drivers are those that result in sustainable system changes and improved outcomes for students. To increase teacher effectiveness, Fullan advocates capacity building rather than accountability measures, group solutions rather than individual solutions, and a focus on instruction instead of relying on 'the wonders of the digital world' to bring about the desired change. Fullan warns against using fragmented rather than integrated or systemic strategies as drivers for improvement. The challenge for school leaders is to implement systemic change for improvement in ways that suit their unique context.

⁹ The Ministry has other resources which also support teachers and schools in curriculum planning and management strategies. These include the [Universal Design for Learning](#) framework and the [Resource Teachers: Learning and Behaviour \(RTLb\)](#) service.

Findings

ERO found that leaders of the 12 schools we visited were all continually looking for ways to improve outcomes for their students and to make learning relevant for the future. They were striving to develop students who were both academically successful, in relation to New Zealand education standards and qualifications, as well as confident, connected and actively involved learners. Fullan's 'right drivers' were clearly in evidence in the effective schools that we visited.

Schools meeting the needs of modern learners

Each of the schools in this evaluation was on a journey. These journeys started at different points, followed different routes, and had distinctly different emphases. It was clear however that the schools that were most effective shared key characteristics that had contributed to their success so far (none believed their journey was at an end). These characteristics align closely to the [Building Learning Power](#) model proposed by Claxton.

The schools were characterised by:

- clear purpose and focus (they knew what they wanted for their students)
- strong and distributed leadership – effectively managing change
- a trusting, values-based culture
- a [growth mindset](#)
- coherence and alignment of vision, values and systems
- purposeful teaching and learning
- powerful learning connections across the school community.

Collectively, these characteristics supported teachers to be innovative in their practice, take calculated risks with the curriculum, and evaluate the impact of their actions on student outcomes. Teachers and leaders collected useful data, both qualitative and quantitative, to inform their practice. They continually reflected on and adapted their practice using research and evidence to inform their decision making.

When developing innovative learning environments (ILEs)¹⁰, effective schools took into account not only the teaching and learning but also the physical and social environments. For example, they understood the need for good acoustics *and* the need to establish clear expectations for behaviour and noise level. Schools that had refurbished older buildings sometimes found the acoustic properties less than ideal; for them, it was even more important to have the social parameters well established. Learning environments were orderly, with the students working purposefully. We noted that students were not distracted by each other or by visitors in their learning space. They found places where they could work well collaboratively, or quietly, apart from others.

[Flexible learning spaces](#) do not in themselves change teaching and learning in ways that translate into improved student outcomes.

What has a positive impact is the thoughtfully planned use of the FLS: with the right teaching strategies, an FLS enables learning.

¹⁰ An ILE is the whole context in which learning is intended to take place. It encompasses the physical space (the FLS), the social aspects and the pedagogy.

Similarly, introducing digital devices into the classroom does not of itself raise student achievement. Certainly the devices can keep students occupied, but it is the planned curriculum and the skill of the teacher that engages them in deep learning. Used well, digital devices extend and enhance learning.

Each of the schools took seriously equity issues relating to the use of digital devices, ensuring that students had equitable access and opportunities to demonstrate their learning. To make digital devices available to all, leaders entered into partnerships with local providers, obtained assistance from community trusts, or used funds generated by international student fees. Several also made their school wi-fi available to the wider school community to support the development of learning-focused partnerships with parents and whānau.

ERO found that when students were engaged in purposeful learning and the learning space was sufficiently flexible for them to have choice, this impacted positively on their behaviour.

On their improvement journeys, schools learned it was important to ensure that:

- the school community¹¹ was involved in developing, and therefore understanding and buying into, the vision
- necessary changes were managed carefully in ways that involved the school community and kept them on board
- strategies, programmes or initiatives were adapted as necessary so they could be fully integrated into everyday school life
- staff appointed were a good fit with the vision
- data from ongoing evaluation of innovations was made available promptly so that necessary refinements could be implemented without delay.

In schools with students up to Year 8, leaders recognised the importance of meeting or exceeding national achievement expectations. Effective schools were quick to identify students at risk and targeted them with the aim of getting their achievement up to the national expectation: 'making progress' would not do; those behind must catch up. The strategies teachers used to motivate students to learn supported this acceleration. These strategies were the same ones used to sustain the progress made.

Leaders in secondary schools had a similar focus on academic achievement, but, especially in Years 9 and 10, they also focused on extending their students as learners. This intentional equipping of students for the future is what set these schools apart from those who focused only on academic achievement.

Students in these schools knew themselves as learners. They were able to describe how they learned, their strengths as learners and the skills they used. They knew which aspects of their development they needed to focus on and how to manage choices. They were self-assured when receiving assistance and guidance, and had the confidence to seek help when needed.


In the most effective schools, students took responsibility for their own learning. They were taught how to learn; they were aware of their strengths and of areas that required further work; they could say why they were learning what they were learning and knew how to go about it; they managed themselves well, maintained focus, and clearly enjoyed their learning.

¹¹ The school community refers to the board of trustees (including proprietors' representatives, if any), leaders, teachers, students, parents and whānau.

For example, Ormiston Senior College has an effective way of focusing students on their learning skills, referred to as ‘norms of behaviour and learning’ for effective lifelong learners. They apply equally to staff and students and are mapped onto the key competencies of *The New Zealand Curriculum*. The norms are based on the [Effective Lifelong Learning Inventory \(ELLI\)](#) work by Broadfoot, Claxton and Deakin-Crick at the University of Bristol.

Teachers have material that supports the integration of the norms into learning programmes. The *Tools for the Teacher* identify the types of task that relate to each norm and the learning processes students focus on when completing the task as in the following example:

A norm and related tasks

Norm	Types of task
 <p>Mokoroa</p> <p>I approach all experiences with an open mind because every experience is an opportunity to learn and grow.</p> <p>Like all butterflies and moths the Mokoroa (Puriri Moth) goes through a great period of changing and learning. It is the largest moth in New Zealand and is only found in the North Island.</p>	<p>Any task that requires the student to reflect on their own learning, take part in self assessment, plan or set goals.</p> <p>Could include tasks such as:</p> <ul style="list-style-type: none"> • Journal entries • Reflection tasks • Blogging • Acknowledging a growth in learning • Self review • Task creation.

During LA [Learning Advisor] time the LA prints off sheets to focus on different Norms. We reflect on how far we have come related to that Norm. It makes you think as a rounded person and grow as a person. You set your goals from that.

Kea is my Norm – critical curiosity.

I need to work on Harekeke – my relationships with others in a group.

– Students, Ormiston Senior College

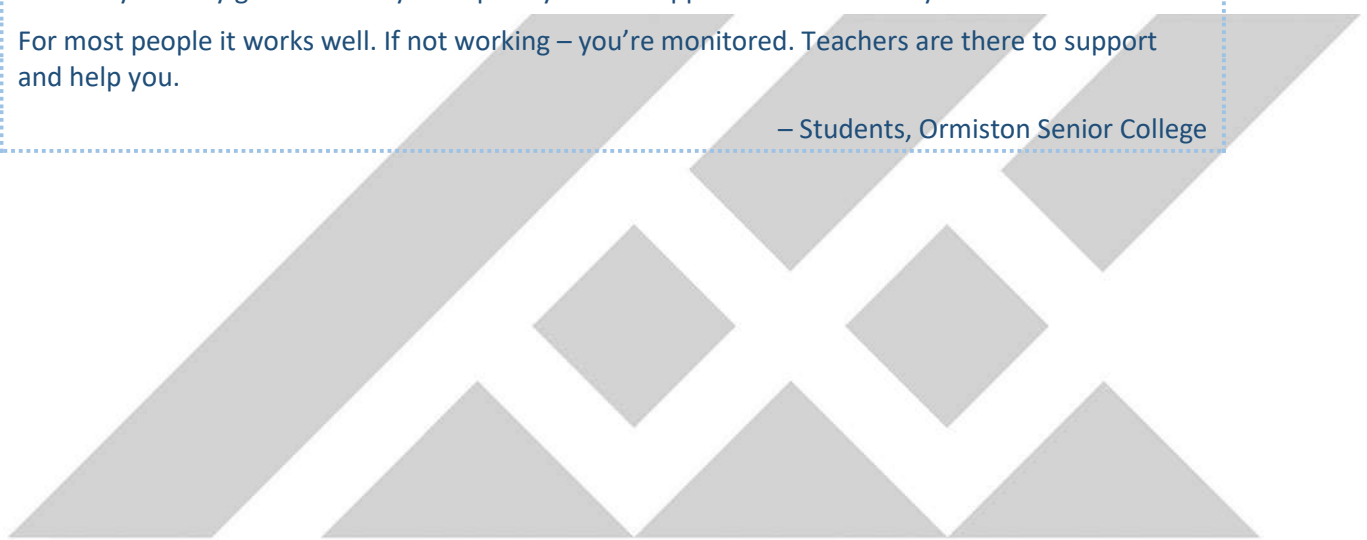
Students appreciate the freedom to manage themselves:

The emphasis on self motivation and learning helps prepare you for beyond school.

Flexibility is really good. Allows you to push yourself. Opportunities to build yourself.

For most people it works well. If not working – you’re monitored. Teachers are there to support and help you.

– Students, Ormiston Senior College



The characteristics of effective schools

Schools have an ecological structure consisting of the aims to which they are committed, the structure from which they are organized, the curriculum that they employ, the teaching through which curricula are mediated and the evaluation practices used to assess its effects. The improvement of schooling, and hence the improvement of the educational experiences students have in school, require attention to all of these factors. If intentions are shallow, programmes and practice are likely to be shallow also. If school structure inhibits teachers from learning from each other, the quality of teaching is likely to be unremarkable. If pedagogy is unremarkable, interest by students in what they study is likely to be meagre and if evaluation practices belie deeper aspirations, both teachers and students will attend to evaluation practices and neglect those aspirations. Developing effective schools requires attention to the configuration among these dimensions. It requires an orchestration of these aspects of schooling.

– Eisner (2000)

None of the seven characteristics identified in the previous section can exist by itself. For example, it would be difficult to distribute leadership or be innovative in a school that did not have a culture of trust. In a few of the case-study schools not all of the characteristics were well established, and each of these schools had experienced problems with managing or sustaining change.

We now look at each of the characteristics in more detail, identifying best practice and describing what it looked like in the case-study schools.

Clear purpose and focus

Best practice

The school has:

- high expectations of success – success that includes both academic achievement and development as a learner
- clear expectations for practice that nevertheless allow flexibility in implementation.

Leaders influence student outcomes through the development of a shared vision and by ensuring that teaching and learning supports that vision.

The school's vision looks to the future, is contextualised, and is in keeping with the principles, values and [key competencies](#) of *The New Zealand Curriculum*.

Leaders, teachers, students, parents and whānau all believe in and strive for success for all. The school consciously rejects deficit thinking and the practice of making excuses for poor achievement. If particular students are not achieving, teachers and leaders take this as a signal that they have not yet found a way to help them and try different approaches until they find one that works.

The school has a strong guiding framework that informs practice and instils confidence that bottom-line expectations are being met. This framework is however sufficiently flexible to allow for professional interpretation (Thompson & Wiliam, 2008) and for practice to be tailored to the needs, interests and strengths of students and teachers.

Developing the vision

Various triggers – often the appointment of a new principal or changes in the senior management team – prompted leaders and boards of trustees to take a fresh look at whether what they were achieving for their students was good enough.

Special attention was paid to reaching agreement on purpose and expectations. Engaging with the school community, leaders developed an aspirational **vision** that described what they all wanted for their young people. The school community committed to this vision.

Leaders then evaluated the effectiveness of all parts of the school system, using well-grounded research findings to inform their evaluation. They checked that everything aligned with the vision and identified what needed to improve to get better outcomes for students.

School leaders managed all change, focusing particularly on teaching and learning, with the aim of ensuring that students were supported to achieve valued outcomes and that the school was actively pursuing its vision. As partners in their children’s learning the community also had a continuing and important role to play in realising the vision.

Vision and valued student outcomes

Establishing a vision serves to clarify a school’s purpose in broad terms. In their vision statements, most of the case-study schools incorporated citizenship, development of values and competencies, and the importance of looking to the future.

School culture and shared values play a critical role in the way the school operates.

–Principal, St Clair School

These two vision statements emphasise preparation for the future:

Play for the long game in the world as it is today so kids don’t miss out on the future.

– Mountview School

Pakuranga College will provide an exceptional and innovative learning community that challenges, and supports students to excel and develop the skills, attitudes and values they need to succeed now and in the future.

– Pakuranga College

These vision statements emphasise building students’ capacity as learners.

Preparing and inspiring our students to achieve their very best in a global society.

– Ormiston Senior College

Authors of our own learning, in a collaborative and supportive community that lets play, passion and purpose grow

– Ngatea Primary School

Adorn the bird with feathers so it can fly.

– Welcome Bay School

Every vision has **detail sitting beneath it** that clarifies what it means in terms of valued outcomes. In many of the case-study schools, these outcomes included students enjoying their learning, recognising its importance for their wellbeing, and being motivated to learn.

None of the vision statements that we saw had been plucked out of someone's head; they had all been carefully crafted. Their power lay in how they were developed and then brought to life in the school.

Strong and distributed leadership

Best practice

Effective leaders achieve distributed leadership through:

- recognising and capitalising on strengths across the school
- promoting collaborative practice
- inquiring into practice.

Sharing leadership responsibility not only grows teacher capacity, it also reinforces school-wide commitment to the vision. Leaders who share responsibility recognise strengths in other staff and make good use of them. Young teachers are given responsibility for specific developments together with the space and support they need to exercise leadership.

Leaders and teachers collect both quantitative and qualitative data to evaluate the effectiveness of initiatives and resourcing, identify students requiring additional attention, and monitor progress. The information they collect is analysed and responded to promptly.

Teachers collaboratively plan the curriculum and share responsibility for student success.

Leaders used staff meetings, often led by a staff member with relevant expertise, as forums for professional discussion. Most schools used cloud-based applications such as [Google Docs](#) or [Microsoft OneNote](#) to facilitate collaborative planning, discussion of readings, and sharing suggestions on how to accelerate or extend students. These activities provided valuable opportunities for teachers to participate as members of professional teams.

Teachers worked collaboratively, discussing student data, identifying progress and planning next learning steps, often guided by students' own ideas about what they needed to work on.

In most schools the learning of each student was the responsibility of more than one teacher. This was especially the case where teachers were working in FLSs. Students, particularly those at risk, benefitted from having more than one set of eyes watching out for them. Students we spoke to told us that they felt supported and had at least one adult in the school with whom they could discuss any difficulties they might be having.

Leaders effectively manage change

Best practice

Leaders work to establish conditions that will support implementation of changes that are necessary to realise the school's vision.

Leaders are accomplished managers of change. They are familiar with and use current research and evidence to inform school decision making. Leaders actively promote a trusting culture, a [growth mindset](#) in staff, alignment of systems to the vision, and teaching and learning that is innovative and strongly improvement focused. They ensure that the school community shares the vision and understands its implications, particularly for change.

Teachers are supported to continually improve their professional practice in keeping with the school vision.

Change takes time, and the rate at which it is pushed through is very important. If you move too fast and fail to take teachers and community with you, you will create unnecessary resistance and obstacles. If you move too slowly you will lose the impetus for change. Also, you must allow time for change to become embedded.

There are two theories of change in schools: slow and incremental, or fast and rapid. Both evident in this school.

At times you need to be disruptive, to push the boundaries – more outside the comfort zones. At times rapid and disruptive is necessary to effect change.

Sometimes too fast, which can be painful and challenging. Feel guilty and apologetic. Not so much now, [we are] at a time of consolidation.

– Principal, Wakefield School

School leaders explained that managing change requires different approaches depending on whether it is first- or second-order change. First-order changes are relatively easy to make, involving only a technical shift for teachers and leaving their belief systems and ways of working largely intact. Second-order changes (adaptive changes) involve a paradigm shift. They take teachers out of their comfort zones, and, for this reason, are usually more emotionally challenging and difficult to make.¹²

School leaders had found John Fisher's [Process of Transition](#) useful when guiding their staff through change. By referring to the curve they were able to identify where a particular teacher was at and adjust their approach to suit. What was a first-order change for one might be a second-order change for another. Leaders knew it was important to tailor their support and encouragement accordingly. In the most effective schools principals would get alongside their staff, hear and discuss their misgivings, reiterate the reasons for change, and instil in them the confidence to move forward.

It's okay to be the rock in the river, to think before you jump into the flow. It gives you time to reflect on the rationale behind the change, embrace it and shift – so you are no longer a rock.

– Principal, St Clair School

Holding fast to the vision and communicating effectively were seen as crucial at all stages of the change process.

¹² An informative PowerPoint presentation by the West Virginia Department of Education (Postelwait), [The 21st century leadership challenge: Leading second-order change](#), is largely based on Marzano's work.

A trusting, values-based culture

Best practice

The school is exemplified by:

- a supportive culture, safe learning environments
- high levels of relational trust
- adults who consistently model expected behaviour¹³
- leaders who challenge and support teachers to take risks
- teachers having professional integrity.

Innovation is encouraged. When an initiative does not have the desired impact on student outcomes teachers and leaders learn from it and either refine it or move on and try something new. Mistakes are viewed as learning opportunities.

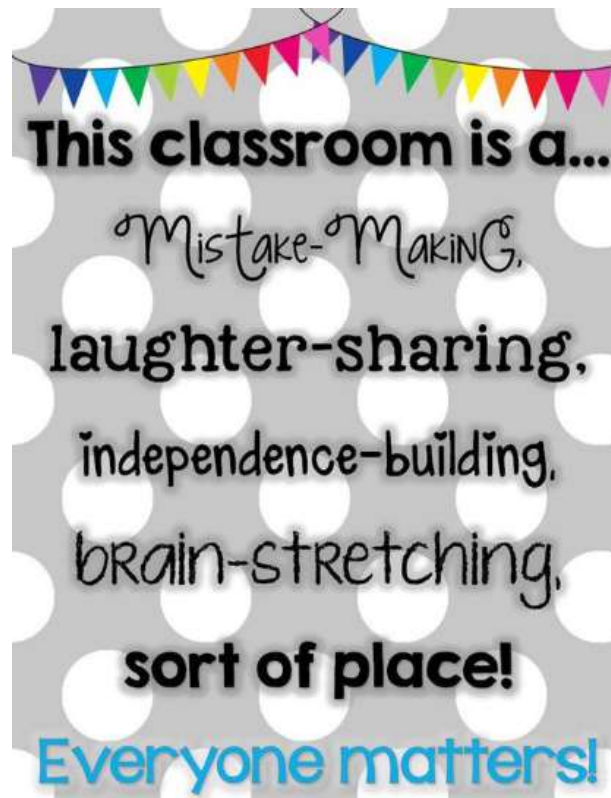
The prevailing attitude is 'fail fast and fail forward', always keeping the school vision in mind. Teachers model themselves as learners.

Students are not afraid to try new things or view their work as work-in-progress. They respond positively to feedback and use it to improve their work. For many the journey is important, not just the finished product.

Leaders and teachers who were well informed, open to change and trusting of each other were most likely to succeed in shifting teaching and learning in their schools.

For the leaders in some schools, their number one priority was to establish amongst staff a culture in which these attributes were the norm.

¹³ This consistency is a feature documented in Lucas et al. Lucas, B., Claxton, G. and Spencer, E. (2013) *Expansive education: teaching learners for the real world*. Camberwell: Vic ACER Press.



Free poster from Growing Firsties, used by Wakefield School

In the most effective schools, adults modelled the behaviours expected of students.

Teachers meet and plan in areas that are visible to the students – there is real transparency about their work.

– Principal, Auckland Normal Intermediate



A growth mindset¹⁴

Best practice

Within the school:

- adults are open to innovations
- leaders build teacher capacity through carefully targeted professional learning and development (PLD)
- the impact of innovations is evaluated and refinements made to secure improved outcomes for students.

To know about and understand current best practice, school leaders read widely and make full use of professional learning opportunities. Their thinking (for example, about how to work with the school community or develop a shared vision) is informed by research findings. They know what PLD their staff most need and when it should be provided.

Teacher inquiries into practice, whether individual or collaborative, are routine. With a focus on improving teaching and learning these inquiries support the achievement of valued student outcomes and realisation of the school's vision.

Just as curriculum was tailored to the needs of students, PLD was carefully aligned to where teachers were at and targeted at the point of curiosity. Schools used a mix of external and internal expertise, whole-staff meetings, syndicate or departmental meetings, professional learning groups and individualised PLD to increase teacher capacity. Many schools used [Ministry programmes](#) to change aspects of school culture, adapting the programmes as necessary to embed the changes in the school.

Teachers told us of the enjoyment they had gained from working on collaborative inquiries. They also spoke about an increased sense of purpose and of belonging to a professional team, the reward of seeing students really engaged in their learning, a reduction in behavioural issues, and an increased ability to focus on their own professional growth.

Teachers' professional practice

Expectations about professional practice were driven by valued student outcomes. For many teachers, growing 21st century learners involved a paradigm shift. They had to find ways of teaching that would support students to learn in greater breadth and depth, as well as developing their agency. Appropriate PLD supported teachers to make the required changes.

In almost all cases, changes in professional practice involved deprivatisation of practice as teachers worked collaboratively with other staff and assumed collective responsibility for delivering a fit-for-purpose curriculum. The introduction of FLSs and digital technologies were often catalysts for change and facilitated change. Both necessitated careful planning to extend and enhance learning and required teachers to collaborate over the use of space and resources. Teachers had to work as a team and open up their practice to the scrutiny and support of the colleagues.

¹⁴ Dweck (2006)

Teachers knew their students well. They collected data, both qualitative and quantitative, worked together to understand what it was telling them, decided how they would respond to identified student needs, and then planned the curriculum accordingly. Teachers inquired into own practice, identifying what was and was not promoting student learning, and were always striving to be more effective.

Coherence and alignment of vision, values and systems

Best practice

The school has:

- streamlined administrative systems
- strength and congruence across the [six domains](#) that have a significant influence on school effectiveness and improvement.

Given that teaching and learning is the core business of the school, leaders prune administrative demands back to what is deemed essential so that teachers can focus on the core business. For example, no unnecessary assessment takes place, and data that is collected is well used.

Leaders and teachers use technology to improve the flow of information between school and parents. This strengthens the involvement of parents and whānau in their children's learning.

The vision and valued student outcomes are always at the forefront and drive everything that happens in the school: systems, allocation of resources, PLD provision, and appraisal are all tied back to the desired outcomes.

As schools embarked on their improvement journeys they oriented their endeavours towards the primary focus, the driver for change. Although the focus was different in each case depending on context and needs, what was consistent across the schools was that they realigned their systems and processes to facilitate the desired change. For some, this realignment was planned for at the outset, while for others, the flow-on effect of changes in one area became the catalyst for a broader review of how systems were hindering or supporting change.

Adults in the school community understood and owned the vision and consistently reiterated the same message. For every decision, system and action there had to be a convincing answer to the question 'How will this help us to achieve our vision and desired student outcomes?'

By refining and streamlining school systems leaders made it possible for teachers to focus on teaching and learning instead of spending undue time on administration.

Diminish the clutter - we're not spending so much time on the stuff that doesn't make a difference to learning – so more finite energy can go on what does make a difference.

– Principal, St Clair School

This school is very different. The difference is the focus and emphasis on learning. Syndicate meetings at other schools were high on admin content – here it's learning.

– Teacher, St Clair School

In [one school](#), school leaders recognised the need to provide teachers with time to work collaboratively so they rearranged the timetable to make it happen. [Another school](#) found that the move to FLSs triggered changes in curriculum design, how teachers taught and students learned, professional learning requirements and appraisal processes. The vignettes in the next section (School stories, page 30) describe some of the changes that school leaders made to bring systems into alignment with their vision and desired outcomes.

Some leaders developed close professional links with neighbouring schools, and some but not all were in [Communities of Learning | Kāhui Ako \(CoLs\)](#). Leaders in CoLs had similar visions for their students, and teachers shared their teaching practice. By collaborating professionally, leaders and teachers were able to ensure for students a greater measure of continuity in the learning experience and more similar expectations regarding agency.

Purposeful teaching and learning

Best practice

Teaching and learning:

- engages and stretches the students
- develops in students increased responsibility for their own achievement and growth as learners
- develops resilience in teachers and students.

Teachers situate learning in relevant contexts and deliberately develop in students the attributes and competencies of learners.

Most teachers also plan for students to have a say in [what and how they learn](#). Having a say involves more than choosing between two alternatives; it means that, while the teacher continues to specify the learning outcomes, students are increasingly able to determine how they work towards those outcomes. As a prerequisite, teachers first build their students' capacity to manage themselves. They provide prompt and constructive feedback and coach the students to do the same for each other. Teachers are skilful in identifying how much support each student needs to achieve the specified outcomes and then providing just the right amount.

Students are focused on their learning. They have a sense of purpose; they talk about what they are learning, how they are learning, and the 'what and why' of next steps. Relationships between teachers and students are respectful and there is no stigma in asking for or receiving help. Teachers acknowledge that they too are learning, often from their students. This is a realisation of ako – reciprocal learning.

ERO saw that teachers deliberately planned to develop their students' [capacity](#) as learners. Valued student outcomes – part of the vision – were well promoted in learning spaces and integrated into the curriculum and school systems. Teachers referred students to visual prompts on the walls and students often kept journals in which they reflected on how they were measuring up against the valued outcomes.



After five years at college you have the values embedded in your character to do the right thing, building up self-discipline.

We know them off by heart. Always promoted at assemblies. It makes it [sic] our behaviours. They are implicit. We don't think about them anymore, we just do them.

Teachers let you be more autonomous, develop the way you learn, develop our own solutions to the problems. They enable you to do that. It's a gradual release from Year 9–11, developing the skills to do it by Year 13, you have the freedom to do it your own way.

– Students, Pakuranga College

Most of the schools started early to build their students' capacity to reflect on their learning and manage themselves. Some had **rubrics** that students used to identify where they were in relation to a task, and this helped motivate them. The rubric might be displayed as a wall chart, in which case students could see how they were tracking on the timeline relative to their peers, and which of their peers could be asked for help or might value help. Students were discerning when asking for assistance.

I know the home room teacher the best – great relationship. They [the teachers] have different strengths – writing with one, another teacher for maths and reading.

Can go to anyone if you need help: teachers, students, workshops. 1:1 devices are a great tool with our learning – more organised now – timetable on it. I can organise what suits me, also set the tasks I have to do

– Year 5 students, Ngatea Primary School

In some schools students established their own **timetables** for learning. These typically included set core activities, independent or collaborative project work and participation in workshops as needed.

Many students were able to clearly describe what learning meant to them and how to achieve as learners. In some cases they engaged actively with their teacher in the **assessment** of their own work.

The purpose of school is to set us up with the knowledge and skills to further our own education, so people need to be taught skills like **Growth Mindset**, time management, learner agency – not just reading, writing and maths.

– Year 5 student, Ngatea Primary School

I think hard. I know when I get challenged I learn new things. You understand how you learn.

We need to be able to think things.

– Year 6 students, St Clair School

We have success criteria – know what you have to do to achieve.

We have a rubric, self-rank. Teachers talk with us and we explain where we are at.

Learning fits to interest. [We have] success pathways in different ways, different to normal schools where it's 'do this to pass the test'.

Teachers help us talk about this learning. It comes naturally to us. We're not meaning to be smart and we're not putting it on for you! It's part of our everyday language.

– Year 8 students, Auckland Normal Intermediate

It is important to note that achievement was not compromised as a result of giving students greater responsibility for their own learning. At the same time as they were developing their students' learning competencies, leaders were also keeping a close eye on achievement.

Agentic learning is great, but we always come back to the data.

– Leaders, St Clair School

Powerful learning connections across the community

Best practice

School leaders work so that:

- the school community helps to develop the vision for their young people
- parents understand how learning takes place in the school and are able to talk the language of learning and support their children.

The school engages with its community to help members understand the changes that are taking place in teaching and learning. Relationships between students, parents, whānau and teachers are strong and respectful. Parents regard teachers as trusted professionals and are clear about and support the school's vision.

Effective schools used a variety of strategies to actively engage parents, discuss the different teaching and learning their children were experiencing, and reassure parents that these changes would raise achievement and help their children develop as learners. Several leaders said that the most useful strategy was to invite parents into the school to see what was actually happening in classrooms, explain the rationale behind the changes, and show parents how they could support learning at home. Several schools provided parents with the web address of the [Ministry's parents' portal](#), which has useful suggestions on how to support their children's learning.



School stories

We asked each of [the schools we visited](#) to tell us how they went about engaging their students in 21st century learning.

- Why they started on their journey?
- How they set the conditions for success?
- What informed their decisions?
- How they managed change?
- What difference had it made (for example, to teaching and learning, use of spaces and digital technologies, student outcomes)?

The leaders in these schools told us about the challenges they had faced and how they had overcome them. They also had advice for other leaders who were looking to make major changes.

Each school began its change journey at a different point and in response to a different trigger, and each went about transforming teaching and learning in a different way. However, every school found that internal evaluation underpinned by powerful data was crucial for monitoring the impact of innovations and informing refinements.

The stories that follow do not attempt to give the whole story. Rather, our aim has been to focus on how leaders have supported change by aligning school culture, systems and resourcing to the school vision.

In the stories readers will see evidence of all the [key characteristics](#) of effective schools identified earlier, as well as examples of how schools have developed their curriculum, strengthened partnerships with community, parents and whānau, and changed teaching and learning practice to take advantage of digital technologies and flexible learning spaces (FLSs).



Ngatea Primary School

Key points

- Development of an inquiry-based curriculum that uses student passions as a vehicle to increase engagement
- Opportunities for student-led learning
- Assessment and monitoring of social and emotional learning.

Introduction

School leaders wanted their Year 7 and 8 students to be more engaged in their learning and keen to come to school. Leaders held discussions centred on the question: ‘What would school look like if it was not compulsory?’ These early discussions broadened out to involve the community in a re-evaluation of the school’s vision.

Once the school started making changes, the need for others became apparent – changes that could not be confined to Years 7 and 8.

What we had wasn’t broken but we knew there would be a better way to deliver education that every child can benefit from.

– Principal

It has been a bold six-year journey for Ngatea Primary School. In 2011 it piloted the use of 1:1 digital devices in its Year 7 and 8 classes. This changed the way the students learned, which required teachers to become more flexible and collaborative in their teaching. The following year students in Years 5–8 brought their own devices and staff started using [Google Drive](#).

By 2013 the school was piloting a flexible learning space (FLS) for Years 7 and 8 in conjunction with personalised timetables and a learner-led curriculum. The success of this pilot led, the following year, to the removal of physical barriers between other classrooms, creating more FLSs across the school.

In 2015, building on its experience of a learner-led curriculum, the school began to: develop a local curriculum for the whole school, make its progress reports more dynamic and accessible on multiple devices, review its charter, and define the [key competencies](#) in terms of ‘learning powers’ – the traits and strategies that are integral to life-long learning: ‘being me’, curiosity, connecting, creativity and resilience.

In 2016-17 the primary focus was on consolidating and developing the framework for their local curriculum to reflect good practice.



System changes

School leaders suspended regular staff meetings so teaching teams had more time to focus on their planning.

Two teachers collaborating is better than one, but the power of three is ideal. More becomes harder again.

– Principal

Teachers completed personality questionnaires to better understand themselves and how they relate to others. The insights gained were helpful for creating effective collaborative teams. Teams were encouraged to trial innovative strategies. When these proved successful they were extended throughout the school.

The curriculum is pervaded by the ‘learning powers’, which are understood and supported by the wider school community.

Teachers scaffold development of the learning powers in students as they progress through school. For example, the teacher actively helps students identify and develop their curiosity. They may say, for example, ‘Yes, you like art, but what are you curious about that you can share through art?’ The student may then decide to explore what global warming will mean for the local beach, using art as a medium to communicate their findings.

Aspects of the school’s appraisal process have changed as teachers have come to experience greater collaboration and feedback, formal and informal, as members of teaching teams. In particular, appraisal now emphasises trialling ‘*spirals of inquiry*’ (Timperley, Kaser, & Halbert, 2014) to encourage teachers to engage more deeply with research and explore teaching strategies that may work for their students.

Flexible learning spaces

Ngatea has a mix of single-cell classrooms and collaborative spaces. Minor classroom upgrades have increased the number of FLSs.



Teachers like to keep an FLS uncluttered, and to select furniture when they are clear about how the space can best be used. The larger the space the more flexible it can be and the better the student behaviour.¹⁵

Each FLS provides a range of different spaces: quiet zones, zones where learning teams (self-selected social groups) can collaborate, make

and create, and rooms for teacher-led activities.

Teachers discuss with students how the various spaces can be used. Students learn to use an FLS in different ways at different times, depending on the need.

¹⁵ Several of the schools we visited commented on improved behaviour and greater focus on learning in FLSs. They put these outcomes down to changes in pedagogy at least as much as to changes in environment.

Curriculum and pedagogy

In Term 1 2017, the school finished creating a new, inquiry-based curriculum designed to ensure that students are increasingly able to lead their own learning.

In Years 1–3 this takes the form of encouraging students' wonderings and questions, and some mini research projects. In Years 4–6 the focus is on supporting students to understand who they are and what they are passionate about. Students in Years 7–8 undertake inquiry learning based on their passions. Based on the 'if you have learned something, you should be able to teach it' principle, students from Year 5 onwards lead workshops for each other and for younger students. Once a year the school holds a school-wide conference with nearly a hundred workshops, of which about half are student led.

Students' interests, passions and strengths drive the curriculum, not assessment. This means that the curriculum is engaging and encourages students' curiosity. Teachers support and extend students' learning, including by identifying when workshops are needed, responding to student requests for workshops, and conferencing with individuals and groups as required.

Reading, writing and numeracy are naturally embedded in the students' inquiries. Those having difficulty with reading are not given more of the same; instead, the teacher aims to increase their learning excitement by finding something that holds real interest for them.

Books are chosen by our interests rather than reading levels which I really like because I'm not a really good reader. I like reading books that really challenge me but aren't really at my reading level.

– Student

Over a two-year period leaders and teachers monitored student inquiry projects and noted areas of commonality. They found seven recurring areas or concepts: forms of life; earth and beyond; change; how things work; past, present and future; environment and sustainability; people and identity. The school's new curriculum maps these areas/concepts onto the learning areas of *The New Zealand Curriculum*.

Students in Years 5–8 manage their own timetables online, deciding which workshops, commitments and meetings they should set in place first. They understand that they setting priorities and that they need to be flexible if things change. They can work individually or in learning teams, request help or workshops, accept guidance as needed, and lead parent conferences.

Learning teams design their work plan for each term in consultation with their teacher. They map curriculum coverage using a tracking template.

Students working in teams are supportive of each other and develop a strong sense of ownership towards their learning. Teachers value and acknowledge learning successes, evidence of agency, excellent effort and progress.

Teachers use assessment information to track progress and ensure that students are learning across the whole curriculum. Where this is not the case they guide them to work in the neglected areas. Students must also do a group inquiry project, which provides an opportunity to deliberately cultivate competencies that are required for collaboration.

Use of digital technologies

Digital devices have changed how Year 7 and 8 students learn. A consequence is that teachers have had to collaborate more and plan more flexibly. It was collaborative planning that first highlighted the desirability of FLSs.

Digital technology is used to extend and enrich learning and to improve communication with parents and whānau.

All students in Years 5–8 have a digital device. This was made possible by a trust, set up with the support of contributions from community businesses, which buys devices in bulk for the school. Thanks to the trust, parents are able to pay for a device in instalments or even receive full financial assistance. As a result, all students have equitable access to digital technology. The board pays a technician to support digital technology in the school.

In the senior school digital tools are now integrated into every aspect of teaching and learning. [Google docs](#) are used extensively for timetables, planning, prioritising and goal setting, online profiles, blogging, and feedback from teachers, students, parents and whānau.

We have blogging teams that have a role of giving feedback to others.

– Year 6 student

The use of digital devices is now routine for students working on inquiry projects. They use them for research, for writing, and for presenting their completed work. Access to digital technology enabled a student with dyslexia to share his learning in the form of a video, for which he won an award.

Teachers have developed templates for students, which are designed to scaffold deeper thinking at each stage of project work and encourage reflection. Students make good use of these to design their curriculum and demonstrate their learning. Teachers work continuously with students to ensure that they are being challenged and that they are on track to reach their goals and the desired learning outcomes.

Student outcomes

At Ngatea Primary School, agency involves more than self management. Students in Years 5–8 know their learning smarts;¹⁶ they have learner profiles; they know the conditions in which they learn best, that there is not necessarily one right way to learn, and that everyone is different. They have developed a [growth mindset](#).

Students use a simple [learner agency matrix](#) to help them gauge the extent to which they have developed agency in their learning powers. Around the school there are prompts that reinforce the learning powers, reminding students when and how to use them, and helping them articulate their value.

Students use their own assessment data to establish priorities and set goals, which they annotate with explanations of why these are important to them. They do this with support until they can do it independently. The students blog about their progress and include evidence of achievement. Parents and whānau can access these blogs at all times and if they wish (increasingly they do) add their own feedback. This transparent sharing of information promotes the development of strong learning partnerships between teachers, students and home.

¹⁶ Based on Gardner's [Multiple Intelligences](#).

Another recent initiative is live reporting via online student profiles, which, for parents of students in Year 4 and above, replaces the traditional twice-yearly reporting. Teachers update the profiles whenever they have assessment information or other relevant information to report. Like the students' blogs, the profiles are available to parents at all times.

Ongoing evaluation and improvement

Ngatea Primary School has significant strengths across all six [domains](#) of ERO's indicators framework, particularly in evaluation, inquiry and knowledge building for improvement and innovation. Strategic planning, charter and vision are all closely aligned. The school made good use of an external facilitator to develop the charter and vision with the community and so strengthen the educational connections and relationships.

School leaders keep a 'future thinking book', which contains ideas gained from conferences and readings; the ideas in this book have influenced various changes. To keep abreast of current developments, the school hosts a visiting speaker once a term and invites staff from other schools.

Leaders collect and analyse data to monitor and evaluate the impact that new practices are having on student achievement. Like leaders in other schools, they were initially concerned that focusing on developing learning powers might detract from achievement in reading, writing and mathematics. They found instead that developing the students' capacity to learn in no way diminished their achievement in the core areas. Indeed, there were other benefits: teachers no longer had to struggle to keep boys engaged, and referrals to the [Resource Teacher: Learning and Behaviour \(RTL B\)](#) decreased in number.

Visits from other schools make us realise how powerful our learning and teaching is – has become.

– Teacher

It was inspirational to listen to them talk about their journey and was a privilege to be able to walk through their school and see the collaboration of the teachers and the abundance of the learning that was occurring. The spaces were inspiring and I was amazed to see every single student engaged in their learning. We were encouraged with what we saw and know that we are on the right track upskilling for the future and being able to incorporate the modern learning that the government expects. Ngatea Primary School are [sic] five years ahead of everyone with their pedagogy so it is encouraging to know that this is not an overnight change that can happen.

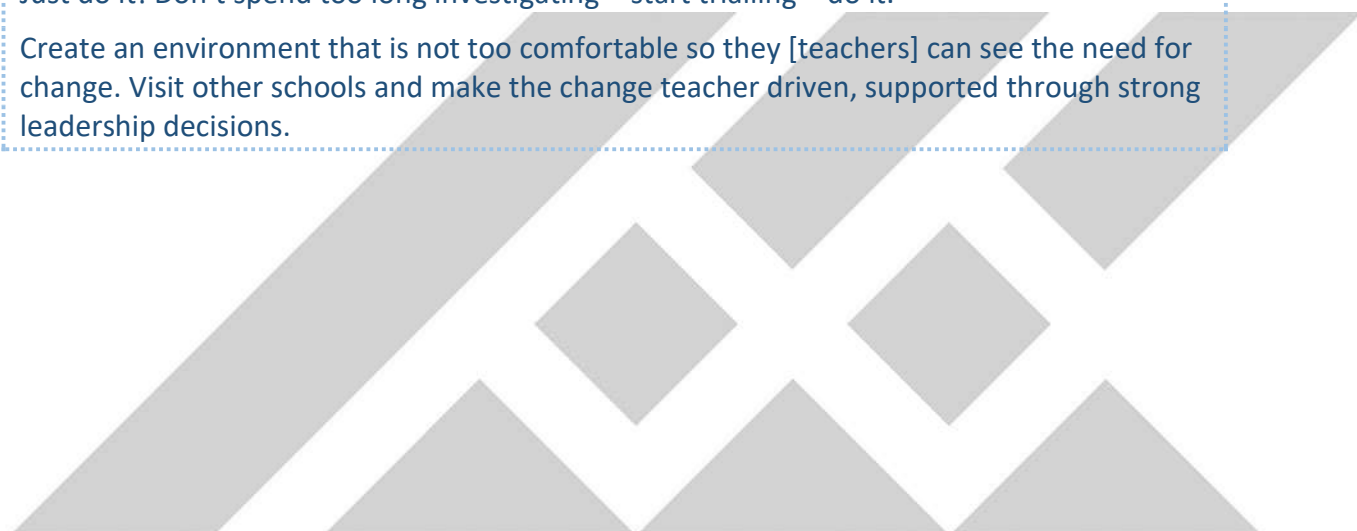
– Extract from a visiting school's newsletter.

Comments from school leaders

Be knowledgeable. Seek external expertise where needed. Know how to manage change.

Just do it! Don't spend too long investigating – start trialling – do it.

Create an environment that is not too comfortable so they [teachers] can see the need for change. Visit other schools and make the change teacher driven, supported through strong leadership decisions.



Golden Sands School

Key points

- Use of their vision to develop a learning community
- Focus on mentoring and developing leadership across the school
- Ongoing experimentation with flexible learning spaces (FLSs)
- Rich-task curriculum improves outcomes in mathematics

Introduction

Golden Sands School opened in 2011 with a roll of 83 students, which has since grown to more than 500. The learning spaces are all modern, open-plan and flexible.

The board and the principal established the initial vision for the school. In 2013 it was revised in consultation with the community and in 2014 it was confirmed. It now drives everything that happens in the school.

The school chose te rito o te harakeke (the heart of the flax bush) as a metaphor for their vision and as their logo. They explain the logo in this way:

‘The heart of the flax bush is where the new life grows, supported by the adult leaves.

The notches in one of the leaves represent the values of the school, to be **PROUD**:



- **P**roactive
- **R**espectful
- **O**pen
- **U**nderstanding
- **D**ependable.’

Once the vision statement was confirmed, the school employed an external facilitator to lead the staff through a detailed visioning process. Together they chose an image to represent the school vision, and icons for four ‘critical success factors’:

- hope and inspiration,
- together united,
- [a] holistic approach to growth
- the heart of the community.

Staff created stories to explain the factors and their icons and they developed a specific goal for each. These goals informed the strategic goals found in the charter.

School leaders also reviewed plans for stage two of the building programme, making refinements to better meet the needs of their students. They based these on their experience of working in the first-completed buildings.

For much of 2016–17 the school was in a state of continual change, with a significant number of new staff appointments, a rapidly growing roll, and turnover in the board of trustees.

The vision is the glue that holds it all together.

– Principal

The focus is kept on the vision statement and values at professional learning and development (PLD) sessions, where teachers share stories about what the critical success factors look like in their classrooms, and at teacher-only days where they refine goals and action plans. It is by regularly revisiting the success factors that teachers become increasingly confident to bring them to life in everyday practice.

System changes

School leaders know that the relationships that staff members have with students, each other, and parents and whānau are important and need to be carefully nurtured. Because every staff member must model the values it is vital that they are supported to build trusting relationships with their team.

Rock stars don't translate so well to collaborative environments. We don't want stars - we want a galaxy.

– Principal

Rapid roll growth has necessitated the appointment of additional teachers. Leaders have thought carefully about the attributes they need and look for these when considering applicants. In line with the school's vision, new teachers are expected to be open-minded, flexible, risk takers, prepared to work collaboratively, and to have high levels of professional accountability.

Appointment processes are designed to explore whether applicants will be a good fit with the school's vision. For example, they are asked to present their view of a 'dream school'. They are also required to deliver a sample lesson to a large group of students and then reflect on how it went.

The principal meets with each leader each term and with each teacher each year. This helps cement relationships. It also provides an opportunity for the principal to identify successes, ambitions and where support may be needed.

It is important to know what is happening on the ground. The culture of the school can slide very quickly.

– Principal

PLD is a high-priority item in the board's budget because it is seen as important for realising the school's vision. PLD is focused on co-teaching, modelling, providing feedback, doing observations and connecting theory to practice.

Given the rapid roll growth, leaders are very conscious of how they induct newcomers, whether teachers or students and their families. Newcomers must buy into the school's vision and ethos if they want to join a learning partnership and succeed, and if the school is to sustain its principles in the long-term.

Leaders note that students who are new to the school, even those who come with a record of poor behaviour, quickly settle into the PROUD culture.

Organisational frameworks support learning

The school has a culture that encourages learning for teachers and leaders as well as for students. Teachers have time specifically allocated for their own learning.

The timetable is sufficiently flexible to support effective teaching and learning in the school's FLSs. While there are still challenges (for example, the scheduling of specialist classes), the timetable is constantly under review and improvements are always being made.

School-wide organisation can help or hinder development for teachers and as leaders we need to be very deliberate about our actions.

– School leaders

The school's operational frameworks are enabling rather than restrictive. They provide clear parameters for teachers but they are not prescriptive. Everyone knows what is expected and why. Within these parameters teachers plan how to best meet the needs of their students.



Students at Golden Sands School are trusted to choose where they will work, and with whom.

Equipped with FLSs, the school is continually considering how best to use these in response to student needs. The principal says that, particularly with the ongoing influx of new staff, how the teaching spaces are used changes every year.

Teachers plan and teach collaboratively. They provide opportunities for students to exercise a level of choice and develop agency, but also tight underpinning structures that ensure they stay on task.

The school has one Chromebook or iPad available for every three students. Though students are often fluent users, staff teach them how to use particular apps for particular purposes. Digital devices are excellent tools for carrying out many types of task, for example, geographical modelling, but leaders view them as a means not an end, and students are free to choose whichever tool they prefer, which may or may not be digital.

Change management

Developing a vision focused the school community and generated a sense of urgency.

Teachers were motivated by the challenge of visualising what the school would look and feel like when the vision was realised. In the early days staff would regularly share how the vision and the success factors were finding expression in their classrooms. Such activities helped staff to understand and commit to the vision.

Decisions that affect the wider school are always informed by theory and referenced to the vision. Progress is measured against the four success factors. Student, teacher and community voice is sought as part of evaluation processes and to inform change.

School leaders appreciate that major change is demanding for teachers. They are aware of the stages people can go through when confronted with new circumstances or expectations and support staff to successfully make the changes that have been asked of them. Leaders know they must understand their teachers, what is happening for them, what is worrying them, and what they are excited about. They have also found it important to engage with family and whānau who are new to the school and may expect a more traditional approach.

Leaders have established a clear, experiential learning cycle to help them and the staff understand and systematically effect improvement:

- | | |
|------------------|------------------------|
| 1. Act | What happened? |
| 2. Reflect | What did I experience? |
| 3. Conceptualise | Why did this happen? |
| 4. Apply | What will I do? |

Teachers use digital portfolios to record reflections about their professional practice and use these to inform their inquiry processes and provide evidence for appraisal.

Curriculum and pedagogy

Minimise distractions so teachers can focus on one area of improvement.

– School leaders

Teacher collaboration

Teachers operate in learning teams. Each team uses a data wall in their planning area to monitor student progress. Assessment practices have been refined over the last two years to ensure that teachers collect meaningful data that is both useful and used. Data is analysed for trends, to identify student needs, and to inform planning. Teachers say they are actually spending less time on planning now, even as outcomes for students have improved. Teams feel a shared sense of pride when targeted students accelerate their progress.

Rigorous professional discussions lead to increased learning opportunities for students and groups of students besides being a valuable source of learning for teachers, especially those who are provisionally certificated. Learning-focused professional discussions reinforce a culture of continual improvement.

Leaders recognise there is a risk that collaboration will spread bad practice. This risk is mitigated by PLD, which spreads good practice, and by sound accountability processes. Furthermore, teaching in collaborative environments is like living in a goldfish bowl – practice is public. This makes teachers accountable to each other as well as through formal appraisal processes.

A curriculum inquiry team supports improvement across the school by trialling new approaches, developing the school-wide inquiry model, and implementing an effective teacher inquiry matrix.

Developing capability and capacity across the school

Responsibility for teaching practice (curriculum and pedagogy) is delegated to a deputy principal, who often co-teaches as a means of supporting improvement. Teachers who are unsure how to develop a skill or target a learning need can ask the deputy principal to work with them to build their confidence. The deputy principal supports them by modelling and coaching.

School leaders also support staff development by mentoring those who are new to or aspire to leadership roles. Mentoring focuses particularly on how to have difficult conversations without damaging relationships.

The board makes provision for specialist teachers to act as coaches and mentors. A specialist e-learning teacher is released part time to support the system and teachers' use of information technology. A specialist teacher of te reo Māori is released part time to build the knowledge and capabilities of colleagues. Parents value that teachers are increasingly able to respond to Māori students in culturally appropriate ways and to make classrooms more bicultural.

Student outcomes

Improving achievement in mathematics

A strong focus on mathematics has improved teacher practice and student achievement. Teachers' goals and inquiries align with this focus, and the school has developed a matrix setting out what effective mathematics teaching looks like.

The school has specific targets for improvement in mathematics. These build on the previous year, when teachers designed a rich-task curriculum for mathematics. Board resourcing and the use of an external provider support the achievement of the targets. The provider models expert teaching; teachers then reflect on the provider's practice using the same effective teaching matrix they use to critique their own practice.

Students have a rubric to help them evaluate progress on their rich mathematics tasks. Their timetable book, modelling book and PROUD notebook are other tools that support them to manage their learning and to identify when they need assistance. Teachers actively teach various groups and carefully monitor the notebooks, responding appropriately to requests and identified needs. Observations and feedback from their colleagues help hone the effectiveness of teaching practice.

These systems develop teacher capability to support students' learning and their growth as independent learners.

Ongoing evaluation and improvement

School leaders evaluate the impact of initiatives, such as improving achievement in mathematics. Given the success of the mathematics initiative they are now extending a similar approach to other curriculum areas.

Students are accustomed to using rubrics in all their learning. They break down rich tasks, evaluate their progress and determine next steps.

The principal notes that students have become increasingly able to articulate what they are learning and identify what helps them to learn. Consequently, **student voice** is an important source of information used in evaluating the impact of teaching practice.

Comments from parents

My daughter loves the range of teachers, gets bored with one teacher all the time, she's more excited, more interested.

[They] don't throw the baby out with the bathwater – my child is introverted and they keep a close eye on her as she struggles with the distractions – she needs the break-out and quiet work spaces.



St Thomas of Canterbury College

Key points

- Intensive investment in staff professional learning and development (PLD)
- Distributed leadership
- Transparent and co-constructed planning enabled by teacher use of digital technologies
- Novel and developing approach to junior curriculum.

Introduction

Founded on the principles of Edmund Rice, St Thomas of Canterbury College is an integrated Catholic school for boys in Years 7–13. Also a [Microsoft Showcase School](#), it capitalises on the use of digital technologies to transform school-wide practices and personalise learning.

The school currently has one flexible learning space (FLS) with more on the way. The plans for the new spaces incorporate changes that teachers have asked for based on their experience of the first FLS.

Major redevelopments mean that staff and students have had to cope with temporarily cramped conditions, but this has not stopped the school's drive to improve. Alternative areas have been turned into makeshift teaching spaces and quiet learning nooks.

When the current principal was appointed in 2009 she saw the need for a school culture that was more cohesive and supportive of improvement. She wanted to build a school-based democracy and change fixed mindsets to [growth mindsets](#). She knew she would have to support her teachers to overcome anxiety and resistance to change before they could become the most effective teachers possible. Effective teaching means effective learning, which means better outcomes for students.

To bring about the desired cultural changes, school leaders started with [Edmund Rice's teachings](#) and *The New Zealand Curriculum*. Following careful research, various improvement initiatives were adapted and adopted, becoming in time part of a unique school culture. The school did not engage in 'bolt-on' initiatives, only those that could be fully entrenched as 'the way we do things around here'.

The school was particularly drawn to [Restorative Practice](#)¹⁷, [He Kākano](#) and [Microsoft Learning Partners](#) for material. Restorative Practice proved to be very useful, resonating with the tradition of compassion in Edmund Rice's teachings. School leaders embraced the principles of He Kākano, which challenged them to be more culturally responsive and to personalise learning. Microsoft Partners for Learning material, which was used as PLD, demonstrated how effective teachers make use of technology, especially as a tool to personalise learning.

¹⁷ St Thomas of Canterbury use the term 'restorative justice' because it fits better with their culturally-based belief systems, which emphasise values and relationships, not just practice.

The school learned valuable lessons from the disruptions caused by the Canterbury earthquakes. Despite a loss of teaching time, achievement increased. After having to adapt creatively to their changed circumstances, staff could see that some time-honoured practices – most notably the five-period timetable – had been barriers to change. Another consequence of the disruptions was that teaching staff became more open to change and more accepting of evolving practices designed to bring about improvement.

System changes

Professional learning and development

The board allocates considerable resources to supporting effective teaching, including PLD targeted at areas of current need. Senior leaders attended in-depth seminars with an internationally renowned change manager. They have developed the skills they need to create an environment of trust, challenge deeply held assumptions, share professional knowledge, and inspire each other to be better leaders and teachers.

Teachers are willing to try new practices because they are supported to improve and know that it is okay to fail. Collaboration is important and when teachers are ready to learn more, they know which of their colleagues has the expertise to help them. Students see that their teachers are learners too, and that they are modelling the key competencies. This enhances student–teacher relationships and students’ own growth as learners.

Teachers are given release time specifically for research, including visits to other schools, that will inform their practice. They have the time to collaborate and the freedom to design their own class curriculum within a broad framework that includes expected outcomes.

The school has recently had a focus on the use of modern learning practices, with almost all teachers undertaking a [Post-Graduate Certificate in Applied Practice \(Digital & Collaborative Learning\)](#) through [the Mind Lab](#). Teachers learn from one another, which creates a positive feedback loop and helps sustain changes in practice.

Growing leadership throughout the school

Change is well staged and evaluated. Teachers from different curriculum areas work together, and practice that is found to be effective in one area is spread to others. For example, one teacher very successfully trialled integrated studies at the senior level so he has now introduced integrated studies for his junior students. As teachers have shared practices that they have successfully trialled, a tipping point has been reached, with other teachers and faculty heads moving to adopt them too.

Senior leaders recognised they could not effect change all by themselves; they needed share the responsibility and nurture in others an understanding of how change is managed. So they established a shadow management team comprised of middle management leaders who participate in a range of senior management meetings. Shadow team members contribute to higher-level decisions, which equips them to be more effective middle managers and gives them greater investment in the school.

So wonderful to be in a school prepared to change, and not just sit in a traditional setting and not look to improve things.

– School leaders

The school culture empowers teachers to be leaders. They are encouraged to be innovative in their practice and freed to take risks. The expectation is that they will quickly evaluate the impact of an innovation, make refinements as necessary, and learn from anything that did not work.

Don't be afraid to fail – it's called learning. Reflect on it, ask why, move forward.

– Principal

All teachers are free to be early adopters of new practices: to try something that sounds worthwhile, model it, and attract others to try it. Teachers at all stages of their careers regularly share what they have learned at whole-staff meetings – when it comes to professional practice, there is no leadership hierarchy. Staff also share what they have learned with other schools.

Other schools come to visit wanting the silver bullet. We don't have one to offer. The answer is here with the capability of the people on the ground.

You need to capture the heads and hearts of your teachers, then build their confidence. Confidence so they can take risks, debate with each other, be vulnerable and be compassionate professionals.

– Principal

Distributing leadership throughout the school has engaged teachers in the changes being made, and has excited them. This means that change has momentum and is likely to be sustainable. Additionally the principal finds she is in a position to step back, keep an eye on the whole picture, and lead in a different way.

Curriculum and pedagogy

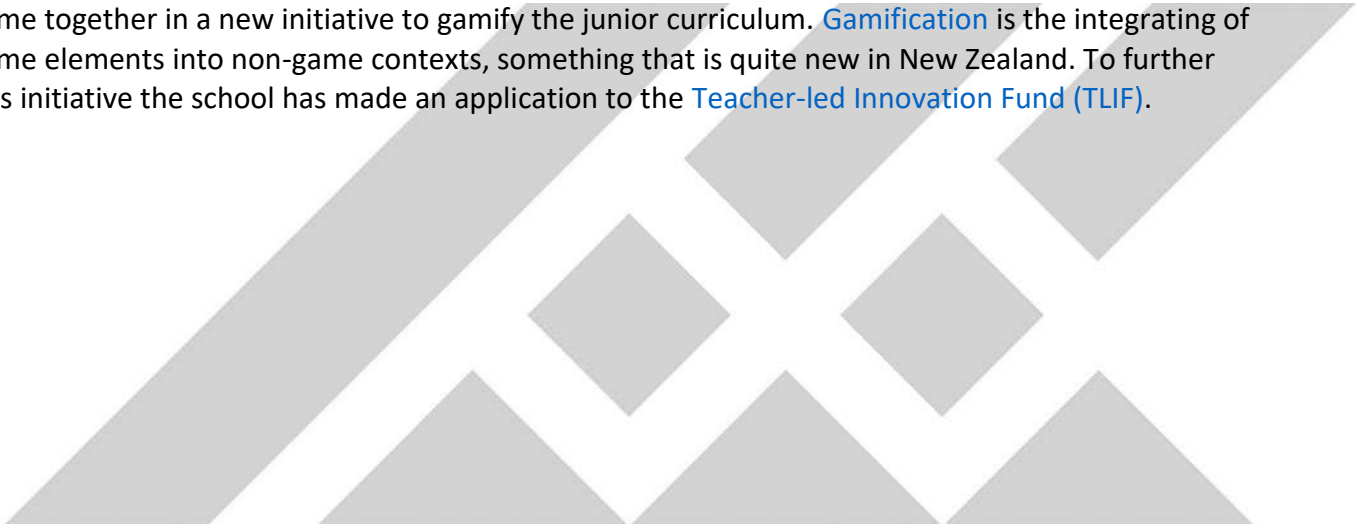
The school uses digital technologies to promote high levels of student engagement and agency. Lesson planning is co-constructed by teachers and students, using shared [Microsoft OneNote](#) documents. The same technology increases the range of ways in which students can engage and contribute in class, which increases their willingness and confidence to contribute. Teachers use [Microsoft OneDrive](#) to streamline collaboration, sharing and syncing documents to a single location.

Students appreciate it that teachers, using OneNote, give them clear guidelines for their work and that they can ask for help online at any time and get a timely response. School leaders are realistic and do not expect teachers to respond to students at all hours of the day and night.

The technology aids learning – crosses the boundary of learning, making better connections between subjects.

– Student

The objectives of making progress visible and using digital technologies to help drive engagement come together in a new initiative to gamify the junior curriculum. [Gamification](#) is the integrating of game elements into non-game contexts, something that is quite new in New Zealand. To further this initiative the school has made an application to the [Teacher-led Innovation Fund \(TLIF\)](#).



One of the triggers for the gamified curriculum initiative was a marked disparity in achievement between students who entered the school in Year 7 and those who entered later. An analysis in 2016 found that students who had been at the school since Year 7 earned NCEA endorsements (merit and excellence) at twice the rate of students who had joined in Year 9.

While the exact shape of this initiative is yet to be determined, leaders spoke of giving students points or badges for completing tasks, and structuring learning in levels (not aligned to year levels) through which students could progress at their own pace. School leaders see gamification promoting increased engagement with learning thanks to greater personalisation of the curriculum and regular affirming feedback. They hope this will develop intrinsic motivation in boys who may be losing interest in school learning.



The school will gather baseline data on engagement, and then further data at regular intervals. They will use this information to evaluate the impact of the initiative on engagement and achievement.

Student outcomes

As measures of effectiveness, the school collects and analyses student engagement data, reviews student e-portfolios, and assesses the key competencies.

Development of the key competencies is assessed via a two-part process involving student self-assessment and teacher observation. School leaders have developed a rubric that underpins both processes and supports students to pinpoint what they need to focus on next. By being involved in self-assessment students gain increasing understanding of themselves as learners.

There are more guidelines and structure to our work, a framework for learning, especially in assignments. We are taught what needs to be found.

We are motivated and discuss the ideas with others – extend each other.

– Students

The school has worked with MUSAC to tailor an innovative, cloud-based student management system, [MUSAC Edge](#), which is used to communicate with students and parents. This seamless data-sharing system gives parents real-time access to their son's work and reflections, and to assessments and fortnightly reporting. By regularly looking at this information and by leaving online feedback, parents become active partners in their son's learning. Students from all year groups view this positively.

There's a higher involvement of parents. We can't hide. They know and can help with strategies to improve.

– Students

St Clair School

Key points

- Quality learning throughout the school develops student agency
- Variety of activities and provision for different kinds of learning drive high levels of engagement
- A clear, evidence-based purpose for the use of digital technology and the flexible learning space (FLS)
- Digital technologies are appropriately integrated into the curriculum and facilitate parental involvement in their children's learning
- Use of the FLS encourages and necessitates deeper collaboration between teachers.

Introduction

St Clair School is determined to find the best ways to promote learning for the whole child – socially, culturally, physically and cognitively.

School leaders have an in-depth understanding of a wide range of research material and this has enabled them to develop a clear philosophy of learning and vision. Their focus is on 'learning that matters and learning that lasts': authentic, contextualised learning that prepares students for the future. The result is an integrated curriculum that scaffolds students' development as learners through the school years.

System changes

The streamlining of systems and repurposing of teacher meetings have significantly increased teachers' focus on learning. The importance of this cannot be underestimated.

Professional learning and development

The school's pedagogy has changed over the last ten years in line with its developing vision. At every stage change was carefully considered and the rationale worked through with teachers. For example the school did not rush into collaborative teaching. Together, teachers and leaders explored three key questions: What are the benefits for learning? Why should we do it? What are the characteristics our teachers need to be working towards?

External experts provided professional learning and development (PLD), building on learning guided by the principal in previous years. This PLD was tailored to teachers' readiness to listen, explore implications of change, and adapt practice accordingly. Visiting other schools and seeing effective teaching in action proved a powerful strategy for moving teachers forward. They would return from such visits energised and ready to move from theory to practice.

The visits as a whole team really got us going – excited.

– Teachers

School leaders told us that to maximise the impact of school visits it was important to be clear about their purpose.

The school takes a strategic approach to PLD. It begins with the whole staff looking at the big picture. This 'big picture' PLD is then contextualised at syndicate level and strengthened through quality learning circles, where teachers share what it means for their own practice or inquiries.

These cross-syndicate quality circles are led by a different teacher each year, which grows leadership capacity at the same time as it promotes school-wide coherence. By keeping the focus on good teaching practice quality circles steer clear of defeatist conversations and people's 'war stories'.

Using digital technology in the service of learning

The school was an early adopter of technology and an Apple school, complete with computer suite. When the servers needed replacing, changes in device capability and reliability, and a deal with a local provider, persuaded the school to go with cost-effective, cloud-based [Chromebooks](#). The computer suite was disestablished in 2010. The youngest students now have iPads and the others Chromebooks, with iMacs also available for them to use. The school provides all of these.¹⁸

Digital technologies have been instrumental in improving the quality of teachers' discussions about student progress and enhancing collective responsibility. The school uses [G Suite](#) as their student management system. This has enabled staff to streamline their keeping of achievement and pastoral data and take a team approach to monitoring student progress, both individual and collective. Teachers say it is user friendly and helps them respond to students' needs in an appropriate and timely manner.

Digital technology provides the means for parents and whānau to communicate with the school quickly and efficiently. This has reduced administration costs and enabled resources to be redirected to teaching and learning. A Mac mini is now sufficient to manage all administration requirements.

Because parents have access to their children's [Google docs](#) they can engage with their progress and directly insert pictures, play videos and add feedback or they can send material by email. For example, a child contacted her mother for some information relating to work she was engaged in, saying 'Remember we talked about this. Can you email me the link?'

A well-established school value is caring. By extension students apply this to their devices, with just one loss and very few breakages in the past four years.

St Clair students are confident users of digital technologies and view them as powerful tools in their learning kit.

Curriculum and pedagogy

Teachers are trusted and empowered as professionals. They have sufficient scope to innovate while operating within a clear framework of curriculum expectations. Accountability comes through collaborative working, shared responsibility for learners, and reflective practice.

The school continues to develop its approach to collaborative teaching, aiming to retain the sense of belonging that having one main teacher and classroom gives students while providing an opening for them to learn from others. When in the FLS they readily seek guidance from any teacher present, from other students, and from learning assistants (previously teacher aides).

Teachers in the FLS like the fact that they can draw on their colleagues' expertise at any time but recognise that, for collaborative teaching to work well, there must be a high degree of consistency in behavioural expectations and pedagogical practice. Increased dialogue, both informal and formal, has been directed at achieving consistency.

¹⁸ Interestingly, the school leaders planned to transition everything to the new system and the Cloud over a period of 18 months. It was completed in just six weeks.

Teachers at the school know all the students, not just those in their own classrooms; this facilitates shared teaching and discussion about students' wellbeing and progress.

We spoke to a learning assistant who has seen many positive changes at the school in her time, including some that she found hard to accept at first. For example, she was working with a child with dyspraxia who returned to the same action station ten times. She wanted to intervene and move him to another station, but resisted the impulse. Eventually, after he had finally mastered the task of cutting in a straight line, the student moved himself on. Not only had he had the opportunity to persevere, but also achieving his objective had boosted his confidence as a learner. He was delighted and the learning assistant acknowledged that this would not have happened had she intervened. She had discovered the power of giving students choice.

Using the curriculum and flexible learning spaces to build independence

School leaders redesigned the school learning spaces in ways that enhance curriculum and pedagogy. In this [video](#) the previous principal explains some of the thinking behind the redesign. Notice how focused the students are on their learning. We also observed this when we visited.

Teachers carefully plan for students to become increasingly responsible for themselves and their own learning. Teachers have a framework that supports students' developing independence, ensures that learning is challenging and provides opportunities for them to achieve age-appropriate outcomes.

The school years are conceptualised as three stages, each designed to develop students' capacity as learners and a disposition for life-long learning. First, they experience 'action stations' where they can choose an activity to work on. Next come 'learning hubs', and finally, 'passion projects'. At each successive stage students are supported to go more deeply into their explorations and therefore more deeply into their learning.

Literacy and numeracy are embedded naturally in the curriculum from learning hubs and up. As the students grow in knowledge and confidence they share their new learning with others, which further consolidates their learning.

Learning is fun.

– Students

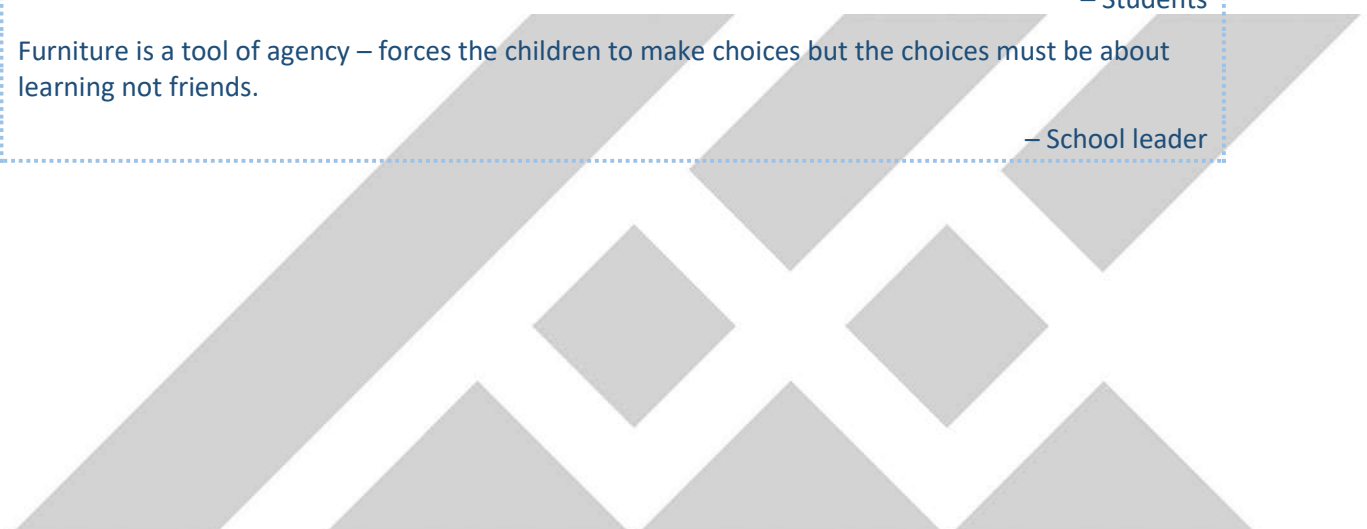
Students make purposeful use of learning spaces. They choose between different activities and work in groups, individually, in quiet areas, with or without teachers, using whatever tools are appropriate for the task.

[You] can chose to work alone, in own space if you want or need to be really focused.

– Students

Furniture is a tool of agency – forces the children to make choices but the choices must be about learning not friends.

– School leader





Most students confidently select and use the best tool for the job. If using a digital device they can explain clearly why and how it helps their learning.

Thanks to St

Clair's open learning space, students see children of all year levels engaged in learning. This makes their within-school transitions easier because they have already learned alongside older students and know what to expect.

School staff understand the importance of parents and whānau knowing what teaching their child is experiencing and what they are learning. Parents are warmly welcomed into the school to see how learning spaces are used and how action stations, learning hubs and passion projects are supporting the development of capable learners. Student-run curriculum assemblies also draw in and inform parents. When they know what is going on, parents become more engaged in their children's learning.

Till you see it, it's hard to get a real feel for what it was.

– Parent

Student outcomes

Students at St Clair are trusted and empowered to learn. Careful scaffolding of learning opportunities builds agency and develops in them the skills they need to take responsibility for their own learning. Students recognise that asking for help is a natural and often necessary part of the learning process. Indeed, they were quite surprised when asked if it was embarrassing to be singled out to work one-to-one with an adult.

It's OK to get help from an adult – we all need help at different times – lots help - including students helping the teacher.

– Student

With its emphasis on student agency, the school's **innovative learning environment** (FLS, teaching and learning, and culture) has supported students to develop persistence, collaborative skills and resilience. Because they are able to make choices about what they do, where they will do it, and for how long, they become actively engaged learners, strongly focused on their work.

We notice the change in the students' work focus – they are purposeful.

– Parent

We asked the students to tell or show us what helped them learn. They made some very insightful comments, most of which reflected what their school valued.



The Year 5 students from St Clair School who staged this photograph said

it shows we are all different, have different ways of thinking and can still work really well together, and learn from each other and help each other.

These students clearly demonstrated their understanding of collaboration and its importance for their learning.

A parent reported that her son had settled quickly into secondary school and that she put this down to the dispositions and confidence that he had begun to develop when at St Clair School. She felt that these were at least as important as being good at mathematics.

Ongoing evaluation and improvement

Ongoing evaluation for improvement is a feature of St Clair School. A major new initiative has been the development of MAP, a tool to help students think about their learning goals. MAP stands for Managing self, being Active in your learning, and Persevering.

Leaders told us that students immediately connected MAP with 'map', which they saw as a metaphor for learning. Just as a map shows you how to get from where you are to where you want to be, a learning goal can be visualised as a destination and challenges as mountains. Teachers have only just begun embedding the MAP tool across the school but they have already found it can be fruitfully applied to both academic and social goals.

Because they are continually reflecting on the effectiveness of their teaching strategies, teachers are able to respond nimbly to students' needs. For example, during reflection time, when students would normally be recording their progress and identifying where they would like help, a teacher noticed that one student was having difficulty with writing his ideas down. As a result, the quality of his reflections was very poor.

To support him, the teacher assigned him a learning assistant for reflection time. The first time he had the assistant he 'wrote' four pages of thoughtful reflection in which he identified areas of difficulty and frustration. One issue was that he had not been able to set his timetable using the classroom model. So the teacher modified the model for him and created a personalised curriculum, eliminating a major source of frustration and making learning more accessible for him. She also worked with him to improve his writing and problem-solving strategies. This teacher's response is not atypical. If students are not achieving as expected, teachers will always employ alternative strategies to engage them in their learning and enable them to succeed.

When evaluating the extent to which teacher practice is developing student agency, student voice is an important source of evidence. Teachers seek this evidence through surveys, written or oral reflections, and informal discussions. Leaders believe that as student agency increases so does the ability of students to articulate their learning. St Clair School recently entered into a collaboration with another local school and consultant that focuses on student agency. This collaboration, part of a [Teacher-led Innovation Fund \(TLIF\)](#) initiative, will provide ongoing data that will strengthen the two schools' evidence base and guide future improvement. To reduce the risk of bias, teachers will interview students from the other school.

Innovation is just a sensible part of school life.

– School leader



Pakuranga College

Key points

- Use of digital technologies to personalise learning
- Students able to access their learning online, anytime and anywhere
- Reciprocal learning: students give feedback on teacher practice.

Introduction

Seven years ago Pakuranga College set out on an e-learning journey that continues to this day as digital technologies bring about ongoing change in teaching practice and open up new opportunities for student learning and agency. The school's success in transforming teaching and learning can in large part be attributed to its open-to-learning culture. See the Ministry's [Educational Leaders](#) website for a description of how the school's leaders went about creating such a culture.

System changes

To focus on e-learning the school had to refine and align its systems. This meant:

- allocating resources differently
- introducing teacher inquiry, including goal setting
- providing professional learning and development (PLD) aligned to goals
- timetabling to enable curriculum initiatives
- providing greater opportunities to exercise leadership
- improving community engagement through the use of digital technologies.

The school views technology as another, albeit different and powerful, tool for learning. To ensure a robust infrastructure the board resourced provision of a reliable high-speed wi-fi network¹⁹, with the servers updated each year.²⁰ Teachers and students set goals for improving learning outcomes through the use of e-learning technologies.

In 2010, Year 9 students were invited to bring their own devices (BYOD) to school; using them in class was optional. Uptake was slower than school leaders had hoped for and teachers were not making effective use of the devices to transform learning.

By 2014, all Year 9 students were bringing a device to all subjects, and two years later BYOD was in place across Years 9 to 11. To ensure equitable access, options were made available to those needing financial support.

Developing teacher capacity

Senior leaders use a school-developed matrix to identify how successfully teachers are using technology to enhance learning. They then tailor PLD to individual teachers' needs. PLD is seen as a priority and a variety of strategies are used to support teacher learning. These include:

¹⁹ The school is connected to the [Network for Learning \(N4L\)](#) managed network.

²⁰ The board acknowledges that much of this funding comes from international students.

- the appointment of an e-mentor in each faculty area
- the appointment of coaches to improve the quality of [teaching as inquiry](#) cycles
- modelling the use of [Google docs](#) in staff meetings by getting teachers to contribute their ideas to a shared document
- sharing stories about classroom trials and explorations on devices at staff meetings and in blogs
- videos of e-learning in action and how-to videos for staff who miss out on or want to review material
- providing time for staff to visit classrooms and see e-learning in action
- running ‘nerd nights’ with one of the tech support staff
- providing pizza and refreshments at the end of after-school PLD sessions to encourage staff to stay and discuss what they have heard.

Curriculum and pedagogy

At Pakuranga College, technology is used for the purposes of delivering curriculum, giving feedback to students, clarifying expectations and engaging parents. Leaders are strategic about embedding e-learning as a means of personalising learning.

We believe that e-learning makes it possible for students (and teachers) to create, collaborate, share and differentiate their learning in a dynamic and innovative forum both within school and beyond.

– School leaders

As well as exploring how to effectively use digital technologies to enhance learning, some PLD has focused on integrating [Habits of Mind](#) into teaching. Teachers use split-screen thinking²¹ to plan the process of learning in parallel with the content of learning. For example, they share learning outcomes with students: ‘What we are learning about?’ as well as ‘What Habit of Mind are we developing?’ Habits of Mind learning complements the school’s emphasis on e-learning.

For two days each year – Discovery Days – the timetable is suspended for juniors while the seniors have mock exams. For these two days the juniors work in tutor groups on a student project of their choosing – one that addresses a local or global concern. Each student also nominates and works on a particular learning habit.

²¹ A strategy attributed to Guy Claxton.

The students thoroughly prepare for their Discovery Days project using a framework on Moodle²², planning guides, and rubrics that support them to reflect on where they are at with their key competencies. In this way, the students learn how to plan, retrieve and process information, create something, share, evaluate and then reflect on the process. These skills align with the school's vision and aims.

One of our core aims is to develop students who are equipped for the challenges of confidently contributing to society now and in the future.

– Principal

Student outcomes

Students learn to self-manage

Students like using digital technologies because they allow ready access to their learning and encourage creativity. Students value having resources and assignments available online wherever they are and whenever they want them. This means students are easily able to review work or catch up on material they missed, and they can make use of time that would otherwise be downtime – for example when commuting or at home sick.

Students use each other as resources, often using their year group's Facebook page to ask questions. Teachers are available to help, in the classroom or online, when other avenues have been explored.



Someone will know.

Everyone is willing to help.

– Students

²² Moodle is a free, open-source Learning Management System. There are costs related to hosting, installation, customisation and training.

Reciprocal learning

Students are taught everyday leadership skills from Year 9 and given opportunities to solve real-life problems. Over time they gain the confidence to be critical learners and to provide their peers and teachers with feedback, often online.

The students have developed a Pakuranga Effective Teacher Profile. They tell teachers what kinds of teaching will best support their learning, and as a result they have noted changes in practice. As teachers have empowered students and modelled what it is to be a learner, students have been increasingly motivated in their own learning.

Ako is embraced here. I am a learner. You are a learner. We are all learners together. When all are aboard, we are rowing together.

– Trustee



Mountview School

Key points

- Deliberate and early teaching of digital technology skills
- Use of student voice to evaluate the impact of practice
- A strong focus on equitably equipping students to succeed in a digital future.

Introduction

School leaders want their students to have equitable access to high-quality, 21st century teaching that is personalised to their needs. To this end the school's board of trustees has strongly supported well-researched initiatives and taken an active interest in how effectively these are being implemented. Concerned that access to technology could be an equity issue they found the resources to provide digital devices for all students at no cost to families.

Before 2012, the principal identified that 'too many' of the students at Mountview were not motivated to learn, and a considerable number were at risk of not achieving.

The principal was determined that things would change. She and her staff agreed that they needed to develop students as confident and capable learners, whose learning was culturally located and strongly supported by modern technology. If they could achieve this, the school would be equipping students for the future.

Play for the long game in the world as it is today, so kids don't miss out on the future.

Principal

School leaders recognised that they needed to teach differently if they were to engage students in their learning. As a result they decided to explore the potential of digital technologies while focusing also on developing a [growth mindset](#) and resilience in their learners.

System changes

The change process started in 2012 with professional learning and development (PLD) and the trialling of innovations.

School leaders found it important to begin by focusing PLD on the technical aspects so that teachers could use digital technology with confidence. Whole-staff PLD proved ineffective because it did not target teachers' actual needs. PLD was most effective when ongoing and regular.

As a result the board made provision for 16 hours a week of technical support, and one-to-one PLD for staff. These decisions have proven to be very effective in supporting change.

When recruiting new staff, school leaders learned that they had to challenge candidates to explain what they meant when they said they had digital classroom experience. What the school required was experience of teaching in classrooms where digital technology was completely integrated with learning (as in the senior classes at Mountview) but not many teachers had worked in this way.

Their next priority was to improve infrastructure to support the use of technology. The school purchased a digital device for every student in each of two classes. An external advisor was appointed part-time (0.2 FTE) to work alongside the teachers of these classes. Together the teachers and advisor used an inquiry approach to develop pedagogy and practice that would maximise the effectiveness of the devices for learning.

The principal undertook a research-based inquiry, 'Implementation of 21st century learning – digital classrooms', which also involved exploring how to be an effective principal in this day and age.

In 2013 the two digital classes moved into flexible learning spaces (FLSs), and two additional classes joined the trial. Each of these students was also supplied with a device. Shared touch devices were bought for students in Years 1–3. The focus in the junior school was less on digital learning and more on raising oral language levels, developing collaborative skills, and establishing goal-setting strategies.

In 2014, all teachers were given [Office 365](#) and had PLD to enable them to engage in the [Microsoft community](#).

By 2015 all students in Years 5–8 had tablets, all teachers were participating in ongoing workshops and PLD about e-learning, and the original two teachers were now coaching and mentoring other teachers.

The use of the devices alone will not change achievement. Sound pedagogy overrides the devices and the environment.

– Principal

At the end of each year school leaders evaluated progress and refined their plans accordingly. This process gave the board confidence that resources were being used effectively.

By 2016 the use of devices had become normalised in Year 5–8 classrooms and the focus shifted onto pedagogy that promoted student agency and student-led learning.

In the latter part of 2016 and early 2017, the school continued to push ahead with the conversion of its traditional classrooms into FLSs. By this stage all students in the school had a device, and a substantial part of the curriculum was being taught via digital technology.

Constant review informs the development and utilisation of technology. It doesn't stand still.

– Principal

Teachers have observed a significantly positive impact on engagement, especially for boys, but the time spent on devices has reduced the opportunities that students have to talk with one another and build their oral language vocabulary. In response to concern about oral language skills the school has now pulled back somewhat on the use of digital devices

It's good to take risks, but fail fast and move on.

– Principal

Curriculum and pedagogy

Learner-centred pedagogy

Teachers have developed a curriculum framework that effectively outlines expectations for teaching and learning, providing clear guidelines to be followed. Inquiry learning features strongly. Teachers gather and use achievement data, plan collaboratively, and are responsive to student needs.

The advent of FLSs has highlighted the importance of teachers working together and ensuring consistency of approach and expectations. Teachers told us they had to be ‘in tune with the same pedagogy’ and communicate ‘like in a marriage’.

I used to do all my planning for the term in the holidays. Now planning includes my students. It was a bit scary to start with but so much more responsive now.

– Teacher

Teachers have rubrics for each of the **key competencies**, which describe the minimum expectations for students at each year level. Teachers explicitly teach the competencies and use approaches that promote learning how to learn. These strategies are helping students develop independence in and a positive attitude towards their learning.

Use of digital technologies

The use of digital technology is now integrated across the curriculum and enhances students’ education. Students make good use of exemplars to guide their learning. The school’s curriculum for reading, writing, mathematics and the key competencies is published online in student-friendly language, so that the students can learn to set achievement goals and identify progress.

Teachers were once the imparters of most content knowledge but the internet now gives students direct access to a greatly expanded world of information. If they are to make the most of this resource, teachers must teach them how to approach it critically, evaluating the trustworthiness of sources and comparing what they find online with what they already know and with other, more traditional sources of information.

Leaders assumed that students would naturally know how to carry out learning tasks on their devices. They soon discovered that this was not so and that they needed to explicitly teach basic skills such as copying and pasting. So they developed a digital skills continuum as an assessment tool. Teachers begin teaching the skills on the continuum in Year 2 to ensure that all students can fully access the digitised elements of the curriculum.



ERO saw students confidently using their devices. Some were engaged in a **Mathletics** game, competing against other students from all over the world to solve equations. While other students worked in self-directed groups, teachers were leading seminar-style lessons with small groups, using a projector to share their laptop screen.

Students regularly gave each other constructive feedback on their work. They told us also that they were engaged with their work, had a good understanding of what was expected of them, and appreciated being able to refer back to material online. They were unanimous that they could do better work with than without their devices.

We just do more work.
 It makes us smart.
 I write more and better.
 It's fun.
 It feels easier because it occupies us.

– Students

Student outcomes

The students make good use of rubrics to identify their progress in literacy and numeracy, figure out what they need to do next, and set meaningful goals.

We use our learner goals to get better and better at stuff
 They help us to learn more.

– Students

My writing goals Term 2, 2016 (After 2 years)

Plan my ideas before I write.	Use my planning when I craft my writing.	Write ideas and use words that relate to my topic.
Add some detail in my ideas.	Write my ideas so they are interesting to read.	Use the right text structure for recount, description or report.
Show simple sequencing.	Use adjectives, nouns, and words correctly in my writing and in different ways.	Use words and phrases I know in my writing.
Explore new and interesting words.	Write simple and compound sentences.	Change the way I begin sentences.
Use joining words to join two sentences together, e.g. and, but, because.	Spell unknown words by using my knowledge of sounds that sound the same but are written different (e.g. Photo, laugh, Friday)	Write unknown words by using sounding out, words that look or sound similar, using chunks and rimes I know.

Learning at Mountview is visible. Achievable learning goals are set, with tasks and success criteria co-constructed by teachers and students. Students are shown examples of low- and high-quality work so that they know what quality looks like and what is required.

Feedback helps us a lot. It helps us fix things up. We all know about feedback and how to give feedback.

– Student

Students understand themselves as learners.

We learnt how our brain works. We should never give up. When you're working hard you make neurons in your brain. If you give up your brain gets lazy.

– Student

Students are able to talk about their learning from an early age. We asked some Year 3 students to describe what helped them learn or how they approached problem solving.

One student said, 'We don't get much instructions – problem solving promoted but not left to own [sic], just not spoon fed. Sometimes we work it out on our own or partner up. Then we share it back together.'

Another explained, 'We use our knowledge by remembering what we have learnt in the past and all the strategies to figure out the stuff we are going to learn in the future.'

Ongoing evaluation and improvement

The school has a well-developed system for collecting and analysing [student voice](#) data, which leaders see as the most powerful feedback that teachers can obtain and as evidence that when students seem engaged they are actually engaged in learning.

Leaders conduct videoed interviews with students in which they ask them questions designed to elicit how well they understand what they are learning. With the help of a rubric, leaders assess the students' understanding. The videoed interviews then become the subject of professional learning conversations with teachers.

School leaders have strong links with the local iwi and work with them to meet the objectives of the iwi education plan.

The modern [innovative] learning environment, with its broader understanding of success, is more like a marae and better suits the learning of Māori students.

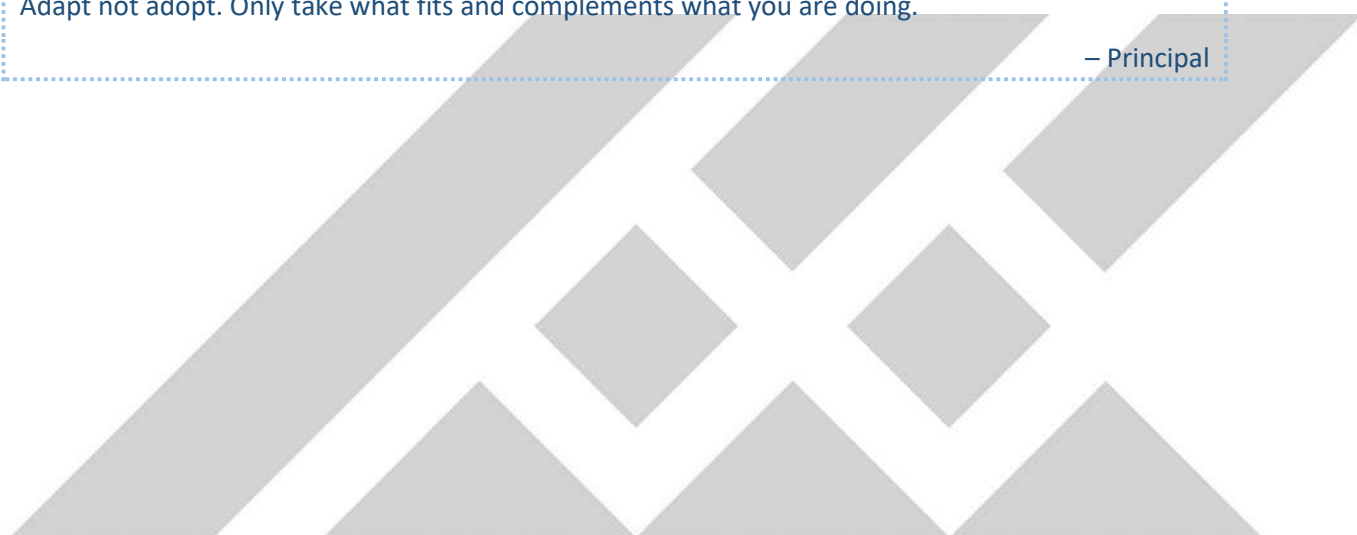
– Māori teacher

The school is also a member of a [Community of Learning | Kāhui ako \(CoL\)](#) that aims to progress [innovative learning environments](#) by focusing on pedagogical practice, ensure consistency of achievement information across participating schools, and smooth educational transitions for the young people of Taupō. Being able to share experiences and discoveries will be a very important part of belonging to the CoL.

We can see using PaCT formatively, making it fit with what we do and for the needs of our kids. We hope to have it in use across the Community of Learning for consistency.

Adapt not adopt. Only take what fits and complements what you are doing.

– Principal



Raroa Normal Intermediate School

Key points

- Many different types of spaces, utilisation driven by student needs and staff capabilities
- Design Production Engineering (DPE) supports development of student agency and self-efficacy
- Just-in-time learning for students to support engaging and relevant projects.

Introduction

A particular strength of Raroa Normal Intermediate's curriculum is the development of student agency through its design production education (DPE) programme. This approach, now also integrated across other curriculum areas, exemplifies the school's 'aspire2achieve' vision and values.

System changes

The school has a range of different learning spaces. Some were originally single-cell classrooms that are now linked via transparent, soundproof doors. Newer classrooms are modular, extendible and transportable. The fit-out of new buildings aligns closely to the learning needs of students and to teacher capabilities and resources.

A common area, the 'learning street', links the different technology classrooms. Students move fluidly between classroom and learning street, working individually or in groups. There is much activity but students are focused and on task. Teachers are mobile and able therefore to provide advice and explicit teaching as required.

School leaders find that the flexible learning spaces (FLSs) promote open teacher practice and require closer collaboration around planning and pedagogy. The school experimented with team teaching (four teachers across four classrooms) but found that teaching in pairs worked better. Leaders note that teachers are more reflective when working collaboratively. As they become aware of learning needs they target the students concerned and run focused teaching clinics.



Curriculum and pedagogy

Teachers plan collaboratively and assume collective responsibility for the larger group of students.

You work as a team so you work at work and home is home.

Work is intense – but in a good way. It's full on and it's fun.

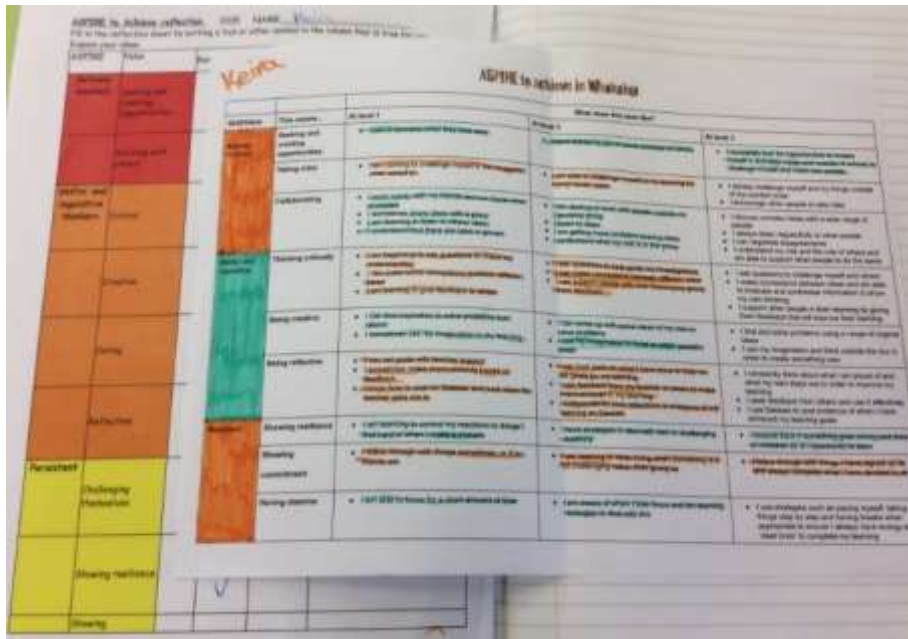
We are more affirming of each other.

– Teachers

Students are given carefully planned frameworks and clear expectations; they are also given the flexibility to decide how they will meet those expectations, and space to manage their own time.

I can set my timetable on my own. We set and organise our own priorities. We usually plan for the whole week and relook at it each morning. You have your goals for writing, maths, and reading. You look for a workshop at your level – you opt into that. Everyone plans this way – some get extra support.

– Student



Teachers keep a careful eye on students’ progress and guide them in their goal setting. As necessary, they direct students to workshops or clinics that will fill gaps or strengthen skills.

Rubrics help students identify progress and areas in need of improvement. Students are given opportunities to exercise choice and make decisions about their learning.

Students have access to a variety of devices to support their learning. They choose tools with discernment and are confident with their choice.

Sometimes pen and paper are the best to use.

We use lots of devices – do our work on devices. Some are school owned and some are BYOD.²³ Laptops, iPads, computers – all have their own benefits and drawbacks. We use them a lot – everyone gets a fair turn.

– Students

²³ Bring Your Own Device.



Design production education

The DPE process is designed to engage students in areas that are relevant to them, and as they develop a product, boost their skills. Students are expected to follow an entrepreneurial pathway, complete with rapid prototyping.

Students are given a broad title for their DPE work and it is for them to choose a specific focus based on what interests them. For example, given a design project called 'Changing behaviours', one group decided their focus would be 'Changing behaviours using fun theories'.

Students pace themselves through the life of a project. They put their names on a wall chart of the DPE process and move them along as they move from one stage to the next. They can easily see if they are falling behind their peers and this helps them manage their work rate. The teacher monitors the display, touches base with students to ensure that they are making appropriate progress, and provides support as needed.





At the start of a DPE project students brainstorm ideas. This stretches their thinking about what to explore and what to include.

The students choose the level they want to work at: anywhere from 'apprentice' to 'expert'. After nine weeks they share their findings with their parents. This opportunity adds value to their learning and motivates them to produce work they are justifiably proud of.

We have a timeline for DPE and use a DPE Google doc to record our progress by using photos. You don't speed but take your time because you want to do it well. The teacher conferences you at each stage.

– Student



Effecting change

The school leaders we spoke to all agreed that there is no silver bullet that will effect a paradigm shift in school culture or in teaching and learning. School improvement is necessarily complex, and changes need to be carefully managed if they are to succeed and be sustainable.

Leaders highlighted various challenges they had faced when leading change in their schools, and they told us what they had found helpful in addressing them.

Personnel challenges

Managing change

Some teachers were resistant to change, not initially seeing the need for it or understanding how it would help their students. Others had concerns about sharing their practice, planning collaboratively, or being open to professional scrutiny. Many were concerned they were losing control of 'their' class and that students would get lost if they moved to a larger, shared space.

Effective strategies schools were adopting

For understanding effective practice:

- Use research and examples of good practice from your own school or other schools (for example, in a Community of Learning | Kāhui Ako).
- Unpack what student agency really means and why it is critical; share ways to develop it.
- Clarify what shifting the locus of control from teacher to students means. Giving students control is not the same as losing control. Explore the big difference between 'letting' and 'letting go'.
- Address concerns that at-risk students will get lost. Collective responsibility for learners means there are more sets of eyes on them, supporting, scaffolding and encouraging learning. Many schools reported fewer behavioural issues in flexible learning spaces (FLSs).
- Explore the value of collaborative planning. Instead of doing all planning well in advance work with others to be responsive to students' needs. Be adaptable and flexible.

Teaching is more intense at school as we work together but I'm getting back more of my weekends – improved work-life balance.

– Teacher

For working with teachers:

- Have clear and manageable expectations.
- Keep sharing and discussing research – it is motivating.
- Have teachers talk about their practice.
- Monitor buy-in as the school moves ahead; make sure the majority is with you.
- Be mindful of the **emotional impact of change** and support people as necessary.
- Encourage teachers to be innovative. It is okay to try new things provided their impact is monitored. If an initiative does not work, learn from it. Whether it works or not, share the learning with others.
- Ask questions of teachers and let the answers and solutions come from them.

Relationships

School leaders recognised that relationships were vitally important, even more so in a collaborative working environment. Individual interests could get in the way of team dynamics and professionalism.

Effective strategies schools were adopting

For teacher relationships:

- Establish a trusting, professional school culture where there is no blame, only a shared desire to improve outcomes for students.
- Leaders and teachers model how to be learners.
- Draw parallels between the collaborative practice required of teaching teams and the way students are expected to work.
- When working in a team environment, each teacher takes ultimate responsibility for the pastoral care and related administration of a group of the shared students. Parents can make contact with this teacher in the first instance.

Appointing the right people

Some leaders had difficulty sustaining change when new appointments joined the staff.

Effective strategies schools were adopting

When selecting new staff take time to get the appointments right. Possible strategies include:

- looking for teachers who are team players and have a [growth mindset](#)
- clearly stating your expectations as to how teachers should go about planning and teaching
- changing aspects of the appointment process if you need to
- observing candidates teaching to ensure they can walk the talk
- checking their pedagogy, especially if coming into a digital classroom or FLS, as these mean different things to different people
- Getting prospective teachers to interview the appointments panel.

If you don't want to learn and you don't want to be challenged, don't come here, you won't cope.

– Principal

Coherence and alignment challenges

Changing teaching and learning had flow-on effects, so schools often had to take a close look at other things too; for example, how they organised their days, provided opportunities for teachers to plan together, used staff meetings, managed PLD and appraisal, structured classes, and organised and utilised spaces. They also needed to review network provision, software and systems, and what furniture and alterations to physical spaces were required. Only then could they decide resourcing priorities.

Effective strategies schools were adopting

Involve your teachers in decisions and subsequent changes.

- Work with staff to explore aspects of the school where changes would enhance teaching and learning; this develops understanding and ownership.
- Keep the focus of meetings on teaching and learning rather than administrative tasks.
- Make sure that expectations are clear and agreed upon. For example, ensure that all teachers in a team-teaching environment know the students (their interests, strengths and needs) so that the best person is always working with each student.

Community concerns

Leaders found that it could be a challenge to get the pace of change right for the different parts of the school community. Most parents and whānau had experienced schooling that was very different to the education their children were experiencing. Like many teachers, parents were often concerned about how the children (especially those at risk of poor achievement or with special learning needs) would manage in an FLS.

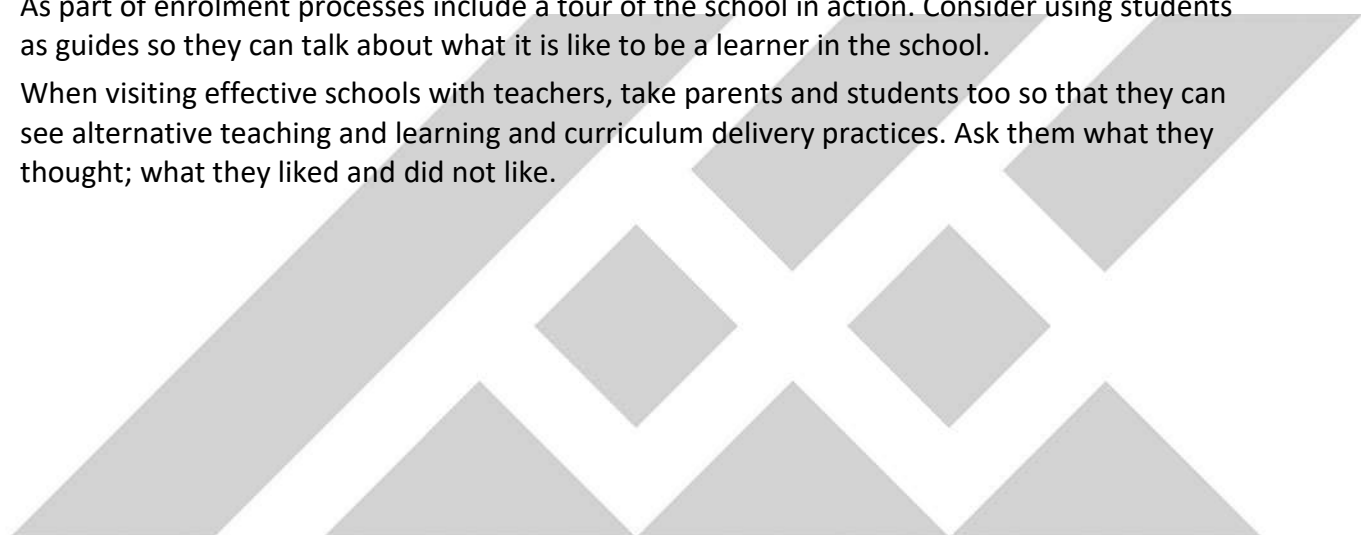
Effective strategies schools were adopting

Leaders suggested the following strategies when planning change:

- Carefully consider all possible barriers to change. Address as many of these as you can ahead of time so that hesitant teachers and sceptical parents have positive experiences.
- Pay particular attention to providing for the social, spatial and acoustic needs of students with special learning difficulties. For example, when planning an FLS, consider a welcoming retreat area to which autistic students have priority access when in need of some quiet time.
- Carefully monitor how at-risk students are engaging in and achieving in class. They may actually benefit from having the attention of more than one teacher.
- Keep the change process moving: not so slow as to lose momentum or so fast as to be difficult for people to accept or adapt to.

Strategies for bringing parents and whānau with you:

- Keep communications with the school community simple and frequent. Repeat key messages often and in different ways.
- Run workshops for parents; sometimes get students to lead them.
- Hold open days so parents and whānau can see teaching and learning in action.
- As part of enrolment processes include a tour of the school in action. Consider using students as guides so they can talk about what it is like to be a learner in the school.
- When visiting effective schools with teachers, take parents and students too so that they can see alternative teaching and learning and curriculum delivery practices. Ask them what they thought; what they liked and did not like.



Advice from school leaders

We asked school leaders what strategies they would suggest to other leaders who were embarking on a major improvement journey. We also asked them to identify the likely positive impacts of their suggested strategies: for the adults concerned (teachers, leaders, parents, whānau), and for the students.

Vision

Develop a clear, future-focused vision that will provide direction for the school community. Involve everyone in its development so that they buy into it and it becomes an integral part of the curriculum.

Adults redefine success as more than literacy and numeracy or NCEA achievement levels.

Parents and whānau understand the need for future-focused teaching and learning.

Students learn the importance of the school values and enact them.

Students understand what skills and attitudes they need to be a good learner and become aware of themselves as learners.

Students experience the breadth and depth of the New Zealand Curriculum.

Professional Learning

Make professional learning and development (PLD) a priority and time it carefully.

– Principal

Target PLD at changing teaching and learning: working collaboratively, using digital technologies effectively, maximising the opportunities presented by flexible learning spaces (FLSs), understanding how learning takes place, and developing student agency.

Changes need to be driven by what's good for the students. We've seen a lot of modern learning environments but old pedagogy. That doesn't work.

– Principal

Teachers have professional discussions about student progress and take collective responsibility for their students.

Teachers use digital technology powerfully to extend learning.

Teachers come to trust their students to be responsible for themselves as learners and cease micro-managing them.

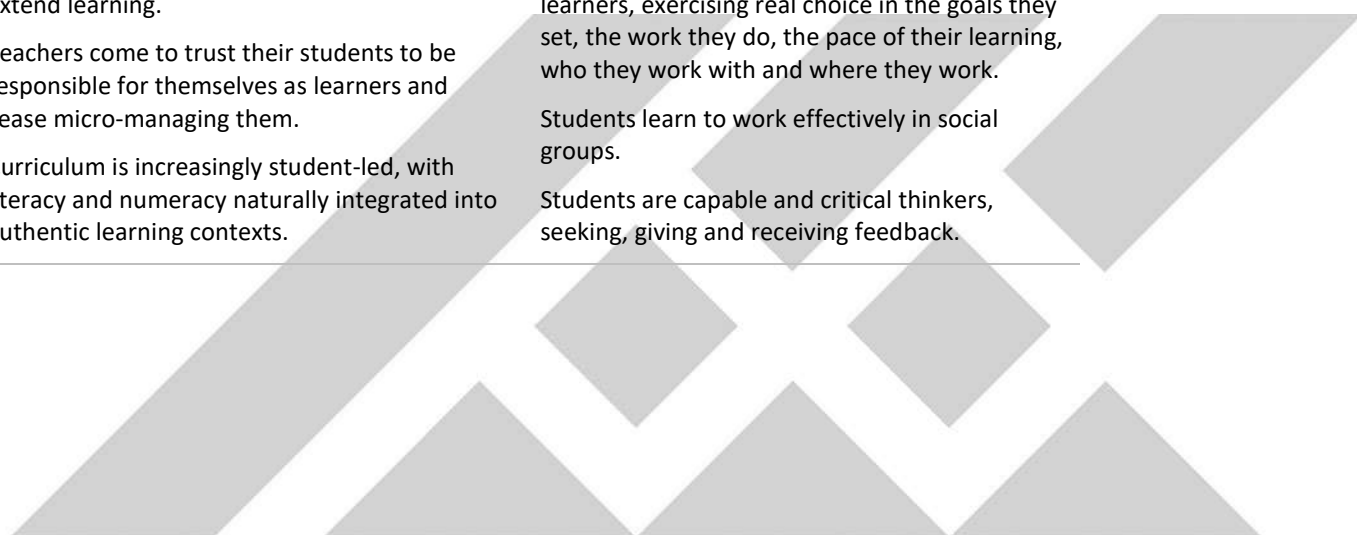
Curriculum is increasingly student-led, with literacy and numeracy naturally integrated into authentic learning contexts.

Students experience a curriculum that is relevant to them, meets their needs, and values what they bring to their learning.

Students take responsibility for themselves as learners, exercising real choice in the goals they set, the work they do, the pace of their learning, who they work with and where they work.

Students learn to work effectively in social groups.

Students are capable and critical thinkers, seeking, giving and receiving feedback.



Expectations

Expectations need to be clearly defined within a permissive framework. Make innovation and personalised learning possible, and empower learners both young and old. Developing minimum expectations makes changes manageable for teachers.

Adults model expectations for behaviour, collaboration and lifelong learning, and they model professional integrity.

Teachers have clarity about the outcomes required and can therefore plan for their students, utilising their own teaching strengths or those of the team.

Teachers are encouraged to take risks, to be creative and innovative; change gathers momentum as social contagion spreads.

Students learn by observing their teachers in action and develop mutually respectful learning partnerships.

The school culture enables students to take risks, to be creative and innovative.

Students know what is expected of them as learners.

Students monitor their own achievement and their development as learners.

Students collaborate; they reflect on and learn from mistakes and each other.

Research

Do your research and communicate regularly and well – with everyone.

Senior leaders share their knowledge, taking time to bring their community with them. Teachers, students, parents and whānau see the reasons behind changes being made.

Parents understand and can support their children in their learning.

Teachers trust the transparency of processes.

Research and sharing practice excite teachers and motivate them to make things happen differently in their classrooms.

Opening up conversations enables concerns to be aired and beliefs to be challenged.

Students develop powerful learning partnerships with their teachers, parents and whānau, becoming capable, confident learners who play a part in their community.

Students' ideas and choices are respected and acted on.

Students are comfortable seeking or receiving help.

Being trusted, students become trustworthy.

We try harder. We're better organised.

– Student

Flexible learning spaces

Plan for flexible learning spaces.

Teachers can choose the physical environment that most suits the way they are working with individuals or groups of students.

Students exercise choice in what furniture they use, and where and with whom they work. They can work collaboratively, or independently in a quiet space, as they prefer.

Review

Constantly review and refine innovations. Keep asking ‘Why?’ and ‘Is it working?’

School **leaders and teachers** are flexible and adaptable, responding to identified triggers for change.

School **leaders and teachers** are able to focus on teaching and learning as processes (including administrative processes) and the curriculum are refined.

Teachers constantly inquire into their practice, reviewing its impact on student outcomes and making adjustments as necessary.

Students’ learning benefits from the energy being directed at high-quality teaching.

Students see teachers adapting, learning from mistakes, and refining practice; they learn from this modelling.

Digital learning

Ensure that the digital technology infrastructure is robust and that all students have equitable access to digital devices so that no one is disadvantaged in their learning.

Teachers are confident to trial the use of technology in learning when the risk of system failure is reduced.

Teachers can plan, knowing that all students have appropriate devices.

Teachers make good use of cloud-based systems for collaboration, to manage learning and planning.

Students can rely on the system, enabling them to share and extend learning.

Students can access learning material anytime and anywhere, as it suits them.

Frustrations are reduced and resilience encouraged.

Senior leaders in one college have learned many lessons while working to implement an innovative curriculum that emphasises the use of digital devices as tools for learning. Their journey is currently in its early stages as they build teacher capacity and consistent practice across the school.

Factors identified by **teachers** as important for promoting digital learning include:

- working with teachers to get buy-in for digital learning and building their capacity to use devices effectively with their students
- having professional learning groups to support and encourage teachers to reflect on and change their practice
- using digital learning and digital citizenship lessons to promote the key competencies as a part of the curriculum
- connecting with the local community so that learning can be set in the context of local issues

Students commented on how the use of digital devices had impacted on their learning.

Docs are more accessible. Can see exemplars.

Easier to do your work.

When we didn't have Google docs, it was harder to work from home.

Depends on how you want learn.

Depends on the teacher.

Benefit is that we can edit our work.

Teachers can help you straight away.

- taking the community with you and enhancing a sense of accountability to the community
- promoting ako – we are all learners, learning from each other.

[It's] more individual, you have to be accountable.

– Aorere College students



Appendix 1: Methodology

ERO visited a group of [12 schools](#) to see how they were addressing the challenge of teaching modern students. These schools were selected because they were known to be exploring ways of using *The New Zealand Curriculum*, digital technologies and modernised infrastructures to educate their students for future success. While the sample is too small to be representative of every type of school, the included schools are all very different.

We deliberately did not include schools whose stories had already been widely publicised or who had participated in other ERO national evaluations. Some of the schools we approached declined the invitation to participate. In the end, our sample consisted of six primary, two intermediate, and four secondary schools. We visited all the schools in Term 2, 2016 and revisited some in Term 1, 2017 to capture ongoing developments.

We focused on what was happening for the students: Was the teaching and learning effectively addressing the challenge of preparing today's learners for the world they will encounter?

We asked each school to tell us the story of their journey:

- Why they started
- How they set the conditions for success
- What informed their decisions
- How they managed change
- What difference it had made (for example, to teaching and learning, use of spaces and digital technologies, and student outcomes).

Leaders told us about the challenges they had faced and how they overcame them, and they offered advice to other leaders who were embarking on major change.

We looked at each school's [internal evaluation](#) processes and made a judgment on their strength. We also made a judgment of each school's strength in relation to the seven domains of ERO's [School Evaluation Indicators](#).

We are grateful to the 12 schools for allowing us to visit, listen, and see what they were doing. We appreciate the time they gave us and honour their drive to do the best for their learners. Although we have been unable to tell every story, or tell it in detail, all 12 schools have contributed in important ways to the findings in this report.



The schools in the sample

School (type, size, location and decile)	School roll (as at 1 July 2016)					
	Māori	Pacific	Asian	Other	Pākehā	Total
Golden Sands School, Years 1–6 (new build, medium, secondary urban, decile 9).	109	3	10	49	292	463
Mountview School, Years 1–8 (small, primary urban, decile 1).	203	12	5	2	48	270
Ngatea Primary School, Years 1–8 (small, minor urban, decile 6).	21	5	6	8	233	273
St Clair School, Years 1–6 (medium, urban, decile 8).	65	8	17	10	318	418
Wakefield School, Years 1–6 (small, rural, decile 8).	31	5	6	3	215	260
Welcome Bay School, Years 1–6 (small, urban, decile 4).	168	16	6	3	127	320
Auckland Normal Intermediate, Years 7–8 (medium, urban, decile 9). Total includes 21 international fee-paying students.	30	24	331	19	275	700
Raroa Normal Intermediate School, Years 7–8 (medium, urban, decile 10).	67	22	133	21	429	672
Aorere College, Years 9–15 (large, urban, decile 2). Total includes 6 international fee-paying students.	338	814	360	4	18	1540
Ormiston Senior College, Years 11–15 (new build, medium, urban, decile 7). Total includes 13 international fee-paying students.	30	27	306	39	72	487
Pakuranga College, Years 9–15 (very large, urban, decile 7). Total includes 207 international fee-paying students.	227	153	662	78	864	2187
St Thomas of Canterbury College, Years 7–15 (medium, urban, decile 8, integrated, single sex, boys). Total includes 18 international fee-paying students.	104	58	39	9	372	600

Investigative questions

Student outcomes

What are the student outcomes valued by you and your school community?

How do you work with your students to develop these outcomes?

How do you know how well students are doing?

How do students, their parents and whānau know how they are doing?

Modern New Zealand learning and teaching

How do you identify and support students who are not thriving as learners or who are at risk of not achieving?

How do you go about planning, implementing and evaluating effectiveness of practice (giving due consideration to cultural responsiveness, authentic contexts, accelerating achievement and meeting students' needs)?

How has the use of digital technologies extended learning? What does this look like?

How do students demonstrate understanding of and taking responsibility for their own learning?

Change management

What key changes were made in the school curriculum that helped to achieve the vision for students?

How were innovations introduced?

How do school systems support the development of valued student outcomes?

In what ways have changes to the physical environment (flexible learning spaces) enhanced modern learning practices?

How does the board know about innovations and their effectiveness?

Community engagement

What does this look like? How do you go about establishing learning partnerships?

How do you ensure any innovations serve, respect and respond to the students' interests, strengths and needs, and the aspirations of the school community?

How do you involve parents in the innovations, engage them in the pedagogy in the school, and work with them as partners in their children's learning and progress?

How is information about students shared when they transition from early childhood education to school or between schools?

How is your school working with others in the local learning community?

Support and advice

What kind of support was/would be useful to you?

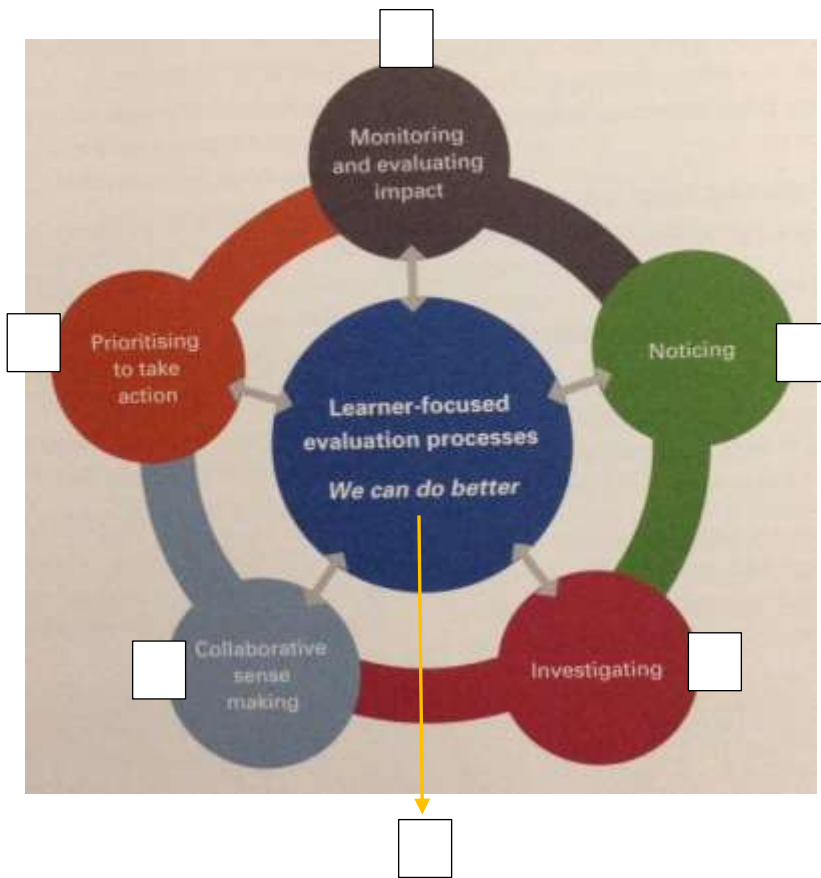
Were there any barriers to success? What were they and how did you address them?

Do you have advice for other school leaders?

Were there any unexpected consequences or bonuses?

Tool for gauging the strength of internal evaluation processes

We used this model to help us analyse which aspects of the inquiry processes were emphasised in each school’s story (Education Review Office, 2015).

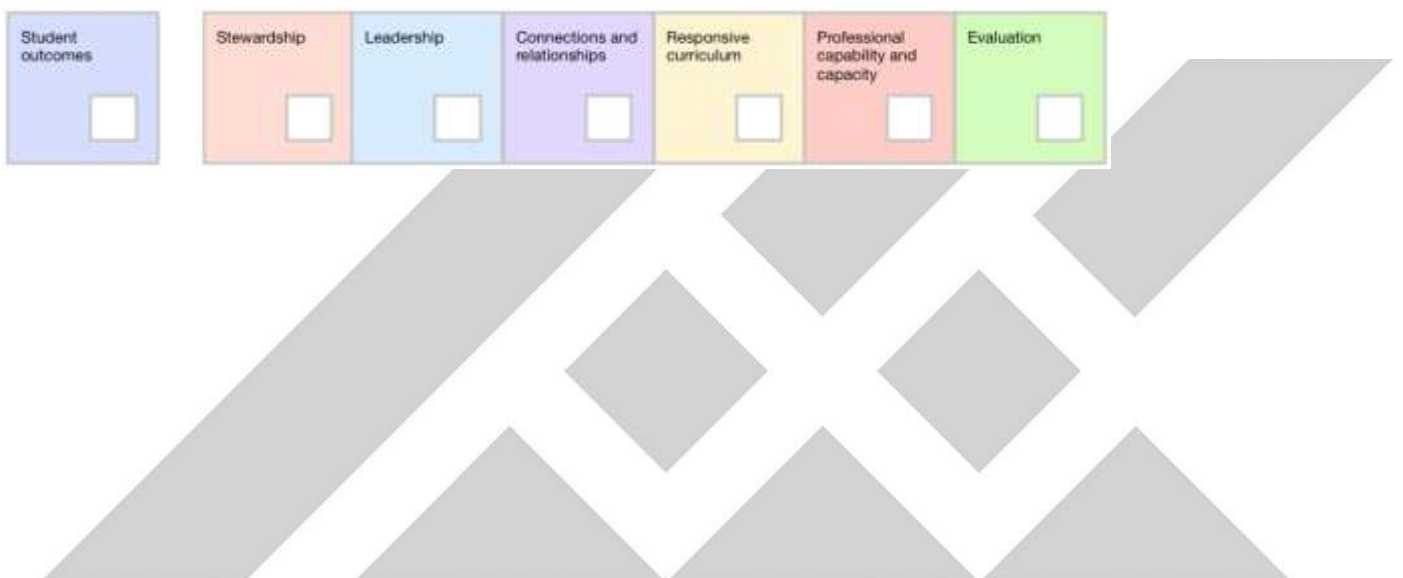


Note that the evaluations conducted for this report were not full ERO reviews so judgments were based only on what was found in the course of inquiring into effective practice.

Reviewers noted how strong each feature (aspect of inquiry process or indicator domain) was in the school

Tool for recording estimates of strength across domains

We used this tool to record the school’s strength in each domain and show consistency overall.



Appendix 2: OECD ILE project²⁴

The eight basics of motivation

Students are more motivated to engage in learning when:

1. they perceive stable links between specific actions and achievement
2. they feel competent to do what is expected of them
3. they value the subject and have a clear sense of purpose
4. they perceive the environment as favourable for learning, and
5. they experience positive emotions towards learning activities.

Students:

5. direct their attention away from learning when they experience negative emotions
6. are more persistent in learning when they can manage their resources and deal with obstacles efficiently
7. free up cognitive resources for learning when they are able to influence the intensity, duration and expression of their emotions.

The seven principles of learning

This project has explored the nature of learning through the perspectives of cognition, emotion and biology, and provided analyses of the implication for different types of application in learning environments. The research was synthesised to create seven transversal ‘principles’ to guide the development of learning environments for the 21st century.

Learners at the centre

The learning environment recognises the learners as its core participants, encourages their active engagement and develops in them an understanding of their own activity as learners.

- Learners are *the* central players in the environment and therefore activities centre on their cognition and growth.
- Learning activities allow students to construct their learning through engagement and active exploration.
- This calls for a mix of pedagogies, which includes guided and action approaches, as well as co-operative, inquiry-based and service learning.
- The environment aims to develop ‘self-regulated learners’, who:
 - develop meta-cognitive skills
 - monitor, evaluate and optimise the acquisition and use of knowledge
 - regulate their emotions and motivations during the learning process
 - manage study time well
 - set higher specific and personal goals, and are able to monitor them.

²⁴ Sourced directly from: Dumont, H., Istance, D., & Benavides. (2010). *The Nature of Learning: Using Research to Inspire Practice*, Centre for Educational Research and Innovation, OECD, Paris.

The social nature of learning

The learning environment is founded on the social nature of learning and actively encourages well-organised co-operative learning.

- Neuroscience confirms that we learn through social interaction – the organisation of learning should be highly social.
- Co-operative group work, appropriately organised and structured, has demonstrated very clear benefits for achievement as well as for behavioural and affective outcomes. Co-operative methods work for all types for students because, done well, they push learners of all abilities.
- Personal research and self-study are naturally also important, and the opportunities for autonomous learning should grow as students mature.

Emotions are integral to learning

The learning professionals within the learning environment are highly attuned to the learners' motivations and the key role of emotions in achievement.

- Learning results from the dynamic interplay of emotion, motivation and cognition, and these are inextricably intertwined.
- Positive beliefs about oneself as a learner in general and in a particular subject represent a core component for deep understanding and 'adaptive competence'.
- Emotions still tend to be regarded as 'soft' and so their importance, though accorded in theory, are much more difficult to be recognised in practice.
- Attention to motivations by all those involved, including the students, is about making the learning first and foremost more effective, not more enjoyable (though better still if it is both).

Recognising individual differences

The learning environment is acutely sensitive to the individual differences among the learners in it, including their prior knowledge.

- Students differ in many ways fundamental to learning: prior knowledge, ability, conceptions of learning, learning styles and strategies, interest, motivation, self-efficacy beliefs and emotion; they differ also in socio-environmental terms such as linguistic, cultural and social backgrounds.
- Prior knowledge – on which students vary substantially – is highly influential for how well each individual learns.
- Learning environments need the adaptability to reflect these individual and patterned differences in ways that are sustainable both for the individual learners and for the work of the group as a whole. Moving away from 'one size fits all' may well be a challenge.

Stretching all students

The learning environment devises programmes that demand hard work and challenge from all but without excessive overload.

- Being sensitive to individual differences and needs also means being challenging enough to reach above their existing level and capacity; at the same time, no one should be allowed to coast for any significant amount of time.
- High-achieving students can help lower-achieving students, which helps stretch all learners.

- This underscores the need to avoid overload and de-motivating regimes based on grind, fear and excessive pressure – not just for humanistic reasons but because these are not consistent with the cognitive and motivational evidence on effective learning.

Assessment for learning

The learning environment operates with clarity of expectations using assessment strategies consistent with these expectations; there is a strong emphasis on formative feedback to support learning.

- The learning environment needs to be very clear about what is expected, what learners are doing, and *why*. Otherwise, motivation decreases, students are less able to fit discrete activities into larger knowledge frameworks, and they are less likely to become self-regulated learners.
- Formative assessment should be substantial, regular and provide meaningful feedback; as well as feeding back to individual learners, this knowledge should be used constantly to shape direction and practice in the learning environment.

Building horizontal connections

The learning environment strongly promotes ‘horizontal connectedness’ across areas of knowledge and subjects as well as to the community and the wider world.

- A key feature of learning is that complex knowledge structures are built up by organising more basic pieces of knowledge in a hierarchical way. If well-constructed, such structures provide understanding that can transfer to new situations – a critical competency in the 21st century.
- The ability for learners to see connections and ‘horizontal connectedness’ is also important between the formal learning environment and the wider environment and society. The ‘authentic learning’ this promotes also fosters deeper understanding.

Questions exploring the seven principles of learning²⁵

- Learners at the centre
- Can learners answer the question, ‘Where are you going with your learning?’
- Can they describe in their own words what they are learning – and why what they are learning is important?
- Can they use a range of ways to demonstrate their learning?
- Can they self-manage independent learning times?
- Are they able to set specific learning goals and construct their learning through active exploration?
- The social nature of learning
- Do learners demonstrate the kinds of social and collaborative skills needed for teamwork, citizenship and the workplace?
- Emotions are central to learning
- Can each learner name at least two adults in the setting who believe s/he will be a success in life?

²⁵ Sourced directly from: Timperley, H., Kaser, L., and Halbert, J. (2014) *A framework for transforming learning in schools: Innovation and the Spiral of Inquiry*. CSE Seminar Series Paper No. 234. Melbourne, Australia.

- To what extent are learners able to monitor and manage their own emotions?
- Recognising individual differences
- Do learners feel their teachers know their individual strengths, interests and passions?
- Do they believe their teachers know and understand what they find difficult or challenging?
- Are the prior knowledge and cultural backgrounds that learners bring to the setting respected, valued and utilised?
- Stretching all students
- Are the learners, regardless of their age, able to teach someone else and are they able to make a contribution to the community as a whole?
- Are all learners experiencing demanding, engaging and challenging work without excessive overload?
- Assessment for learning
- Can learners describe what quality looks like – and how they are doing with their own learning?
- Are learners confident and comfortable in both giving and receiving feedback with their peers, based on co-constructed criteria?
- Building horizontal connections
- Can learners see and understand the connections across content areas?
- To what extent can learners connect with and learn from the broader environment – and from members of their community?



Appendix 3: Learner voice: Participation

Learner voice: A handbook from Futurelab provides some excellent questions to help leaders reflect on how learner voice could be developed in their school.

This Futurelab table describes different approaches to learner engagement and what these look like in terms of student agency.

TYPES OF PARTICIPATION, ACTIVITIES AND TOOLS

	Inform	Consult	Involve	Collaborate	Empower
LEARNER ENGAGEMENT	Learners are regularly and reliably informed, made aware of their rights and ways of participating	Staff obtain views of learners. Learners receive full feedback on decisions taken	Staff work with learners throughout decision making process to ensure views are understood and taken into account	All aspects of decision making processes are undertaken in partnership with learners	Learners set agendas for change. Self organisation and responsibility over management is given to learners
	Learners informed	Learner consulted	Learner input	Learner shaped	Learner owned
TYPES OF ACTIVITY	Staff presentations Assemblies Meetings Forums	Learners as research respondents/ participants Designated consultation space, time and meetings Peer support, mentoring and tutoring Circle time Feedback/right to reply strategies	Learner governors Student councils; Advisory committees; Learners on appointment panels Participation skills training Learners as counsellors Learner voice improvement plans	Students as co-researchers Learners on management committees Learner-shaped policy making Learner interest/ action groups School-wide, external learner voice policies/plans	Students as researchers and research designers (independent) Delegated decision making Learner managers External policy on learner voice culture Learner 'ownership' of resources, events, policies and learning Learners as teachers
	TOOLS	Fact and information sheets Letters Websites Noticeboards Access to documents, minutes, plans etc	Comment/opinion polls Focus group (learners as respondents) Staff-led consultation workshops Staff-led questionnaires, interviews etc (closed - staff-led)	Workshops Voting Focus groups (active) Joint-led consultations Interviews (open - staff-directed)	Learner-led consultations Interviews (open/ closed learner-directed) Staff/learner ballots Open forums



Appendix 4: Digital technologies

Devices, curriculum and online opportunities

Significant changes are taking place in the classroom and the curriculum, and these are impacting on teaching and learning. It is important that these changes meet the needs of students by enhancing their learning and equipping them to thrive in an increasingly digital world.

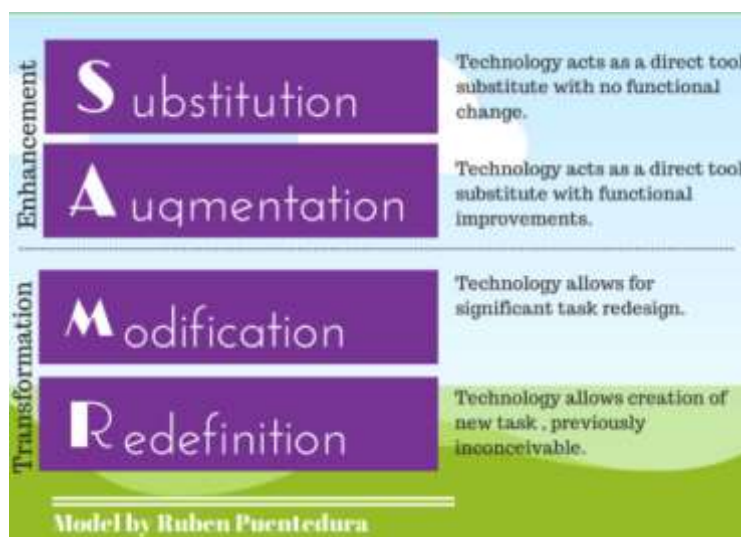
Learning *with* digital technology/devices

Young people need to become capable and discriminating users of digital technology. This has implications for our schools that many are only now beginning to explore.

Funded by a grant from the Ministry, the New Zealand Council for Educational Research (NZCER) conducted a survey in 2016 that provided a [national picture](#) of how digital technologies are being used in primary and intermediate schools.

Eighty-one percent of the teachers who responded agreed that digital technology had led them to experiment with new approaches to teaching and learning; over seventy percent agreed that technology had helped students go deeper into their learning and had given them more control over their learning. However, digital technologies were most often used for practising skills (for example, in mathematics or reading), searching for information, and producing reports, PowerPoint presentations or the like. These essentially low-level activities do not embrace technology's potential to transform learning.

The SAMR diagram at right highlights some of the ways in which technology can enable different, higher level, tasks. [Emerging EdTech](#) provides examples of what SAMR might look like in a range of different curriculum areas.



Learning *about* digital technology/curriculum

For today's students, being able to use technology, even fluently, is not enough. They must be digitally capable, strong in computational thinking, and develop the skills to be creators of digital outcomes.

To this end, the Ministry is strengthening *The New Zealand Curriculum* and *Te Marautanga o Aotearoa* to equip our learners for a digitalised workplace and society. The technology strand in the curriculum will be enhanced to include Digital Technologies/Hangarau Matihiko. The changes, which are to be fully implemented in 2020, aim to equip learners 'to apply their understanding of digital technologies to all aspects of their lives and careers, whatever path they follow' (Ministry of Education, n.d.). The Ministry will support teachers to develop their capabilities and confidence to integrate this curriculum into their school programmes.

Communities of Online Learning (COOL)

Recent changes to the Education Act have opened the door for schools and other organisations to seek accreditation from the Ministry to establish Communities of Online Learning (COOLs). The intention is that schools and online providers will collaborate to deliver the curriculum (or at least parts of it) online to learners. Online learning is already available through [NetNZ](#), the [Virtual Learning Network \(VLN\)](#) and [Te Kura](#). COOLs should be available from 2020 and will further extend the opportunities to learn online.



Appendix 5: Ministry of Education programmes and initiatives

PB4L Restorative Practice and PB4L School-Wide

The schools in this sample that were using [PB4L Restorative Practice](#) or [PB4L School-Wide](#) had all tailored these initiatives to fit with their values and had successfully used them to change school culture and behaviour.

PB4L Restorative Practice

PB4L Restorative Practice is defined by three components that support the development of a culture in which responsibility and power are shared. Members of the school community learn strategies for interacting positively with each other, developing trust that allows them to be open and work through incidents when others do not meet their expectations.

- Restorative Essentials are the everyday, informal interactions between adults and students in a school. Restorative Essentials emphasise relationships: respect, empathy, social responsibility and self-regulation, focusing on 'keeping the small things small'.
- Restorative Circles are a semi-formal practice requiring some preparation. Restorative Circles support teachers and their students to build and manage relationships and create opportunities for effective teaching and learning.
- Restorative Conferencing describes a range of formal tools to help schools respond to misconduct and harm. These tools include Mini Conferences, Classroom Conferences and formal Restorative Conferences. Conferencing is most often facilitated by a school's management and pastoral staff, and sometimes initiated by students themselves.

PB4L School-Wide

PB4L School-Wide is a framework that schools can use to develop a social culture that supports learning and positive behaviour. Based on international evidence, it looks at behaviour and learning from both a whole-of-school and an individual perspective.

PB4L School-Wide asserts that opportunities to learn and achieve increase when:

- the school environment is positive and supportive
- expectations are consistently clear
- children are consistently taught desired behaviours
- children are consistently acknowledged for desired behaviours and responded to in a fair and equitable way.

PB4L School-Wide takes 3–5 years to establish. Over this time, schools should see:

- incidents of problem behaviour decline
- the behaviour of students improve
- teachers spending more time teaching
- students more engaged and improved achievement.

When deciding which schools should be a part of PB4L School-Wide, the Ministry gives priority to secondary schools, low-decile schools with high numbers of Māori and Pacific students.

Te Kotahitanga and He Kākano

Te Kotahitanga and **He Kākano** are programmes for teachers and school leaders. They include aspects of coaching and mentoring. These programmes increase school-wide capability regarding culturally responsive curriculum and enhance the leadership of change. Although funding for the programmes has ceased website materials are still valuable and used by schools.

The **Effective Teaching Profile (ETP)** was developed as an integral part of Te Kotahitanga. It describes six essential elements of culturally responsive practice and curriculum:

Manaakitanga – teachers care for their students as culturally located human beings above all else.

Mana motuhake – teachers care for the performance of their students.

Ngā whakapiringatanga – teachers are able to create a secure, well-managed learning environment.

Wananga – teachers are able to engage in effective teaching interactions with Māori students as Māori.

Ako – teachers can use strategies that promote effective teaching interactions and relationships with their learners.

Kotahitanga – teachers promote, monitor and reflect on outcomes that in turn lead to improvements in educational achievement for Māori students.

Schools involved in the Te Kotahitanga professional development programme used the ETP with participating teachers. This programme comprised an induction hui followed by cycles of formal observations, feedback, group co-construction meetings, and targeted shadow-coaching.

Many schools use the ETP in conjunction with their appraisal processes.

The RTLB service

The Ministry funds boards of trustees to employ Resource Teachers: Learning and Behaviour (RTLBs). RTLBs support schools, kura and Communities of Learning | Kāhui Ako by providing learning and behavioural support. Provision is tailored to the needs of students and their teachers, and to the particular school context.

Universal Design for Learning

The Ministry encourages schools to become familiar with the **Universal Design for Learning (UDL)** framework. This framework assists schools to design learning environments and curricula that recognise and respond to the needs of *all* their learners. The framework underpins the Ministry's **Everyone's In** teacher planning tool and is used by the Ministry in inclusive education workshops.



Appendix 6: Growth mindset

Dweck’s model of the fixed and growth mindsets shows how beliefs about intelligence are linked to cognitive, affective and behavioural characteristics: different mindsets lead to different patterns of behaviour.

There is an excellent graphic on the [Mindset Works](#) website which is interactive and reveals more information, including quantitative data to support the assertions below.

Two different mindsets	
Fixed	Growth
Intelligence is static	Intelligence can be developed
<i>Leads to a desire to look smart, characterised by a tendency to:</i>	<i>Leads to a desire to learn, characterised by a tendency to:</i>
avoid challenges	embrace challenges
give up easily	persist in the face of setbacks
see effort as fruitless	see effort as the path to mastery
ignore useful negative feedback	be open to learn from criticism
feel threatened by others’ success	be inspired by and learn from others’ success
People with a fixed mindset may achieve less than their full potential. They have a deterministic view of the world.	People with a growth mindset may have high levels of achievement. They have a sense of free will.

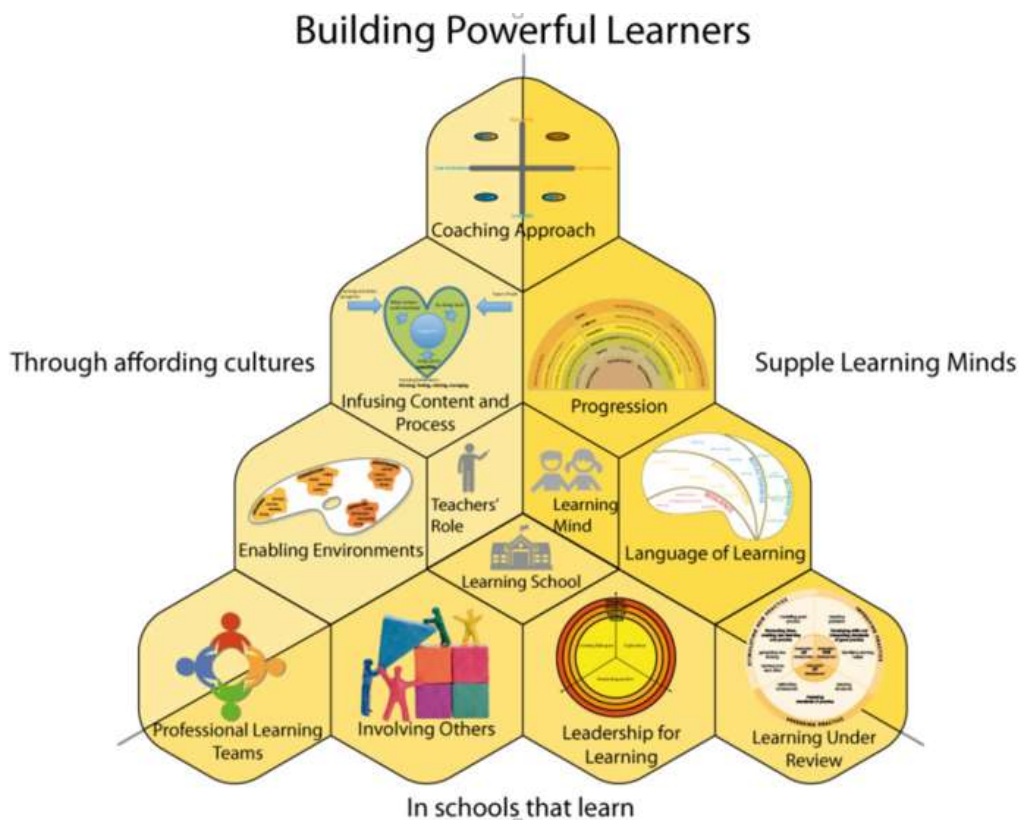


Appendix 7: Building learning power in a school

The **Building Powerful Learners** model is one way of illustrating the conditions for effective teaching and learning. The material in this appendix is taken directly from the Building Learning Power website.

How it all works

The holistic model below shows aspects of student learning, teacher practice and school processes that are influenced by taking up the Building Learning Power approach to education. We would be kidding ourselves if we thought that ‘doing learning power’ meant little more than a few tweaks in classroom practice. Doing it ‘right’ rather than ‘lite’ takes us deep into how supple learning minds grow, how teachers’ everyday practice needs to be developed, what it means to ‘lead learning’ and how parents can be brought into the action.



The student role

Students build supple learning minds by:

Using a language that powers learning

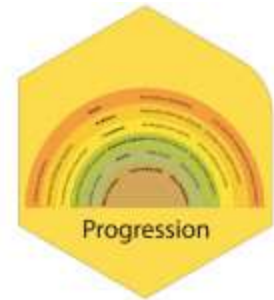
- A rich and evolving language of learning, recognising its emotional, cognitive, social and strategic dimensions, permeates learning across the school and its community.



- Students are confident and fluent in using the language of learning to describe and understand themselves as learners in a wide range of contexts.

Building the skills of powerful learners and broadening where and how often they use them

- A broad map of progression in the development of learning dispositions is infused into the curriculum, built into the design of lessons and motivates students to improve.
- Students record, reflect on and articulate their growth as supple-learning minded, independent learners.



The teacher role

Teachers help students to stretch and develop their supple learning minds by:

Creating rich learning environments in classrooms

- The learning environment is used constructively to promote positive learning behaviours and reinforce positive messages about the nature of learning.
- Classroom cultures promote speculative approaches, challenging learning, the growth of learning mindsets, collaborative activity and positive messages about learning.



Teaching the how with the what of learning

- Teaching methodologies and learning opportunities intrigue and motivate learners, develop effective learning habits and enhance content acquisition.
- Teachers explain the nature of learning habits, train students to use them, design lessons to exercise them, generate feedback on the use of learning habits and model them confidently.

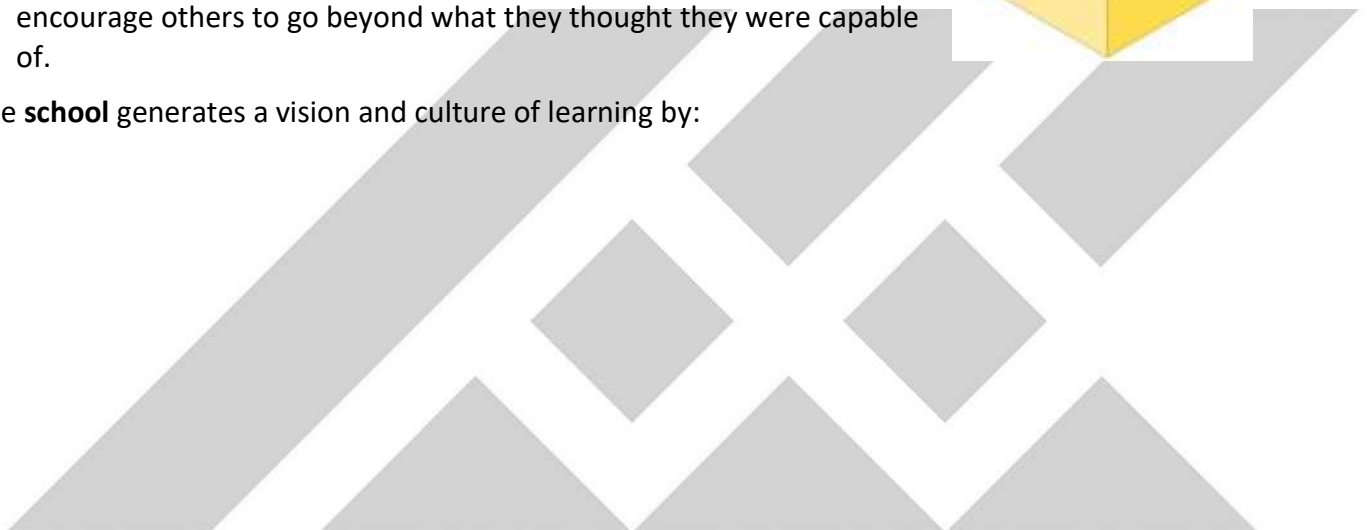


Using a coaching approach to learning

- Teachers use a coaching approach with students; they stay curious, their questioning helps to unearth and progress students' learning behaviours, they join in a quest of discovery, they offer commentary and re-frame learning experiences and they secure a commitment to learning.
- Students too are trained to act as coaches to each other and thereby encourage others to go beyond what they thought they were capable of.



The **school** generates a vision and culture of learning by:



Leading to empower learning

- The school has a vision for learning (predicated on 'learning is learnable'), which is embedded in its culture, policies and recognised outcomes.
- Leading the development of learning becomes everyone's concern. School leaders, teachers and students work towards becoming leaders of their own learning in a school that learns.
- Leadership styles foster dialogue and exploration, empower risk taking, and self monitoring becomes an act of discovery for improvement.



Creating a culture of enquiry for staff

- The school supports teachers to form and sustain formal Professional Learning Communities to share, probe and deepen the learning how to learn culture and classroom practice.
- Teacher learning enquiries help drive the school's development.
- Reviews of learning engage all staff and students to provide valuable evaluative data on which to build future development.
- Learning Reviews include observations of learning in classrooms, interviews with teachers, surveys of the learning environment. They are viewed as an important collaborative vehicle for teacher development.



Involving parents in building their child's zest for learning

- The school works in partnership with parents and carers to develop learning dispositions in students.
- Parents are kept informed effectively of their child's progress in developing learning habits. The school offers guidelines and examples of how parents can best support the development of their child's learning habits in life outside school.



Appendix 8: Links from the text of the report

Mountview School values

Mountview School shares its WHAIA values with its community:

- Whakaute** – Respect
- Hauora** – Well being
- All together** – Kotahitanga
- I am responsible** – Haepapatanga
- Angitu** – Excellence

Because students co-constructed the meanings of the values they fully understood them. The values are reinforced by awarding ‘Monty cards’ to students who demonstrate them. Local shopkeepers also issue Monty cards to students who demonstrate these values in their shops.

Vision to valued outcomes

Raroa Normal Intermediate School has a simple vision, *Aspire2achieve*, which is unpacked as the following valued outcomes:

ACTIVELY INVOLVED Seeking and creating opportunities Taking risks Working with others	INDEPENDENT Self managing Proactive Setting personal goals
SKILFUL AND INQUISITIVE THINKERS Critical Creative Caring Reflective	RESPECTFUL Of ourselves and others Of the environment Showing empathy and tolerance
PERSISTENT Challenging ourselves Showing resilience Showing commitment	ENJOYING OURSELVES Enthusiastic Growing in confidence Happy to be at Raroa


Building skills as learners

The **Ormiston Senior College** community have identified ‘norms of behaviour and learning’ for effective lifelong learners. They apply equally to staff and students and are mapped onto the key competencies of *The New Zealand Curriculum*.

The norms are based on the [Effective Lifelong Learning Inventory \(ELLI\)](#) work by Broadfoot, Claxton and Deakin-Crick at the University of Bristol.

Teachers have material that supports the integration of the norms into learning programmes. The *Tools for the Teacher* identify the types of task that relate to each norm and the learning processes students focus on when completing the task. See the following example:

A norm and related tasks

Norm	Types of task
 <p>Mokoroa</p> <p>I approach all experiences with an open mind because every experience is an opportunity to learn and grow.</p> <p>Like all butterflies and moths the Mokoroa (Puriri Moth) goes through a great period of changing and learning. It is the largest moth in New Zealand and is only found in the North Island.</p>	<p>Any task that requires the student to reflect on their own learning, take part in self assessment, plan or set goals.</p> <p>Could include tasks such as:</p> <ul style="list-style-type: none"> • Journal entries • Reflection tasks • Blogging • Acknowledging a growth in learning • Self review • Task creation.

During LA [Learning Advisor] time the LA prints off sheets to focus on different Norms. We reflect on how far we have come related to that Norm. It makes you think as a rounded person and grow as a person. You set your goals from that.

Kea is my Norm – critical curiosity.

I need to work on Harekeke – my relationships with others in a group.

– Students, Ormiston Senior College

Students appreciate the freedom to manage themselves:

The emphasis on self motivation and learning helps prepare you for beyond school.

Flexibility is really good. Allows you to push yourself. Opportunities to build yourself.

For most people it works well. If not working – you’re monitored. Teachers are there to support and help you.

– Students, Ormiston Senior College



Learners use rubric to manage their learning

Years 4 and 5 students from **Golden Sands School** shared these pictures to show what helped them to manage their learning.



Students can ask for a teacher conference; teachers will offer a workshop if they see that other students would also benefit from similar support. Students sign up for workshops they want to attend, though teachers may sometimes direct them to workshops they specifically need to attend.



Learners set their own weekly priorities

Students at **Raroa Normal Intermediate School** set their own priorities for each week’s learning:

Weekly Learning priorities	Daily learning priorities	Daily learning priorities	Daily learning priorities	Daily learning priorities
Practice explanation (written & drafted)	1. Sci-Fi	1. Maths wk tasks	1. Sci-Fi	1. Sci-Fi!!!
Begin explanation of 3 solutions	2. Explanation	2. Sci-Fi done	2. Explanation	2. Explanation done!
Read club text	3. Book Club	3. Explanation	3. Maths Tasks	3. Book Club
Maths PD (work & evidence on lessons)	4. maths tasks	4. Book Club	4. Book Club	4. Maths tasks
Sci-Fi PUBLISHED!	5. 3 solutions	5. 3 solutions	5.	5.
Tomorrow I read!	Get writing done Get a good chunk of handwriting done	Get writing done get maths tasks done time to write on Sci-Fi	Get writing done write explanation write explanation Sci-Fi at home	
	Monday	Tuesday	Wednesday	Thursday
1A	PE Large Ball Skills	Maths wk tasks	PE	Library
1B	Ideas 4	Maths 4		PE Large Ball Skills
10:20-10:45	Break	Break	Break	Break
2A		Con. jobs w/ 0.5 and proportions	7-8 work out of amounts	7-8 add and subtract with unlike dec
2B	PE: 7-8 ratio prob	7-8 problems		7-8 multiply frac & dec
12:10-1:05	Lunch	Lunch	Lunch	Lunch
1.05-1.25	Independent reading	Independent reading	Enrichment	Independent reading
3A	Class culture	Sign Language for the Māori Akoranga		Winter sports
3B	Inquiry	Catch up		Book Club
				Assembly

Week 4 Term 2

Students know about their learning and achievement

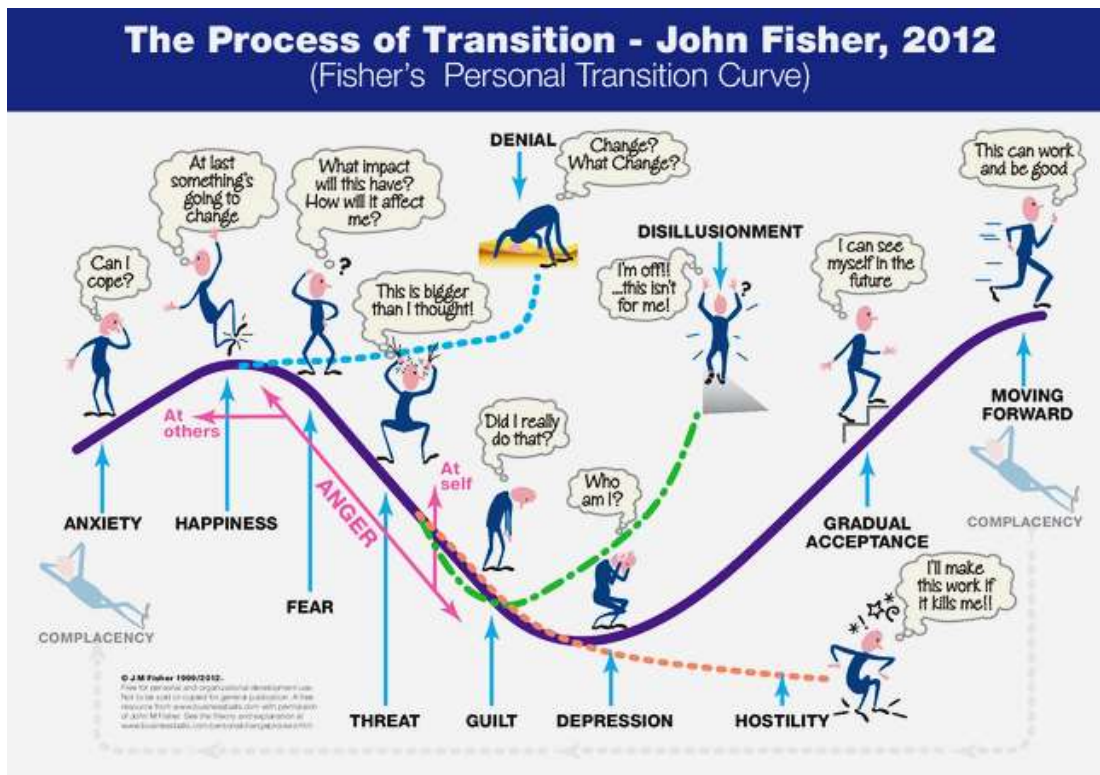
Students at **Auckland Normal Intermediate** are knowledgeable about how overall teacher judgments (OTJs) are made and contribute to discussions about them. They have this advice for other students:

Don't abuse the freedom – wasting opportunity to learn – you'll miss out on learning.

Auckland Normal Intermediate has found the International Baccalaureate (IB) Learner Profile Attributes²⁶ to be a useful tool when having conversations about learning with students.

²⁶ The focus is on developing the student as an inquirer and as a global citizen. See the [school website](#) for more detail. Auckland Normal Intermediate is an IB world school, delivering the Primary Years Programme (PYP). This maps onto *The New Zealand Curriculum* and the Learner Profile Attributes marry well with the key competencies.

Managing change – the process of transition



Enabling collaborative planning

Welcome Bay School is focused on teachers working collaboratively, co-constructing the curriculum, developing student agency and being collectively responsible for student success.

Because collaborative teaching is 'time thirsty', the principal rearranged the timetable to 'buy space' for teachers. The teachers in each hub (syndicate) are released for one afternoon a week, when they meet with the deputy principal, explore student achievement data, and plan curriculum and delivery. This level of collaboration is still relatively new, and school leaders are continuing to explore ways of embedding such practice consistently across the school. Nevertheless, both student achievement and the quality of social interaction (student-student and student-teacher) have improved as a result of the changed approach to teaching.

A lecturer from the University of Waikato, who was a researcher in the school, supported new teachers to link theory to practice. (Whyte, House, & Keys, 2016)

Flexible learning spaces drive pedagogical changes

Since 2004 Auckland Normal Intermediate (ANI) has worked to make its pedagogy more student driven and to create a curriculum that supports holistic development. It has adopted a concept-based curriculum and integrated technology into the inquiry programme. More recently, flexible learning spaces (FLSs) have been a focus for change²⁷.

When the school first began to open up existing classrooms to create FLSs, teachers were unsure how to make the best use of them. As a result, different teachers used different practices.

²⁷ See also [Auckland Normal Intermediate | MLE case study](#) and the [school stories](#) on [enabling e-Learning | teaching](#).

Leaders and teachers soon realised that they needed to have another look at their pedagogy. This time they made changes to systems for professional learning, curriculum design, teaching practice, teaching as inquiry, and appraisal, and to the timetable. Significantly, they also decided to take the development of student agency a step further by involving students in strategic decisions.

Reading research, attending conferences and visiting other schools all helped senior leaders and teachers refine their educational philosophy. Teachers used cycles of inquiry to build their understanding of what they wanted their innovative learning environment²⁸ (ILE) to look like. Middle leaders drew the different elements together in a framework ('the ANI way') to guide teaching practice across the school.

Our learning commons²⁹ should promote a modern teaching and learning style. Teachers should not be the fountain of all the knowledge rather they should be facilitating learning. The learning should be student led and the space should be data rich with access to modern technology. The spaces should promote collaboration, make it easier for students to innovate and be creative.

– Principal

A restructured timetable gives students two hours each day to pursue their inquiry work. Collaborative practices, deprivatisation of teaching, and alignment of the appraisal system to valued outcomes have increased accountability and consistency of teaching and learning across the school.

Systems have been adapted to ensure that student voice is heard and valued. Students are represented on the school's strategic planning and monitoring group, and they attend board meetings. Students give teachers feedback about their teaching and contribute to decisions about what furniture to buy for the learning commons. They help to develop success criteria. They reflect on their own hauora and take steps to improve it.

Auckland Normal Intermediate maintains close links with Pakuranga College. This means that when students start college they can expect a level of continuity in terms of teaching practice and expectations about agency.

Culture supports innovation

In one school a power base was blocking innovation and perpetuating a culture of blame. The senior leaders recognised this and resolved to create a purposeful, professional democracy that would enable innovation and growth. As a first step they commissioned an audit of the staff culture. This was followed by reflection and discussion, which set the scene for change as teachers realised that they could only commit to high-stakes change if the staff culture was characterised by high levels of trust and empowering relationships. The school made the necessary changes and has moved on successfully.

²⁸ The ILE is the complete physical (FLS), social and pedagogical context in which learning occurs.

²⁹ 'Learning commons' is the term ANI uses for Innovative Learning Environments (ILEs).

Ngatea Primary School’s learner agency matrix

Ngatea Primary School has developed this learner agency matrix to help students understand and measure their progress against the school’s learning powers.



LEARNER AGENCY			
Being me	With support	Sometimes	Agentic
I know my strengths and my weaknesses.			
I am true to myself, am honest and trustworthy.			
I choose my attitude.			
I ask questions, answer questions and participate confidently.			
I know when I need to take break from my learning.			
I set goals, work to achieve these, and reflect on my progress.			
I plan my time effectively by planning my week and being flexible, adapting, if needed.			
I organise myself to be ready to learn.			
I make choices to best suit my learning needs and time.			
I keep my Learning Blog up-to-date to celebrate, reflect on and share my learning.			
I lead workshops, teaching others as a way of sharing my knowledge.			
I am aware of I CARE and show I CARE values.			
I choose the right learning space for the right learning. Right place. Right time. Right thing.			
I celebrate my successes as well as my failures.			
I book into workshops based on my learning needs.			
I use initiative to think for myself.			
I use my initiative to help myself when I am stuck.			
I can organise my belongings, have my equipment ready for learning, and tidy up after myself.			
Connecting	With support	Sometimes	Agentic
I explore the wider community to support my learning.			
I use my device to collaborate, connect and share with others.			
I show respect by cleaning up after myself – leaving a space as tidy as I found it.			
I show respect by actively listening.			
I am a role model by leading others.			
I positively participate in all that I do.			
I collaborate with lots of different people.			
I am aware of others and their learning.			
I include all others, showing respect for who they are.			
I give, respond to and act on feedback.			
I have a voice by asking questions to clarify understanding and contributing confidently to discussions.			

I share my progress and learning with my parents/caregivers.			
Resilience	With support	Sometimes	Agentic
I am resilient, using guts and grit when things get tough.			
I have a growth mindset, thinking positively, and working through things I find hard.			
I ask for help, booking into conferences when I need to.			
I can slow down to speed up.			
I am brave and take risks in my learning.			
I do the right thing even when no one is looking.			
Curiosity	With support	Sometimes	Agentic
I identify what I am curious about and this drives my learning; what we learn with pleasure we never forget			
I inquire by asking driving questions and researching to find answers to these.			
I am willing to explore and try new things – be curious!			
I ask questions.			
I wonder about the world and my learning.			
Creativity	With support	Sometimes	Agentic
I can be original.			
I can take risks and try new things.			
I try to think outside the box.			
I am open-minded to different solutions.			
I can create new learning from experiences.			
I can create something that shares my new learning.			



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