LEPPERTON SCHOOL AND COMMUNITY HALL REDEVELOPMENT

James MacConnell Awards 2022



Executive Summary

Lepperton is a small rural village in Taranaki New Zealand, on the West side of the North Island. This has been a joint project to rebuild both the school and community hall. It has allowed the school to strengthen the relationship between our local community and iwi (indigenous peoples of the Te Atiawa tribe). The school acts as a gateway to the playing fields, a place to catch up for coffee and look out at the venue for key community events.

Three interconnected learning hubs enable the collaborative teaching practices that the school has been developing for over a decade. They purposely support a wide range of group sizes and learning activities while maintaining sightlines. There are open spaces for large group collaborative work as well as more protective spaces for reflective individual work. The hubs are connected across shared make/create spaces accompanied by substantial storage (often overlooked in contemporary learning spaces). The school is sited to provide direct access to outdoors for learning and sport.

The project became as much about designing a new school as designing a hub that serves all community members.

Scope of Work

Lepperton school was a total rebuild with a new total gross floor area of 1062m² and a build roll of 200 students. The school has students from year 1 (5 years) to year 6 (11 years) and is a decile 9 (1 having the highest number of low socio-economic students and 10 having the least). The distribution of ethnicity is 14% Māori and 86% Pakeha (NZ European).

\$5.8m (NZD)

Concept Design
Jan 2016Re-Design
Feb 2017Construction Start
Nov 2017Masterplanning
Dec 2014Preliminary Design
Aug 2016Developed Design
May 2017Construction Completed
May 2019

Sh¹ Quiet space. Dires Showing Working sisse Transmiry Collaboration

SCHOOL AND COMMUNITY ENGAGEMENT

Community Context

This school is a community centre and centre of the community. It is used throughout the day and night by all stakeholders. In this predominantly farming community the school is next to the only shop and cafe, at the centre of the action and creating a gathering place. The image below shows the site with the old school buildings and it proximity to the amenities the town has to offer.

Old School Shop/ Cafe, Old Hall



Stakeholders

The key stakeholders for the project were: School - Teachers, Students, Parents, support staff Community groups Sports groups Local Iwi

Challenges

A specific challenge during the project was designing and creating great acoustics for the learning hub environments. Each learning hub can have up to 75 students and 5 adults. This was a major element of the design process the leadership team and teachers needed to be effective. The Architect met and talked to teaching staff about the options available and the design of the learning hub. As a teaching staff, the Architect listened to their ideas and opinions; and created flexible learning environments that allowed for the best learning outcomes for our students. They created breakout spaces, grandstand areas, partitions, ceiling design, glass, wall covering that all combine to provide an excellent acoustic environment that promotes learning.

Available Assets

The rural location of Lepperton, although posing some challenges, provided a close knit and involved community to rally around the school re design. The original school buildings being on the same site meant no decanting of students while works were being completed on the new school. While students got to see the build progressing in real time. The involvement of the senior leadership at the school was a valuable asset in refining the brief and ensuring learning spaces could progress with their pedagogy.



Site location in wider Taranaki

The above images give context to the true rural nature of the site and the grass roots beginnings it had as a school and centre for the community.



1950s aerial view of Lepperton School

Value of Process and Project to community

At Lepperton School our mission is to 'Empower lifelong learners' by building a collaborative school community through positive relationship 'learning to learn' together. The new school building design provides flexible learning spaces which allow our teachers and learners to connect; learn and interact in a variety of ways (large groups, small groups, whole hub or one on one). The design of each learning hub provides our teachers the adaptability to cater for a variety of diverse student's learning needs.

The new school building designs allows students to learn at their own pace and in their own style and recognises that one size doesn't fit all when it comes to learning. The building design benefits both learners and teachers by allowing them the opportunities to work collaboratively and learn from each other.

The project includes a new playground and outdoor sports court and is unique in our region as it incorporates a combined indoor school and community hall. The new facilities for the community offer a wide range of uses from sports, to meetings and functions. It has allowed the school to strengthen the relationship between our local community and iwi. During the planning and design phrases we (the Architect, School BOT and Community Hall Society) were able to survey and gather ideas, voice, opinions and thoughts on how the school and hall could best meet the needs of our children and the wider community.







Calf / Pet Day



Above: Inter-School Sports Below: Fun run





Above: School and Community hub opening Below: Fun run



EDUCATIONAL ENVIRONMENT

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Educational Vision and Goals

The school has clear educational visions and goals for its learners - below are key learnings and teaching principles they base their cirriculum around.

Key Learning and Teaching Principles

- o Collaborative teaching o Learner driven learning/agency o Personalised programmes o Learners as teachers
- o Connectivity o Competency based curriculum o Universal Design for Learning o Openness

Environment supporting the cirriculum

There are three learning hubs, a smaller junior hub and equal sized middle and senior hubs. It was important that these hub areas were identifiable but connected. There had been particular success in the different age groups working together.

Critical to developing the design was understanding the school's approach to learning and how this had developed a very specific brief. There is an emphasis on student-led project-based learning and design thinking passion projects.

The old school had walls knocked down between classrooms to allow the teaching practices to evolve to a more flexible collaborative way of working. This was an important step forward, however, because the spaces were not design for this mode of teaching there were limitations. The new school facilitates these established teaching practices to be delivered effectively and grow with the pedagogy of the school.

Access to technology is provided throughout. This allows the cirriculum to adapt to incorporate the new technology in the learnings of students.

Te Tiriti o Waitangi - Lepperton School

All schools in New Zealand play a role in the modern use of the Treaty of Waitangi. The core values are built into Lepperton schools cirriculum. Below is a excerpt outlining the intent with which the school operates its treaty values.

We acknowledge New Zealand's cultural diversity and the unique position of Māori as tangata whenua (original inhabitants of New Zealand). Te Tiriti o Waitangi (the Treaty of Waitangi) is one of eight principles in The New Zealand Curriculum that provide a foundation for a school's decision making.

Partnership and consultation

We recognise and value all cultures at our school, and acknowledge the special position of Māori in New Zealand society. We work together to achieve the best environment for success for our students. We access cultural advice as appropriate and consult with our Māori community in creating and maintaining our school charter/strategic plan so that it reflects local tikanga Māori (customary practices or behanviours), mātauranga Māori (knowledge), and te ao Māori (world view).

Protection and self-determination

We respect each person's cultural diversity and their right to follow their cultural direction. We take all reasonable steps to offer teaching in te reo Māori (Māori language) and tikanga Māori as part of the government's Maihi Karauna; strategy to revitalise Māori language.

Participation

We promote equitable Māori achievement and equal opportunities for all members of the school community, including our staff and our students who need extra support at school.



School vision and mission statements



SITE PLAN (NTS)

Environment supporting a variety of learning and teaching styles

The design provides a wide range of purposely designed spaces to support a range of different types of learning activities. There are spaces to suit a variety of group sizes that can be used in different ways at different times. There are spaces that can be used open to the rest of the space or closed off when required.

Spaces have been designed to support as many functions as possible. For example, the large groups space can be used for explicit learning, performance, presentation, watching or filming video.

The Make/Create space can be used for art, science, technology, model making or just as another group learning space.

There are multiple areas for writing on walls, putting up stuff on walls. There is access to technology throughout, the space with multiple screens to access digital content. Covered outdoor spaces can be accessed on both sides of the building.

The hub fitouts are non-structural. Partitions are taken to the ceiling. The hubs can be easily altered overtime. All spaces are considered as learning space. The entry lobby to the school doubles as the library and living room for the community.

Adaptable and flexible environment

The admin / library / multi-purpose hall have been designed to accomodate both the community and the school users simultaneously. The kitchen is designed to be used as a cooking space for students, coffee spot for the community, staffroom as well as support functions in the hall and events on the playing fields.

Within the learning hubs the staff work areas are intentionally open and accessible for the students. From this spot, a series of purposeful, distinct but connected learning areas have been designed with clear sightlines. There is a central collaborative area where the whole hub can meet for messages and celebrations. There are spaces for a teacher to take a group of 25 each for a morning meeting circle time. There are multiple spaces for group work – (groups of 3 is their magic number), independent study/reflection (daily 5 programme) and explicit instruction workshops.

Two small meeting rooms allow one on one tutoring and student welfare and group work. A glazed screen joinery element breaks up the main space creating an internal library for independent learning behind, with its window seat to curl up and read. Next to this is a large group space with tiered seating that can accommodate the entire hub. It can be open or closed, used for performance, presentation, making and watching video or whole class instruction. The other side of its screen is the main gallery display space.





NORTH



LEARNING HUB PLAN (NTS)





NORTH



Collaborate Space/ Independent Read



Physical attributes of Environment

The following images outline the features of the learning environment as well as the landscape and hall which are all spaces the curriculum takes advantage of to extend learning beyond the classroom.

There is a range of spaces which facilitate different modes of learning, from quiet reading on a window seat, to collaborative project-based teamwork in the maker spaces and whole class learning on the tiered seating.

The monopitch form of the learning spaces provides a simple environmental response to contemporary deep plan schools. High level east facing windows, protected by trees, provide low glare natural daylight, while the low veranda protects from the western afternoon sun. Computer modelling was used to refine the section and location of windows. Natural ventilation is used across the plan from low to high, following CIBSE guidelines for height and width. Window operators are connected to CO2 sensors. The hall's mono-pitch form rises to utilise south light.



Fitting within larger community context

Lepperton school is the heart and soul of the community. Next to the only store and cafe, the school and its grounds are a gathering place for all groups, having the amenities to host locals and visitors. The proximity to amenities and residential properties make it the perfect gathering place and hub where all are welcome.

The landscaping of the school was built and funded by the community to support the cirriculum with areas for outdoor learning and exploration.

How the project inspires and motivates

The school is designed to aid the flexible modern learning styles that the teachers have developed over the last 10 years. The maker space is designated for making a mess, allowing creativity to flow and experimentation to occur. The choice of spaces to work in, based on each child's needs, means they can find spots where they are comfortable and work independently while still being around others, or the opposite end of the spectrum, they can collaborate in groups and learn from one another.



Large Group Meet

Learning Hub



Natural daylight/ ventillation from east facing windows



Whiteboard projection wall -



Small Group Nook/ Small Group Room

Learning Hub



RESULTS OF THE PROCESS AND PROJECT

Educational Goals

The school education goals are centred around the 6 C's model. This includes Character Education, Citizenship, Communication, Critical Thinking, Collaboration and Creativity (and imagination). As well as the notion of 'Lifelong learnings – learning to learn together.' These concepts relate directly to how the students use the space – they have opportunities to take risks and try new things.

On the right are progress updates for key competencies; reading, writing and maths which have all had significant improvements since the opening of the new school, even with setbacks such as a global pandemic and various lockdowns.



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Achievement and Progress	Reading		Writing		Maths	
	2018	2021	2018	2021	2018	2021
	68%	80%	66%	88%	67%	86%

Learners at Lepperton School

We enrol many students throughout the year. This is not just our 5-year-olds starting school for the first time – it is in fact across all year levels. It is interesting to track the number of learners who have been with us since they started school at Lepperton and that are achieving at or above curriculum expectations. Our data continues to show academic progress for our students that started school at Lepperton as a 5-year-old.

% of students at or above expected	Reading	Writing	Maths	
curriculum levels that started at Lepperton School	80%	89%	89%	
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School District Goals

The idea of modern learning environments was met with some hesitation as the school developed a modern approach to learning and teaching. This school is the first new school in the Taranaki district in over 30 years. They are a pillar for progression in a typically traditional area, in terms of teaching styles. The school facilitates what the teachers and board had been trying to implement with opening classrooms to allow for two – three groups to be together. Small incremental changes were made which became the foundation for the developed brief and overall goals of what the new school would entail.

Community Goals

With the project encompassing the community hub alongside the school, all of the stakeholders in the community had a say in the design and have been able to use the space. These include yoga in the mornings, Zumba, indoor bowls, cycle club meetings and parties. The school and hall are low maintenance structures with simple forms which are easily maintained and provide lasting security for the longevity of the building.





Howie Tamati and Lepperton School students turn the first sod of their new school project as Board of Trustees chairman Ian McCaul looks on.

Unintended results and achievements

One unintended, but hugely important, benefit from the process and project has been the relationship between Te Atiawa, the local lwi, and the school/ community. Historically Taranaki has been the site of land wars between Indigenous peoples and colonisers, varied states or repatriation have occurred but this project became an opportunity to build connection and trust between the iwi and the wider Lepperton community. This image (left) shows the breaking of ground before construction started on the new school and community hall. The symbolises the historical connection to the land and serves as a blessing for the work about to be undertaken. Being able to celebrate the breaking of ground in this culturally sensitive manner has allowed for future collaboration with the lwi such as the gifting of the name Te Kura o Manutahi.



<u>Gym/ Community Hall Exterior</u>

East facade of school



Western Veranda Landscaping

West edge of school



South facing windows for natural daylight to hall

After school pick up-

"As our architect embraced the building project because of its significance to the school and wider community. They used their in depth knowledge of school design to engage our needs and adapted our suggestions to meet the specific needs of our learners and community."

- Andrew Retallick (Principal)



Landscaping/ Play Outdoor learning

Bag storage



Admin Block/ Entrance



Entrance screen looking back to carpark



<u>Gym/ Community Hall</u>





Lepperton is a Ministry of Education (MOE) school. The Ministry outlines overarching principles for designing learning environments; Social: the people in the environment and how they interact, Pedagogical: the teaching and learning practices and Physical: the property, technology, and other resources. These principles, along with their 'Designing Schools in New Zealand (DSNZ)' document, allow schools to develop their own mission statements and values which meet both the Ministries needs and that of the immediate stakeholders of the school. Lepperton has a clear Mission Statement (The How) "Build a collaborative school community through positive relationships; 'learning to learn' together"

This corresponds with their Vision (The Why) 'Empowering Lifelong Learners' through the 6C's: **Communication**

Character Education (self-management, resilience, perseverance)

Collaboration Citizenship Creativity and Imagination Critical Thinking

Allocation of space is calculated by an SPG (School Property Guide) in which area of; Classroom teaching area, Gymnasium teaching area, Library area, Administration area, Resource area and Hall/ Multipurpose area. See appended calculations and plan of designated areas. With a school roll of 200 there were 3 learning hubs created: a smaller junior hub and two equal sized middle and senior hubs. The roll did not allow for allocation to school hall, so this part of the design was funded by the community and eventual stakeholders.



Key Learning and Teaching Principles

Collaborative teaching - deprivatizing practice - the power of ongoing/daily conversations at any point in time, building internal capabilities

Learner driven learning/agency - students in the driving seat of their learning, empowered, student voice, teachers no longer the sage on the stage, learners designing and managing their own timetables/learning experiences, learners active in the learning process

Personalised programmes - making the programme fit the student, not the student fit the programme - eg some need to be active

Learners as teachers - learn, practice, teach - you know something well when you can teach it to others - the ability of learners to learn from each other

Connectivity - school beyond the four walls of the classroom

Competency based curriculum - character education (self management, resilience, perseverance), collaboration, creativity, critical thinking, citizenship, communication - the future skills our learners will need - learning is designed to build these competencies

UDL - Universal Design for Learning - planning for our outliers, multiple methods of engagement , representation, expression (video, audio, lecture, pen and paper, drama etc)

Openness - line of sight - teacher to teacher, student to student, teacher to student

Classroom Activities

Project based learning/design thinking - deep learning tasks that might take some time to complete Student-led projects/Passion projects - students deciding what it is they want to learn - students working on different things at different times, needing access to digital technology/materials at any stage Plav based learning - Junior Classes - indoor/outdoor flow

Independent Study - eq Read to Self, Write to Self (daily 5 programme), reflection etc

Morning Meeting/Closing Circle - class comes together to greet/meet and farewell/reflect (I envisage flexible grouping but each teacher involved - so in a pod of 3 we would need 3 spaces)

Whole hub meeting - for passing on messages, celebrating achievements etc - we would need a larger group space

IT activities - green screening, movie making, e-portfolio's to evidence learning - technology is portable so can be used anywhere, anytime, zones where learners can plug in and work collaboratively on IT projects (screens), virtual meetings

Workshops - learner's book in for explicit lesson (teacher or learner led) based on goals = preplanned Just in time workshops - as above, but based on what the teacher is seeing right there and then - need ability to pull in students who might benefit from the learning

Collaborative learning - often working in groups of 3 (magic number) but need the flexibility to change this up **Conferencing** - one on one learning with the teacher, tutoring, student welfare meetings

Visible Learning - visible goal setting, ability to identify and locate experts (often learners who have achieved goals), visible progressions, display space, learning artefacts

Creative presentations - as per UDL, sharing of learning in multiple ways - models, with technology, drama, arts etc

Independent Reading - internal library

Learning alongside others - learning is social by nature, tuakana teina Presentations - oral stories, sharing learning, screens, discussions, small seminars "Working in an open, flexible learning environment where inquiries are shared, interventions devised collaboratively and reflections based on both self and peer observations, leads to a more robust, continuously improving community of practice". Mark Osborne

"Classes can be reconfigured easily to meet learner needs". David N Bilderbeck

Mark the roll in the morning - approx 30 students seated together. Important to be comfortable for relationship building.

Working with a buddy - reading, writing, current event quiz, maths, collaboration, brainstorming and many more activities

Group work - group sizes could vary from small to large

Whole class instruction

Class activities to consider Drama Science Art Indoor Physical Education and games Quiet work on a laptop/ipad Classroom library A mini hub assembly One to one teacher/teacher aide with student

STORAGE - teachers have indicated the need for storage - personal teacher resources, accessibility to reading resources/maths resources/science resources etc. Readers in the junior school need to be on hand. Art supplies storage in wet area - drying racks.

"You can learn anytime, anywhere." - Andrew Retallick (Principal)

EDUCATIONAL VISIONING DOCUMENTS

DESIGN BRIEF FOR LEARNING SPACES