

POST-OCCUPANCY EVALUATION REPORT



TKKM O TAUMARUNUI

TAUMARUNUI | FEBRUARY 2016

DRAFT REPORT

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1.0 INTRODUCTION

Overview

This Post-Occupancy Evaluation (POE) aims to gather and examine key insights about the facilities' technical performance, functionality and operational processes. This information can be then compared against the project's original design intentions in order to determine how effectively these goals were met. POE can therefore help the Ministry of Education (MoE) to collect relevant, and well-disseminated evaluation information to impact the design and functionality of future facilities.

There are various levels of POE, ranging from a very high level review to a detailed diagnostic study. There is a widely accepted POE process model that sets three levels of POE that can be undertaken, i.e. indicative, investigate, and diagnostic:

Indicative

Indicative post-occupancy evaluations provide information on significant successes and problems and can be as simple as a walk-through evaluation. Selected interviews can also be included as part of the walk-through, or separately. Generally, indicative post-occupancy evaluations involve simple surveys of occupants to establish their views on the physical project outcome, and in some cases, the project process.

Investigative

Investigative post-occupancy evaluations are more detailed and require formal data collection techniques. These interviews need to be structured and unambiguous. More time and resources are required for this type of review than for an indicative review. Questionnaires (standard or customised) can be used to survey the occupants. Structured interviews and recording of responses can also be included for analysis, together with responses to questionnaires. Investigative post-occupancy evaluations can be used for detailed evaluation of both the physical project outcome and the project process.

Diagnostic

A diagnostic POE is more detailed than both of the previous types. These reviews are comprehensive and generally initiated for large-scale project reviews, or when serious problems have developed, or when the review is part of a rigorous research project. A diagnostic POE requires expert advice and management. The scope of these types of post-occupancy evaluations can be designed to encompass all aspects of projects according to needs.

The following POE report is based on indicative and some investigative processes and techniques. Further diagnostic evaluations may be required to understand the findings in greater detail and context.

POE Team

The assessment for this evaluation was carried out by a team composed of professional architects, education designers, project managers, and construction experts.

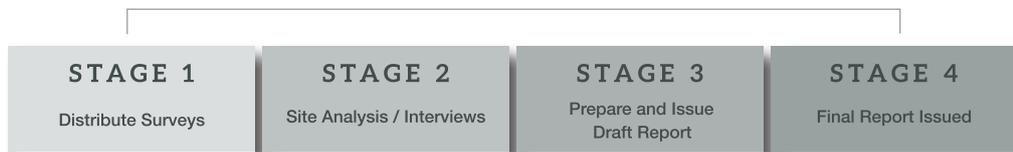
2.0 POE METHODOLOGY

The POE was comprised of indicative and investigative techniques carried out by the POE team. The process of the design/delivery of the project along with the overall facility was evaluated, with more indicative focus given on the learning environments. Multiple methods of data collection were used such as:

- Architectural and consultant documentation
- Full project walk-through evaluation
- Benchmark data compiled
- Interviews with staff
- Interviews with key stakeholders
- Students, parents and families were not interviewed

The POE process started with an introduction meeting held with the school to discuss the process and the requirements from the school during the POE.

There were four key stages in the evaluation:



The project was evaluated under 10 categories to gain a holistic view of the project:

- Identity / Context
- Site Plan
- School Grounds
- Organisation
- Buildings
- Interiors
- Energy and Services Strategies
- Feeling Safe
- Long Life, Loose Fit
- Successful Whole

The evaluation team asked standardised questions about the facility during the on-site investigations along with specific surveys for the users. The data from these strategies form the basis of the evaluation. We have standardised the questions, metrics and on-site analysis with the view to form better comparable cross-project data, and to be able to draw more accurate conclusions overall.

3.0 RECOMMENDATIONS

Conclusions and Recommendations for TKKM o Taumarunui

The evaluation team concluded that the learning environment of TKKM o Taumarunui to be an effective adaptation of the kura's existing building into the new ILE, and reflect current design principles which are based on the BoT visions and the ILE guidelines. The new facilities are well equipped, spacious, safe and secure. All buildings are well maintained, with, what appeared to be, sound facility management. The evaluation team did however observe a number of items which, if addressed, could improve certain areas of the kura.

Our recommendations below aim to highlight valuable lessons and insight in order to benefit and improve not only this kura but future school developments.

1. The kura's previous principal, and some of its current BoT members were established prior to the design stages commencing which allowed strategic input from the outset. This process proved very successful as it enabled the kura to voice and align their clear educational vision with the built environment. During the interviews, staff stated that the way in which their vision was represented within the architecture was 'particularly pleasing' and supported their learning strategies.
2. Staff who taught in the Wharekura learning space expressed that they found it difficult to deliver their pedagogy due to 'poor acoustics'. Although additional acoustic panels had been installed by the kura, the evaluation team recommend that an acoustic engineer undertake diagnostic testing.
3. It is recommended that the door stops on the external doors of the north facade are replaced, as they are currently fixed onto a timber pile. As this substrate is not fit for this purpose, it is recommended that they are replaced with a more robust and long term solution.
4. The hardware of the external sliding doors in the arrival/reception area, is not robust enough and requires frequent maintenance. It is no longer effective at securing the doors and is ergonomically awkward to use. It is recommended that the locking hardware is replaced with a more appropriate specification.
5. There was considerable mould present on the conference room ceiling which cannot be used by the kura in its present state. A comprehensive construction report of this area is recommended.
6. The natural ventilation system does not provide sufficient cooling in the warmer months. The evaluation team recommend that additional external solar protection is installed on the north facing windows of the learning environments in order to reduce the heat-gain in the space. In addition, a more effective cooling strategy, which includes both passive and active systems, is recommended.
7. The pavers of terraced steps, which surround the outdoor learning area, have slumped and the timber risers have formed a trip hazard. This terraced area is relatively high and steep, therefore it is recommended that these pavers are relaid level with its timber risers. If this is not possible for any reason, we recommend that the top section of the timber riser should be replaced with concrete to overhang the riser. Further investigation is required in order to provide a safe and long term solution.
8. The kura often experiences electrical surges which can affect operations. The kura have installed a battery system to help maintain the server post-surge. However, the evaluation team recommend that further investigation is carried out.

4.0 PROJECT OVERVIEW

TKKM o Taumarunui was a refurbishment project built on an existing school site, located on Makere Street, Taumarunui. The Kura provides total immersion education for Year 1 to 12 students. It is located within a confederation of tribes, Ngāti Maniapoto, Ngāti Tūwharetoa and Te Āti Haunui-ā-Pāpārangi. Te Aho Matua principles, te reo Māori and tikanga Māori provide the foundation for all learning. The new kura complex comprises of one single storey building which includes the administration area, the new learning environment and technology spaces (B block). There is a separate caretaker's shed adjacent.

The Kura Establishment Board consulted with the design team to develop and form the guiding philosophy and concept of the learning environment and the kura as a whole.

The kura is located in the Taumarunui community within a residential suburban context, bordering the Whanganui river. The kura was designed and constructed in one stage and opened in 2013.

Benchmark Data

School Profile Number: 3118
Type: Full primary (Year 1-12)
Location: 35 Makere Street, Taumarunui
Site Area: 1.87 ha
Definition: Kura Kaupapa Maori
Staff Numbers: 4 fulltime
Student Numbers: 48
Environmental Rating Credentials: N/A
In-use Performance: 55kWh/m²/annum
Decile: 2
Facility Opened: 2013
Total Floor Area: 833m²
Capacity: N/A
Project Cost: \$1,442,215.00 (2012/13)

Project Team

Master Planning: Darryl Church Architecture
Architect/Designer: Darryl Church Architecture
Cost Manager: Maltbys
Contractor: Redican Allwood

5.0 ANALYSIS AND FINDINGS

Introduction to Findings

Staff participation for this report was 50% with 1 out of 4 staff completing the survey, and an interview with the kura principal (teaching principal) performed during the on-site evaluation. Surveys were issued on September 18, 2015. The staff interviews and on-site evaluation were carried out on September 22, 2015. The site visit was performed on a fine day. The kura was not performing under normal operating conditions during the evaluation as some of the students were learning off-site. All areas of the new development were evaluated during one site visit over a five hour period.



5.1 Identity / Context

TKKM o Taumarunui was a refurbishment project built on an existing school site, located on Makere Street, Taumarunui. The concept of the kura is based upon its 'learning street' with supporting withdrawal areas and spaces. The agreed brief items from the consultation between the Kura EBoT and the consultant team included: the open plan administration area, a separate multipurpose space, and accessible withdrawal spaces distributed throughout the learning environment. Externally, the main building successfully reflects the concept of a waka.

The entrance to the administration area is well defined and inviting to the community. A clear and well planned car park, offering safe pick-up and drop-off areas, was stated by the kura as being 'a positive attribute'. The site has a slight slope from the car park down to the fields at the back of the site. The administration building is constructed upon a timber foundation and therefore is positioned at a higher level than the car-park. An accessible ramp and well defined pathways provide good access from the car park to the kura. The administration and reception entrance is clearly defined, accessible and expresses the kura's unique identity.

There is a well defined hard-landscaping strategy that supports the kura as a whole. The soft-landscaping design is well developed and is seen by the staff as a positive attribute of the kura. There are well defined outdoor learning environments within the surrounding landscape. The kura is particularly pleased with the amphitheater space, which is well utilised for a number of learning, performance and social activities.

The buildings are visible from the street and are, in general, of a residential scale, which is appropriate to its suburban, residential context. The landscaping from the street edge to main building is well defined and supports the BoT's vision.

The learning environment is visible from the arrival car park, and glimpses of learning can be seen upon arrival. The learning spaces are positioned along the length of the learning environment. The exterior cladding (existing) and colour scheme are both welcoming and sympathetic to their surrounds. Four outdoor learning areas are positioned at the front of the kura with direct access from the learning spaces. These are well utilised by the kura and seen as a positive attribute.



Drop-off area at kura entrance



Entrance to the kura, viewed from the car park



The hard and soft landscaping have been well designed



The front of the refurbished learning environment building and outdoor learning spaces visible upon arrival

5.2 Site Plan

The kura's previous principal, and some of its current BoT members were established prior to the design stages commencing which allowed strategic input from the outset. This process proved very successful as it enabled the kura to voice and align their clear educational vision with the built environment. With this clear strategic input, the appointed designer was then able to develop the new Master Plan for the kura. During the preliminary design stages it was concluded that the existing B block building would be retained and refurbished. Several buildings were removed from the site to allow the learning environments to visually connect to the fields and other outdoor areas.

The new floor plan works within the existing building and integrates the learning spaces under one roof. The conceptual ideas, which form the basis of the kura, have been well defined. During the interviews, staff stated that the way in which their vision was represented within the architecture was 'particularly pleasing' and supported their learning strategies.

The Master Plan has created legible circulation patterns, with all-weather cover provided to the main outdoor learning area which adjoins the field (amphitheater space). This covered area is multi-functional and well utilised for outdoor learning, assembly and performance gatherings.

The Master Plan created a separate service entry (positioned away from student areas) for the removal of refuse and storage of maintenance equipment. The new caretaker's shed is located at this entrance along with the heating system, and potable water storage services. The evaluation team considered this strategy to be a positive attribute of the kura from a facilities management perspective.



The existing classroom block was refurbished into the new learning environment



Entrance to the kura administration area



Dedicated service entrance

5.3 School Grounds

The evaluation team concluded that the relationship between the design of the kura grounds and its buildings were well resolved and positive. The kura's well-designed landscaping scheme works in harmony with the site's topography to create a sense of place. As the soft-landscaping matures it will only improve over time. Outdoor learning spaces have been designed in conjunction with the building. The hard-landscaping utilises a variety of colours and shapes to good effect.

The two external canopies, which provide shelter to the entrance of the kura and to the main outdoor learning area, are designed to reinforce the identity of the kura. The evaluation team believed these to be a positive attribute of the kura.

Survey participants were asked for their perceptions of how accessible different areas of the kura grounds and buildings were. All staff stated that the entrance to the kura was 'very accessible' from the street and that the hard-landscaping, ramps, stairs and handrails around the kura were also 'very accessible'.

The staff member who completed the survey stated that the finishes were 'unsafe' due to 'the paving to the entertainment stage being slippery in cold and frosty weather'. The evaluation team did not observe this slip-hazard as it was a fine, warm day. The evaluation team did observe however that those pavers had slumped in areas. Staff stated that the slumping had caused a trip hazard, therefore it is recommended that the pavers in this area are lifted and re-set.



The landscaping is well resolved



Entrance canopy on the left and main outdoor learning canopy on the right



Pavers have slumped creating a trip-hazard

5.4 Organisation

The new learning environment is occupied within the existing envelope of the refurbished classroom block (Block B). The interior of the existing building has been completely re-configured. Structurally, new steel portals had been installed to create a more open, flexible and adaptable learning environment to support the pedagogical needs of the kura.

The learning centres are named: Waenga (year 3-4), Tuakana (year 5-8) and Wharekura (year 9-12). These learning spaces are connected by what is described in the drawings as a 'learning street'. This is the main circulation pathway through the learning environment. Bag cubbyholes, services cupboards and toilet facilities also occupy this space. These are centrally located, private and easily accessible for the students.

The Waenga learning studio is the most enclosed and separated of the learning spaces, in order to align with the kura's learning vision of allowing the younger students a more supportive space with less distraction. This space has been designed to be multi-functional as it has the ability to be separated off from the learning street and the other learning spaces with sliding doors. This space is also connected to a shower room which is used as required by the kura (wharenuī).

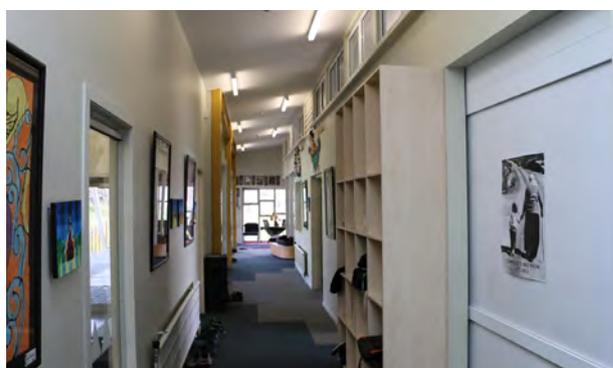
The Tuakana and Wharekura learning spaces are positioned along the rectangular building form, but separated by a fixed withdrawal space. Tuakana is approximately a third of the size of the Wharekura learning space. The withdrawal space which separates these learning spaces occupies fixed computer stations.

During the interviews it was stated that the configuration of the withdrawal space, and the storage with which they provide, was a positive attribute to the kura. The learning space also contained a wet-area. The evaluation team noted that additional withdrawal spaces in the Waenga learning environment would benefit the kura.

The administration area is well planned and welcoming. During the interviews it was stated that this area was very functional and worked well for the kura. Teacher work stations reside in this area which allow teachers to collaborate in private as they are situated away from the student focused learning spaces. The arrival waiting area adjoins the main outdoor learning space which allows the waiting area to be multi-functional. The Food Technology space is well positioned in close proximity to the learning spaces and the outdoor learning/performance space for hosting events and community activities.



Waenga learning space (Year 3 - 4)



The internal 'learning street' (central circulation)



Withdrawal space that divides Wharekura and Tuakana learning spaces



Wharekura learning space (Year 9 - 12)

5.4 Organisation (continued)

The survey respondent stated that they had 'good access' to a variety of quality internal and external learning spaces to facilitate their pedagogy.

The Wharekai/Whanau room is well utilised and is seen as a core facility of the kura. This area is well defined and the evaluation team consider it to be an asset to the kura. The shower rooms and toilet areas are functional and accessible.



Withdrawal rooms provide storage for the learning studios



Wharekai/Whanau room space

5.5 Buildings

Main Learning Centre

The exterior walls of the learning centres retain the existing building envelope. The existing timber frame and timber weatherboards have been refurbished with additional cladding installed to the northern facade. These include new laminated timber posts which have been fixed to the building to support a glass eave which runs the length of the building. The glass eave has been inscribed with te reo and imagery. Throughout the day shadows are created and reflect into the learning environment and onto the exterior of the building, displaying the unique culture of the kura. The kura and the evaluation team considered this to be a positive attribute of the design.

The buildings appear to be well detailed with a limited material palette, and low-risk junctions. The roofs are gable formed, with good eave protection and external gutters.

All roofs are clad with profiled metal. All joinery (internal and external) is aluminum framed. During the interviews the kura stated that they were experiencing maintenance issues with many of the internal and external sliding doors throughout the kura. These doors require considerable attention from the kura to ensure that they functioned properly. The kura has replaced the hardware on the external sliding doors and gates, however they are still experiencing ongoing issues.

The roof and gutters collect water for re-use. The water tank has a town supply back-up. First-flush divertor's are located at the top of the down pipes which offer a good solution for removing debris, and helping with maintenance.

Excluding the maintenance issues mentioned above, the buildings and grounds appeared to be in good condition and there were no obvious indications that the facilities would not have a long service life.



The existing cladding, where possible, has been retained



A new glass eave fixed to the front of the building



Potable water system requires the gutters to be cleaned regularly



The kura's water tank that stores the potable water

5.5 Buildings (continued)

Toilets

The toilets which are located in the learning environment, are accessible from within the building, well distributed and separate male and female. The evaluation team considered the toilet areas to be well designed and positioned within the kura.

Staff Collaboration Spaces

During the interviews staff stated that the teacher resource and collaboration space within the administration area is a positive attribute of the kura. This space also conveniently occupies the Lundia system which provides storage and houses teaching resources for the principal. The evaluation team considered this space to be very practical and functional for the kura.

Storage

The survey respondent stated that there was 'insufficient' storage within the learning spaces for resources and teaching equipment. The survey respondent stated that the storage spaces are limited in their size, and configuration. Some learning areas provide greater storage than others and it was stated that the Lundia storage was located too far away from the learning environment. Staff also stated that some of the cupboards were not functional as they were too high to reach. The evaluation team concluded that a strategic storage strategy should be developed and implemented to help assist the kura in maximising storage.

Internal Doors

During the interviews it was stated that the interior sliding doors in the learning environment required track realignment from time to time. Future design teams should give consideration to the specification of doors, their size and their associated hardware. The internal sliding doors have been replaced with smaller ones in the hope that they will function better. This is an ongoing maintenance item for the kura.



Toilets located within the learning environment



Some of the withdrawal spaces are required for teaching resources



Teachers resource and collaboration space



Internal sliding doors

5.6 Interiors

Learning Environment

The survey respondent stated that they were 'quite satisfied' with the internal layout of their learning environment. The principal stated that 'there is a good variety of different sized learning spaces', 'the withdrawal spaces are well positioned', 'we can close off the Waenga room when required', 'we can use the larger Wharekura room for whole school learning'.

The evaluation team noted that, in general, the withdrawal spaces are not transparent and are therefore quite dark inside. Staff stated that they would prefer to have more transparency, to more clearly see the students inside. The white board areas are positioned on sliding doors which provide access into the internal circulation space. This could cause disruption as students enter and exist the class during a lesson. The survey respondent stated that the 'white boards are oddly placed', and 'away from where student seating areas are positioned'.

Due the extensive amount of glass down one side of the main learning environment, there was a limited amount of display space. Additional pinboard had been installed by the kura, but further opportunities should be explored. In general, the materials and finishes are robust and fit for its purpose.

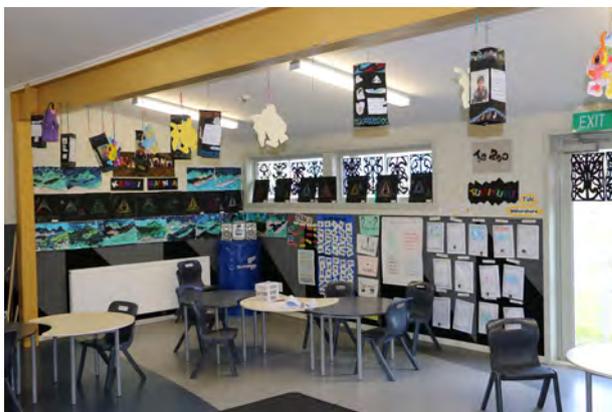
During the interviews staff commented that the kura was continually developing new ways for utilising the spaces. It is recommended that further support be given to pedagogy development prior to kura's moving into new ILE facilities.



The open Wharekura learning space



The Tuakana learning space is divided by the withdrawal space (behind shelving)



The Waenga room can be closed off as and when required

5.6 Interiors (continued)

Ventilation

Ventilation is supplied to the learning centres via a natural ventilation system. Overhead windows in the learning environment are opened with electrically operated window actuators. Skylights situated in the ceiling of the learning street automatically open to allow air movement. A staff member stated during our on-site evaluation that they had 'good control' of the ventilation in their spaces throughout the seasons while the survey respondent stated that they had 'limited control' over the ventilation. The survey respondent stated that the 'air does not freely move from the windows in the learning spaces to the skylights'. It was observed that there were only windows occupying one side of the learning environment and if the classroom sliding door was closed, minimal cross-ventilation could occur. It was stated that it is 'uncomfortable' in the warmer months.

It was stated during our on-site evaluation that 'the skylights did not always open, or if it rained they closed'. It was also stated that the skylights had leaked on occasion requiring repairs and maintenance.

The evaluation team noted that the kura is positioned in close proximity to surrounding hills on a number of sides. This could affect the volume of wind circulating the kura, which may reduce the effectiveness of the natural ventilation strategy for cooling. This is an observation only and would need to be substantiated with wind analysis and modelling.

On the day of our evaluation, some windows were open and the learning environment appeared to be well ventilated. Mechanical documentation for this project was unavailable to verify the evaluation teams observations.



Operable windows in the learning environment (north facing)



Skylights in the 'learning street' area are designed for cross-ventilation

5.6 Interiors (continued)

Internal Temperature / Heating & Cooling

Heating is provided to the kura, in most instances, by a diesel powered boiler which heats water and provides it to wall mounted radiators. A stand-alone heat-pump in the conference room was controlled with a manual remote. It was stated by the kura that the heating system is excellent and the learning environment is very comfortable throughout the colder months.

The survey respondent, principal, and office manager all stated that the internal temperatures of the learning spaces were insufficient in summer to support student learning. It was stated that the learning environment was ‘very hot in summer with no cooling system available’. It is evident that the natural ventilation strategy is not providing enough cooling to control the internal environment in summer. It is recommend that options to reduce the northern solar heat-gain is explored, with external shading a possible option. A more effective cooling strategy should also be developed and implemented to ensure the comfort of its occupants.

The survey respondent stated that they had ‘little control’ of the heating and cooling in their space. They also stated there was ‘insufficient cooling’ in their learning space. The kura has attempted to mitigate the over-heating of the space by purchasing mobile floor fans which are used extensively in the learning environments during the warmer months.



Diesel boiler provides good heating to the kura



When the white board doors are closed it minimises the cross-ventilation



Kura uses floor fans in the learning environment to help cool the spaces



Skylights open on a sunny day

5.6 Interiors (continued)

Acoustic Environment

The learning environment was evaluated on a non-typical day. The learning environment was functioning at only approximately 40%-60% capacity. On the day of the evaluation a number of students were learning off-site.

The acoustic environment of the learning environment is controlled with a mixture of pin-board panels on the internal walls (Autex or similar), and carpet tiles on the floor. The ceiling level in the spaces vary. In general, the Tuakana and Wharekura spaces are above-average in height. The ceilings in the Waenga and Wharekai spaces are lower and slope downwards to follow the existing roof-line. As these rooms are designed to be multi-functional they are equipped with vinyl flooring, which has the tendency to increase reverberation within the space.

The evaluation team noted that the acoustics of the learning spaces could have the ability to become quite 'lively' when at full capacity due to the plaster board ceilings, volume of glass and limited acoustic absorbing material on the walls and ceilings. This could be a particular issue within the Wharekura learning space when two classes are working simultaneously. During the interviews staff stated that they found the Wharekura space difficult to teach in at times due to the poor acoustics.

The survey respondent, when asked to rate the acoustic environment of their classroom, stated that it was 'poor' and it 'echoes'. The respondent stated that distracting 'noise from other classes' was also an issue. Since opening, the kura have installed additional acoustic wall and ceiling panels, however, the evaluation team recommend an acoustic engineer provide specialist advice on each space.

When asked if staff or students were interrupted by any noises while teaching, it was stated that they were mainly interrupted by noise from other learning spaces. No significant noises originating from equipment, air-conditioning, computers or heating from inside the learning environment were stated as being a distraction.



Wharekura learning space has pin board, carpet and ceiling panels



Lower ceilings and a limited amount of acoustic panelling in the Waenga teaching space



Limited acoustic pin board in learning spaces



New acoustic panels installed in the Wharekura learning space

5.6 Interiors (continued)

Artificial Lighting

A combination of both surface-mounted and suspended ceiling lights provide artificial lighting to the learning environment. They appeared to be well distributed and effective at the time of the evaluation.

The survey respondent, when asked how sufficient the lighting levels were in their part of the building, stated that there was 'sufficient' light in order to perform their professional role.

Natural Daylighting

As the Tuakana and Wharekura learning environments are exposed to large amounts of north facing glass, additional solar protection should be provided. The Waenga and Wharekai learning spaces are south facing and generally rely on artificial lighting. The withdrawal spaces offer a small amount of transparency, however it is inadequate to allow sufficient natural light into these rooms. The evaluation team found these withdrawal spaces to have a below-average volume of natural light. It is not known if this was a requirement of the kura based on the pedagogy.

It is important to note that some of these shortcomings are inherited from the re-use of the existing building. The survey respondent stated that the buildings were 'ineffective' at controlling the natural light throughout the day due to the north facing glazing (which has previously been discussed). The survey respondent stated that the 'sun streams through the large amount of glass'. The evaluation team have made recommendations regarding this issue in an earlier section of this report.



There is a mixture of surface-mounted and suspended ceiling lights



Large amounts of north-facing glass with limited solar protection



Glazing in the learning environment

5.6 Interiors (continued)

ICT

Fixed computers are mainly located inside the withdrawal spaces (pods) within the learning centres. The kura has significantly invested in portable IT devices for the students. Floor boxes were well positioned and utilised by the kura for flexible learning. The capability to use fixed projection equipment is provided, however TV's on mobile trollies were the preferred option due to the flexibility of the trollies. The kura has a clear educational vision, yet they stated that there can be improvements to the current ICT to assist in the delivery of that vision.

It was stated during the interviews that the kura experienced issues with the ICT facilities post hand-over. The kura particularly expressed the problems affecting the ICT in the dedicated video conference room, housed within a refurbished room within the learning environment. Considerable mould was visible on the ceiling and was deemed unsafe to use at the time of our evaluation.

The survey respondent stated that the ICT is 'effectively' positioned for teaching and learning. During the interviews it was stated that the school experiences power surges which can affect the security and IT system's. The kura had installed a battery back-up to ensure servers would continue running if a surge occurred. It was also stated that they had limited access to local technical support. The evaluation team recommends that further investigation is carried out to better understand the ICT issues of the kura before recommendations can be made. In addition, the video conference room should have a construction report completed to understand the cause of the mould as it does not appear to be a ventilation issue.

Documentation regarding data, AV, security and electrical was unavailable for this project.



Fixed computers in the withdrawal spaces



Mould is present in the video conference room

5.7 Energy and Services Strategies

This kura project did not adopt a sustainable rating scheme for its buildings or infrastructure (Greenstar or similar). During the interviews it was stated that, where possible, sustainable choices had been implemented. The kura had implemented a potable water system to collect rainwater for re-use in its buildings, a solar hot water heating system and an automated ventilation system. The evaluation team also noted the kura's commitment to recycling.

The evaluation team quantified the kura's energy usage (electrical and diesel consumption) over a 12-month period, and found that the kura's demands are comparable with other facilities of this age and specification. The evaluation team suspect that the demand may change if a more effective cooling system is installed.



The kura has a number of energy efficient features, including solar hot water heating

5.8 Feeling Safe

The new learning environment opens out onto a large area at the front of the kura, exhibiting good passive-surveillance. The facility's new pathways are wide, legible, and visible. During the interviews it was stated that the kura has a great relationship with the community and that no vandalism of note had occurred. The survey respondent stated that they felt either 'quite safe' while on the kura grounds. During the interviews, staff stated that both staff and students had 'great pride' in their kura.

The internal environments are generally open and transparent which enable teachers to oversee most spaces, with the withdrawal spaces being the only notable exception. The survey respondent stated that there have been no significant instances of bullying, and the buildings and/or facilities were well designed to discourage bullying opportunities.



Outdoor learning areas are clearly visible

5.9 Long Life, Loose Fit

The kura has been operating in its new facilities for approximately two and a half years at the time of this evaluation. The learning environment provides adaptable furniture which is modified by the users to suit their needs. The variety of different sized learning spaces was seen as a positive attribute.

A commercial method of structural design has been applied to the new learning environment. The existing timber structure has been supported by a new steel system, which allows for open and airy spaces. The new structure spans the width of the building, effectively limiting the amount of bracing or load bearing on its internal walls. This allows the internal spaces of the building to be adapted, should the need arise. The regular and simple form of the spaces will lend themselves to be cost-effectively adapted in the future. In most instances, learning space ceilings are generous in height which is viewed as a positive attribute of the learning environment.

It is not known if or how the Master Plan has allowed for future student roll growth, however, should the need occur, the evaluation team concluded that the building's position and structure offer many logical options for the kura.



Flexible learning spaces



The new structural steel system can be seen in the back ground

5.10 Successful Whole

The kura's facilities are pleasant and well maintained. The outdoor spaces, and the new learning environments are designed with robust materials, and overall appear successful. The kura is managing the facilities well. During the interview it was stated the students enjoyed the 'outdoor learning areas', and the new 'Wharekura space' the most.

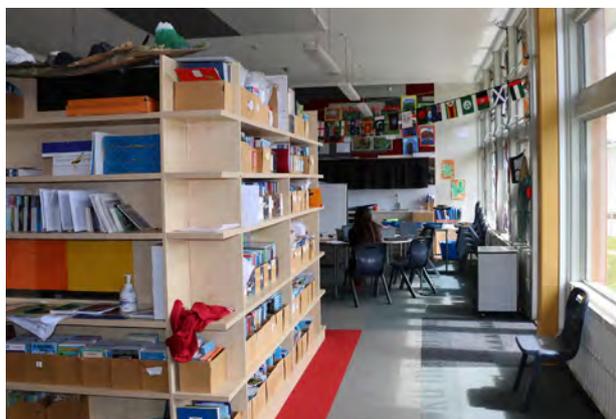
The evaluation team asked both the kura principal, and the survey respondent, if they had any final comments.

Their responses were;

1. The 'learning spaces are too hot' due to the large volume of glass
2. The design of the 'kura represents our unique culture'
3. The 'poor acoustics make it difficult to teach in at times'.



The existing building has been designed to represent a waka



The learning environment over-heats in the warmer months

The evaluation team asked both the kura principal, and the survey respondent, which parts of the kura they were most pleased with and what was most useful to them, or the students.

Their responses were;

1. 'The size of the Wharekura learning environment for multiple uses like Kapa Haka' was seen as a positive attribute
2. The 'height of the rooms' which 'give a spacious feeling'
3. The 'power sockets' in the floor boxes to allow digital devices to be used in a flexible manner
4. The 'external canopy provides good protection' to the outdoor learning/performance area.



The Wharekura learning space



The external canopy provides good weather protection

