



Palmerston North Boys' High School NCEA Pathways Case Study

Vocational education and training pathways are supported through NCEA. We visited a few schools and kura to look at how their vocational programmes are preparing students for work, further training or study.

Additional information:

[Pathways](https://ncea.education.govt.nz/pathways)

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1 Background

In 2019, the Ministry of Education announced a NCEA Change Programme to deliver a package of seven changes aimed at strengthening NCEA. Change 6 focusses on 'Clearer pathways to further education or work'. Amongst other areas of work, this includes enhancing Vocational Pathways to improve its usefulness as a navigation and planning tool for schools and foundation tertiary providers.

In July 2021, the Ministry's Pathways team proposed a project whose initial vision was to undertake research of existing programmes to gain information and insights. It was decided to restrict the first stage of the research to one industry to focus on - the primary industries - and to work with the Transitional Primary Industries Training Organisation (known as the Primary ITO and now part of Te Pūkenga). This decision was made due to already-established relationships with the Primary ITO and the Primary Industries Capability Alliance, who were independently looking for Ministry support to deliver a new Level 3 package of Learning, "Grow.Feed.Protect". The Primary ITO had already agreed to deliver this Level 3 package of learning in partnership with numerous English-medium high schools and Māori-medium kura Māori across the country.

After the Ministry met with the Primary ITO to discuss the scope and intentions of the project, they recommended some schools and kura Māori to approach to gauge interest. This first report focuses on how Palmerston North Boys' High School has developed and implemented the learning programme at their school and the student outcomes. Palmerston North Boys' High School helped design what the project would aim to achieve, what it would look like, and how it would be evaluated.

2 Purpose of project

The overall purposes of this research are to use it to:

- » explore and better understand best practice for integrating curriculum and industry learning, alongside partner providers, and to learn how we can support a wider range of schools and kura Māori to deliver learning in this manner
- » begin to develop a change approach to enabling schools and kura Māori to integrate industry learning in the classroom in contextualised and coherent ways, and to investigate how to best make the necessary system shifts occur in practice in schools and kura Māori.

3 Pathways partnerships

The Ministry is grateful for those who partnered with us in this research.

Primary ITO

The Primary ITO offers over 120 programmes of work-based training across many parts of the food and fibre sector. It joined Te Pūkenga Work-Based Learning in October 2022. Those involved with this project included:

- » National Manager – Programmes and Pathways
- » Primary ITO Regional Manager
- » Primary ITO Tutor

Palmerston North Boys' High School

Palmerston North Boys' High School is an English-medium, years 9-15, single-sex school for boys, located in Palmerston North. Palmerston North Boys' High School has previously worked with the Primary ITO and local farms to deliver Level 2 and 3 programmes of learning

in farming. Palmerston North Boys' High School has also offered learning opportunities in the areas of construction and mechanical, as well as through Trades Academies and Gateway.

Staff involved in how the school developed and implemented the new programme included the:

- Year 8 Dean & Careers Advisor
- » Year 13 Dean & HOD English
- » College House Manager & Mathematics Teacher
- » Agriculture and Horticulture Teacher, Year 9 Dean

The Ministry's Pathways team also acknowledges the assistance of the Ministry's local Principal Advisor – Secondary Transitions, Jon Bowen.

4 Palmerston North Boys' High School's programme

Palmerston North Boys' High School had offered Primary ITO courses to their students previously. However, it was considered that the school's timetabling constraints meant that setting aside more than one dedicated day per week to vocational learning significantly interrupted their other, classroom-based, learning and teaching.

Given the Primary ITO's proposal to deliver a new "Grow. Feed. Protect" Level 3 Certificate with more than one day a week of out-of-classroom learning, a group of teachers from across the school curriculum proposed to school leadership the creation of a "homeroom" situation for a small cohort of student who were participating in this programme.

The homeroom is a solution to students being unable to attend their other timetabled classes during the days they are learning elsewhere. The dedicated homeroom space includes a member of staff who supports the learning-area or industry-specific work alongside instruction in literacy and numeracy from other staff members.

The homeroom structure provides an opportunity for each learner to work towards their next identified step in an Individual Learning Plan (ILP). ILPs offer opportunity for each learner's skillset and interests, and any future pathway focus, to be incorporated. Furthermore, literacy and numeracy instruction from specialist English and

Mathematics teaching staff allows individual needs to be met in those areas, support for working towards any NCEA Literacy and Numeracy requirements not yet attained, and opportunities for extension work in those areas where appropriate.

Timetabling flexibility is needed to allow school staff to adapt to work-site and workplace requests. This allows practical opportunities to increase with the growth of learner experience and confidence throughout the year.

Thirteen students participated in this homeroom in 2022. They were recruited from the 2021 cohort of students who were studying towards the Level 2 Primary ITO programme.

A key aspect of this homeroom was a module-based learning project, which incorporated literacy and numeracy in a farming context. This research project focused on integrating industry learning in the classroom in contextualised and coherent ways and evaluating a specific approach to doing this. This included students visiting a local farm to take measurements, process the data in Excel to inform recommendations, and write a report. Subject specialists tailored their Maths and English instruction to scaffold this project.

5 Evaluation

5.1 Palmerston North Boys' High School Successes

The main successes were improvements in:

- » attitudes to learning
- » attainment
- » attendance and engagement
- » attitude and behaviour
- » employment prospects.

Attitudes to learning

Staff had previously found that trying to force students on agriculture/farming pathways were resistant to programmes they perceived to be of academic/higher prestige learning. Traditional expectations of studying five subjects allowed little time for on-site vocational learning and did not always result in success for the learner. This created disinterest, disengagement, and learners prone to being placed in detention. Some subjects became “dumping grounds” for these students, particularly Media Studies and Drama, which diminished the academic value of these subjects as well as forcing students into subjects that they did not wish to take.

Palmerston North Boys' High School, under the leadership of the Careers Advisor, has worked hard to change this environment. The esteem and prestige of vocational education success is being raised through trades and non-university pathways. Homeroom represents one initiative, but it does not represent all the work in the school.

Staff involved in this homeroom-based project noted that participating students were highly engaged in their learning and that this was consistent throughout the school year. This positive engagement can be attributed to the ILPs - individualised learning tailored to learner interests and goals, with a focus on attaining the literacy and numeracy skills required for NCEA success, and specifically targeted to areas of pathway-interest. Student, who were reluctant to study English at the beginning of the year due to their perception that it was not relevant to them, adjusted their attitudes as they learned how literacy and numeracy skills were relevant to their future pathway/s. Staff observed that some learners asked for additional work as they sought to challenge their thinking further.

Staff Observations:

- » “[The task] was relevant to their interests so, even though it wasn’t always attached to credits, they wanted to do it... If you gave them a maths problem they wanted to talk about the whole thing, not just sort the problem.”
- » “As soon as the relevant context was explicit to students, we were onto a winner.”
- » “There was never an issue with students wanting to complete their work.”
- » “As time went on, they needed less and less instruction, they developed independence.”

There is a perception that vocational learning is less academic than what could be considered a traditional school learning programme. There were two students who decided to not join the homeroom cohort for this reason. Their focus was on gaining University Entrance (UE) and they could not see how homeroom could support this goal. Following the start of the year, after seeing and hearing about the experience of their peers, and after learning more about the individualised nature of the programme, they chose to adjust their learning programme to be part of homeroom. Both attained UE.

Students also formed a strong identity as a class and built lasting friendships. Social opportunities, provided by the homeroom environment, contributed to a sense of working-together towards a common purpose, and provided the environment for positive relationship which is a solid foundation for positive mental health. Good engagement with learning, and being interested in learning and other learners, allows interpersonal trust to grow and individual and collective wellbeing to flourish.

Attainment

By the end of the 2022 school year, all participating students had attained NCEA Level 3 and had secured employment or a place for tertiary study in 2023.

One participating student was awarded a 2022 Prime Minister's Vocational Excellence Award.

Three participating students have been accepted into Lincoln University, demonstrating that this approach to teaching and learning does not exclude students from tertiary study. The ILP approach gives flexibility, allowing students to consider and work toward a variety of post-secondary school ambitions.

Teachers noted that students developed sophisticated literacy and numeracy skills. Student came to understand the importance of being able to communicate well, both in explaining things to others and in understanding what they themselves needed to do. Teachers were able to highlight skills such as reading and understanding instructions (for example, using instructions for how to safely mix chemicals) and the critical need to read, understand and act. Similarly, numeracy and the need to understand why measurement is critically important. Other skills and activities also explicitly targeted literacy and numeracy skills: making calculations, processing data in Excel, problem solving, writing reports to communicate findings and recommendations, and so on.

Staff observations:

- » “Learners see what dad and grandad do, and they think it’s easy. They quickly find out that there’s more to it than that; there’s a scientific method. This critical thinking and mindset adjustment is going to be beneficial for them 10 years down the track when they’re potentially looking at management and leadership roles – it’s not going to scare them.”
- » “We assume digital skills with this generation that aren’t necessarily there. They might know how to code and make TikToks but they don’t know how to use Excel or write a report that sounds and looks professional. [The homeroom] really developed their spreadsheet and reporting skills.”
- » “Being in the real world accelerated their development.”

The Primary ITO noted that students were able to develop a high calibre of skills that better prepared them for the workforce. During the evaluation, one of the Primary ITO tutors noted that students at PNBHS were highly engaged with their learning. This was attributed to the focus that homeroom allowed on both practical and academic aspects of the course. There are no gaps to allow focus to reduce due to timetable challenges. His observation was that the homeroom had fully realised its potential with regards to attendance, engagement, achievement and practical experience.

Tutor comment from one on-farm experience:

- » “We took them to a farm for a practical workshop and experience. They [the homeroom cohort] dagged 300-odd sheep. Farm staff were dumbfounded. Students from other programmes were on-site at the time. They were impressed by the homeroom boys. They had role models to emulate.”

Palmerston North Boys’ High School recognises and rewards vocational achievement. Vocational success and awards are published on the school website and social media pages, photos are circulated, and it is celebrated in assembly. A “top of homeroom” prize was presented

at the academic prizegiving. When a student leaves prior to the end of the school year to move on to further employment, training, or study, they are congratulated for their success by the school leader who hosts their last assembly. This is often the School Rector.



Observations:

- » “There is no discrimination or sense of being ‘lesser’ for doing these programmes.”
- » “When celebration is encouraged, and congratulations come from the School Leadership Team, the whole community responds.”

Attendance and Engagement

Teachers noted that many of the students in the homeroom would not have remained at school if they had not been given this option.

- » “This homeroom was an incentive to retain learners at school and encourage positive attendance. The extra year helps them find themselves and what they want to do, not what their families want them to do. The best thing for these 13 learners is that they found out what they wanted to do. They found ‘their why?’ That’s a great thing for any learner in any school. To move positively and smoothly, with the necessary skills, into their post-school life.”

Attendance, even during the Covid-19 pandemic, was very good when compared to non-homeroom Year 13s. This provides a great context to encourage schools to develop solutions for attendance and engagement in learning.

- » “At times vocational education could be seen as an “ambulance at the bottom of the cliff” response, used as a last step before a student leaves school. We have created a positive environment that deliberately engages learners through personal interest. They’re nowhere near the cliff unless they’re on a farm and there’s animals there to care for or a fence to construct.”
- » “We decided to implement this long before the attendance fund was established [<https://www.education.govt.nz/our-work/publications/budget-2022/support-for-student-engagement/>]. This wasn’t a “use this money” response. We’re in this for the long haul. We are developing learner skills for them to secure employment where they have a bright future. We believe, through the Homeroom approach and other vocational pathways that we have available to many other learners, learners are set up to continue learning for life. That they developed this passion for lifelong learning here is a great testament to them, and to staff at PNBHS.”

Attitude and Behaviour

Staff at PNBHS reported that on average, prior to 2016, around 20-25 Year 13s would be in detention on Friday each week. Post 2016, when the school developed a focus to develop vocational education opportunities, detention numbers dropped significantly. The positive shift is attributed to the variety of vocational education options made available by the school team, including the homeroom, and to the increased focus that learners have developed due to the focus on skill, interest and ILPs. Any anti-social behaviour stemming from boredom and disengagement has, for the most part, disappeared.

- » “This year [2022], if there were three Year 13 boys in detention each month it was a lot.”
- » “A number of boys who were finding school to be a drag, and found themselves getting into mischief, found a new focus and a new meaning in learning.”

Employment prospects

PNBHS teachers and Primary ITO tutors agreed that the homeroom has opened significant pathways for participating students. They have developed technical skills, literacy and numeracy skills and confidence, and essential other skills that make them highly employable.

- » “Employers love Palmy Boys students because they give a firm handshake, they aren’t on their phones all day, and they have skills.” Primary ITO tutor
- » “The Palmy boys are better prepared for the workforce... we [the Primary ITO] want to encourage the use of this model in other environments.”

Teachers reported that employers in the region regularly call the school to inquire if they have suitable students for them to employ, highlighting the success of vocational learning at the school and the good relationships that PNBHS have developed with the local and regional business community.

Homeroom has adjusted the way that PNBHS approach Year 12 and 13. There are now potential pathways, within school for Year 13 for this group, that previously would have found reason to leave. Learner pastoral needs, and the development of essential life skills, can be addressed and developed daily in the homeroom environment – the value of positive development of staff-student relationships that allows a genuine response from a learner to a “how are you doing?” question cannot be understated. The homeroom provides a safe environment that allows growth and cultivation of life skills and expert support for academic development.

5.2 Challenges

The main challenges experienced were:

- » time constraints
- » access to resources
- » teaching adjustments
- » physical space.

Time constraints

There were disruptions to learning due to Covid-19 during most of Term One and Term Two. The module-based learning project in homeroom was therefore started later in the year than was hoped. The mitigation for disruption was the Individual Learning Plans. This provided an environment where learning was driven by the needs of each learner rather than the need to complete an external programme.

Access to resources

Staff, in collaboration with internal and external colleagues, created specific resources for the programme. This was challenging work, given that the learning context was new to most staff involved.

Staff observation:

- » “As a teacher coming out of a mainstream teaching background, there’s always been something that I am familiar with to use as a reference point, and often a ready-made resource that can be applied to the learning moment. This was not the case here as the learning area (Agriculture and Horticulture) was new to us and the links to Literacy and Numeracy were not explicit enough for the learners in the Homeroom.”

Teaching adjustments

Teachers reported that it took some time to adjust to not having all students together at once in traditional classes. Each day, the group of students would be different, as the days that each student spent out of class versus in class varied. This required a shift in teaching pedagogy and classroom management. The ILP approach was key to successful learning outcomes and teaching preparation.

Physical space

Teachers noted that the physical space allotted for homeroom is important to consider. This has been reviewed for 2023 and the homeroom has been assigned a specific learning space due to the potential for significant number increases for the homeroom.

6 2023 and beyond

Palmerston North Boys' High School Leadership Team has approved the expansion of the Homeroom to accommodate an increase of learners. Staff estimate that the homeroom may expand to 30-35 student by late February. They envisage up to 50-60 student in subsequent years as they bring more vocations on board.

Teachers intend to begin the module-based learning project earlier in the year, to allow more time for positive completion of the project and any necessary report writing.

Staff have reviewed and widened the scope of the Homeroom module-based learning project to include construction. An additional member of staff will contribute to Homeroom learning and ILPs. The teacher of Business will include financial literacy skills learning. In future years staff can envisage other vocational areas being included as part of the provisions of Homeroom.

In 2023, the Primary ITO intends to supply teachers with relevant resources that may help with industry-specific teaching of literacy and numeracy in a farming context. The School plans connecting with BCITO to gain access to construction resources of a similar nature. The Primary ITO also intends to make resources available specifically for Student Māori and Pacific learners. The 2022 homeroom was majority Pākehā but several Pacific learners have expressed an interest in Homeroom study for 2023.

In 2023, there is potential for further work between the Ministry of Education and Palmerston North Boys' High School to map Achievement Standards to the module-based learning project. During 2022 the majority of credits available to student were Unit Standards. The purpose of this work could be to develop a resource that could be published for other schools and kura Māori

6 Future opportunities

The Palmerston North Boy's High School case study serves as a best practice model of inclusive Pathways design. It represents a local curriculum response, which emphasises an individual learning plan (IPL) and 'wrap around' literacy and numeracy support embedded students' engagement in project-based learning.

The immersive, innovative approach of funding a homeroom teacher (1FTE) has alleviated the timetabling constraints of more traditional management models. The 100% transition of students from school to work, and two students achieving UE, is indicative of the success of the school supporting Pathways for their students.

It is noteworthy that in 2023, Palmerston North Boy's High School has extended this agricultural model, incorporating a significant on-site construction programme with two members of the school staff as on-site building tutors. Four transportable homes are currently under construction.