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VOCATIONAL PATHWAYS: AUTHENTIC AND RELEVANT LEARNING

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Vocational Pathways: authentic and relevant learning

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Foreword

Vocational Pathways provide coherent pathways to connect students from school to further education or employment.

In this report ERO evaluated how well 35 secondary schools were using Vocational Pathways. While most schools knew about and were using the pathways, they were not fully realising the initiative's potential. Vocational Pathways can be a valued part of a school's curriculum for all students when used as more than just an add-on to careers education or course-selection processes.

The report gives in-depth examples of how three schools are using the pathways – Forest View High School, Flaxmere College and Hauraki Plains College.

These three schools demonstrated creative and progressive approaches to using Vocational Pathways. Each school was at a different stage of designing their curriculum around the pathways but all three had realised that this was an ongoing process that involved the whole school. These three examples also tell the stories of really effective leadership.

The stories in this report provide explanation, and I think motivation, for other schools to fully embrace Vocational Pathways and to use them to offer relevant and authentic learning opportunities for all students.



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May 2016

Contents

Foreword	3
Overview	5
Next steps	6
Introduction	7
What are Vocational Pathways?	7
Intent of Vocational Pathways	9
Methodology	10
Findings	11
Using Vocational Pathways to support students	11
Towards curriculum change	15
Common challenges and barriers	18
Examples of effective implementation	20
Forest View High School	20
Flaxmere College	21
Hauraki Plains College	23
Conclusion	25
Appendix 1: Sample of schools	26
Appendix 2: Course selection examples	27

Overview

Vocational Pathways are part of the Government's Youth Guarantee scheme, which is about improving the transition from school to work by providing a wider range of learning opportunities, making better use of the education network, and creating clear pathways from school to work and study.

Vocational Pathways provide new structured ways for students to achieve the National Certificate of Educational Achievement (NCEA). The Ministry of Education has worked with industry groups to identify Achievement Standards and Unit Standards that will prepare students for employment or ongoing education in one of six key industries:

- > Primary Industries
- > Services Industries
- > Social and Community Services
- > Manufacturing and Technology
- > Construction and Infrastructure
- > Creative Industries.

Standards for the first five Vocational Pathways were finalised in 2013 and the Creative Industries pathway was added in 2014. Students can obtain a Vocational Pathways Award at NCEA Level 2 if they achieve enough of the relevant standards.

The Ministry of Education provides supporting materials and tools on the Youth Guarantee website (<http://youthguarantee.net.nz/vocational-pathways/>) to help students, whānau, schools, tertiary organisations and employers understand and use the pathways. Vocational Pathways standards and qualifications are identified for Levels 1, 2 and 3.

At the time of data collection for this evaluation, in Terms 3 and 4, 2015, Vocational Pathways standards at Level 1 and 2 had been identified and released. Level 3 standards were released in late 2015.

A commitment to increasing the relevance of students' learning and providing a coherent structure for continuing education and/or employment in each area underpins Vocational Pathways. The Ministry of Education's Vocational Pathways team has encouraged schools through workshops, seminars and website materials to provide more authentic learning and assessment contexts for their students.

In Terms 3 and 4, 2015 the Education Review Office evaluated how well 35 secondary schools were using Vocational Pathways to provide students with a responsive, relevant curriculum. Most schools were aware of the pathways and were including them in their careers education and course selection processes. However, the broader aims of increasing curriculum relevance and authenticity, and supporting a coherent pathway structure for students, were less evident. In most schools, Vocational Pathways were functioning as an add-on to a traditional curriculum model, and their influence on curriculum was limited. A perception that 'vocational' education is less rigorous or prestigious than the more traditional academic track persists among some school leaders, students and whānau.

A few schools were using Vocational Pathways as a way of moving towards curriculum change. Within this group, schools were at different stages of this process. Two schools had substantially altered their approach to curriculum design and implementation in line with the intent of Vocational Pathways. Leaders in these schools had found that implementing Vocational Pathways had also necessitated some changes to school structures in order to better support their implementation of a more relevant, responsive curriculum. This report includes examples of the changes they made. Other schools had made a philosophical shift towards a pathways approach, but at the time of this evaluation, were still considering how best to move ahead with the changes they wanted to make.

Vocational Pathways has considerable potential to engage students in relevant learning and to provide greater continuity of learning for students as they transition to further education and/or employment. At present, many schools are implementing the programme at a level that does not fully support this potential. This report includes examples of how schools are using Vocational Pathways to best support their students.

Next steps

ERO recommends that secondary schools:

- > use Vocational Pathways to provide careers information and support students to select and plan courses
- > evaluate how well their current curriculum supports student engagement
- > consider how Vocational Pathways can support the design and implementation of a more relevant and integrated curriculum for all of their students
- > continue to build awareness of Vocational Pathways among their parents, whānau and wider communities.

ERO recommends that the Ministry of Education:

- > further promotes awareness of Vocational Pathways, particularly among whānau and employers
- > promotes awareness of the new Level 3 Vocational Pathway standards
- > reinforces the message that Vocational Pathways are applicable to all students, not just those who are at risk of underachieving
- > supports secondary schools to provide, or arrange for provision of, access to sector related standards for all students who are interested in obtaining a Vocational Pathways Award.

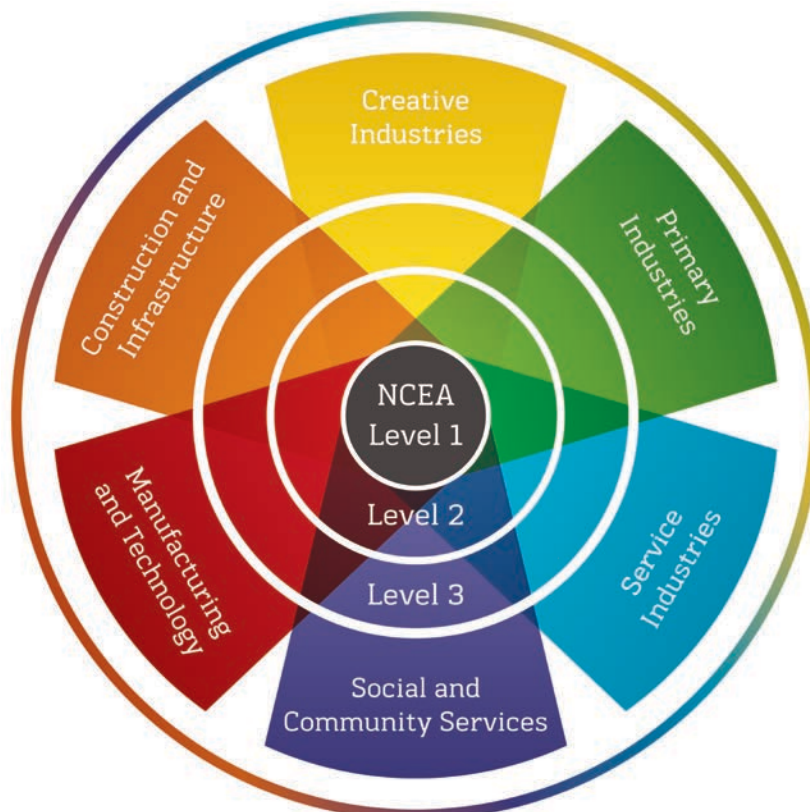
Introduction

What are Vocational Pathways?

Vocational Pathways provide structured ways for students to achieve National Certificate of Educational Achievement (NCEA). The pathways identify a range of Achievement Standards and Unit Standards that prepare students for ongoing education and/or employment in the industry of their choice. It is intended that students will ask teachers or careers advisers for support in using Vocational Pathways to plan a course.

As of 2016, there are six colour coded Vocational Pathways: Primary Industries, Services Industries, Social and Community Services, Manufacturing and Technology, Construction and Infrastructure, and Creative Industries (see Figure 1 below). Each sector pathway was developed by a consortium made up of industry and education representatives, and coordinated by a Pathways Advisory Group, with an overarching working group drawing together the final decisions.

Figure 1: The Vocational Pathways Rosette

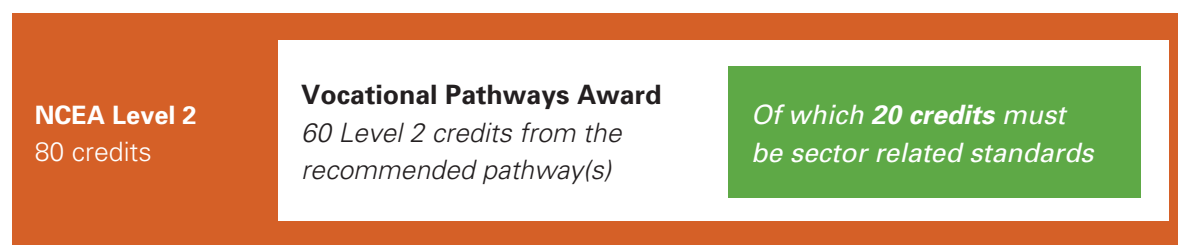


At NCEA Levels 1, 2 and 3, relevant standards are identified as 'Recommended' or 'Sector related'.

- > **Recommended standards** represent useful foundation learning for each pathway. They are generally Achievement Standards aligned to *The New Zealand Curriculum* and *Te Marautanga o Aotearoa*.¹ Many recommended standards appear in more than one of the various pathways.
- > **Sector related** standards are also recommended, but are more specific to the skills and experiences needed in the relevant industry setting. They are generally Unit Standards.

Students can obtain a Vocational Pathways Award at NCEA Level 2 if their 80 NCEA Level 2 credits include 60 from the recommended pathway, of which 20 must be sector related standards. Figure 2 illustrates this visually:

Figure 2: Vocational Pathways Award criteria



NCEA Level 3 Vocational Pathways standards have been released and the Ministry of Education is now working with stakeholders to finalise what a Level 3 Vocational Pathways Award will look like.

The Youth Guarantee website hosts many useful tools and resources for students, whānau, schools, tertiary providers and employers, including:

- > **lists** of the recommended and sector related standards at NCEA Levels 1, 2 and 3 across all pathways
- > **the Profile Builder**, into which students can enter the standards they are currently doing, or plan to do, and see how these fit into the six pathways
- > **links** through to the Occupational Outlook app which gives information about the types of jobs and opportunities available in the six industry sectors
- > links to **assessment resources** on Te Kete Ipurangi, and **assessment support material** on the NZQA website
- > **guidance for educators** on Vocational Pathways and how they can support contextualised learning
- > **introductory material** on Vocational Pathways for students and whānau
- > several videos, including **videos** of contextualised learning in practice for schools, and explanations of NCEA and pathway planning for students and whānau.

The Profile Builder is the primary tool for students to plan their programmes by entering standards they want to do in the future, or the standards offered within courses. Students are encouraged to use the Profile Builder with parents and whānau, teachers, careers advisers and others who support their learning. The Profile Builder can also be used by teachers and school leaders when designing programmes or courses or mapping existing options against the pathways.

¹ Ministry of Education. (2007). *The New Zealand Curriculum*. <http://nzcurriculum.tki.org.nz/The-New-Zealand-Curriculum>; *Te Marautanga o Aotearoa*. <http://tmoa.tki.org.nz/>.



Intent of Vocational Pathways

Increasing the relevance of students' learning is central to Vocational Pathways. Evidence from New Zealand and overseas suggests that when students perceive their school-based learning to lack relevance, they can become disengaged from school entirely. Many New Zealand students who had left school at age 16 cited boredom as a major cause.² In a survey of students in the USA who had left school early, over 80 percent said that having more authentic learning opportunities might have kept them in school.³

Vocational Pathways are intended to address these issues in two ways. First, students are able to use the pathways to see the links between what they are studying and careers in their field of interest. Second, Vocational Pathways encourage schools to provide authentic learning and assessment contexts that more closely resemble working life in the six industry sectors. The Ministry of Education has provided some real-life examples from schools that have used Vocational Pathways to provide contextualised learning – these are available on the Youth Guarantee website.

Another intended effect of Vocational Pathways is to promote equal status among different careers and learning areas. ERO has previously found a perception that curriculum innovations that “break away from traditional subject silos and teaching approaches may be seen as second-class compared to academic education.”⁴

However, Vocational Pathways include professional occupations alongside trades, hospitality, creative industry and information technology career opportunities. The mapping of all careers to Vocational Pathways is a signal that these are all worthwhile options for students. There are many pathways to success, and students should feel comfortable to pursue a career that aligns with their strengths and interests.

2 Wylie, C., et al, New Zealand Council for Educational Research. (2009). On the edge of adulthood: Summary of key findings from the Competent Learners @ 16 project. Retrieved from <https://www.educationcounts.govt.nz/publications/ECE/2567/35076/35079>.

3 Bridgeland, J. et al, Civic Enterprises. (2006). The Silent Epidemic: Perspectives of High School Dropouts. Retrieved from <http://eric.ed.gov/?id=ED513444>.

4 Education Review Office, (2013). Secondary Schools: Pathways for future education, training and employment. (p. 23). Retrieved from <http://www.ero.govt.nz>.

Methodology

ERO collected data from all secondary and composite schools (excluding those in Auckland City) that had a regular education review in Term 3 and the first three weeks of Term 4, 2015. This totalled 35 schools.

The overall evaluation question was:

- > How well are schools using Vocational Pathways to help provide students with a relevant, responsive curriculum?

While onsite, reviewers drew on evidence from meetings, interviews, observations and document analysis to answer the following investigative questions:

- > How is the school community aware of and using Vocational Pathways?
- > How are Vocational Pathways affecting students in this school?
- > How are Vocational Pathways influencing the school's curriculum?
- > What successes and challenges has the school had with using Vocational Pathways?

A specialist review team then revisited seven schools identified as actively implementing aspects of Vocational Pathways in Term 4, 2015.

Demographic information about the schools in this evaluation is included in Appendix 1.



Findings

The 35 schools in this evaluation were at different stages of implementing Vocational Pathways. Most of these schools were aware of the programme, although the level of familiarity within schools was variable across school leaders, teachers, students and whānau. Careers staff, or those in an equivalent position, were most often the champions of Vocational Pathways in schools. They were using Vocational Pathways with students when they were selecting courses or seeking careers advice.

The extent to which others in the school were aware of and saw the value in Vocational Pathways was determined to some degree by the level of influence the careers staff had in the school. Support from school leaders was crucial to implementation of the pathways. In particular, innovation and moves toward increased curriculum relevance occurred where curriculum leaders had a good understanding of the potential of Vocational Pathways.

In most cases, Vocational Pathways were functioning as an add-on to a traditional curriculum model. The broader aims of providing relevant and authentic learning contexts responsive to student interests were only beginning to be realised in a few of the schools. These schools were finding that taking Vocational Pathways seriously meant reconsidering aspects of curriculum design and structural aspects of the school like the timetable and the division of subjects. Most were only beginning this process, but had shifted their thinking towards a pathways approach.

Using Vocational Pathways to support students

Careers education and course selection

The most commonly visible use of Vocational Pathways was in course booklets. At a basic level, some schools included information about Vocational Pathways as a separate page in their booklet. At a more developed level, other schools were using the Vocational Pathways rosette, or Vocational Pathways colouring to show which of the courses and standards they offered could contribute to progress along one or more of the pathways. Some examples are included in Appendix 2 of this report.

Vocational Pathways posters were also displayed around the school, particularly in careers departments. The strong, consistent, visual design of Vocational Pathways material contributed to student recognition and awareness.

In a 2012 evaluation, ERO found considerable variability in how careers education is provided in New Zealand schools. In most schools evaluated, careers education operated through the efforts of careers staff as an addition to the school's curriculum, rather than as an integrated component of it. A few schools were pursuing more innovative, school-wide approaches.⁵

Similarly, the current evaluation found that awareness and use of Vocational Pathways was often limited to careers staff. Careers staff provided students with information on Vocational Pathways to help guide course selection, or used the Profile Builder with students to show how their achieved or proposed credits could contribute to the pathways.

⁵ Education Review Office. (2012). Careers Information, Advice, Guidance and Education (CIAGE) in Secondary Schools. Retrieved from <http://ero.govt.nz/publications/careers-information-advice-guidance-and-education-ciage-in-secondary-schools/>.

Less commonly, other staff such as deans or mentors had spoken with students about Vocational Pathways or used the Profile Builder. Some schools had integrated Vocational Pathways into form class time.⁶ The example below shows how one school involved multiple teachers and staff in using the pathways with students to support course selection:

Each Year 11 and 12 student is mentored on their choices as part of a one hour per week programme with the careers administrator. Deans, teachers, senior managers and careers staff are all involved in helping with this subject course selection. Students are encouraged and supported to use the online graphs to check how they are proceeding along any pathway.

The teachers involved in student choice selection feel strongly that using the pathways helps students make relevant choices.

(Hornby High School, Christchurch)

In some schools, Vocational Pathways were helping students to see how their courses were relevant to future career options by providing opportunities for contact with tertiary educators or people employed in the industries. At one school students reported that they were more convinced about the need for NCEA qualifications after hearing the message from a polytechnic tutor.

Vocational Pathways were mostly used at the senior secondary level when students undertake their NCEA qualifications. A few schools were introducing students to the pathways earlier, in Years 9 or 10, so that students would be familiar with them by the time they reached Year 11. One school was looking at extending awareness of the pathways to the local primary school.



⁶ Used here as an umbrella term for groupings such as form classes, mentor groups, development classes and whānau time.

Vocational Pathways Awards

In a few cases, the opportunity to gain a Vocational Pathways Award was a motivating factor for students. Students who may not have experienced success previously were energised by what they could achieve.

"I've never seen kids so enthusiastic – 'Can you help me get these credits? I need them for my endorsement.' – They love it."

(HoD Maths, Hauraki Plains College, Ngatea)

One teacher related the story of a student who had shifted from being very disengaged and feeling unsuccessful, to being "on a mission", focused on getting her Primary Industries Award. This motivation extended beyond NCEA Level 2. The same teacher noted that many of her other students had also raised their aspirations as a result of finding the learning they were passionate about, and now aimed to achieve University Entrance.

Some schools raised the profile and status of the awards by presenting them at assemblies, sending a clear signal that this learning and achievement was valued. A specialist classroom teacher at Flaxmere College, Hastings, said that students loved the certificates they received, and noted that students could "leave with pride – having made some steps towards whatever they choose."

At some schools, however, leaders and teachers reported that most students did not know much about the awards. Awareness of the nature and purpose of the awards was also variable among whānau, and a few school leaders felt that it was particularly low among local employers. Signalling to employers that students have developed relevant skills and knowledge for their industry is a primary purpose of the awards. Employers' lack of knowledge of the awards undermines their usefulness. Some schools were working to address this through parent information evenings or other forums where they engaged with local employers.

Valuing all career pathways

*"It's not **if** you're smart, it's **how** you're smart."*

(Principal, Hauraki Plains College, Ngatea)

Traditionally, schools have valued, taught, and assessed for a set of skills associated with university education, while other skills and talents have been less well recognised and rewarded. Two schools that were implementing Vocational Pathways well were using them to build equal status between traditionally academic options and more vocationally-oriented ones.

The Principal at Hauraki Plains College was well aware of, and wanted to counter, the perception that more vocationally-oriented courses were easier options than academic ones. Student projects within the Construction and Infrastructure, Primary Industries and Creative Industries pathways, showing evidence of students' complex skills and knowledge, are visible around the school grounds. The school has also started to present a 'best product' award at the end of the year, alongside the traditional academic Dux award.

At Flaxmere College, the same commitment to valuing diverse skills and forms of knowledge was evident. Students were achieving success in Creative Industries, Services Industries and Construction and Infrastructure. One teacher related how things had changed in her lifetime:

"I left school without University Entrance. I felt dumb. Our kids don't. We are archaic if we think university is the only option for our kids. Vocational Pathways have opened that doorway."

(Specialist Classroom Teacher, Flaxmere College, Hastings)

The college was taking particular advantage of the Creative Industries standards to provide a clear pathway for students who were passionate about traditional Māori arts and culture through well-attended and popular courses in Whakairo and Mau Rākau.⁷ Students at the college spoke of how the recognition of their skills in these creative pursuits had given them a sense of pride in their learning.



⁷ Carving, and traditional Māori weapon-based martial arts.

Towards curriculum change

Most of the schools in this evaluation were using Vocational Pathways as an add-on to their traditional curriculum approach, usually through the efforts of careers advisers. Used in this way, Vocational Pathways were beginning to help students to make appropriate subject choices and to see how their learning related to future education and career opportunities.

A few schools had explored further the intent of Vocational Pathways and were increasingly finding that taking a pathways approach had implications for the school curriculum.

Leaders in these schools identified a **tipping point** at which they realised that taking the pathways seriously meant that they needed to consider how their curriculum implemented **relevant** learning, and supported a **pathway approach**.

Tipping point

"It's too easy to say it's just a tack on. You can squeeze the system a bit harder, but you only get so much improvement before you need to change."

(Principal, Paeroa College)

At Flaxmere College, the Deputy Principal in charge of curriculum said that Vocational Pathways "really gave the curriculum, and how we teach, a kick in the pants." The Principal at Paeroa College recognised that "if we carry on as we are, we become less and less relevant." He saw that Vocational Pathways could potentially provide a lot of opportunities, especially for students that did not find the current curriculum relevant. However, this would only happen if it informed some significant review and change.

At Hauraki Plains College, the move toward a pathway-oriented curriculum had occurred independently, in 2008, and so the school was well prepared to make the most of Vocational Pathways when they were introduced. The Principal said they were "building on it, not building from it" and they had greeted the Ministry of Education roll-out of the pathways enthusiastically, saying that they "added value to what we're doing anyway."

Leaders at these schools saw Vocational Pathways as consistent with, and extending, both the flexibility of NCEA and the intention of *The New Zealand Curriculum*.

Relevance

"If you want to excite people, you have to have education for a purpose that relates to their lives."

(Principal, Hornby High School, Christchurch)

In schools where Vocational Pathways were influencing the curriculum, teachers were increasing curriculum relevance by providing more authentic learning and assessment contexts for their students. At Hauraki Plains College, for example, students in the Primary Industries pathway planned and implemented a redesign of a reserve close to the school, including following the process to submit and gain approval from the local council for their plans. The teacher described this as a "real world problem, and a real solution for the community." Because of the authentic context, students were engaged even in what the teacher saw as a potentially 'dry' soil unit standard, and student feedback indicated that they wanted to keep it in the course.

Like Hauraki Plains College, Hagley Community College in Christchurch had already taken some steps towards a pathway approach before the development of Vocational Pathways. The college had created authentic learning contexts through their 'schools within schools' approach. These 'schools' are intended to engage students around a particular passion. There are currently 13 schools within the college, including fashion, drama, cuisine, primary industries, early childhood education and care, and mobile app development. The college's schools within schools model exploits flexibility in the timetable, with students able to study after normal school hours or on the weekend. Authenticity and relevance are enhanced by having a mix of adult students and high school age students enrolled, more closely resembling a workplace.

Hagley Community College's internal evaluation showed that these programmes were proving very successful for students. Some students would come in with few or no qualifications and then gain NCEA Level 3 after one or two years in one of the programmes. The Principal was really excited by the lift in these students' aspirations, as many of them then chose to go on to further study.

Pathway approach

A pathway approach means thinking about curriculum from the perspective of the learner as they transition through their schooling toward future education, training or employment. There are two main components to this: continuity of learning and more integration across subjects.

Schools were considering how their curriculum could support continuity of learning as students transitioned through and beyond secondary schooling. Hornby High School in Christchurch developed a pathway approach focused on continuity of learning. They summed this up by saying: "Start with the end in mind." Careers advice and course selection all centred around ensuring that students have a pathway that reflects their interests and provides a clear direction to ongoing education and/or employment. Students are helped to choose courses that align to one of the pathways. This requires them to identify what further education or training is necessary for their chosen career. See Appendix 2 for an example of the course selection form for Year 11 students.

Because Vocational Pathways cut across learning areas, some schools were finding that thinking in terms of pathways had implications for the traditional division of subjects. An example from Hauraki Plains College is a collaborative project in media studies where Year 13 students are publishing and selling a lifestyle magazine. Students are excited and engaged by the creative freedom they have to decide on aspects of the magazine's content and style. The project provides an authentic context in which to gain standards from a range of areas, including English, design and photography. The media teacher is working with other teachers to provide continuity of learning and further credits for these students in other subjects too – by incorporating Primary Industries research into one of the magazine articles, and developing a marketing plan for the magazine as part of business studies.

For students to have coherent learning experiences, teachers need to be aware of what their students are learning in other classes. Course content can then be aligned so it is complementary and cohesive. However, in many secondary schools, subjects still operate quite independently of one another. To move towards a pathway approach, leaders have found it necessary to break down these 'silos' and encourage collaboration across departments. This is not necessarily a quick or easy process.

Additionally, and in keeping with the intention of Vocational Pathways, many schools remain reliant on outside providers for their students to be able to achieve sector related standards – whether through Secondary-Tertiary Programmes (STPs),⁸ Gateway-funded work placements,⁹ or STAR-funded courses.¹⁰ Collaboration is even more important when student pathways extend across contexts in this way. A 2015 ERO report on STPs highlighted the need for schools and tertiary providers involved in STPs to share information about programmes of learning to better integrate their respective courses for students.¹¹

Students accessing some of their learning outside school has implications for the school timetable. For instance, if students attend a tertiary provider one day a week through an STP, they may miss out on classes scheduled in school for that day. Timetabling presents both an opportunity and a challenge for schools as they move to put in place Vocational Pathways. Flaxmere College and Hauraki Plains College both found that re-thinking their timetable played an important role in supporting the design and implementation of a more relevant, pathway-oriented curriculum.



- 8 Secondary-Tertiary Programmes are a partnership between schools, tertiary providers, local communities and employers to help young people achieve better education and employment opportunities. Find out more at <http://youthguarantee.net.nz/secondary-tertiary-programmes/>.
- 9 The purpose of Gateway is to enable schools to provide senior students with opportunities to access structured workplace learning. Find out more at <http://www.tec.govt.nz/Funding/Fund-finder/Gateway/>.
- 10 STAR funding supports schools to provide flexible funding for courses which will better respond to students' needs, motivate them to achieve, and facilitate their smooth transition to further education, training or employment. Read more at <http://www.education.govt.nz/ministry-of-education/specific-initiatives/star/>.
- 11 Education Review Office. (2015). *Secondary-Tertiary Programmes (Trades Academies): What works and next steps*. Retrieved from <http://ero.govt.nz/publications/secondary-tertiary-programmes-trades-academies-what-works-and-next-steps/>.

Common challenges and barriers

The most commonly reported challenges and barriers in implementing Vocational Pathways for schools in this evaluation were:

- > building understanding and buy-in among all staff
- > addressing the issue of equal status for vocational and academic qualifications
- > providing access to sector related standards
- > a perception that Vocational Pathways were only for students at risk of underachievement
- > a perceived disconnect between Vocational Pathways and entry requirements for limited courses in universities.

Many of the schools in this evaluation faced the challenge of building understanding and buy-in among all leaders and teachers. For the pathways to have substantial influence, it was particularly important that school leaders were convinced of their potential value. In many cases, awareness and use of Vocational Pathways was limited to careers staff who were not necessarily able to influence leaders and teachers.

The difference in perceived status between academic and vocational education options is an ongoing challenge. Changing these attitudes will take time, and the shift cannot be entirely driven by schools. Some schools were willing to address the issue, but were finding it difficult to change existing mindsets, which extended to students themselves, as the next example shows:

The school said that students are reluctant to show credits that have been gained through Barista and Retail courses. Students want to do the courses to enable them to support themselves through tertiary study but are concerned that these credits will be negatively perceived by universities and future employers. They are asking to do these courses but don't want the credits. The school sees the need to further educate parents and the wider community.

(A medium-sized secondary school in a main urban area)

Other schools were not so willing to address this perceived disparity. One school was reinforcing the attitude that vocational options were less valued than academic options.

The school community, board and staff still divide the curriculum into academic and vocational, with academic being privileged.

(A large secondary school in a main urban area)

Such attitudes do not provide fertile ground for the implementation of Vocational Pathways.

Another challenge for a few schools was their belief that they were unable to provide Vocational Pathways standards for their students. In particular, schools were less likely to have consent to assess¹² from the New Zealand Qualifications Authority (NZQA) for the more industry-specific, sector related standards. This was heightened in some geographically isolated schools who also felt that they would not be able to arrange access to these standards through other avenues like Secondary-Tertiary Programmes.

¹² Consent to assess certifies education organisations to assess unit or achievement standards and award credits for them. See <http://www.nzqa.govt.nz/providers-partners/approval-accreditation-and-registration/consent-to-assess/>.

Vocational Pathways are very broad and can apply to all students. Almost all career choices have been mapped to one of the pathways, including traditional professional careers such as medicine and law. Some of the careers require university study, while others do not. However, in most schools in this evaluation, leaders and teachers perceived Vocational Pathways as aimed at students who were disengaged from their learning, or otherwise at risk of not achieving. Despite the breadth of careers included, Vocational Pathways were seen as not being for students who were achieving well academically and on track for University Entrance.

Often, schools were using Vocational Pathways primarily with students who were also involved in Gateway, STAR, or STPs. Along with these initiatives, one school saw Vocational Pathways as part of their provision for less able students. Another school saw Vocational Pathways as especially useful for students who find it hard to plan a complete programme of standard NCEA subjects.

Even in some of the schools where use of the pathways was well developed, there was evidence of disconnect between Vocational Pathways and university study. The academic Dean at Hauraki Plains College said: "For university-bound students, Vocational Pathways are off to the side. They are focused more on Merit and Excellence endorsements, rather than Pathway credits."

Other challenges or barriers identified in a few schools in the evaluation included:

- > arranging timetables to support pathways
- > a belief that the pathways 'pigeon-hole' students too early and are inflexible
- > a lack of digital technology access to enable use of Vocational Pathways tools
- > difficulty providing pathways for careers where there are no local job opportunities
- > a more general lack of curriculum relevance and responsiveness in the school.



Examples of effective implementation

The following examples show how three schools implemented aspects of Vocational Pathways for their students. These schools were at different stages of implementation, and all considered that they were engaged in an ongoing process.

Forest View High School in Tokoroa was at an early stage of working with Vocational Pathways. Their story shows a school at the **tipping point**, implementing and embedding Vocational Pathways to support students, and considering the implications for their curriculum.

For Flaxmere College in Hastings, Vocational Pathways sparked interest in creating a more **relevant and responsive** curriculum for their students. Their story shows how they made this change and the structural adjustments they made to support it.

Hauraki Plains College in Ngatea made the philosophical shift towards a **pathway approach** before the development of Vocational Pathways. Their story highlights how Vocational Pathways can fit into and add value to an existing pathway structure.

Forest View High School

When Vocational Pathways were introduced, Forest View High School leaders felt that it fitted well with their ethos of adding value through 'quality qualifications'. They had focused on providing qualifications that helped students transition to life after school, and which were coherent as students transitioned between NCEA Level 2 and Level 3. As part of this focus, the school had built closer connections with the University of Waikato and Waiariki Institute of Technology. Vocational Pathways' emphasis on relevance and continuity supported the quality qualifications ethos.

Forest View High School implemented Vocational Pathways in the senior school. All students are identified as being on a pathway. Deans work closely with students to map their pathways, and school leaders saw this was having a positive impact on course selection. Students are also beginning to become more aware of the need for literacy and numeracy credits. The language of the pathways is more evident in the school, although leaders are also aware of the need to continue to build awareness of the pathways among whānau and local employers.

The Principal chairs the monthly meetings of the local Youth Guarantee Network, which has helped the school to develop useful partnerships with other schools in the area, tertiary providers, the Gateway co-ordinator, and others. Other important relationships were established with local employers, notably the Kinleith Mill. These connections helped the school to show students the relevance of their learning. For example, chemistry students going on a field trip to the mill to see chemical processes in action. Students were earning sector related credits largely through the Secondary-Tertiary Programme (STP) led by Trident High School,¹³ and Gateway placements with a variety of local employers.

As the school implemented the pathways and mapped their courses against the standards, they began to consider the broader implications for curriculum. A Vocational Pathways working party was formed, evolving out of a pre-existing curriculum review group.

¹³ STPs operate as groups of schools and tertiary providers working together to deliver educational programmes to students. Each STP has a lead provider. Lead providers can be schools, institutes of technology and polytechnics, industry training organisations or private training establishments.

It is still early in the process but leaders are considering how to break down barriers between courses, and construct programmes based around meaningful activities. One of the activities being considered is the school production, which provides opportunities for authentic learning contexts across a range of areas, particularly within the Creative Industries pathway. Another innovation is the development of a new role of 'future pathways leader' to replace the traditional careers adviser position.

Leaders are aware of the need to move carefully and deliberately in making curriculum changes. There are further implications for how school structures can best support pathways implementation, including changes to timetabling and thinking about the length of the school day. Leaders are using tools on the Youth Guarantee website to inform their review. They recognise that they are at the beginning stages of a deeper implementation of Vocational Pathways but see the potential to provide a more relevant curriculum for their students.

Flaxmere College

In 2013, Flaxmere College's internal evaluation processes identified that its current curriculum was not meeting the needs of many of its students. In 2014, leaders began an extensive curriculum review process to provide students with a curriculum more responsive to their needs and aligned to their aspirations. Following participation in Ministry of Education workshops, leaders identified the Vocational Pathways framework as a useful model for this process.

School leaders consulted the local community. The school's charter was aligned to the Ngāti Kahungunu Iwi Education Plan. Parent and whānau views were sought at a marae hui where the college openly accepted its responsibility for students who were not succeeding. The school provided further opportunities for whānau voices to be heard at an evening to celebrate student success.

Staff initially expressed some concerns about the risk of 'dumbing down' the curriculum. Some were worried that Vocational Pathways did not provide for more traditionally academic students. After discussion about the breadth of Vocational Pathways, these worries were allayed. The Principal has consistently repeated the message that Vocational Pathways learning is challenging and rewarding.

Senior leaders followed a cautious and systematic approach to managing the changes that they identified as necessary. As they worked towards the new approach, leaders acknowledged and managed staff anxiety about major change and used Post Primary Teachers Association (PPTA) guidelines for change management. Departments reviewed their curriculum provision and developed courses appropriate to the pathways approach. Over the course of several staff meetings, teachers developed hypothetical courses aligned to Vocational Pathways. Initially, they drew standards from many different learning areas. However, in reviewing these courses, they realised that individual teachers were not necessarily able to teach all of them. The courses that were eventually approved were less expansive than these initial hypothetical courses. The college is continuing to explore how greater collaboration across departments can support students to take standards from a broad range of learning areas in single coherent courses.

To support the modified curriculum it became evident that a change in timetable structure was needed. Period times for Years 9 and 10 students were lengthened and the number reduced to three daily. At senior level, a full day was set aside each week to allow opportunities for authentic, hands-on, onsite and offsite learning. The longer blocks of time at all levels also made conferencing with students easier and gave more flexibility in managing assessments.

These timetable and course changes also highlighted the need for changes in pedagogy. Professional learning and development was provided for staff, using another school as a case study. Time was set aside for teachers to plan collaboratively and share successful practice to help implement the new approach. This often meant drawing on previously established good practice from within the college such as elements of Te Kotahitanga.¹⁴ The need for collaboration across departments to provide a more integrated approach to learning soon became evident. This is still a work in progress.

One outcome of the changes is a more multi-levelled approach to monitoring and supporting students, with more people responsible for each individual. At the start of the year, students choose a mentor who maintains contact with the home. Whānau are kept fully informed of their teenager's progress along their chosen pathway through three conferences per year. A full day is set aside for these and the college writes to parents' employers where necessary to ask them to release their employees to attend, indicating the importance that they place on these meetings. Students attend and, at senior level, lead the discussion about their pathways. Staff explain the pathways to every newly enrolled student and their whānau. The Principal reported that the pathways really resonate with parents, with some saying "I wish this was around when I was at school."



14 Te Kotahitanga is a research and professional development programme that supports teachers to improve Māori students' learning and achievement, enabling teachers to create a culturally responsive context for learning which is responsive to evidence of student performance and understandings. See <http://tekotahitanga.tki.org.nz/>.

Hauraki Plains College

Following the economic downturn in 2007-2008, Year 13 enrolments doubled, highlighting the need for a more diverse range of courses at senior level. At this time, the college examined whether the current course options provided equitably for all students. Leaders acknowledged that university was not the only pathway to excellence. The outcome was a shift to a pathways approach.

“The school’s mission is giving our kids a future and a hope. There’s a place for them out there and it’s important that we help them find it.”

(Principal)

A college trust had already purchased a farm, originally as an investment, and this subsequently became a vehicle for a Primary Industries pathway. The trust had also bought an old Masonic lodge, which was used to provide a venue for a performing arts centre.

In 2008, the college trialled a four pathways structure of arts, sciences, trades and services. Every space on the timetable had a choice from each of these pathways. They reduced the time per course from four to three hours, providing the opportunity to offer 25 percent more courses than previously. The biggest concern at this time was whether three hours was long enough for ‘core’ subjects – English, mathematics and science. Leaders acknowledged this concern and mitigated it by providing optional extension classes for students who felt they needed them. When they evaluated the trial they found that the extension classes were not necessary so they were phased out.

When Vocational Pathways were finalised and published by the Ministry of Education in 2013, the college viewed them as something to add value to what they were already doing. Vocational Pathways were incorporated into the college’s existing curriculum. Options were extended to provide courses at Year 12 for each of the six Vocational Pathways. At Year 12, students currently take eight subjects. This includes the opportunity to take ‘interest’ subjects with assessment for credits being negotiable in some cases. At Year 13, students cut back to five subjects.

Students’ exposure to the concept of pathways begins at Years 9 and 10 with assembly talks and posters visible around the school. Vocational Pathways are fully integrated into subject selection at Years 11 and 12. Students use the Profile Builder tool for planning, and course booklets clearly show how the available options relate to Vocational Pathways. Students also track their own credits in their school diary, in consultation with the academic Dean. Teachers ask students, “What’s your pathway?” and not “What’s your career?”

The college is moving towards a pathways management structure with pathway ‘Champions’, who have designated responsibility for providing leadership to teaching staff in their particular pathway. A key role of these Champions is to facilitate the cross-curricular links that are an essential element of Vocational Pathways.

A Vocational Pathways mathematics course was introduced in 2015. Students can now see the point of learning mathematics because the course links to their chosen pathway. Mathematics teachers liaise with teachers of practically oriented courses so they can align the teaching of specific topics that relate directly to what students are learning in their other courses. This has lifted students’ engagement, self esteem and motivation. It has also lifted the numbers in senior mathematics classes as students now realise they need the mathematics to succeed in their chosen pathway.

The college is providing students with a mentoring/support structure with all students divided into 'Rivertime' year level groups of 14. During weekly sessions the River Guides¹⁵ develop students' career competencies through a range of practical activities. River Guides, deans, and to some extent the Champions, monitor students' progress along their chosen pathway.

Most staff are very supportive of the college's pathways approach. They accept the expectations of senior leaders of the need to be flexible:

"Please don't grizzle if students are out of class – it's their future."

(Principal)

The Principal values the opportunity to employ people with practical trades' experience who are able to provide students with authentic learning experiences:

"Real people teaching real skills."

(Principal).

Having tradespeople on the staff has also been a useful resource to obtain consent to assess for sector related standards.

The college has strong links with community employers who provide students with a wide range of 'on the job' authentic learning opportunities in their chosen pathway. Eighty students participate in the Gateway programme, which is the largest Gateway group in the country. Some students are enrolled in a Primary Industries Trades Academy. The college makes good use of links with tertiary providers to assist students to obtain relevant credits and qualifications.



15 Equivalent to form teachers.

Conclusion

Most schools in this evaluation were aware of Vocational Pathways and saw some value in using them to support students' careers education and course selection. Students were beginning to use Vocational Pathways tools, particularly the online Profile Builder, as part of their careers education and to select courses relevant to their pathways.

However, at the time of this evaluation, only a few of the schools were moving towards substantial curriculum change as a result of their engagement with the pathways. More commonly, the pathways were functioning as an add-on to a traditional curriculum and their use was largely limited to careers staff. School leaders, and particularly curriculum leaders, should consider the potential benefits of providing access to more relevant and authentic learning contexts, and using a pathway approach to underpin a more integrated and cohesive curriculum for their students.

A perception of Vocational Pathways as being relevant only to students who are not achieving academically remains widespread. Awareness and understanding of Vocational Pathways was generally strongest among careers staff, followed by school leaders, then teachers and students. Whānau were less likely to know about the pathways, although many schools were taking steps to address this through information evenings and on an individual basis as part of their course-selection processes.

Further targeted promotion of Vocational Pathways is needed. This should particularly focus on addressing the issue of perceived status by affirming the important economic and social contributions that students can make as they pursue further education and employment opportunities across the whole range of industries. Raising awareness of Vocational Pathways among employers is crucial to the credibility and usefulness of Vocational Pathways Awards.

This evaluation has focused on how secondary schools are implementing Vocational Pathways. A comprehensive evaluation of the whole Vocational Pathways project is planned for 2017 by the Ministry of Education and Industry Training Federation. This will provide an opportunity to evaluate the impact of Vocational Pathways on student engagement, achievement and retention across secondary, tertiary and industry training contexts, and Māori-medium and English-medium settings.

Appendix 1: Sample of schools

Table 1: School type¹⁶

School type	Number of schools in sample	Percentage of schools in sample	National percentage of schools
Secondary (Years 7-15)	10	28.6	27.1
Composite (Years 1-15)	4	11.4	22.4
Secondary (Years 9-15)	21	60.0	50.5
Total	35	100	100

Table 2: Locality

Locality	Number of schools in sample	Percentage of schools in sample	National percentage of schools
Main Urban Area	17	48.6	57.1
Minor Urban Area	10	28.6	20.8
Secondary Urban Area	2	5.7	13.9
Rural	6	17.1	8.2
Total	35	100	100

Table 3: Roll size

Roll Group	Number of schools in sample	Percentage of schools in sample	National percentage of schools
Very Small (1 – 100)	2	5.7	7.5
Small (101 – 400)	14	40.0	36.1
Medium (401 – 800)	9	25.7	26.0
Large (801 – 1500)	8	22.9	21.0
Very Large (1501+)	2	5.7	9.4
Total	35	100	100


¹⁶ The differences between observed and expected values in Tables 1-3 were tested using a Chi-Square Goodness of Fit Test and were not statistically significant ($p < 0.05$).

Appendix 2: Course selection examples

Figure 3: Hornby High School course booklet

Engineering Trades

National Certificate in Mechanical Engineering L2
HOD: Mr F Rzoska / Teacher Mr I Rees



Subject Description
Engineering is a practical subject where students complete a series of industry approved projects. These projects provide students with an opportunity to learn a wide range of practical engineering skills and techniques. Each engineering project encompasses the tools, material requirements, and competency and knowledge outcomes listed in the unit standards, and provides a practical and stimulating experience for students. Students may also be offered additional tuition at SIT or CPT.

A Range of Typical Jobs and Careers that this subject supports.
This course provides a set of foundation skills for mechanical engineering and related trades. They may be used towards the first stages of an apprenticeship or as the basis for a pre-trade course. It is particularly relevant for people wishing to pursue careers in general engineering, machining, toolmaking, fitting, engineering maintenance, fabrication, and marine engineering.
As the Level 2 qualification represents a common foundation for the industry, all unit standards are compulsory.
These unit standards lead to trade qualifications in mechanical engineering at levels 4 and 5 on the NOF, and ultimately to the National Diploma in Engineering (Mechanical Engineering) (Level 6).
Our community continues to see growth in the engineering sector. Genuine opportunities exist and needs learners to keep up with rapidly developing technologies. New entrants to the sector need to build the underpinning knowledge and specific skills required to meet the needs of modern engineering industries. This is an exciting and evolving sector that will continue to grow.

Subject	Total Credits
Level 1	22
Level 2	20

Pre-requisites
To get into Level 1: None
To get into National Certificate L2: None

General pre-requisites: An interest in practical Engineering activities is desirable.

How is this subject assessed?
The subject is internally assessed with NCEA achievement standards and moderated by Tools 4 Work/Competenz


Course contribution:
Level 1 Material Cost \$45
Level 2 & 3 Material Cost \$50

How does this subject fit into the senior school pathway?

Level 1	Level 2	Level 3
Engineering Mechanical	Engineering Trades National Certificate L2	Engineering Trades National Certificate L2

Drama

HOD: Mrs J Clark



Subject description: Drama is a performance course with 3 performances for an audience. Students work in groups on scripts, theatre styles and creating original plays. There are 2 external exams available at each level.

Pre-requisites
To get into Level 1:
Students must have demonstrated the ability to perform in front of an audience through course work or extra-curricular activities.
To get into Level 2: At least 9 credits in Level 1 Drama or demonstrated performance ability.
To get into Level 3: At least 9 credits in Level 2 Drama or demonstrated performance ability.
General pre-requisites: Students may enter Drama at any level but it is essential that they can demonstrate performance ability. A high standard of reading and writing are also required.

How is this subject assessed?
All credits in Drama contribute to NCEA and University Entrance.

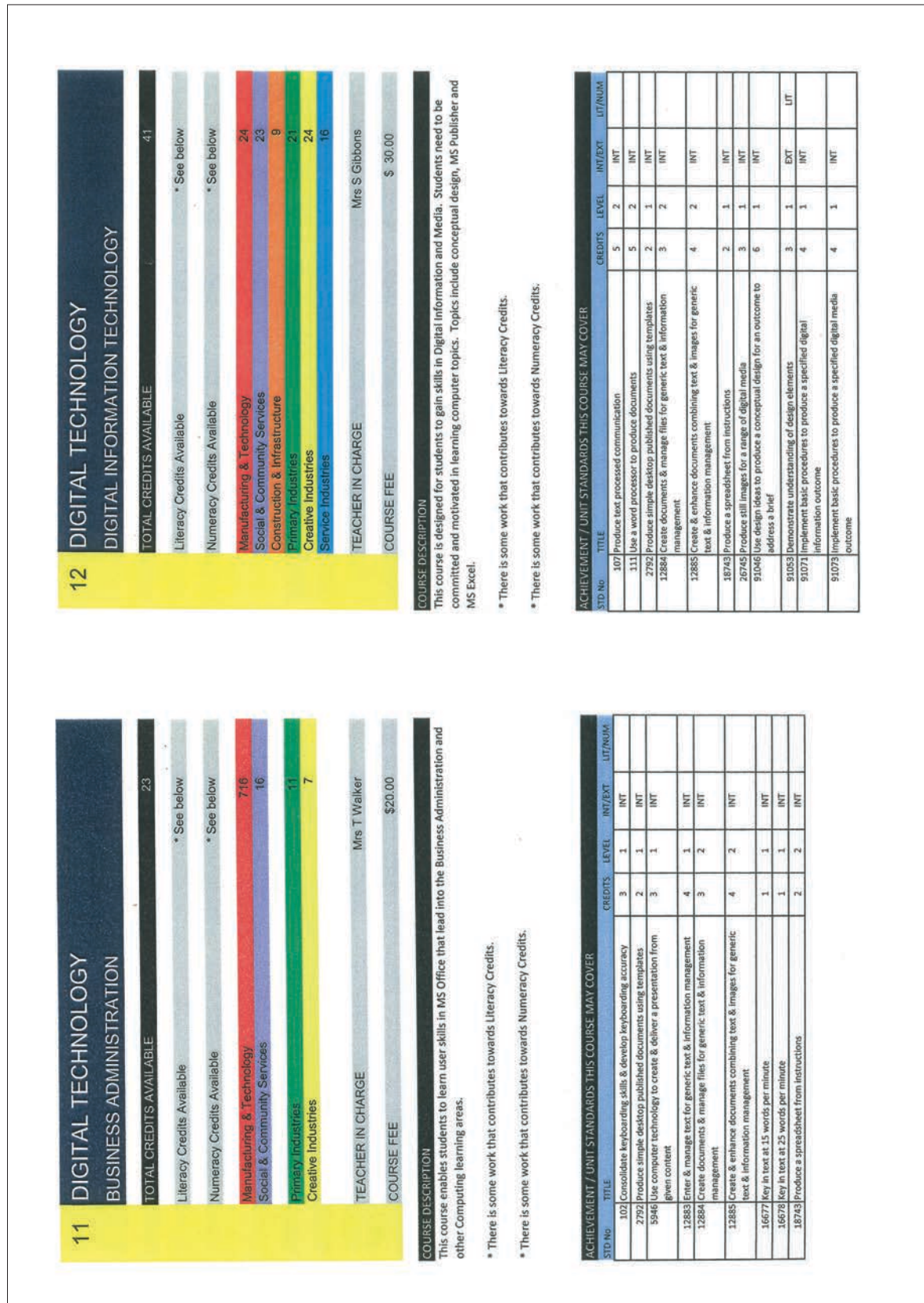
Drama	Total Credits
Drama Level 1	18
Drama Level 2	19
Drama Level 3	20

Course contribution:
\$30 for theatre trips

How does this subject fit into the senior school pathway?

Level 1	Level 2	Level 3
Drama	Drama	Drama

Figure 4: Forest View High School course booklet



Notes



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