Innovative Pathways: The Phase 1 Case Studies

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Introduction

This paper describes the non-conventional Year 12 and 13 programmes developed at seven low decile New Zealand schools to assist students, at risk of leaving school without qualifications or plans, in their transition to the workforce and/or tertiary education. Innovative Pathways is a longitudinal study of the impact of these programmes on students' transition decision-making and behaviour. A round of data collection, which is reported in Boyd, McDowall, and Cooper (2002), occurred at the start of 2002 as students entered the programmes. This paper will discuss the perspectives of students and outline the similarities and differences between the programmes in an effort to identify what makes them successful in assisting students to stay at school and experience successful transitions from school.

Outline of the Research

The Innovative Pathways study is a three-phase research project. This research aims to answer the following questions:

- What are the features of effective programmes?
- Does the programme assist the retention of students at school?
- Does participation in the programme assist students' transition to further study or work? How does this occur?

Phase 1

In 2002, seven case studies, which focused on documenting elements of good practice that contributed to and assisted students' decisions regarding transition, were conducted. These case studies provided information on the development of the overall programme, and the development and content of two or three of the courses within each programme, at each school. Initial information on the viewpoints, transition plans, and past educational experiences of a sample of 16-19 students at each school, who began the programmes in 2002, was also collected. In total, 119 students, 24 school staff, 56 parents, and 18 external providers (of course content, training, or work experience) were formally interviewed in Phase 1.

Phases 2 and 3

The second phase of this research occurred at the end of 2002. This phase focused on students' experiences of the programmes and the assistance provided to them in developing their transition plans; it also examined the impact of the programmes on the students' achievements, skills, and attitudes. A third phase will occur at least six months after the students leave the programmes, in order to ascertain the longer-term impact of the programmes on their post-school destinations and experiences. This paper outlines some of the findings from the first phase of the project.

The Seven Schools and the Programmes

Within the schools, the programmes in this study stand alongside the "mainstream" Bursary programmes. The programmes are often vocational in nature and/or are developed to support students' interests in areas such as sport, outdoor education, hospitality, engineering, and tourism. The programmes can provide students with national certificates and/or unit standards, along with various other qualifications.

Linwood College, Christchurch (urban) The Advanced Studies Academies

Linwood College offers seven one-year, full-time Advanced Studies programmes for Year 12 and 13 students that are based on student interest and employer or community need: The Services Academy (preparing students for careers in the armed forces, police, and security), The Linwood Urban Music Academy (LUMA), The Engineering (pre-apprenticeship) Programme, The Art Academy, The National Certificate in Tourism and Travel, The Diploma in Information Processing, and The Language and Mathematics Programme.

To participate in these Academies students leave school and become "trainees". The Academies are funded mostly from Skill New Zealand Youth Training funds. The programmes are provided by on-site teachers with input from employers and other community groups. The Academies focus on students gaining national certificates and developing work-readiness skills and behaviours. The organisation of the programmes varies according to the content area. In all of the courses trainees stay together as class groups, and spend at least half their time with the course tutors on specific training which is mostly assessed by unit standards. In most cases the other time is spent with subject teachers on core areas such as English, mathematics, and computer skills related to national certificates, for example, the National Certificate of Employment Skills (NCES). Most academies have a work experience component (of up to a maximum of one day a week).

Aranui High School, Christchurch (urban) The Academy Programme

The senior school Academies at Aranui High School are one-year programmes with the exception of the Early Childhood Care Academy which runs over two years. They are offered to students in Year 13 (and in some cases, Year 12). In 2002, the school offered senior school Academy programmes in: Basketball, Carving, Early Childhood Care, Hospitality and Tourism, Music, Sports Development, Outdoor Adventure, Theatre and Media, Rugby Football, Trades, Photography, and Amorangi o ngä Hähi Karaitiana (Christian Leadership Training). The focus of the Academies is on personal development and work-readiness.

Each student spends twelve hours a week in one of the Academies, and twelve hours a week taking Academy Modules or other school subjects, for example, for Bursary or Sixth Form Certificate. The Academy Modules are designed for students who are unlikely to succeed in mainstream school subjects. They cover Communication English, Life/Employment Skills, and Mathematics and Computing which include unit standards that are part of the NCES, and a class in Nutrition. Students do not complete the NCES, as one year is not considered long enough to do so.

Western Heights High School, Rotorua (secondary urban) The Institute of Studies

Year 12 and 13 students at Western Heights High School can enter the Institute of Studies; a one or two year full-time programme. The focus of the programme is on work-readiness and students gaining unit standards. Each year students choose four of approximately 15 optional modules that have been selected to match students' interests, give them a "taste of the real world", and connect them with tertiary providers. The optional modules are Beauty Care, Building Construction, Commercial Cookery, Childcare, Fashion and Design, Forestry, Hairdressing, Horticulture, Maritime Skills, Motorbody Trades, Automotive Engineering, Outdoor Adventures, Restaurant Service, Retail and Wholesale, Scuba Diving, and Farming (offered when a provider is available). Each module runs for six months, and in most of the modules, students spend one day a week at an off-site provider (at a tertiary institute or PTE) and some time during the week at school doing the theory for the course with a school teacher.

For the other days of the week all students in the Institute take the core component of the programme provided by school teachers. The core modules are Communication English, Keyboarding (and computing as an extension), Work and Study Skills, Mathematics, Health and Safety, Legal Studies, and PE (optional). Students gain unit standards from their practical and theory work for both the optional and core modules. These unit standards can contribute to the NCES. Students also gain other qualifications, for example, a VHF Radio Telegraph Operator's Licence. A small number of students also take mainstream subjects.

Tongariro High School, Turangi (rural) The World of Work and Sir Edmund Hillary and Outdoor Education and Tourism Studies Programmes

Year 12 and 13 students at Tongariro High School have the option of choosing one of two alternative senior programmes: the one- or two-year World of Work programme, and the one-year Outdoor Recreation and Tourism programme. These programmes focus on work-readiness, personal development, and students gaining unit standards or a specifically designed certificate.

The World of Work Programme

The primary aim of the World of Work programme is to offer students a range of work experiences. As part of an IEP process, each student chooses an area of employment they would like to try out and work experience for one or two days a week is organised with a workplace provider. The programme also includes core components: mathematics and English classes, and a Life Skills course. Students also attend block courses such as a farming course with unit standards offered by a local private training establishment (PTE). Once a week, a guest speaker comes to talk to students. Students also study other school subjects. Students gain unit standards from their optional and core courses which can contribute towards the NCES.

The Outdoor Recreation and Tourism Programme

This full-time programme is delivered in conjunction with the Hillary Outdoor Pursuits Centre and other providers such Ruapehu Alpine Lifts. For two days a week students are involved in classroom-based learning on the theoretical aspects of their course. On the other three days students take part in experiential learning, outdoor recreation activities. Students stay together as a single class. The unit standards in both the practical and theoretical components of the course contribute to the Tongariro High School and Hillary Outdoor Pursuits Centre Outdoor Recreation and Tourism Certificate which has been developed by the school with the Tongariro Consortium (a group of local secondary schools).

Aorere College, Auckland (urban) The Tertiary Pathways Programme

Aorere College runs three Tertiary Pathways programmes available to Year 12 and 13 students: Materials Technology, Hospitality and Catering, and Sports and Recreation. The programmes are two years in duration (although most students, as they start the programme in Year 13, do one year only). The focus of this programme is providing the students with qualifications in the form of Manukau Institute of Technology (MIT) short courses, and linking them with tertiary study or apprenticeships.

The Tertiary Pathways programmes are essentially foundation courses. The three programmes are run in conjunction with MIT and other tertiary providers and give students a supported introduction to the tertiary environment. Students spend half their time doing courses related to the three core subject areas. The course content, which is provided in the form of workbooks and activities and is assessed by unit standards, is provided by MIT or the Hospitality Standards Institute. All Tertiary Pathways students spend the other half of their time completing core unit standards in English, mathematics, and computing, as well as attending a Skills for Living course. Students stay together as a class group for all subject areas. The unit standards in English, mathematics, and computing are related to the Tertiary Pathways content areas.

James Cook High School, Auckland (urban) The Senior Integrated Programme

The Senior Integrated Programme, a Year 12 and 13 alternative to Bursary, has developed over the last eight to ten years to consist of nine separate courses. The programme has grown to the point where approximately 60% of senior school students are involved. The nine courses are: Automotive Engineering Technology, Carpentry, Creative Design, Office Technology, Performing Arts, Recreation and Sport, Tourism and Hospitality, Te Pütake (an academic programme provided within a Mäori framework), and Transition.

In class groups, students complete a range of unit standards in their course area. All of the courses have core mathematics and English components, and most include computing. The courses are focused on linking students with tertiary providers and provide links with Industry Training Organisations (ITOs), tertiary institutions, and employers.

Auckland Girls' Grammar School, Auckland (urban) The Gateway Programme

Auckland Girls' Grammar School offers a full-time, two-year programme for students in Years 12 and 13 that enables them to finish school with at least one (and up to four) Level 1 and 2 national certificates. The certificates students can gain are in Employment Skills, Computing, Tourism, Business Administration, and/or Hospitality. The focus of the programme is on students gaining certificates and continuing on to tertiary study.

The school piloted the Gateway programme in 2001 and 2002. Gateway is a Skill New Zealand initiative that aims to strengthen the range of career pathways available to students by providing them with both traditional and workplace learning. As part of the programme, Gateway students are assessed against unit standards in their work placements as well as at school. Most of the Gateway students come from the Year 12 National Certificate programme in which they have taken generic Level 1 unit standards in Computing, Communication Skills, Business Mathematics, and Hospitality. These students continue to attend National Certificate classes but also take part in the on-the-job training component of the Gateway programme.

Each student does an eight-day block of work placement in each of the four terms of the year. They can choose to specialise in Tourism, Hospitality, Business Administration, or Computing. In addition, all students do core classes in Business Mathematics, Service Sector, and Communications. In these core classes students do unit standards which contribute to their national certificates.

Student Perspectives

The students were interviewed at the beginning of 2002, as they entered their programmes. In total, 119 students (63 male and 56 female) were interviewed. A total of 50 were in Year 12, 67 were in Year 13, and 2 were in Year 14. The largest group of students (36%) identified themselves as Mäori, and the next largest group as Pacific Nation (31%), 22% were Päkehä, 4% identified themselves as both Mäori and Päkehä, 3% as Asian, 2% as both Mäori and Pacific Nation, and 2% as both Päkehä and Pacific Nation.

The interviews provided baseline information on their attitudes to secondary school, reasons for joining the programmes, and information on their current career and transition plans. Information on students' perceptions of their achievement at school and their attitudes to school was collected to examine the link between attitude, motivation, achievement, and retention at school. Other research has shown that the self-concepts and attitudes of students is related to achievement and can be an important predictor of retention at school (Ainley and Sheret, 1992; Nash and Harker, 1998).

Baseline data on the qualifications and the absentee rates of the students in the study were also collected at the beginning of 2002.

Student Achievement

Most of the students in this study had no or few qualifications on entering their course of study at the beginning of 2002. Only a couple had passed more than one or two School Certificate subjects. Those who had completed Sixth Form Certificate had mostly received low grades.

Student Perceptions of Achievement and Attitudes to School

Although the students in the study were similar in their lack of qualifications, there were differences in students' perceptions of their school achievement, their attitudes to school, and their absentee rates, by ethnicity and by school. The Pacific Nation students, who were predominantly at the Auckland schools, had lower absenteeism rates and more positive attitudes towards school than the other students in this study.

Perceptions of Achievement

The difference in students' perceptions of their achievement can be seen in the range of student responses on a five-point scale to the question, "In general how well do you think you have done at secondary school?" Overall, 7% chose "Very well", 24% "Quite well" 39% "Well", 26% "Not very well", and 4% "Not at all well".

Students' perceptions of their achievement were informed by a variety of sources, the main one being school results in the form of reports, qualifications, assessments or examinations and/or parent-teacher interviews. Many of the students who were positive about their achievement at school considered that still being at school was an important indicator of their success, particularly if no one else in their family had stayed at school as long as they had. Students also considered that working hard and/or keeping out of trouble indicated that they had done well at school.

I'm still in school. My behaviour is alright. I haven't passed any exams but I've gained some unit standards.

'Cause I'm not bad. I'm not a good student all the time but I try to listen to the teachers and do the work.

Many of the students who did not consider they had done very well at school reported that one of the main influences on their achievement was a lack of personal motivation and/or a positive attitude to studying. Students who said they were not motivated by school and/or did not like school were more likely to report that they had not done well at school and/or did not feel well prepared for life outside school.

I never tried, never got good marks, not even in primary school.

Didn't do much last year...learnt how to play cards. Only worked when we wanted to.

I only passed one subject that I know of. I was away heaps. I didn't want to come back.

These students also considered that a lack of motivation could affect their achievement in their current course and their likelihood of completing tertiary education in the future. Teachers and providers also commented on some students' lack of motivation and participation in class, linking it to their low academic self-confidence and an inability to see the relevance of the work they were required to do.

Students who considered they had not achieved particularly well at school also mentioned other influences on their achievement, some of which stemmed from their home situation, such as a lack of family finances, overcrowding, and family commitments. Other influences were linked to situations at school and relationships with teachers, such as needing more support, assistance, explanations from teachers or firmer consequences for their actions. Other influences included being distracted by the behaviour of their peer group or affected by their peers' less-than-positive attitudes to studying and teachers.

Attitudes to School

A substantial percentage of students reported negative attitudes to secondary school. When asked to rank on a five-point scale how motivated they were by school prior to 2002, 30% selected either the bottom or second-to-bottom point on the scale. When asked to rank how much they liked secondary school prior to 2002, 25% selected either the bottom or second-to bottom point.

I was real bad. I never done the work or nothing – getting kicked out of class, teachers yelling at me and stuff. The classes were boring. I think that was why I was naughty. The classes were boring.

It was boring. I couldn't be bothered with it. I didn't like the style of teaching – just sitting in classrooms all day copying stuff off the board.

This information was supported by their parents' comments about their children's attitudes and by school data on the students' absenteeism which ranged from an average of less than 10% at one school to over 30% at others.

What Students Wanted to Gain from the Programmes

The majority of students saw their courses as leading them to a job or tertiary study. On the whole students wanted similar things from these programmes: qualifications, skills, work experience, and personal or social development, for example:

• Qualifications and successes

Get as many qualifications as I can get to prove I can finish school.

Unit standards in maths, English, workshop safety, Engineering, etc. I want to get them all.

Practical job skills

As many skills as I can, e.g., basic music knowledge, event management, marketing, and promotions.

Skills in the ski-field business and café work.

Work experience, career clarification, or a job

Experience in how to work in the office, how to communicate with other workers.

I don't know what I want to be yet so this course will help me find out. Anything using my hands I like.

• Personal development

I want to be a little more independent. I want to be able to work more in a team. I want to pick up my confidence.

I want a nicer attitude. Lately I've been a real mole to everybody at school.

What Are the Features of Effective Programmes?

Similarities Between Programmes

Although the programmes varied considerably in their content, structure, and the partnerships they made, there were some key similarities that were viewed by teachers and providers as contributing to their effectiveness.

The Whänau Model and Relationship Building

A key similarity between the programmes was that they were all structured using a whänau model, that is, students stayed together as a class group, often in their own classroom, and for a longer period of time than they would in the mainstream system. In most cases, one main teacher had responsibility for the students, and therefore had more opportunities to build relationships with the students and provide pastoral care than is the norm in the secondary school environment. Most teachers we interviewed saw this arrangement as vital to the success of the programme. The whänau model was seen to work well, both socially and administratively, because it:

- supported an emphasis on the whole student and their personal development;
- supported teamwork, the development of communication skills, and the development of positive relationships between students;
- enabled teachers to focus on students who were "at risk", and to provide more support for them;
- enabled teachers to monitor students more closely and reduce absenteeism;
- gave teachers the flexibility to tailor programmes to the interests of the current group of students;
- enabled teachers to assist students to develop their transition plans, and to support students in their introduction to their next environment (either the workforce or tertiary education);
- assisted in timetabling for off-site visits or for courses in which a longer period of time was needed to accomplish set tasks.

Class sizes in these programmes were usually smaller than in the mainstream, which was often required by providers for health and safety reasons. Teachers and providers reported that smaller class sizes enabled them to provide a higher level of individual attention and pastoral care. It also meant there were "few gaps for students to fall through", as teachers could monitor students more closely; and because they spent more time with the students, they were more aware of any problems a student might be experiencing at school or at home.

Role, Skills, and Personality of the Lead Teachers

Another similarity between the programmes was the perceived importance of the skills and personality of the lead teachers (and of the providers who were involved with students on a day-to-day basis). In nearly all the programmes in the study, the principals, teachers, and providers considered the lead teachers to be the linchpin in the programme's success. Students also talked about how the teachers behaved differently from those in the mainstream. The personality traits and skills considered necessary to make a good lead teacher were similar across the programmes:

- having strong leadership skills and a "tough love" approach which combined a sense of humour with clear boundaries and consequences;
- having good relationships with students and taking a personal interest in the current situation of each student and their future plans;
- having the respect of students, and treating students as adults;
- providing a role model for students, and acting as a mentor;
- being prepared to put additional personal time into the job, and providing pastoral care for students (many of the teachers reported that they provided support to students beyond the level that was offered in the mainstream programme, and were knowledgeable about the students' personal situations);
- having the ability to build relationships with external providers and negotiate around difficulties;
- having industry skills and/or credibility (or the ability to tap into someone else who could provide this input);
- being creative in finding ways to adapt programmes to suit the needs of the students.

The students' responses to an attitude scale indicated that good relationships with teachers were associated with feeling successful as a student. In their report on effective teaching practice in low decile schools, the researchers in the Achievement in Multi-cultural High Schools (AIMHI) project suggested that a good teacher-student relationship is a prerequisite for student motivation and learning (Hill and Hawk, 2000). The researchers discussed a number of elements of this relationship which were also mentioned by the students in this study, such as teachers respecting students, and teachers treating students as adults rather than children. In McKinley's (2000) study of Mäori parents and children and their participation in education, students mentioned similar "good teacher" characteristics. McKinley concluded that Mäori students' enjoyment of secondary school was related to having good relationships with teachers. Similarly, O'Brien, Thesing, and Herbert (2001) reported in a review of literature on alternative education programmes that relationship-building had a higher priority in these programmes than in the mainstream.

Content and Delivery

Choice, Interest, and Hands-on Learning

To motivate the students, school staff chose content areas they knew the students were interested in and saw as relevant to their lives. The content of the courses in this study emphasised learning by doing and real-life activities, although all the courses also contained theoretical elements. Another common aspect that helped to hold the students' interest was that once they were enrolled on the programme they were often given further opportunities to make choices, for example, in work placements or optional modules. The importance of student choice is discussed in the literature on alternative education programmes (O'Brien, Thesing, and Herbert, 2001).

Core Modules

Another common element was the provision of a number of compulsory core modules along with the main subject area. The content of these modules varied between programmes, but most offered a similar set in literacy/English/communications, numeracy/mathematics, work or life skills, and computing. These core modules were often based on the requirements of the NCES. Most of the teachers in our study talked about the importance of these core modules in assisting students to develop their literacy, numeracy, communication, and general life skills.

One benefit of the core module approach was that the content of each module could be tailored to the academic level of the group of students. Teachers noted that this system was not as successful for students who already had higher qualifications. Aranui High School had partially solved this problem by offering students a choice of core modules or mainstream classes.

Integration and Authentic Experiences

Another major benefit of the module approach was that it enabled schools to provide an integrated package for students; that is, the content of the core modules could be related to the content of the main subject areas. Programme teachers and providers both viewed this integration as important because it enabled students to develop literacy and numeracy skills through "authentic" tasks which they could see were relevant to their main subject interest. Another way in which schools were able to provide authentic experiences for students was by organising work experience.

The integration of content was also mentioned by a number of providers. They talked about the way they had combined discrete unit standards to form a more coherent package for students, whereas usually with older students they would cover each standard separately.

This integration of content, combined with the use of unit standards, and an emphasis on practical hands-on or experiential learning, contributed to students viewing the content of the courses as fun, practical, relevant, and achievable. Other New Zealand and international studies have also linked curriculum integration and experiential learning with improved student motivation and achievement (McKinnon, 1995; Hawk & Hill, 1996; Wallace et al., 2001; American Youth Policy Forum, 1997).

Social Goals as Outcomes

Another similarity which teachers recognised as contributing to the success of programmes was the extent to which teachers and providers emphasised personal development as an important outcome. This included the development of self-confidence, self-esteem, motivation, teamwork and leadership skills, as well as work- and study-related behaviours and attitudes. Teachers recognised that students needed to feel confident in order to do well at school, and that they were not going to get where they wanted to be if they did not have the right set of attitudes or behaviours. Most teachers considered that the social and behavioural components of the courses they provided were just as important as the emphasis on qualifications, if not more so. Teachers discussed how the qualifications available did not always recognise these outcomes. This is supported by other commentators such as Lauder, Hughes, and Fitzgerald (1992) who suggested that non-cognitive outcomes such as personal development have been neglected in debates about school effectiveness. Hawk and Hill (1996) made a similar point as a result of their findings from the AIMHI project.

Unit Standards as the Main Assessment Focus

Unit standards were the main vehicle through which the students' skills were assessed, but the development and assessment of these skills was not the sole focus of any of the programmes. The teachers in this study observed that many students in the programmes had not previously been successful at school and had been labelled as "dumb". The teachers and other school staff outlined the drawbacks of the formal examination system, and considered that unit standards provided a form of assessment that enabled students to experience academic success, and that this led to increased feelings of self-worth and self-confidence. Unit standards were perceived as being more "attainable", for a number of reasons:

- The standards were based on practical tasks. Most of the teachers commented that the students who did their courses were more practical or experiential learners who preferred "hands-on" learning. Many of the students also described themselves as "practical", not "academic".
- The unit standard tasks were related to the students' career interests and were therefore motivating.
- Both teachers and students considered that the use of unit standards and the way the programmes were structured enabled the students to work more independently and at their own pace, which meant they were less likely to be left behind. Students and teachers also observed the way this structure altered the student-teacher dynamic, with the teacher becoming more of a facilitator.
- The use of unit standards gave teachers the flexibility to tailor programmes to the interests and level of the current group of students, as extra standards could be added.
- In many cases, the standards did not rely on students having a high level of literacy in order to pass, as many could be assessed by observation or strategies other than written testing or examinations.

• Students had opportunities to re-sit if they did not pass the first time, and were able to gain unit standards at an early stage in their course. Having these quick successes encouraged students to keep going.

Although teachers were very positive about the successes students experienced through gaining unit standards, some concerns were voiced about the model and the realities of giving students the opportunity to gain full certificates. Some of the core unit standards in the NCES, which was offered in many of the programmes, were viewed as too easy and some as too hard. Other teachers reported that it was difficult to integrate the NCES into a programme that was based on students' interests, and as a result some programmes did not contain all the core activities of the NCES. Some teachers considered that one year was not long enough to cover the core unit standards in NCES as well as other standards tailored to the students' interests. Another concern was that the "seamless" approach supported by the unit standard system was not a reality for a number of students. Teachers reported cases where students now in tertiary courses had come back to school and told them they were repeating units they had already completed at school. This lack of credit transfer between providers was also mentioned in the review of Training Opportunities and Youth Training (Ministry of Education, 2001), and has been reported in research concerning similar overseas programmes such as Vocational Education and Training (VET)¹ in Australia (Misko, 2001) and Tech-Prep in the United States (Hershey et al., 1998).²

At least one provider considered that some of the unit standards were too atomised and the suggested activities either too simple or boring for students. Providers and teachers frequently reported that they had to add supplementary activities to course material, provided by ITOs and other organisations, to make the standards more interesting and appealing to students.

Some teachers reported problems with accessing support for their unit standard programme. One school had difficulty in training teachers to be workplace assessors, and other schools sometimes had difficulty in finding moderators.

Partnerships

A range of other partnerships were vital to the running of the courses. Having good relationships with employers or external providers was essential to at least one of the programmes at each school. All providers were enthusiastic about the links they made with schools. Employers' enthusiasm and support for similar types of programme was a common theme reported in the evaluation of the Gateway pilot (Skill New Zealand, 2002); the review of Training Opportunities and Youth Training also highlighted the importance of close working relationships with industry (Ministry of Education, 2002).

Teachers, students, parents, and providers all talked about the benefits for students of partnerships with employers: students could gain experience of the workforce, which helped them to make career decisions; they could develop work-related skills and gain qualifications as a result of their work placements; they could become known in the workplace, which could lead to part-time or full-time work; and they enjoyed being off-site and being treated like adults.

Teachers and providers also talked about the benefits of partnerships with private training establishments (PTEs) and polytechnics. Students could have the experience of studying in a tertiary environment, get a head start on tertiary qualifications, and gain self-esteem from studying courses that their mainstream peers were not doing.

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VET programmes provide senior Australian secondary school students with opportunities to gain employment-based skills and entry-level qualifications for industry or tertiary training. VET can include structured workplace learning components.

Tech-Prep is a vocational education programme provided in the United States in senior secondary schools. The programme includes a common core of mathematics, science, communications, and technology as a foundation that links to two years of specialised post-secondary courses. Tech-Prep also often includes work experience, and is provided by local consortia of school districts and post-secondary institutions.

Programme teachers and some providers mentioned having concerns about external providers, including occasional problems in relationships with ITOs, tertiary providers, and employers. Teachers noted that some ITOs and tertiary providers, rather than working with the schools, saw them as direct competitors. Teachers also reported that employers and ITOs did not always understand the culture of schooling or the cultures of the students. Constant liaison between programme teachers and external providers was necessary to ensure that relationships ran smoothly. Some teachers observed that employers did not always know how to provide work experience or on-the-job training in a way that interested students.

Similarly, students often had to spend time adjusting to the new environment outside school. In some cases, students' inability to adjust to this environment had a detrimental effect on the relationship between the school and the external provider. Programme teachers reported that they nurtured these relationships and tried to explain to employers that the students were still learning, but sometimes the employer would give a student—and the school—only one chance.

Differences Between Programmes

Although the programmes in our study had features in common, there was no single recipe for an effective programme. This was partly because schools tailored their courses to students' interests and local opportunities for employment or tertiary education. Although there were many similarities in the content and organisation of the programmes offered, there were also wide differences in how the programmes were delivered.

Qualifications

One of the main differences we observed between programmes was the relative importance schools placed on students gaining qualifications or certificates in one content area versus a range of areas. The Advanced Studies Academies at Linwood College and the Gateway programme at Auckland Girls' Grammar provided students with the reality of completing a whole national certificate, whereas the programmes offered at other schools tended to enable students to gain a series of unit standards that could count towards a national certificate. Aorere College, for example, offered students the opportunity to gain a Short Course Certificate and a taste of a variety of sub-areas within one of three content areas. Other schools, such as Western Heights High School and Tongariro High School, gave students a choice of a number of content areas within one programme. These models both had their strengths. Students who obtained a full certificate had a work-related qualification to put in their CVs, while students who tried out a number of options were able to further refine their career interests.

Schools varied in the emphasis they placed on having a qualification related to every component of the core and optional courses they offered; but in nearly all of the programmes, having a qualification for each section of a module was a strong focus. Although unit standards and national certificates were the main qualifications they could gain, students could also acquire a range of other qualifications such as Kiwi Host, coaching, defensive driving, and Day Skipper's certificates.

Purpose of the Programmes and Pathways

The focus of the programmes in our study varied both within and between schools. Some courses, such as sports academies and outdoor recreation programmes, focused strongly on providing "carrots" for students to stay on at school, and using such "carrots" as a vehicle to help students develop attitudes and behaviours that were more study- and work-related. Other courses focused on giving students a taste of the workplace, while others focused on linking students to tertiary study. Although all courses contained these three elements, the emphasis placed on each one varied considerably.

Another purpose of the programmes was to provide a way for students to try out areas of interest while still at school, without having to pay hefty tertiary fees or take out an expensive student loan. Being able to take a risk without too much financial cost to themselves was important to these students, many of whom came from low-income families. Students noted that one of the major barriers to tertiary study was the financial burden involved.

Just as the purpose of the courses varied, so too did the pathways they emphasised. Some strongly supported a pathway that led straight to work (for example, the Advanced Studies Academies at Linwood College); others made clear connections with tertiary study, and provided extra support for students interested in following this pathway (for example, the Tertiary Pathways programme at Aorere College). The importance of extra levels of transition support is highlighted by Anae et al. (2002) as a way to increase the participation of Pacific Nation students in tertiary study. The team reviewing Youth Training and Training Opportunities concluded that one of the benefits of these programmes was the extra level of support they provided, compared with other tertiary courses; they also suggested that the pathways into and out of the programmes could be further strengthened to support the transition of trainees, for example by providing post-course follow-up (Ministry of Education, 2002).

Students who were being encouraged towards tertiary education tended to report that this would be their next step, whereas those who were being directed to the workforce were more inclined to suggest this as their next destination.

Work Experience

All the programmes in the study included some form of work experience. The nature and duration of this experience varied substantially, from one or two days a week organised by the programme teacher, to a few days a year organised by the school's Careers Department. One thing that did not vary was the importance placed on the role of work experience in giving students a taste of the "real world". Programmes that emphasised a pathway to work tended to include a larger component of work experience and/or on-the-job training than those that emphasised the link to tertiary study. For some programmes the work experience component was mostly off-site, and for others it was mostly on-site. In some cases it was difficult for teachers to find employers, owing to a lack of job opportunities in the local area or a lack of industries that matched the students' interests.

The importance of the liaison role played by teachers in working with work experience and other providers was often mentioned by the school staff and providers in our study. The evaluators of the Gateway pilots (Skill New Zealand, 2002) also talked about the pivotal role played by the Gateway co-ordinators in each school in the successful implementation of the pilots, for example in closely monitoring the students' work placements. Another potential benefit mentioned in the Gateway evaluation was that work experience programmes enabled students to make mistakes and experiment with different options while still in the supported learning environment provided by their school.

External Providers

All the schools in our study had developed partnerships that were vital to the delivery of the courses. There was wide variation in who developed course materials and delivered programmes. Schools showed flexibility in sourcing providers and content developers to meet their needs, either from existing or new staff or from external organisations. Some schools used mostly on-site teachers and developed their own content, with assistance from organisations such as ITOs. In other cases, the course content was mostly provided by external PTEs or tertiary institutions. Some programmes had a mix of both on-site and off-site providers.

Content

The range of content areas provided by school programmes depended on a number of factors, including student interests, local employment opportunities and business needs, local opportunities for tertiary training, and the availability of teachers or providers with subject knowledge. One of the strengths of these programmes was that schools were able to provide courses tailored to match students' interests with specific local employment opportunities, for example the Forestry and Maritime programmes at Western Heights High School, and the Services Academy at Linwood College. Schools also provided courses that were more generic, such as sports and outdoor education, engineering, and tourism and hospitality.

Funding

Many of the programme leaders reported that the costs of the programmes in this study were higher than those of other school courses, for reasons that included smaller class sixes, equipment costs, or the costs involved in taking students off-site. Adequate funding was an essential component of each programme. Although all the programmes were funded at least in part from the school's Operations Grant, other sources of funding were used to varying degrees, such as Secondary/Tertiary Alignment Resource (STAR), Gateway, and Skill New Zealand funds, along with other sources such as iwi support. In addition, most programmes received some form of indirect support from the external organisations they linked with. The proportion of each course that was funded from these different sources varied widely between schools.

Summary Comments

Nearly all the students in our study had a career goal in mind, and for most this goal was directly related to their current course. Information from students, parents, and teachers indicates that the perceived relevance of their current course to their immediate post-school plans was starting to have a positive impact on the students' motivation and achievement. This research, and previous studies, have highlighted the importance of helping students to develop their aspirations or career goals earlier on in their schooling (Boyd, Chalmers, and Kumekawa, 2001; Nash and Harker, 1998). The information from our study indicates that doing so could have positive effects on students' motivation and achievement, as could a stronger emphasis on demonstrating the relevance of academic courses to students' career plans.

The programmes in our study were aimed at the final years of schooling. Could some of the students who found these programmes more relevant and enjoyable than their previous secondary courses have experienced success and gained confidence earlier, if such programmes had been available in the initial and middle years of secondary education, or would this curtail students' options? Or is it a matter of helping all students to see the relevance of school to their future, for example by including some practical, problem-solving components in academic courses, or more integration of subjects?

An international review of the literature on effective transition programmes from a number of countries³ (OECD, 2000) concluded that there is a need for countries to offer a diverse range of transition and vocationally based education programmes for students. This report identified six key factors that appeared to be essential for "effective transition systems" (p.150):

- 1. A healthy economy providing job-rich growth.
- 2. Well-organised pathways that connect initial education with work and further study.
- 3. Widespread opportunities to combine study with workplace experience.
- 4. Tightly knit safety nets for those most at risk.
- 5. Good information and guidance.
- 6. Effective institutions and processes.

The OECD report concluded that no single pathway holds the key to an effective transition system, which is certainly borne out by our research so far. When one compares the programmes in our study with the OECD's key factors, most are making substantial efforts to provide courses that incorporate factors 2 to 5. Although there is no single recipe for success, these programmes all provide supports for students who have previously experienced little academic success at school, such as courses tailored to their individual interests which also link to their career interests; a whänau model of delivery; the opportunity for students to choose areas of interest and gain qualifications in those areas; and teachers who closely monitor students, build good relationships with them, act as career counsellors, and provide pastoral care.

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New Zealand did not participate in this review.

References

American Youth Policy Forum (1997). Some things DO make a difference for youth: A compendium of evaluations of youth programs and practices. Washington: American Youth Policy Forum.

Anae, M., Anderson, H., Benseman, J., & Coxon, E. (2002). *Pacific peoples and tertiary education: Issues of participation. Final report.* Auckland: Auckland Uniservices Limited, at: http://www.minedu.govt.nz/web/document/document_page.cfm?id=6828&p=5871.6533

Ainley, J., & Sheret, M. (1992). *Progress through high school: A study of senior secondary schooling in New South Wales*. Melbourne: Australian Council for Educational Research.

Boyd, S., Chalmers, A., & Kumekawa, E. (2001). *Beyond school: Final year school students' experiences of the transition to tertiary study or employment.* Wellington: New Zealand Council for Educational Research.

Boyd, S., McDowall, S., & Cooper, G. (2002). *Innovative Pathways from School: The Case Studies. Phase 1 Report.* Wellington: New Zealand Council for Educational Research.

Hawk, K., & Hill, J. (1996). *Towards making achieving cool.* Auckland: Educational Research and Development Centre, Massey University, Albany Campus.

Hershey, A., Silverberg, M., Owens, T., & Hulsey, L. (1998). *Focus for the future: The final report of the national Tech-Prep evaluation.* Princeton, NJ: Mathematica Policy Research, Inc, at: http://www.mathematica-mpr.com/3rdlevel/TECHRPT.HTM

Hill, J., & Hawk, K. (2000). *Making a difference in the classroom: Effective teaching practice in low decile, multicultural schools.* Auckland: Educational Research and Development Centre, Massey University, Albany Campus.

Lauder, H., Hughes, D., & Fitzgerald, N. (1992). *The evaluation of non-cognitive school outcomes: Transition education: A case study.* Christchurch: The University of Canterbury.

McKinley, S. (2000). *Mäori parents and education: Ko ngä mätua me te mätauranga.* Wellington: New Zealand Council for Educational Research.

McKinnon, D. (1995). *Computers, experiential learning and subject integration in the secondary school: A longitudinal case study of students' attitude, motivation and performance. Volume I and II.* PhD thesis. Sydney: University of Sydney.

Ministry of Education (2001). *Te aro whakamua Building futures: A review of training opportunities and youth training.* Wellington: Ministry of Education.

Ministry of Education (2002). *Te aro whakamua Building futures: The final report on the review of training opportunities and youth training.* Wellington: Ministry of Education.

Misko, J. (2001). *Destinations of 1999 school leavers who participated in structured workplace learning programs*. Canberra: Enterprise and Career Education Foundation and National Centre for Vocational Education Research, at:

 $\frac{http://www.ecef.com.au/web/km/KMGateway.nsf/main_lookup/F5358B9447E2C512CA256A14000DC26F/\$}{FILE/studentdest2001.pdf}$

Nash, R., & Harker, R. (1998). *Making progress: Adding value in secondary education*. Palmerston North: ERDC Press, Massey University.

O'Brien, P., Thesing, A., & Herbert, P. (2001). *Alternative education: Literature review and report on key informants' experiences.* Wellington: Ministry of Education, at: http://www.minedu.govt.nz/web/document/document_page.cfm?id=6912&p=5871.5880

Organisation for Economic Cooperation and Development (1999). *Innovating schools*. Paris: OECD. Organisation for Economic Cooperation and Development (2000). *From initial education to working life: Making transitions work*. Paris: OECD.

Skill New Zealand (2002). Interim process evaluation of the Gateway pilots. Wellington: Skill New Zealand.

Wallace, J., Rennie, L., Malone, J., & Venville, G. (2001). What we know and what we need to know about curriculum integration in science, mathematics and technology. *Curriculum Perspectives*, *21* (1), pp. 9–15.