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What makes vocational training programs in schools work?
A study of New South Wales and Queensland schools

Janet Porter

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Key messages

This project investigated the views of various stakeholder groups about school-based vocational education and training (VET) programs (specifically, VET in Schools programs) in five New South Wales and five Queensland schools during the period 2000–02.

✧ The schools and communities involved in this study saw positive results from their school-based VET programs, although the various stakeholders emphasised different outcomes.

♦ Governments, schools and training organisations emphasised the attainment of specific skills and qualifications.

♦ Students and most employers emphasised the development of personal qualities and generic work skills.

✧ Traditional pathways from school remain the norm and are influenced by the structure of the school curriculum.

♦ Those students taking all or mainly general education subjects anticipated going on to full-time study.

♦ Those students taking all or mainly VET subjects aspired to full-time apprenticeships or full-time work.

✧ VET courses with a structured workplace component were highly regarded by students, coordinators, trainers and employers.

♦ For employers, work placement allowed students to achieve a degree of work readiness.

♦ Students were able to practise work skills, experience real job application processes and experiment with different career pathways.

✧ The author's view is that long-term and adequate funding, restructuring of the school timetable and greater integration of community resources have the potential to generate increased efficiency in the delivery of school-based VET programs and enable multiple post-school pathways. However, cultural change within schools, as well as changed perceptions of the status of vocational education and training, is needed.

Executive summary

This project investigated the views of various stakeholder groups in relation to school-based vocational education and training (VET) programs (that is, any VET subject or course taken by a senior secondary student while enrolled in Years 11 and 12 at school) in ten New South Wales and Queensland schools over a three-year period, from 2000 to 2002. In particular, it examined the objectives and expected outcomes of VET in Schools programs for four stakeholder groups:

✧ students

✧ school VET coordinators

✧ trainers

✧ employers.

The research found that, at a broad level, the two main objectives of these school-based VET programs—facilitating the transition between school and work, and providing a highly skilled workforce—were common to governments, schools and other training organisations, students, and employers. There was, however, considerable diversity at the local level in the implementation of the school-based VET programs. The approach to VET was influenced by factors as diverse as government policies, resources available within a school or community, parental perceptions, and the strength of community networks.

The majority of schools stated that their objective in offering a VET program was to provide a broader curriculum, which was also appropriate and relevant to the majority of students in Years 11 and 12 and allowed for multiple post-school pathways. However, most schools anticipated the demand for VET courses would be from students of lower academic ability. Moreover, the range of subjects offered depended on resources in the school and local community.

VET courses offered self-paced learning in a non-competitive environment, a context which increased motivation and allowed individuals to achieve generic as well as specific skills. Students reported that they found this mode of delivery suited their learning styles. Smaller classes and different teaching approaches were preferred by all students, but especially by those with lower academic ability and whose overall attitude to school improved as a result of their participation in VET.

Employers and trainers reported that their involvement in school-based VET programs was positive, resulting in the selection of future employees for employers, and giving both employers and trainers the opportunity to become more involved in training and in the development of training programs. However, some of the smaller employers felt that elements of existing training packages had been developed in consultation with large firms and were not in line with work practices in small business. They would therefore welcome further input into the design of training packages.

There was some debate among the stakeholder groups about the most valued outcome from participation in school-based VET programs. While the acquisition of formal VET qualifications was perceived to be of greater importance to the schools and trainers, one-third of students and one-half of all employers were more focused on developing generic skills than on pursuing a specific job pathway. The generic and personal skills included work ethics, self-confidence, commitment, enthusiasm, teamwork, maturity and good communication.

Nationally recognised qualifications were expected to facilitate transition to further education through articulation to tertiary institutions. However, a number of students had difficulty in receiving recognition of prior learning when enrolling in training institutions. This resulted in students having to pay for modules they had already undertaken.

VET courses with a structured workplace component were highly regarded by students, coordinators, trainers and employers. Employers valued work placement as a means for students to achieve work readiness. Students, on the other hand, valued the opportunity to practise work skills, but also to experience real job application processes, and to experiment with different career pathways.

These findings suggested the desirability of increased integration of the vocational education and general education curriculum. However, the research also identified factors that constrained the introduction of a broader curriculum. These factors are:

✧ the traditional culture, structure and resourcing of schools which affect the degree of flexibility needed for integrating the vocational and general education curriculum, potentially leading to an undervaluing of VET and reinforcing a parental preference for their children to be university-bound

✧ the prerequisite subjects of tertiary institutions, as well as other post-school career options, necessitating the maintenance of parallel timetabling (general education courses held at the same time as VET courses)

✧ the need to provide more individualised education and training programs for VET students compared with general education students

✧ the greater cost of VET courses, compared with general education subjects, which can cause difficulties in the allocation of resources between programs

✧ the competing priorities of the three delivery organisations for VET courses (schools, training organisations and employers)

Several suggestions emerged for reducing these constraints.

✧ Objectives and expected outcomes for each type of VET course needed to be better defined.

✧ Students needed to receive more informed advice and information about VET.

✧ More had to be done to market the value of VET to parents and the wider community.

✧ School-based VET programs needed long-term funding guarantees which took into account the additional costs of administration, materials and professional development for staff.

✧ The school timetable had to become more flexible.

✧ Coordination between stakeholder groups must be strong. This could be achieved by creating local management committees.

✧ Articulation from school to university and other further education needed to be streamlined.

> It's a great program: it's a win–win program for the students and for us.
>
> (New South Wales employer)

Introduction and context

This research project examined school-based vocational education and training (VET) programs in ten New South Wales and Queensland schools over a three-year period (2000–02). The focus was VET subjects or courses taken by a senior secondary student while enrolled in Years 11 and 12 at school. The project examined:

✧ whether the objectives and expected outcomes for school-based VET programs were the same for both policy-makers and participants

✧ the level of satisfaction with the school-based VET program and its outcomes among students, school VET coordinators, trainers and employers

✧ similarities and differences between various school and community environments.

The research took into account previous investigations into school-based VET programs (Ryan 1998; Salier 2000; McKenzie 2000) which argued that, to be effective, such programs must cater to the whole spectrum of students, and that this requires a change in school culture, pedagogy, curriculum and assessment. This implied that schools need to reconcile the cultural and organisational differences between general education and work-related learning (McKenzie 2000). A question of interest in the research was therefore whether convergence between vocational and general subjects within the structure (timetabling) and culture (parent, student, and staff attitudes) of schools would help to make school VET programs more highly valued and sought after by all students.

School VET programs

According to Organisation for Economic Co-operation and Development (OECD) research (1994), the most successful transition pathways are those that allow both a high level of general education and an occupational qualification. This principle has been reflected in many aspects of policy development in Australia since the mid-1990s, with educators and policy-makers trying to develop bridges between vocational and general education. Schools have adopted various approaches to vocational learning. In this study, the focus was on formal VET in Schools programs available to students in Years 11 and 12. These programs include units of competency, and in some cases, complete qualifications, recognised within the Australian Qualifications Framework (AQF) and also recognised for award of the relevant state senior secondary certificate of education.

In 1996, the Ministerial Council for Employment, Education, Training and Youth Affairs established a VET in Schools Taskforce which was instrumental in increasing the take-up of school VET programs throughout the public and private school sectors. The council went on to issue a general statement of principles and objectives, including that students completing senior secondary school should be equipped with the full range of post-school opportunities in education, training and employment (Ministerial Council on Employment, Education, Training and Youth Affairs 1998). Queensland and New South Wales, the states under investigation in this project, both endorsed these principles.

The VET in Schools Taskforce developed a national framework that was endorsed by the ministerial council in 2001 (Ministerial Council on Employment, Education, Training and Youth Affairs 2000, 2001a, 2001b). The framework emphasised the acquisition of generic or key

competencies, and overall, attempted to provide a seamless transition from school to work for the majority of young people (Barnett & Ryan 2005). In particular, school-based VET programs reflect attempts by governments at all levels to present vocational education as a credible alternative to general education.

In the mid-to-late 1990s, there was a national push towards 'convergence' of vocational and general education. For VET in Schools, this typically took the form of 'embedding' vocational education and training modules into subjects, so that VET units of competency from the national training packages could be taken in conjunction with senior secondary school subjects.

Queensland

In Queensland convergence of vocational and academic curriculum began in 1995, following acceptance of recommendations of the review of the Queensland school curriculum, *Shaping the future*, undertaken by Wiltshire, McMeniman and Tolhurst (1994).

In Queensland, by the time this research was undertaken (that is, 2000–02), the embedding of VET units of competency, and in some cases complete certificates, into senior subjects had become well established. Procedures had been established for reconciling the tension between the competence-based assessment required for VET units of competency and the criteria-and-standards-based assessment required for determining a subject result. A small number of Board (of Senior Secondary School Studies) subjects (six in 2002)[1] included embedded VET units of competency. Board subjects (from mid-2002 called Authority subjects[2]) counted towards an Overall Position. VET therefore contributed to tertiary entrance through those Board subjects containing embedded units of competency. The majority of embedded VET subjects were located in Board-registered subjects (from mid-2002 called Authority-registered subjects) defined by Subject Area Specifications.[3] These subjects do not count towards an Overall Position. However, for those students not qualifying for an Overall Position (which requires 20 semester units of Authority subjects), an alternative Selection Rank is calculated for selective entry to most universities (provided that the student satisfies any prerequisites). This Selection Rank is calculated on the basis of results in 20 semester units of Authority subjects, Authority-registered subjects, VET certificates and VET units of competency recorded on the Senior certificate (together with the student's result on the Queensland Core Skills test if available). In this sense, all VET in Schools in Queensland can count towards university entry, with the caveat that the empirically derived weightings for results in Authority-registered subjects are less (by about half) than those for Authority subjects.

A key aspect of VET in Schools in Queensland is the recognition of schools as registered training organisations. This requires schools offering VET to satisfy the requirements of the Australian Quality Training Framework to enable their recognition as registered training organisations. Alternatively, schools can develop relationships with adjacent institutes of technical and further education (TAFE) for offering programs in conjunction with the school.

New South Wales

In New South Wales, similar changes were introduced following the review of the Higher School Certificate, *Shaping their future*, by McGaw (1997) and the subsequent New South Wales Government white paper (*Securing their future*) in 1997.

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[1] In 2002, these Board subjects were: Agricultural science; Business communication and technologies; Hospitality studies; Information technology systems; Technology studies; and Marine studies.

[2] In July 2002 the Queensland Tertiary Entrance Procedures Authority was merged with Queensland School Curriculum Council and the Queensland Board of Senior Secondary School Studies to form one statutory authority, the Queensland Studies Authority.

[3] In 2002, these Subject Area Specifications were: Agricultural and horticultural studies; Arts in practice; Business; Computer studies; English communication; Hospitality practices; Industrial skills; Literacy and numeracy; Marine and aquatic practices; and Physical recreation.

The slightly different approach adopted here involved delivery of VET certificates through courses of study. The Board of Studies developed a range of vocational education and training course options for the Higher School Certificate. These include the Board-developed Industry Curriculum Framework courses, a wide variety of Content Endorsed Courses, as well as TAFE-delivered Content Endorsed Courses. Seven Industry Curriculum Frameworks were developed for the new Higher School Certificate introduced in 2000.[4] The courses offered within each framework adopt a competency-based assessment approach in accordance with relevant national training package requirements. In addition, each framework allows students the option of working towards an external examination, with the examination results recognised for inclusion in calculations for the Universities Admission Index.

Content Endorsed Courses[5] and TAFE-delivered Content Endorsed Courses are non-framework courses and do not count towards calculation of the Universities Admission Index. Locally designed VET courses can also be proposed for Board of Studies endorsement. Delivery of VET courses may involve schools (as registered training organisations), TAFE institutes, private providers or a mix of these. In addition, school-based traineeships are supported.

Changes since 2000–02

VET in Schools programs have undergone substantial development since 2000–02, the period when the data for this report were collected. It is important to read this report in relation to its historical context. Nevertheless, VET in Schools has consolidated its role in the senior secondary school curriculum and the findings of this report remain relevant to future developments.

In the national arena, there have been various reviews and policy initiatives. These have included the national reports, *Shaping our future: Australia's national strategy for VET 2004–2010* (ANTA 2003a), *National evaluation of school-based New Apprenticeships* (ANTA 2003b), *Principles and guidelines for improving outcomes for VET in Schools* (ANTA 2004a), and *High level review of training packages* (ANTA 2004b).

Queensland

In Queensland, in 2002, the State Government white paper, *The smart state: Education and training reforms for the future* (Queensland Department of Education and the Arts & Department of Employment and Training 2002) announced *inter alia* reforms to senior secondary education, leading, by 2008, to the replacement of the Senior Certificate with the Queensland Certificate of Education. A component of these reforms was a review of the arrangements for VET in Schools. This review led, in August 2004, to a joint ministerial statement: *Future directions for vocational education and training in Queensland schools* (Queensland Department of Education and the Arts & Department of Employment and Training 2004). Some changes have been made to the number and nature of Authority subjects with embedded VET—removal of embedded VET from three subjects and the addition of one subject to provide a total of four such subjects.[6]

The biggest change, however, is with the Authority-registered subjects. The new emphasis is on completion of whole certificates rather than isolated units of competency and the conflict between competency-based and criteria-and-standards-based assessment has been removed. Study Area

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[4] In 2000, these industry framework courses were: Business services (Administration); Construction; Information technology; Metal and engineering; Primary industries; Retail; and Tourism. Accounting was available as a non-framework Board-developed TAFE-delivered course.

[5] In 2000, these Content Endorsed Courses were: Ceramics; Computing applications; Drama and theatre; Environmental studies; Exploring early childhood; Marine studies: Photography; Practical writing skills; Religion studies; Skills for living; Sport, lifestyle and recreation; Visual design; and Work studies.

[6] For 2005, these Authority subjects were: Business communication and technologies; Hospitality studies; Information technology systems; and Tourism.

Specifications which previously had embedded VET have been redeveloped to allow three options for schools:

✧ Approach A (preferred): VET certificates (stand-alone VET certificates I and II with competency-based assessment)

✧ Approach B: Vocational learning strands (with criteria-and-standards-based assessment leading to a subject result and no need to meet Australian Quality Training Framework requirements)

✧ Approach C: VET strands (providing both a certificate I with competency-based assessment and subject units with criteria-and-standards-based assessment).[7]

Another aspect of Queensland's 'Education and Training Reforms for the Future' has been the development of District Youth Achievement Plans and the appointment of Youth Support Coordinators. The purpose of these plans is: to develop, coordinate and implement local action to support 15 to 17-year-olds; to coordinate programs and services at local level across schools, VET providers and other agencies; and to improve the participation, retention and attainment of young people in education and training. There is a strong commitment to ensuring that all students develop pathways to further education and/or training and towards future employment.

New South Wales

New South Wales has also continued to develop and consolidate its VET in Schools programs. In 2005, Board-developed VET courses are available in nine industry frameworks (an addition of two).[8] Content Endorsed Courses have been consolidated to eight courses.[9] TAFE-delivered Content Endorsed Courses have been endorsed in 46 industry areas.[10] As before, Board-developed Industry Curriculum Framework courses can count towards the University Admissions Index if the related Higher School Certificate examination is taken.

An important development has been the mapping of credit transfer arrangements from the Higher School Certificate to TAFE NSW. Credit transfer arrangements apply for most Higher School Certificate subjects. Satisfactory completion of one of these subjects can enable credit to be granted for specific VET modules. This means that credit may be granted to any TAFE NSW course in which those modules, or their equivalent, are included. Credit is granted only after gaining entry to the course.[11]

VET in Schools and government policy

The overall VET policy objective of both the New South Wales and Queensland governments is aligned to that of the Australian Government—to increase the supply of a highly skilled workforce to assist in Australia's economic competitiveness in the international market. The provision of a broader school curriculum to include both vocational and academic subjects is one strategy used to meet this goal. This integration or convergence of vocational and academic subjects is expected to:

✧ increase retention rates

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7 For 2005, the Subject Area Specifications for VET certificates or strands were: Agriculture and horticulture; Business; Creative arts; Hospitality; Information and communications technology; Manufacturing; Recreation; Retail; and Tourism. The Subject Area Specifications providing only Vocational Learning Strands are: Childcare; English communication; Literacy and numeracy; Marine and aquatic practices; Trade and business mathematics.

8 For 2005, these industry framework courses were: Business services; Construction; Entertainment industry; Hospitality; Information technology; Metal and engineering; Primary industries; Retail; and Tourism. Accounting continues to be available as a non-framework Board-developed TAFE-delivered course.

9 For 2005, these Content Endorsed Courses were: Ceramics; Computer applications; Exploring early childhood; Marine studies; Photography, video and digital imaging; Sport, lifestyle and recreation studies; Visual studies; and Work studies.

10 Details of these TAFE-delivered Content Endorsed Courses are available at:
<http://www.det.nsw.edu.au/vetinschools/tvet/tvetcourseinfo/prg_vt_2153_status05.htm>.

11 Details are available on the TAFE/HSC Credit transfer website <https://www.det.nsw.edu.au/hsctafe/>.

✧ improve exiting students' employment prospects and further education opportunities

✧ facilitate the transition between school and post-school options

✧ increase the number of qualified and skilled workers entering the workforce

✧ encourage lifelong learning habits in all school leavers (Benson 1992).

However, as Schofield (1999) points out in her investigation into the quality of training in Queensland's traineeship system, the extent to which the macro objectives and expected outcomes of policy-makers are achieved depends on the local environment and individual stakeholder groups who may have a multiplicity of goals to pursue.

Over the past few years, before its incorporation in 2005 into the federal Department of Education, Training and Science, the Australian National Training Authority (ANTA) had developed better funding arrangements. For example, the ANTA Ministerial Council (2004a) approved 'funding to school authorities to support the development and delivery of VET in schools programs that are delivered as part of a broad, general education that combines study towards a senior secondary certificate with nationally recognised vocational education and training' (p.3). The principles adopted for this development and delivery were:

✧ recognised training under the Australian Quality Training Framework

✧ meeting industry and/or enterprise standards

✧ provision of multiple post-school pathways

✧ priorities related to skill shortages, industry needs and student demand

✧ recognition procedures consistent with both Australian Quality Training Framework and senior certification requirements.

The core purpose of school VET programs was seen to be its 'contribution to the expansion in both the number of young people undertaking vocational education and training programs during their senior secondary years and the breadth and depth of VET in schools programs offered' (ANTA 2004a, p.5).

The major stakeholder groups for the delivery of the school VET programs are schools, students, employers and the local community. The Ministerial Council on Employment, Education, Training and Youth Affairs formally acknowledged the importance of employer involvement in school VET programs when it identified training links to industry as one of the priority areas for action in the 2001–04 period. The Survey of Employers' Views on VET stated that employers' perceptions of VET training in general have become more positive between 1995 and 2001 (NCVER 2001). Overall, employers believed that the VET system was providing graduates with skills appropriate to employers' needs, and that training paid for itself through increased worker productivity. Furthermore, employers appeared satisfied that the system took their needs into account.

Methodology

This research project set out to further examine the attitude of employers to VET in Schools programs, as well as the expectations of students, parents, teachers and trainers. It also recorded the concrete outcomes achieved over the period of the study (2000–02). The study also set out to test the widely reported perception that VET is for lower-achieving students (Ryan 1998) and that a strong preference exists among Australian students and parents for general comprehensive education (James 2000) remains current.

The project consisted of a literature review of policy documents and studies of VET. Its main activity was a qualitative study of senior school students, school VET coordinators, employers and trainers (in the case of New South Wales, school teachers with accreditation) involved in the school-based VET program in five schools in New South Wales and five schools in Queensland.

The researchers interviewed these stakeholders to ascertain:

✧ reasons for involvement

✧ levels of satisfaction in relation to experiences, as well as expected and actual outcomes

✧ issues pertinent to future directions.

This report consolidates the findings from those interviews.

The stakeholders

The sample of research participants consisted of the four stakeholder groups noted above—students, school VET coordinators, employers and trainers (accredited school teachers/trainers in New South Wales)—from ten schools, five in New South Wales and five in Queensland. During the study, students taking at least one vocational-type course, subject, module or unit of competency were interviewed in each of the ten schools.

Table 1 shows the location and type of the school in the sample. The interviews conducted over the three phases are also included.

The students

The number of Year 11 students interviewed in phase 1 (2000) totalled 102, of which 43 (42%) were females and 59 (58%) were males; 51 were from New South Wales and 51 were from Queensland. This cohort of students was interviewed again in Year 12 during phase 2 (2001) with participant numbers decreasing to 89, of which 37 were female and 52 were male. Seven males compared with six females were not available for phase 2: eight students were from Queensland and five from New South Wales. In total, 46 from New South Wales and 43 from Queensland were interviewed.

Table 1: Summary of characteristics of school case studies

School case no.	Location/industries/school type	Interviews	Phase 1 2000	Phase 2 2001	Phase 3 2002
NSW N1	Provincial coastal town	Coordinator	1	1	1
	Mainly tourism/some marine/business	Employer (Hospitality)	1	1	-
	State	Trainer*			
	Senior college on an education campus	Students	1	1	1
	Coeducational		10	8	7
NSW N2	Country town	Coordinator	1	1	1
	Agricultural industries/tourism/retailing	Employer (Hospitality)	1	1	1
	State	Trainer*			
	Years 8–12	Students	1	1	-
	Coeducational		10	9	8
NSW N3	Suburb of state capital city	Coordinator	1	1	
	State	Employer (Hospitality)	1	1	1
	Retailing/business/some unemployment	Trainer*			
	Years 8–12	Students	1	1	1
	Coeducational		11	10	8
NSW N4	Centre of a coastal provincial town	Coordinator	1	1	1
	State	Employer (Retail)	1	1x	1x
	Industrial/retailing/business	Trainer*	1	1	1
	Years 8–12	Students	11	10	9
	Coeducational				
NSW N5	Centre of state capital	Coordinator	1	1	1
	Independent	Employer (Retail)	1	1	-
	Retailing/business/tourism	Trainer (Private)	1	1x	1
	Years 1–12	Students	9	9	8
	Boarder and day boys				
QLD Q1	Suburb of a state capital city	Coordinator	1	1	1
	Independent	Employer (Building)	1	1	1
	Retailing/business/tourism	Trainer (Private)			
	Years 4–12	Students	1	1	1
	Boarder and day boys		10	7	6
QLD Q2	Rural town	Coordinator	1	1x	1
	State	Employer (Hospitality)	1	1	1
	Agriculture/industries/tourism	Trainer (TAFE)			
	Years 8–12	Students	1	1	1
	Coeducational		10	10	10
QLD Q3	Centre of a provincial coastal town	Coordinator	1	1x	1x
	State	Employer (Retail)	1	1x	-
	Industrial/retailing/tourism	Trainer (TAFE)	1	1x	1
	Years 8–12	Students	11	10	9
	Coeducational				
QLD Q4	New residential tourist coastal strip	Coordinator	1	1	1
	State	Employer (Retail)	1	1	1
	Tourism/retailing/above average level of	Trainer (TAFE)	1	1x	1
	unemployment	Students	10	7	6
	Years 8–12				
	Coeducational				
QLD Q5	Suburb of state capital city	Coordinator	1	1x	1x
	State	Employer (Office)	1	1	1
	Retailing/business/light industry/some	Trainer (Private)	1	1	1
	unemployment	Students	10	9	7
	Years 8–12				
	Coeducational				

Note: The 'x' in the columns signifies a different interviewee. An asterisk signifies that these trainers are also school teachers.

In the final phase during March 2002, there was further attrition: 11 students dropped out of the study between phases 2 and 3, leaving 78 students in the final phase. Of the 11 non-participants in the final phase, eight were male and three female; five were from Queensland and six from New South Wales. This resulted in a remaining sample of 40 students from New South Wales

and 38 from Queensland. Table 2 shows the gender distribution of the student sample over three phases within the two states.

Table 2:   Gender of student interviewees

State	No. students					
	2000		2001		2002	
	Female	*Male*	*Female*	*Male*	*Female*	*Male*
Queensland	19	32	16	27	14	24
NSW	24	27	21	25	17	23
Total	**43 (42%)**	**59 (58%)**	**37 (33%)**	**52 (47%)**	**31 (40%)**	**47 (60%)**

VET school coordinators

The sample included those who worked part-time, or were full-time guidance or career counsellors or were members of the teaching staff or heads of departments who had been allotted a specific number of hours in the week to administer and develop the VET courses in the school. This sample effectively illustrates the wide variation of roles and responsibilities held by school VET coordinators and the lack of full-time responsibilities assigned to the school-based VET program.

Employers

Employers interviewed included those who owned their own businesses, those who worked in small companies or who were employed in national or international enterprises. These employers provided a range of employment situations and work experiences to students, most commonly in the areas of hospitality, retail and construction. Usually, employers became involved in the delivery of VET courses through an initial approach from a nearby school, employment agencies connected with a particular school, school cluster coordinators or by the students themselves. As a sample, employers were the least stable group participating in the research project. Over the duration of the study three employers did not complete the study; one moved away, and two businesses ceased trading.

Trainers

In Queensland, two trainers interviewed were from private training organisations with three from institutes of TAFE. They held a variety of positions within those institutions. In New South Wales, all except one of the trainers were employed as school teachers who had either been in industry and then trained as teachers, or had been in the schools as VET teachers.

Overall, the attrition rate was relatively low for a study where participants are geographically, economically and socially widely distributed.

Findings

The research found that, at a broad level, the two main objectives of the school-based VET program—facilitating the transition between school and work and providing a highly skilled workforce—were common to governments, schools and other training organisations, students and employers. There was, however, considerable diversity at the local level in the implementation of the school-based VET program. The approach to VET was influenced by factors as diverse as government policies, resources available within a school or community, parental perceptions and the strength of community networks.

Getting started

Almost half of the students in the study stated that they had selected their subjects themselves, but many had also sought advice from other sources, as shown in table 3. Schools tended to have one person in particular to whom students could go for advice regarding VET subjects. In some schools this was the guidance officer, while in others it was the VET coordinator or the career advisor. Some schools had a policy which encouraged all Year 10 students to have an interview about their Year 11 choices.

Table 3:   Information sources regarding students' decisions about Year 11 subjects

Sources	Qld	NSW	Total
Parents	23	51	**74**
VET coordinator/guidance officer/ career advisor	22	8	**30**
School information	11	27	**38**
Friends	7	1	**8**
Teachers	5	9	**14**
Siblings	2	4	**6**
Others	4	3	**7**

The majority of students reported seeking advice from one or other of their parents, especially those in New South Wales. Often this was in the form of discussion or reassurance about subject selections that had already been made. In Queensland these selections were more often made with the help of a school advisor (VET coordinator/guidance officer/career advisor).

Students identified three main themes for selecting VET subjects. These were personal reasons, future aspirations and limited choices.

✧ Personal reasons included: students found VET subjects interesting, were good at them, liked them and preferred practical subjects as they were more 'hands on' and were perceived to be more suited to their academic ability.

✧ Factors relating to future aspirations included: VET subjects allowed experimentation of career paths and informed decisions on future careers and could offer a head start in a chosen job or career.

✧ Factors that limited choices included: restrictions due to timetabling of VET subjects, the selection or admissions criteria of schools and tertiary institutions, and the availability of school resources.

These structural issues, together with individual factors, such as academic ability, future plans and impact of family influences, appeared to be the main influences when students selected subjects for Years 11 and 12.

There was little difference between students in New South Wales and Queensland in relation to why they selected VET subjects. In both states, many of the students whose aim was to get into university did not intend to use their VET studies for further study or career pathways, although some were doing a VET subject to enable them to find part-time work to help finance their university studies. On the other hand, many of those who did not intend going to university hoped to use components of VET subjects for employment, TAFE or apprenticeships. Students aiming for university tended to have longer-term educational and career goals.

Stakeholder perceptions of the advantages and disadvantages of VET

Advantages for the students

Four broad themes were identified with regard to the perceived advantages for students participating in the VET in Schools program. These were:

✧ attainment of qualifications

✧ facilitating the transition between school and work

✧ 'try before you buy' opportunities

✧ different learning and teaching styles and course content.

The fact that VET programs could offer certificates under the Australian Qualifications Framework was seen as particular benefit to students. The qualifications were recognised nationally, could lead to further tertiary training courses and enhance future employment opportunities. While qualifications were perceived as highly valued, in all three phases of the research students had difficulty articulating the name of their VET course, as well as the expected final qualification.

> If I want to do an apprenticeship … some of the modules (e.g. health and safety) go across
> several trades.   (Student, Queensland)

The advantage of achieving qualifications and work experience expressed in Phase I determined the level of satisfaction of student outcomes in Phase 3. Those students who obtained a job or a TAFE place (18) believed that, by undertaking VET at school, they had achieved a 'head start' by comparison with the general education students. In particular, the work placement component not only gave them a chance to practise work skills, it also exposed students to the job application process and interview, as well as being an opportunity to 'make a heap of contacts' for the future. These were some of the factors that facilitated the transition between school and work.

All respondents believed that work experience, which gave students the opportunity to experiment in a safe environment, was an important factor in allowing students to make informed decisions about their future careers. The majority of students reported that the experience of work placement was one of the main factors which influenced their participation in the school-based VET program.

Taking students out of the school environment and placing them in situations where they could experience 'a real' working environment and where they were 'treated as adults' were often perceived to result in changing the attitudes and presentation of students. The majority of students, school coordinators, employers and trainers reported that a growth of confidence and self-esteem

among students illustrated increased maturity and facilitated the transition from school to work. VET coordinators, employers and trainers stated that students acquired a better work ethic because they were more receptive to employer expectations. Furthermore, students were often offered traineeships after work experience.

> When I look at some of those kids I doubt whether they would have been able to pick up a job at the end of Year 12 if it hadn't been for our Voc Ed and the fact that we encouraged structured work placement with it. (Coordinator, Queensland)

Students also reported that work placements brought them into contact with prospective employers. In a small number of cases, students were offered either ongoing casual work or traineeships and apprenticeships by their host employers (10% of students). The majority of students felt that they had made useful contacts which they believed would assist in their transition from school to work.

Work experience also allowed employers and students to make informed decisions in relation to future staff selection and preferred career choices respectively.

> I did Childhood Studies, and I've done … Hairdressing, and I didn't like any of them. But … the only way I did them was through VET … And so I got the experience of it and I know I don't like it, you know what I mean? Like, so now I can just move on and find, hopefully, something I do like. (Student, New South Wales)

The majority of respondents thought that VET subjects were relevant and useful to the majority of senior school students. Students liked doing practical activities, and some VET coordinators argued that 'employers prefer people with hands-on experience'. Students appeared to prefer the teaching and learning methods of VET subjects, which gave them a sense of 'freedom to learn yourself and at your own pace' and offered progressive assessment. In contrast, other students stated that they liked the VET subjects because they received more direction. These differing views appeared to be school- and subject-specific.

Overall, students were positive about learning styles and course content. There were, however, reports that some teachers were not very familiar with the subject content nor well prepared for lessons. This impacted negatively on levels of satisfaction expressed about some courses. Students described themselves as 'guinea pigs', and both teachers and students recognised the difficulties new courses created due to inadequate levels of staffing and inadequate preparation time to develop teaching plans.

Ten per cent of students felt that the content of the VET subjects they were studying was not challenging enough. These students from schools in both New South Wales and Queensland were studying a combination of general curriculum and VET subjects. For others, who may have been considering leaving school, VET courses also helped them decide to complete Year 12 and often improved their attitude to school and also their future prospects. The majority of school VET coordinators, employers and trainers in New South Wales and Queensland (7) agreed that VET subjects captured the interest of many of the students who would normally have left before Year 12. Importantly, the level of a student's commitment was more positive and this improved an individual's post-school opportunities as well as producing a more productive worker for the community.

Students were mainly satisfied with generic as well as specific industrial skills. Seventy-two students specifically mentioned practical skills, such as communication, computing, teamwork, and general work and life skills, which would be useful in their everyday life, as well as in applying for a job. Thirty-five students commented on the usefulness of specific industrial skills and in the majority of cases, these students were anticipating using these skills in their post-school careers, either in the workforce or in further education.

Most respondents reported that the VET in Schools courses had also allowed schools to broaden the curriculum and, therefore, to offer more relevant subjects to the majority of non-university-bound senior students.

Disadvantages for the students

One-third of interviewees could see no disadvantages associated with undertaking VET courses. When disadvantages were mentioned, the main issues cited were:

✧ the difficulties associated with missing lessons due to VET activities

✧ the loss of a tertiary entrance score/index/rank/position

✧ the negative perceptions about VET and VET students. (Any stigma attached to VET subjects was not explicitly mentioned by students in government schools.)

While students generally viewed work experience as a positive experience, some VET coordinators reported several concerns. These included the following issues.

✧ Students and schools experienced difficulties in finding work placements in the community.

✧ Students often felt unsafe and had difficulty coping with working outside school.

✧ Students in some work situations had to work late nights and unsocial hours.

✧ Student employee problems, such as absenteeism, needed to be dealt with immediately to maintain the future support of the employer.

✧ Employers could assign students to menial chores during a work placement.

✧ Because of the lack of continuity, weekly work placements were less satisfactory compared with blocks of work.

Most students found their VET workload acceptable. However, a few students mentioned problems arising when many assignments were due around the same time, or when VET classes were scheduled out of normal school hours, or when work days did not finish until late.

In general, students perceived that the costs associated with doing VET subjects were reasonable and acceptable. Either the school provided assistance (for example, one school covered all the TAFE expenses for its students), the parents covered the cost in the school fees, or the parents or the student met additional fees or levies. Students who had part-time jobs were not concerned about meeting these fees. Only one student reported dropping a VET subject because of the costs involved. VET coordinators, on the other hand, were concerned about the high cost of running VET programs (see below).

Advantages for employers and trainers

Employers and trainers perceived that the main advantages to them and their organisations were associated with recruitment of employees. By participating in the VET in Schools program employers and trainers were able to:

✧ select well-trained staff and students for the future

✧ gain personal satisfaction associated with helping others

✧ achieve financial assistance in the training of students and staff

✧ exercise some influence on the development of training, including future training packages.

> If you know they've got something out of it, if at the end of it they [students] can say I don't want to go into the building industry, then you've achieved something for them … it's work experience and at least it saves them the hassle of finding out the hard way, and we give them the chance to discover that. (Queensland employer)

More than two-thirds of employers valued the fact that the school-based VET program was producing young people who could think for themselves in a work situation, and who had the right attitudes as well as maturity. Factors such as 'work ethic', 'willingness to learn', 'independence' and 'self-confidence' were mentioned as attributes students developed when on work placement.

Disadvantages for employers and trainers

While overall employers were satisfied with their experience of VET in Schools, they did raise concerns about:

✧ the literacy and numeracy levels of some students, which needed to be assessed before students were allocated to work placements

✧ lack of, or too much, communication with schools and trainers (also relevant was the lack of paper work or too much paper work)

✧ inadequate funding resulting in employers not being fully remunerated for training.

Employers and trainers also reported extra workloads due to their involvement in the school-based VET program, especially in the hospitality area.

Advantages for schools

All school VET coordinators and several of the trainer teachers identified three main advantages to schools:

✧ the development of a broader curriculum relevant to all students

✧ the development of closer links between the schools and their communities to facilitate school to work and training pathways

✧ the sharing of ideas about training leading to the development of innovative ideas and practices.

The majority of schools stated that their objective in offering a VET program was to provide a broader curriculum, which was also appropriate and relevant to the majority of students in Years 11 and 12 and resulted in multiple post-school pathways. Most, however, anticipated the demand for VET courses would be from students of lower academic ability. The range of subjects offered was dependent on resources in the school and in the local community, as well as on the ability of the student.

Schools which offered a greater range of VET to a relatively large number of students were able to introduce a more flexible timetable which recognised the different requirements of VET teaching practices (longer class times) and student absences while at training or employment. However, parallel timetabling of VET and general education subjects continued in the majority of schools in this research project.

It was reported by a number of respondents that, through school VET programs whereby teachers had to coordinate and cooperate with trainers as well as employers and participate in on-the-job visits and assessments, schools became better connected to the community. This was seen as a positive way to allow the exchange of innovative ideas for the benefit of all involved in the delivery of VET courses and as a contributor to community cohesion.

> As teachers visit the students in the workplace … hopefully they will bring ideas and innovations back from the industry to the school and know what industry's expectations are. [This] confirms teachers' practices in the classroom.   (Queensland VET coordinator)

There was widespread agreement that schools had benefited from the introduction of VET courses in the senior school curriculum and the consequent networking with the local community. The increased integration of VET students in the community as well as the networking between schools, employers and training organisations had raised the profile and status of schools.

Disadvantages for the school

Three main themes were identified:

✧ the expense and funding

✧ the burden on staff

✧ the culture within the school and community.

A common problem was the overall cost of running the VET programs—the set-up costs, the resource requirements and ongoing expenses—although, as one interviewee put it:

> [VET is] expensive, but the benefits far outweigh the disadvantages.   (Queensland coordinator)

School staff mentioned that it was important to have an effective administration to take care of the financial side of VET, but with the shifts in government funding, long-term planning was difficult and there was always competition with other departments within the school for funding new equipment. The overall administration of VET courses was time-consuming and burdensome, due to the 'paper chase' involved in tracking students, keeping records, and developing individual training plans. Many VET coordinators were part-time or only allotted a small number of hours out of their total working week. This meant many had to complete work in their own time.

Another difficulty for schools was the need for staff involved in VET courses to keep up their industry experience in order to maintain accreditation. Again, given the shortage of time and money, teachers tended to complete their up-skilling in their holidays or after school.

Cultural aspects within a school often hindered the smooth running of the VET program. For example, teachers of traditional subjects were seen to resent the amount of money given to VET, which was believed to be at the expense of traditional academic subjects.

> The comment has been made 'they're pouring all that money into VET, what about us over here?' They've forgotten though that for years and years and years it's been poured into 'over here' and only about 17% of our population ends up at uni or are academically inclined.
>
> (Queensland coordinator)

The implementation of VET in Schools resulted in the need to retrain staff or to allow students to be trained in TAFE institutes by TAFE trainers. It was reported that, in some cases, the need to change teaching and learning styles had met resistance. However, a number of VET coordinators felt that over the period of the research this resistance was breaking down and 'the old guard' was beginning to recognise the value of offering VET to senior students.

Some coordinators felt that schools were not sufficiently flexible in their timetables to allow VET students to move smoothly between school, work, TAFE, and training. Often the different structural needs of VET teaching, such as long blocks of teaching time, were not recognised in the timetabling of VET subjects.

It was considered that there was still a need to educate the parents and the wider community about vocational education. Many schools were beginning to be proactive in responding to negative attitudes by marketing VET programs to parents through parent evenings and emphasising the advantages of undertaking VET courses to all students. Encouragingly, most VET coordinators believed that awareness was growing among the student population and, to some extent, parents and the community were beginning to see the benefits of VET and the value of VET qualifications.

Advantages for the community

It was in those communities where there was a high level of networking and cooperation between stakeholders that satisfaction with the school-based VET program was greatest. For the most part,

respondents thought the program brought social and economic advantages to all stakeholders involved, as well as to the community at large. The advantages identified included:

✧ the training of a skilled and qualified workforce for the community

✧ economic and social benefits because of the development of working partnerships in the community.

Twenty-five out of the 30 trainers, employers and school VET coordinators felt there were also beneficial economic effects for the community. The gradual introduction of school students into work placements, the development of skills, qualifications and personal attributes, it was claimed, would produce an appropriately skilled and employable workforce for the future.

Respondents said the main advantages to the community were the experiences and skills gained by the students, which would eventually help to place the students in gainful employment.

Inadvertently, other goals may also be met (for example, keeping students out of trouble). In addition, one trainer mentioned that greater community cohesion could result due to the links formed through involvement in the program.

> [The VET program] brings the community together through working for a common purpose
> … we have a lot of people committed to the program. (Queensland trainer)

For instance, the school-based VET program was perceived to bridge the gap between employers and students, as well as between students and the wider community. And in areas of high unemployment, the program allowed students whose families were long-term unemployed to experience work situations for the first time, bringing social and economic benefits to the whole community.

Disadvantages for the community

While the research did not identify specific disadvantages to the community from the VET in Schools program, it did underline the importance of community support for the program's success. This support could be undermined if there were insufficient resources to establish and maintain a network within the community to facilitate communication and cooperation among stakeholders. Without these, there was a danger of unclear objectives for the program and disappointment at its outcomes.

Challenges

Infrastructure and implementation

Having an adequate infrastructure to support the school-based VET program was perceived to be an important and necessary step in the delivery of vocational education and training to school students. Many respondents highlighted concerns in relation to the underdeveloped infrastructure including:

✧ the paucity of knowledge, information and documentation relating to procedures and protocols for the VET program implementation process

✧ a lack of well-developed communications and networking channels

✧ the lack of resources and inadequacies in funding arrangements.

These factors were argued to threaten the effectiveness, efficiency and quality of the school-based VET program during the implementation process. Throughout the three phases of the research, issues identified that constrained implementation and caused by the inadequacies of the infrastructure included:

✧ lack of confidence and understanding of assessment processes

✧ confusion due to differing expectations between stakeholders

✧ lack of monitoring and coordination of course content in different locations

✧ tensions caused by differing priorities and lack of coordination among the VET training institutions in relation to timetabling student activities

✧ few resources to upgrade and maintain equipment

✧ lack of funds to meet staffing requirements.

Two out of the ten employers interviewed found the system of 'on the job' assessment unsatisfactory. Four employers felt they were not qualified to assess competencies, while others were unsure of the documentation required.

A number of students reported dissatisfaction with work placement experiences due to differing expectations between the students and the employers. They mentioned in particular the absence of set working hours and insufficient experience offered in the workplace to achieve accreditation.

Lack of coordination and clear guidelines could result in 'double dipping', in other words, repeating training in another location. Students reported losing interest in a subject if they thought the content was repetitive and did not understand why previous qualifications were not recognised. Most stakeholders noted the inefficiencies of cost and time resulting from course content duplication.

Some trainers as well as employers also reported that providing training for VET students in three different locations (school, training organisations and work placement) often caused conflict over which organisation 'owned' the students. Moreover, tension arose over the prioritisation of the trainer's, employer's and school's demands on students' time. The problem of competing demands and priorities was raised by 17% of students, 50% of coordinators, 20% of trainers and 10% of employers.

The stresses caused by the difficulties encountered when attempting to timetable 'off the job' and 'on the job' components of vocational training within the confines of the traditional school timetable were often cited. None of the schools interviewed had fully integrated the VET and general education programs into one timetable, and the flexibility of each school's timetable in addressing VET courses varied greatly. The placement of students therefore required coordination, not only within the school, but also within the wider locality to try to diffuse conflict between all institutions seeking work placements for students within the community.

Students, as well as some teachers, employers and trainers, were concerned about the upgrading and/or maintenance of equipment, especially in the areas of engineering, metal and woodwork, and hospitality. Schools in particular reported difficulties with funding arrangements that impinged on material resources, including providing up-to-date equipment. The rapid increase in student demand for VET subjects was reported to have created supply problems in relation to the provision of appropriate program materials and equipment.

The inadequacy of staffing, material resources and funding arrangements was reported to inhibit the development of a sound school-based VET program with a stable infrastructure. These constraints were noted to a greater or lesser degree by all stakeholders. Further, it was noted that, even where the facilities and equipment were in place, resources needed to be continually assessed, and where necessary, upgraded to maintain industry standards. The quality of the school-based VET program, it was agreed, also relied on competent teachers and trainers qualified to industry standard and on effective quality assurance.

Quality assurance

Quality assurance in relation to the monitoring and supervision of VET courses was an issue raised during all three phases of the research. Particular problems related to training expertise and work placements, with standardisation of supervision and assessment procedures perceived by many to be an important element in establishing a quality-assured, school-based VET program. It was suggested that confidence in the quality of the qualifications attained while at school required continual quality assurance procedures in areas of supervision, assessment, subject delivery and in relation to facilities and equipment.

While improvements in many of these areas were seen over the life of the research project, it was considered that still more needed to be done to improve the outcomes. This could be achieved with:

✧ a greater emphasis on clarifying objectives of work placement to ensure a better match between the students' abilities and interests, and the expectations of those delivering the service

✧ a better understanding of the requirements of all those involved in the practical delivery of VET in order to achieve greater cooperation and coordination

✧ regular monitoring of adherence to assessment procedures in all those places where training was carried out (school, training college and workplace).

Solutions

Local management committees

The establishment of local management committees was a priority for all the stakeholders who were interviewed in the study and who were involved in the delivery of VET courses. These committees proved to be the most important step in establishing an infrastructure to support and enhance the implementation of the school-based VET program now and in the future.

In Queensland, there has been a gradual development of community and policy liaison groups, resulting in cooperative relationships between schools and training providers and local industry. Similarly in New South Wales, schools and the local community have established coordinating groups of interested stakeholders, including representatives from schools, private and public trainers, as well as employer associations.

The local management committees disseminated information, provided advice, produced agreed guideline protocols and procedures, and were continuing to develop strategies that would enhance the implementation of the school-based VET program. This type of coordination and cooperation strengthened the infrastructure of the program by providing administrative services and support networks both within the local community and to other regional groups.

The enhanced cooperation and coordination based on a shared understanding of each stakeholder's needs raised awareness of the need for flexibility on the part of the various organisations involved in the program. Thus, through communication, many problems were 'on the way to being solved'.

Timetabling and workloads

The introduction of flexible and extended school timetabling in some schools provided the solution to student workloads and the prioritisation of training between the three VET providers (schools, employers and trainers). Other methods to reduce students' workloads included dropping subjects to improve marks or to accommodate a traineeship. Fifteen per cent of students dropped one subject between the first and second phases. Six from Queensland did so because they took up a part-time traineeship and, of the seven from New South Wales, six wished to improve their marks. One had become a part-time trainee.

Flexible administration

In the final interview, the majority of stakeholders (20 out of 27) involved in the assessment of VET competencies commented on the improved and flexible administration of the procedures that had taken place over the three phases of the research. Greater accountability through formalised procedures had been established between the three organisations involved in the delivery of the school-based VET program.

Pathways

Students' views

Students' views indicated that traditional pathways from school remained the norm and were influenced by the structure of the school curriculum. Those students taking all or a majority of general education subjects stated that their preferred outcomes were related to full-time study. The students taking all VET or mainly VET subjects aspired to apprenticeships or full-time work.

Table 4: Students' expected and preferred outcomes by state and gender

Student expected and preferred outcomes*	Qld			NSW			Total
	Female	Male	Total	Female	Male	Total	
Full-time work	2	9	11	4	6	10	**21**
Apprenticeship or traineeship	3	12	15	2	5	7	**22**
Full-time study	9	6	15	14	14	28	**43**
Combination of work and further study	1	7	8	4	3	7	**15**
Travel or break	1	1	2	4	6	10	**12**
Total	**16**	**35**	**51**	**28**	**34**	**62**	**113**

Note: *Students were coded to more than one category if they were unsure.

In New South Wales, twice as many students indicated that they were planning to gain entry into a course of full-time study. This is in contrast to Queensland students (28 in New South Wales, 15 in Queensland). This pattern of state differences may be a characteristic of the students sampled and therefore should not be generalised to the entire school populations of each state. It may, however, also be influenced by the fact that some VET subjects can be counted towards university entrance in New South Wales, whereas in Queensland tertiary entrance using VET subjects would be through a Selection Rank rather than an Overall Position.

More male students saw themselves having a full-time job after leaving school (29% of males, 16% of females). Also, more than twice as many males envisaged gaining an apprenticeship when they finished school (33% of males, 14% of females).

The majority of students (55 students, 71%) reported they had achieved their preferred destination. However, only 24 (31%) were satisfied with their present position. To some extent this illustrated that, for many exiting students, the immediate post-school destination was a means toward a future career path rather than an end in itself.

Ten out of the 17 students who had obtained apprenticeships continued with the employers who had employed them as school-based part-time trainees. All the full-time apprentices expressed high levels of satisfaction with their destination pathway. Similarly, of the 23 students who were in full-time study, all except one were satisfied with where they found themselves.

The recognition of prior learning and the articulation of AQF qualifications to promote seamless transition between institutions appeared to be a very important objective of the school-based VET program. Of the 11 students who gained an AQF qualification, four reported that they were highly satisfied with the transition between school and further education institutions, and that they had received credit for their qualifications. Of those four, one Queensland student who had undertaken all VET subjects at school had been successful in gaining entrance to university via a Selection Rank, and the other three had been able to articulate modules and certificate II qualifications, allowing them access to TAFE courses. The remaining seven students had transferred from part-time traineeships to full-time apprenticeships and reported that their previous qualifications had been accredited.

Of the five dissatisfied students, two reported that they had approached TAFE to carry on hospitality training and had not been given credit for previous qualifications. Justification for this ranged between 'not having covered' specific components, not being taught adequately and being taught 'in a different' way. Students were asked, therefore, to repeat the course or module.

The five students from both states who were unemployed were living in low socioeconomic communities with high levels of unemployment (three were from a provincial town and two from suburbs of a capital city). Those students working casually or part-time tended to be employed in the hospitality, retail or fast food industry.

Other stakeholder views

Most of the school VET coordinators (seven out of ten) and half of the trainers (five out of ten) involved in the delivery of VET courses stated there was a wide range of options for students who had completed some vocational training at senior school. Employers and trainers tended to focus more on employment opportunities rather than opportunities for VET students to access tertiary pathways.

Schools which targeted the less academic students for participation in VET courses tended to highlight employment, rather than further study, as intended post-school destinations. By comparison, those schools that reported encouraging students of all abilities to undertake VET courses suggested there were opportunities for multiple pathways for VET students. The interview data showed the level of awareness relating to multiple post-school pathways was greater in New South Wales than in Queensland.

The perceived lower status of VET courses and the lesser value conferred by TAFE on school-based qualifications and modules were the main factors which caused dissatisfaction among students and school VET coordinators.

Career guidance

The adequacy of career guidance and information dissemination was also found to influence decisions regarding post-school destinations. Here the results varied by state. In New South Wales a higher number of students felt the information they had received regarding post-school options was inadequate as guidance officers were rarely at school or were often too busy to provide assistance to students. This finding is interesting as guidance counsellors were the most common source of information for New South Wales students. The second most common source of information reported was using one's own initiative to collect information. By comparison, most Queensland students considered that the information they had received from the school had been adequate. However, the most frequently mentioned source of information was the VET teacher, followed by information from a career counsellor.

A total of seven trainers and six school VET coordinators believed that VET students were not given appropriate advice in relation to subject selection or career pathways.

> You know we don't really focus on VET students. The career advice and information is mainly directed towards university students … It's something we need to improve in the future. (Coordinator, Queensland)

> The careers teachers don't know anything really about industry and things that are on offer. I mean they're not trained for that side of things. (Coordinator, New South Wales)

Some students were also concerned about the quality of the advice they had received which they reported had been either misleading or insufficient. Four students had taken a lower standard of maths than was required for future TAFE courses.

Articulation

The articulation of VET qualifications towards tertiary entrance in both states was perceived to have some difficulties. These included:

✧ the lack of information and advice from schools about alternative tertiary pathways via a selection rank in Queensland

✧ the low scaling of VET subjects for university entry (which is attributable to these subjects attracting weaker students in terms of overall achievement)

✧ the lack of recognition of prior learning in relation to further vocational courses (which has been addressed at least to some extent now in New South Wales).

Thus, while the relationship between schools and the community promoted linkages between students and future pathways into tertiary training or education, opportunities were missed through difficulties experienced in articulating qualifications. This was an obstacle for those promoting a broader school curriculum, one designed to offer multiple post-school pathways.

What makes vocational training programs in schools work?

Conclusion

The majority of stakeholders involved in the delivery of school VET programs were highly satisfied with the way in which the programs had facilitated the transition from school to work or further study for many students. All agreed that a combination of general education and VET could result in access to a wider range of appropriate and relevant school courses for all students. However, the following factors could influence the future success of a broader curriculum:

✧ prerequisites imposed by entry procedures for tertiary education and training

✧ attitudes to VET within the school, among parents and in the local community

✧ the staffing and material resources of the school

✧ the structure of the school timetable—there was agreement that the traditional school timetable for general education subjects was not appropriate for accommodating the school-based VET program

✧ the economic and social characteristics of the community in which the school was located.

The majority of schools stated that their objective in offering a VET program was to provide a broader curriculum, one which was appropriate and relevant to the majority of students in Years 11 and 12 and which resulted in multiple post-school pathways. Most, however, anticipated the demand for VET courses would be from students of lower academic ability. The range of subjects offered depended on resources in the school and in the local community, as well as on the ability of the student.

Moreover, students' pathways continued to illustrate the traditional dual post-school destinations, with those students taking mainly academic subjects going on to tertiary education, and those taking mainly vocational subjects pursuing further training and/or employment opportunities. The latter appeared to have a wider choice of pathways compared with those students taking mainly academic subjects who failed to attain university entry.

All stakeholders agreed that interaction between schools, training organisations and employers provided greater coordination of training linked to the needs of the local community. The result of this networking was to enhance students' ability to make an informed decision about future careers, as well as to allow employers to select future staff. In those communities where the school administration was supportive of the school-based VET program and there was good coordination between all those involved in the delivery of VET courses, high levels of satisfaction were expressed, not only with the quality of the school-based VET program, but also with the outcomes for all participants.

In part, dissatisfaction about the school-based VET program was expressed where there:

✧ was confusion and tension over the strategies used to attain certain preferred outcomes

✧ were difficulties in articulating VET qualifications to further education and training institutions

✧ was rivalry between trainers and school teachers based on differing qualification requirements

✧ were only short-term funding arrangements and a resulting lack of adequate staffing and material resources to support a stable administrative infrastructure and maintain a quality program.

The long-term viability of a high-quality school-based VET program was discussed throughout the three phases of the research. Further expansion of the school-based VET program would be necessary if the expected demand from students in the future was to be met. While all respondents emphasised the importance of work placements in VET courses, it was recognised that, in some localities, the supply of employers was at saturation point. Greater marketing of the school-based VET program in the community and developing training packages in new industrial and commercial fields were suggested as ways of increasing the supply of work placements.

The viability and the quality of school-based VET programs were found to be determined by the adequacies of the infrastructure and resources within the local community, along with sufficient long-term levels of material and staffing resources. A lack of clarity about the objectives and expected outcomes from the programs often resulted in a blurring of aims and confusion regarding procedures. In some instances, this resulted in dissatisfaction with outcomes.

The findings regarding the objective of facilitating the transition of students between school and post-school options illustrate a number of tensions. While some believed VET should lead to a definite career path, others, especially schools and students, perceived VET courses as a means to experience different work situations, thus helping them to make informed decisions about post-school pathways, or for tertiary-bound students, assisting them to get part-time work.

In conclusion, this study suggests that, while the offer of a wide range of general and VET subjects and programs to Years 11 and 12 students can provide multiple pathways and more post-school options, in practice, traditional attitudes to timetabling, a continuing perception of VET as a second-tier option, and resource constraints were found to be obstacles to making the most of school VET programs.

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