

Ai GROUP SUBMISSION

South Australian
Review of VET for School Students

JULY 2019



About Australian Industry Group

The Australian Industry Group (Ai Group) is a peak industry association in Australia which along with its affiliates represents the interests of more than 60,000 businesses in an expanding range of sectors including: manufacturing; engineering; construction; automotive; food; transport; information technology; telecommunications; call centres; labour hire; printing; defence; mining equipment and supplies; airlines; and other industries. The businesses which we represent employ more than one million people. Ai Group members operate small, medium and large businesses across a range of industries. Ai Group is closely affiliated with more than 50 other employer groups in Australia alone and directly manages a number of those organisations.

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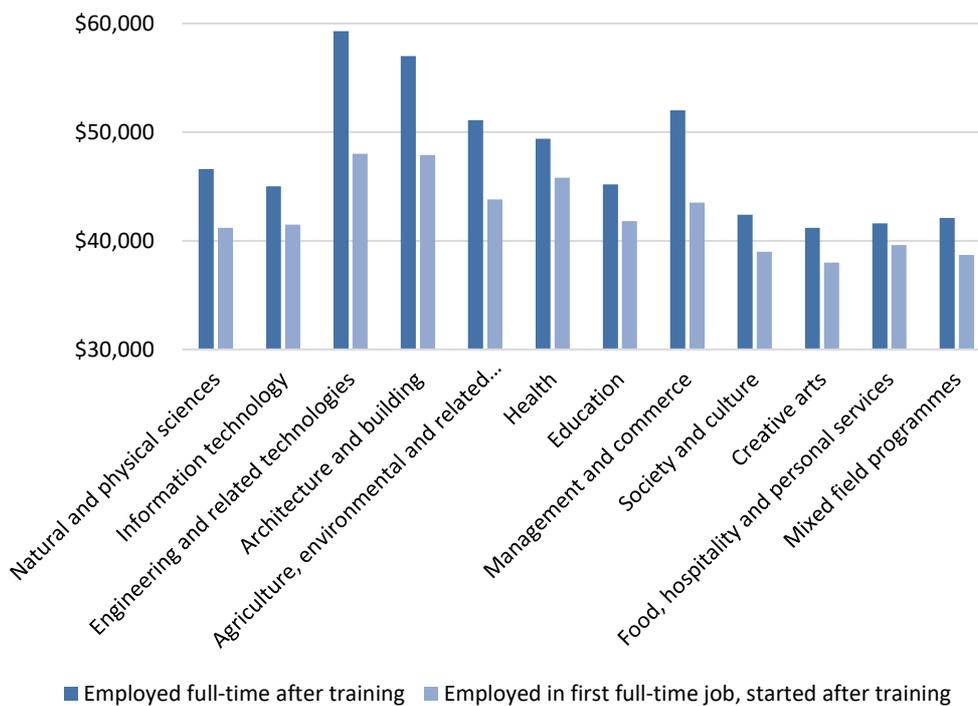
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Issue 1: Perception

1. What more needs to be done to increase awareness and change perceptions about VET and vocational careers?
2. How can we ensure vocational pathways are presented as a credible option to students and families?

Demonstrated educational and employment outcomes following vocational education and training can improve the reputational standing of VET and public perceptions of it. Exemplified in the following charts, information on wage and employment outcomes after training by qualification and field of education can assist students, teachers, parents and school communities make better informed decisions about subject selection and pathways to further education and employment.

Median annual income after training for government-funded graduates employed full-time by field of education, 2018



Source: NCVER, Government funded student outcomes 2018

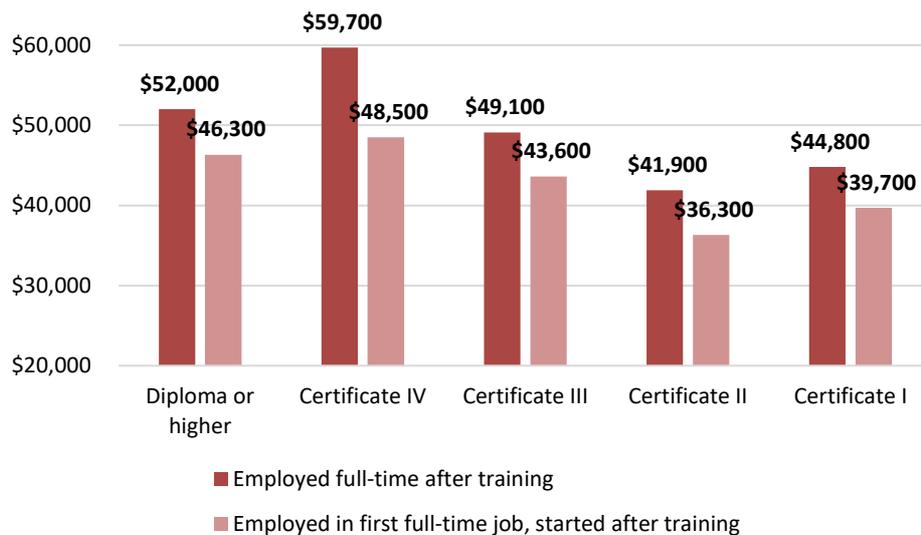
By providing evidence of where employment is projected to grow, the level of remuneration for in-demand skills in those industries, and the types of qualifications required to undertake certain tasks and roles in those industry sectors can help shift student attitudes to VET pathways.

The National Centre for Vocational Education Research (NCVER) has found that 59 percent of VET graduates improved their employment status after training, with the median annual income in

2018 of graduates employed full-time after training being \$56,600, and \$45,000 for those entering their first full-time job after training.¹

NCVER also found that 70.6 percent of graduates who undertook an apprenticeship or traineeship improved their employment status after training, with 79.8 percent of graduates employed after training (91.2 percent for those in a trade occupation course, and 77.3 percent for those in a non-trade occupation course).²

Median annual income after training for government-funded graduates employed full-time by qualification, 2018



Source: NCVER, Government funded student outcomes 2018

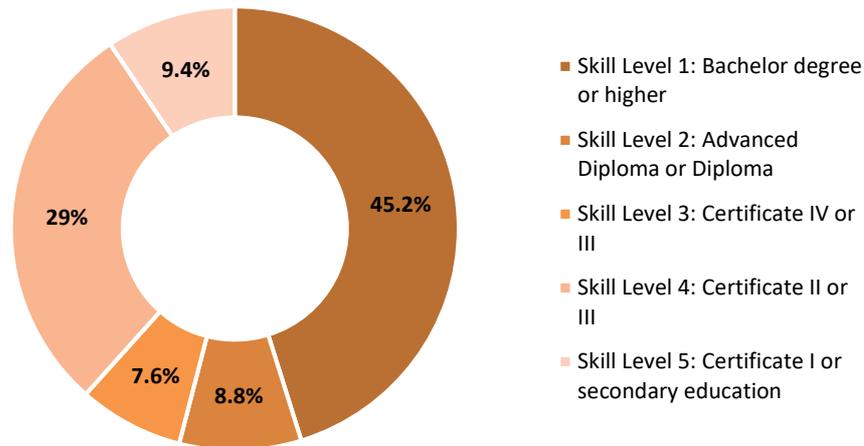
The former federal Department of Jobs and Small Business estimated that 90 percent of new jobs over the next five years to 2023 will require post-school education.³ Four of the 6 occupations projected to have the largest increase in employment are at ANZSCO skill level 4 occupations. The following chart shows that almost 55 percent of projected employment growth to 2023 can be serviced by vocational education and training.

¹ NCVER (2018), *Australian vocational education and training statistics: VET student outcomes 2018*, National Centre for Vocational Education Research, Adelaide

² NCVER (2018), *Australian vocational education and training statistics: VET student outcomes 2018*, National Centre for Vocational Education Research, Adelaide

³ Department of Jobs and Small Business, *Future jobs growth to favour skilled workers*, 16 October 2018, <https://www.employment.gov.au/newsroom/future-jobs-growth-favour-skilled-workers>

Projected employment growth by ANZSCO skill level, 2019 - 2023



Source: Department of Jobs and Small Business, Industry Employment Projections, 2018

Entrenched prejudices may be difficult to wind back, because historical attitudes to education and training have not changed dramatically over time. The attraction to vocational education and training, particularly apprenticeships and traineeships, has been declining among young people.⁴ Year 13 reports that 56 per cent of students still do not consider an apprenticeship when leaving school.⁵

While schools career education has been given priority through a National Career Education Strategy, more action is still required. The over-emphasis on academic success in traditional subjects has led to a lack of exposure to vocational options even when students may be better suited to, and have better work outcomes, within these pathways.

There is concern that careers teachers do not adequately understand or promote the opportunities in the VET sector. It is important for those providing careers advice to be aware of industry’s emerging skill needs including an increasing requirement for higher level skills at the trades and para-professional levels.

The 2017 report on the PwC Young Workers Index⁶ highlights that high performers on the Index have a common theme of promoting vocational education and training. The same report advances the notion of linking vocational and academic learning such as in the Degree Apprenticeship programs in the UK. One approach revolves around attracting a greater diversity of apprentices and encouraging and supporting high achievers to undertake trade careers. A key aspect of this approach is to more formally link apprenticeship training to higher level qualifications including higher education degrees.

⁴ NCVER (2018), Apprentices and trainees <https://www.ncver.edu.au/research-and-statistics/collection/apprentices-and-trainees-collection>

⁵ Year 13 (2018), *After the ATAR II: Understanding How Gen Z Make Decisions About Their Future*, p.13

⁶ PwC (2017), *The \$1.2 trillion prize from empowering young workers to succeed in an age of automation*, PwC Young Workers Index, October 2017

Another model worthy of consideration is the combination of apprenticeship training with a higher education degree that is available in the dual-system countries of Europe such as through the Universities of Applied Science in Germany. Notwithstanding the cultural differences, these settings provide a dual study program which transfers the principle of practice-oriented learning to university studies.

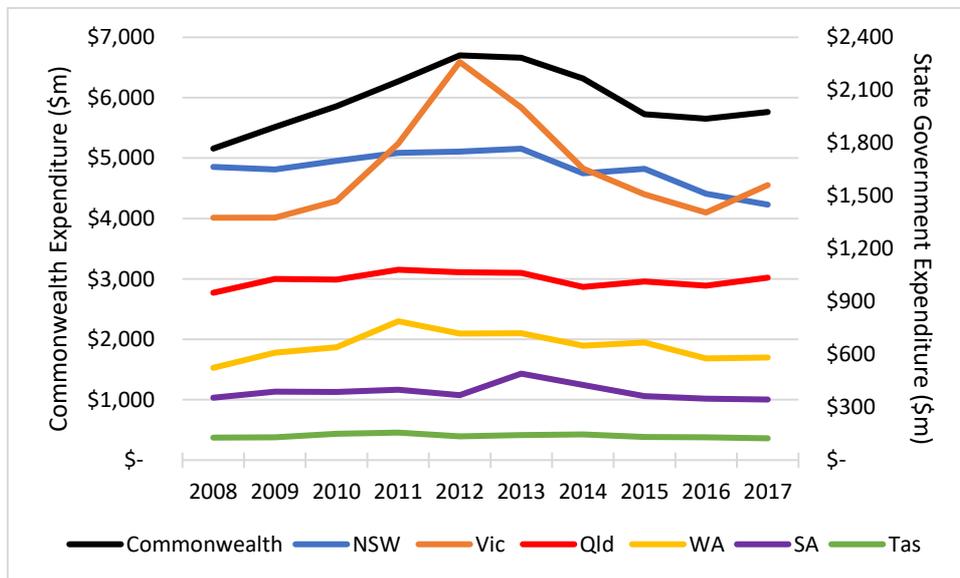
A different approach is the introduction of higher apprenticeships, which has the twin benefit of increasing the level of qualification awarded for apprenticeships as well as extending the scope to non-trade and more para-professional occupations. Ai Group is currently delivering an Industry 4.0 Higher Apprenticeships program that links an apprenticeship with an associate degree. There is a range of innovative programs that can link applied learning models and the VET system to higher education.

Issue 2: Access

3. What examples of barriers to access VET courses exist within our education system and how might they be overcome?
4. What can be done to ensure schools are well placed to access and use available funding?
5. What models exist to provide flexibility in schools to support students to access VET?
6. What more can be done to promote access and equity for disadvantaged cohorts?

The most significant structural barrier is the level and composition of funding by federal and state governments. Compared to greater investments in early childhood, schools, and higher education in recent years, especially by the Commonwealth, VET has struggled to keep pace despite having an estimated 4.2 million students enrolled in 2017.⁷

Total federal and state government real recurrent VET expenditure, excluding capital (\$m)



Source: Productivity Commission, Report on Government Services 2019;

ABS, Government Finance Statistics, Education, Australia, 2016-17

NB: State expenditure includes VET in schools funding

The above graph shows the comparative level of VET funding by the Commonwealth and states over a decade. The funding by the jurisdictions has fallen in absolute terms and relative to Commonwealth expenditure. The relative funding shares between the Commonwealth and the

⁷ NCVET (2018), Australian vocational education and training statistics: Total VET students and courses 2017, NCVET, Adelaide

jurisdictions vary significantly. These differences have been exacerbated by differential student training entitlement funding models by all states and territories.

The shared funding arrangements are impacting on the effectiveness of the VET system. Different mixes of Commonwealth and states and territories funding and different ways of funding each VET system are causing confused messages for employers engaging with the system, particularly those operating nationally. In some instances, within individual state systems the needs of industry, businesses and students have not been met.

Vocational education and training, apprenticeships and traineeships can provide a valuable pathway for students who might be at risk of disengaging from education. Students disengaged from studies at school are at greater risk of being out of work or employed in industries most prone to digital disruption, where automation may replace those jobs involving low-skill, routine tasks.

It is important to equip those at risk of disengagement with the necessary life skills to survive and thrive in the new economy. Developing capabilities around interpersonal, creative and decision-making tasks will be beneficial in finding employment in jobs where routine and manual tasks are increasingly performed by machines.⁸ The OECD advocates the need for school curricula to prioritise the development of critical thinking, collaborative skills, and personal attributes of mindfulness, curiosity, courage and resilience.⁹

A 2015 PISA survey of students' sense of belonging in school found that Australian students have shown declining results over time, and rate lower when compared to the OECD average.¹⁰ These feelings of disconnectedness can influence a student's ambition to remain at school or continue to further studies.

A recent inquiry into careers advice in Victorian schools heard that information provided to students does not meet their needs, and that advice is generally not administered in junior secondary years, before students tend to disengage from their studies.¹¹ Therefore, early and individualised careers advice that promotes vocational education and training, apprenticeships and traineeships is essential, especially for at-risk cohorts.

In striving to make school more relevant to students who are disengaging, workplace experiences must be at the centre of school-based programs that support these at-risk students. Practical activities, such work-based experiences, can be effective for learners in developing their industry awareness; understanding the relevance to them; allowing learners to feel valued and make connections; and supporting them to build their skills and capabilities. Closer partnerships between industry and the school sector will enable more of this activity.

⁸ AlphaBeta, *Mapping Australian workforce change*, 2018

⁹ Schleicher, A., *Educating for the 21st Century*, 2015

¹⁰ ACER, *PISA Australia in Focus Number 1: Sense of belonging at school*, 2018

¹¹ Dandolo Partners, *Review of career education in Victorian government schools*, a report for Department of Education and Training, Victoria, 2017

The Victorian Government has introduced its Head Start apprenticeships and traineeships. This allows students an extra year to undertake their school leaving certificate while undertaking an apprenticeship or traineeship. It enables the student to undertake on-the-job training with paid employment. Participating schools are organised into cluster areas, which are administered by cluster directors and support staff.

St Patrick's Technical College offers a very good example of blending VET with achievement of the SACE, including blending core SACE subjects with VET units. They offer substantial work placements for all students and use flexible timetabling to accommodate most employers' needs. The difference between St Patrick's and more mainstream schools is their greater focus on vocational training compared to an ATAR score.

Flexibility in school timetabling to undertake work-based learning is important. If employers are co-designers with education providers on scheduling of placements and curriculum, there will be greater opportunities available to students as workforce demands are better matched with course requirements and vice versa.

Issue 3: Quality

- 7. What arrangements need to be put in place to assure consistent levels of quality?**
- 8. How do we build industry and employer confidence in VET for school students?**
- 9. What is the best mechanism to deliver quality VET for school students?**
- 10. How can employers and industry contribute to the quality of VET delivered to secondary students?**

Quality in the VET sector often depends on the level of regulation. RTOs are all required to adhere to the same criteria. They must all ensure their teachers are properly qualified and have current industry experience. They must all ensure that their learning and assessment materials are suitable for the qualifications they offer.

But VET in schools has seen issues raised about quality delivery across Australia. Schools without a great interest in VET will opt for low-cost providers to direct their funding elsewhere or will negotiate auspicing arrangements with RTOs that can obscure the fact that training delivery is made by teachers without industry experience or qualifications.

Greater regulation in the form of specific approval by an authority of a list of endorsed RTOs, including those endorsed to make auspicing arrangements, would improve the quality of VET in schools arrangements.

The quality of the training is an issue to an employer if the VET program gives credit into an apprenticeship or other relevant qualification. Employers will question how a program delivered in a school environment can be considered equal to training in a TAFE, which is supported by skills development in the workplace and validated by a workplace supervisor. But if the program is designed to provide an introduction to the industry and provides no credits, quality of delivery is still important, but not a central concern.

National Training Packages will often contain a qualification deemed suitable by the industry for delivery in a VET in schools context. But these are not necessarily the qualifications chosen by a school, sometimes for funding reasons. Where training package qualifications are specifically designed for use in schools, SACE regulations should require that they be used exclusively. Where training package qualifications specify that they are not suitable for delivery to school students, SACE regulations should prohibit their use.

The OECD is currently conducting an international study of work-based learning in school-based vocational education and training.¹² The review is considering the structure of work placements, engagement with employers, connecting learning at work and learning at school, promoting equitable access, and identifying and removing regulatory barriers.

In its 2018 issues paper on work-based learning, the OECD finds that the workplace is an effective environment to acquire soft transferable skills and may also have the advantage of improving the balance of skills supply and labour market demand – as signalled by employers’ offer of work placements.¹³

The paper recommends mandatory work-based learning be implemented, like it is in countries including Spain, Finland, Sweden, and England where it is to be introduced.¹⁴ In making this recommendation, it is argued that partnerships between education and training providers and industry become essential rather than optional, and that quality is embedded into the overall system architecture of work-based learning programmes, particularly by linking it to classroom teaching and learning.¹⁵ Importantly, the best models are student-centred and are defined by agreed outcomes between industry and the education providers that benefit both the employer and the student.

The paper also discusses quality assurance measures. It identifies twenty guiding principles for work-based learning and apprenticeships proposed by the European Commission in 2015 (see below). Furthermore, the paper describes three mechanisms to support quality:

- **accreditation of training employers** – *a set of minimum requirements for employer accreditation* ‘to determine if the quality of the work placement is suitable for appropriate skill acquisition, and if the firm offers a good and safe working and learning environment with appropriate supervision’¹⁶.

The paper presents the Dutch *Samenwerkingsorganisatie Beroepsonderwijs Bedrijfsleven* (SBB) model as a case study where ‘accreditation is based on common quality criteria, covering the training opportunities available, the availability of experienced and competent inhouse trainers, the capacity to co-operate with the VET school, and the availability of work space for students’¹⁷.

Accredited work-places are publicly registered online for students and schools to find work placements, and placements are monitored by visiting WBL advisers, who monitor and provide advice.

¹² See <http://www.oecd.org/education/skills-beyond-school/work-based-learning-in-school-based-vocational-education-and-training-vet-how-the-work-is-being-conducted.htm> [accessed 23/07/19]

¹³ OECD (2018), *Work-Based Learning (WBL) in School-based Vocational Education and Training*, Issue Paper, 31 October 2018, p7

¹⁴ *ibid*

¹⁵ *ibid*

¹⁶ *ibid*

¹⁷ *ibid*

- **preparation of workplace supervisors/trainers** – *training and accreditation for workplace trainers*. In Australia, credential requirements for trainers and assessors are set out in the *Standards for Registered Training Organisations*. Trainers must, at a minimum, complete the Certificate IV in Training and Assessment. RTOs and their trainers and assessors are responsible to confirm contemporary proficiency and relevant industry skills and experience.¹⁸

The paper provides examples of training for workplace trainers in Sweden and Finland. In Sweden, a flexible learning online program is available to current and prospective work-based learning industry trainers and is funded by the government. In Finland, three weeks of workplace instructor training developed by the National Board of Education is available, which covers the planning of training, instruction and assessment. While not obligatory, education providers can request industry partners providing work-based learning to complete the training as a prerequisite before acting as a workplace instructor.

- **measures to link school and workplace** – *work-based learning needs to be linked effectively to classroom teaching*. Learning in the classroom needs to be practically applied in the workplace and workplace experience to inform classroom learning. It is recommended that there are clear learning objectives and that the placement is credit-bearing toward a qualification.

¹⁸ Department of Education, Trainer and assessor credential requirements, <https://www.education.gov.au/trainer-and-assessor-credential-requirements> [accessed 23/07/19]

European Commission's 20 guiding principles for effective work-based learning

Point of view of:	Potential benefits
<p>National Governance and Social Partners' Engagement</p>	1. A clear and consistent legal framework which enables all work-based learning (WBL) partners to act effectively and guarantee mutual rights and responsibilities
	2. A structured, continuous dialogue with a transparent method of coordination and decision making between all WBL partners
	3. Strong ownership and implementation of social partners, supported through capacity building
	4. Systematic and effective cooperation between VET schools or training centres and companies
	5. All WBL partners (companies, VET providers, learners) share costs and benefits.
<p>B. Support for companies, in particular for small and medium enterprises (SMEs), which participate in WBL</p>	6. Support measures are in place that make WBL more attractive and accessible, especially for SMEs
	7. Achieving the right balance between skill needs of firms and learning needs of students
	8. Particular attention is paid to supporting firms without experience in WBL provision
	9. Particular attention is paid to supporting firms offering WBL to disadvantaged learners
	10. Companies are motivated and supported to assign qualified trainers and tutors
<p>C. Attractiveness of WBL and career guidance</p>	11. Pathways between VET and other education and career pathways exist
	12. The image of VET and WBL are improved by promoting excellence
	13. Sound career guidance is provided to ensure young people make well-founded choices
	14. The attractiveness of WBL is enhanced by raising the quality of VET teachers
	15. The attractiveness of VET and WBL is promoted through a broad range of awareness-raising activities.
<p>D. Quality Assurance in WBL</p>	16. A clear framework for quality assurance exists at the system, provider, and company levels, with systematic feedback
	17. Training provision is responsive to changing skill needs in companies and society
	18. Mutual trust and respect between WBL partners is fostered through regular cooperation
	19. The assessment of learning outcomes is fair, valid, and authentic
	20. In-firm trainers can access continuous professional development and have adequate working conditions.

Source: OECD (2018), *Work-Based Learning (WBL) in School-based Vocational Education and Training, Issue Paper*, 31 October 2018

Issue 4: Relevance

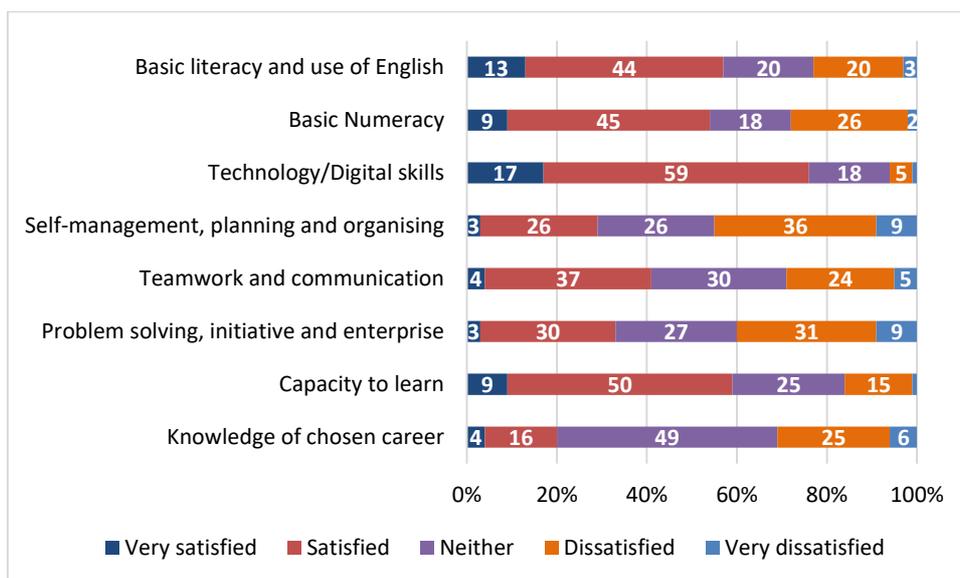
- 11. To what extent should students’ pathways to earning or learning be made more flexible?
- 12. What more can be done to ensure school enrolled VET students are work-ready?
- 13. What arrangements can be put in place to build closer relationships between school and industry?

Students will require well established foundational skills (i.e.: literacy, numeracy, digital) in addition to those enterprise skills (like problem solving and communication) as sets of capabilities that will carry them forward on their educational and vocational journeys. These capabilities or skills sets are necessary to ongoing, habituated, autonomous learning, whether in a classroom or on the job, that future-proof workers from unpredictable shifts in the employment market.

For employers, language, literacy, numeracy and digital (LLND) skills are baseline, threshold requirements. Enterprise skills like problem-solving, teamwork, and communication are now in demand to perform tasks and roles that are least impacted by digitalisation and automation.

Ai Group’s 2018 workforce skills survey of employers reveals a higher level of overall dissatisfaction with school leaver literacy (23%) and numeracy (28%) when compared to VET and university graduates, although 76 percent of employers are satisfied with school leavers’ digital literacy, whereas the enterprise skills of school leavers have the highest employer dissatisfaction levels.

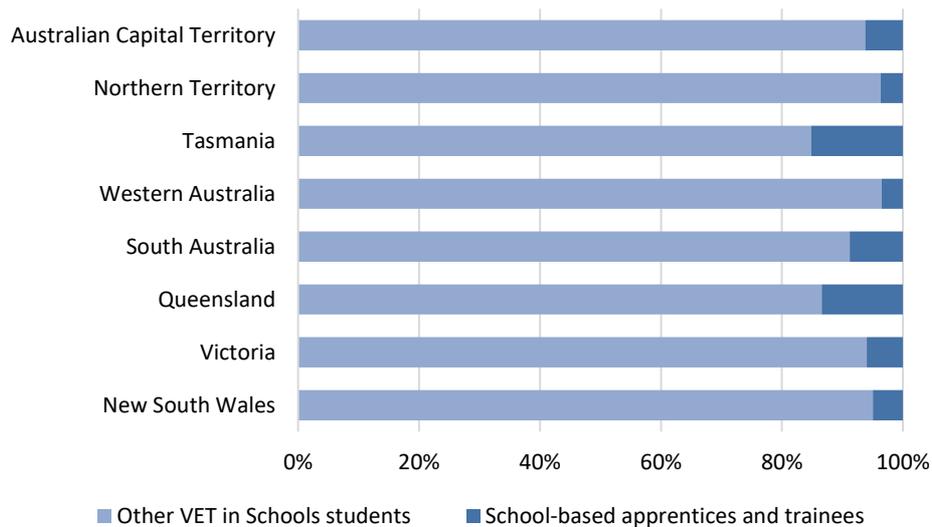
Employer satisfaction with school leaver applicants



Source: Ai Group, Workforce Development Skills Survey, 2018

VET delivered programs in schools have many examples of work-based learning opportunities that deepen a student’s knowledge of the workplace and exposes them to real-world situations that require the practical use of acquired skills. School-based apprenticeships and traineeships commonly fulfil the component of work-based learning for school students in VET courses. However, apprenticeships and traineeships still account for a very small proportion of those in VET programs delivered in schools, as demonstrated in the following chart:

State and territory summaries of VET in Schools students, 2017



NCVER (2018), VET in Schools 2017

According to Ai Group’s 2018 survey of employers, 10 percent of employers indicated their intention to increase links with schools and a further 13 percent intended to establish new links.¹⁹ Twenty-six percent of employers indicated they provide work placements for secondary students, 18 percent provide work experience, 14 percent provide talks and/or tours for school groups, and 12 percent established long-term relationships; however, school-based apprentices are relatively rare, making up only 1.5 percent of total apprenticeship numbers of those surveyed.²⁰

Consideration could be given to offering broader programs to students before they access VET in schools. Many of the qualifications relate to particular trades or occupations when students are really at an age when they should be exploring a variety of options. Ideally, a student interested in a trade should gain an understanding of metal trades, construction trades, automotive trades, etc. before choosing a VET delivered program in school. This could be done in Year 10.

To improve partnerships between schools and industry, a commitment by government to provide greater assistance to industry, especially small and medium enterprise, that bolster student work-based learning opportunities, mentoring, compliance, induction, work health and safety standards, and cooperation on aligning educational outcomes to curriculum and employment outcomes to industry skills needs would be welcome.

¹⁹ Australian Industry Group (2018), *Skilling: A National Imperative*, Workforce Development Needs Survey

²⁰ *ibid*