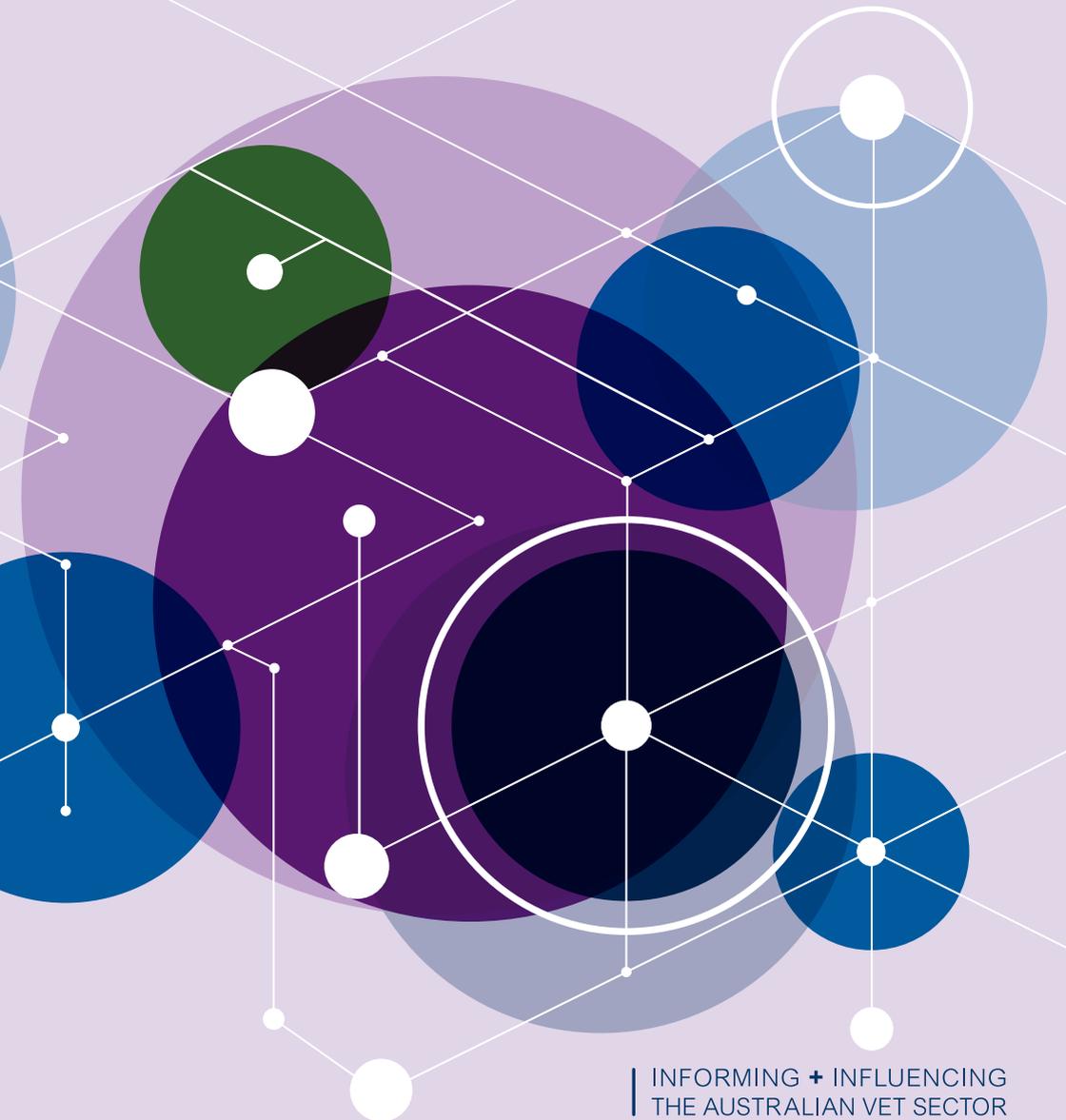




# RESEARCH MESSAGES **2019**



| INFORMING + INFLUENCING  
THE AUSTRALIAN VET SECTOR

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# Introduction

*Research messages 2019 highlights the research activities undertaken over the past year by the National Centre for Vocational Education Research (NCVER).*

NCVER is an independent national body responsible for collecting, managing, analysing and communicating research and statistics on the vocational education and training (VET) sector.

NCVER's vision is to maximise the power of data analytics integrated with research to transform national understanding of VET. To deliver this, our research and data analytics provide insights to support decision making and policy development by governments, regulators, training providers and industry. NCVER undertakes a strategic program of research and evaluation through our in-house research program, and research guided by the Commonwealth and state and territory governments. In keeping with the changing education and employment landscape, our research program undertakes a diverse range of activities and continues to evolve for the changing needs of stakeholders, producing innovative research to support VET policy and practice.

Communicating our work is an important aspect of our research program. During 2019, NCVER researchers participated in or facilitated a number of presentations, webinars and forums including the roundtable in Melbourne on VET's response to industry 4.0 and the digital economy, as well as our flagship conference, the *28th National Vocational Education and Training Research Conference 'No Frills'* with the 2019 theme of **The student journey: skilling for life**.

## **This 2019 edition provides:**

- **key findings from our program of research**
- **conferences, presentations, webinars and other NCVER research communications**
- **information resources collated by NCVER that help explain the VET system and its related policies**
- **submissions to parliamentary inquiries and public consultations.**

# Research activity 2019

**8**  
submissions

**1**  
discussion paper

**1**  
roundtable

**14**  
external presentations

**10**  
reports

**4**  
webinars

**1**  
data visualisation

**1**  
infographic

**3877**  
new titles in VOCEDplus

# Key research areas

[ncver.edu.au/research-and-statistics/national-research-priorities](http://ncver.edu.au/research-and-statistics/national-research-priorities)

The 2019 national VET research agenda is overseen by the Australian and State and Territory governments and informs NCVER's research focus and the types of investigations that are priorities for the nation. Research published during 2019 encompassed a range of themes and topics categorised under three broad areas.



## Structures and systems for skilling and learning

*Examining the impact of policy, institutional, funding and market frameworks on the provision of education and training.*

The VET system in Australia and the skills and jobs landscape continue to evolve, making it crucial that the systems and structures are well placed for learning and training.

Key research areas of focus within this topic included:



governance



partnerships



training markets



apprenticeships and traineeships



models for skill development and funding



international systems of skilling and learning comparisons with Australia



compliance and regulation



accredited and non-accredited training.



measuring outcomes



## The impact of vocational education and training

*Ensuring individuals and employers get the highest return on investment in education and training.*

Understanding the return on investment (ROI) in education and training helps individuals, enterprises and governments to determine changes in the employability of workers following training or to provide a measure of productivity improvements within firms.

Primary areas of research in this category covered issues such as:



economic and social outcomes



social cohesion



future of employment



foundation skills.



learner diversity and trends



## Teaching and learning

*Understanding the needs of learners to ensure meaningful engagement with the education system and examining what works to ensure quality of outcomes across teaching and learning models, assessment and reporting.*

Individuals may access the VET system at different points in their lives for a variety of different reasons. It is therefore important that the teaching, learning and assessment practices within the VET sector are meeting their needs.

NCVER research priorities in this category included:



student aspirations and choice



pedagogy



outcomes



assessment



pathways and transitions

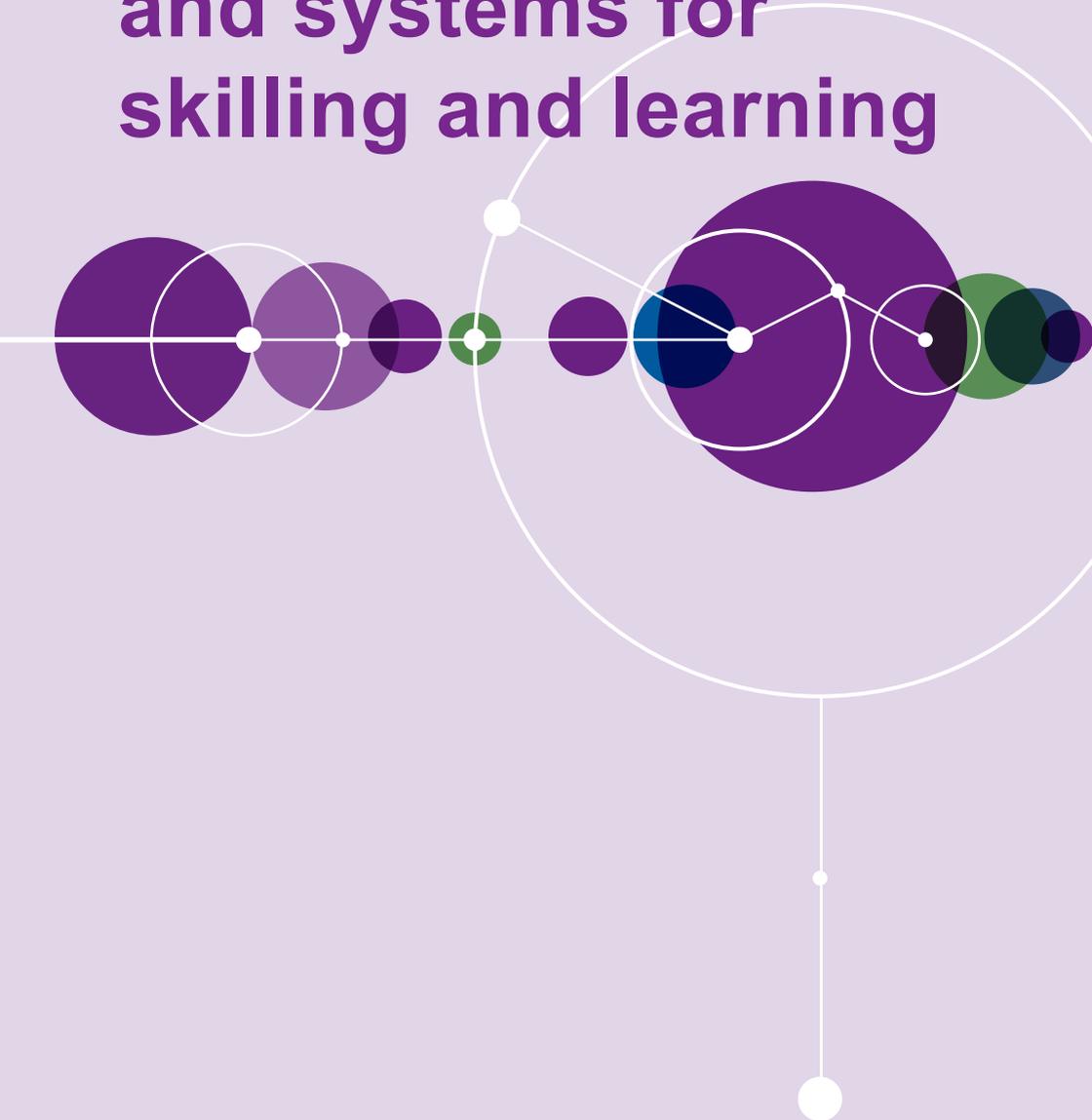


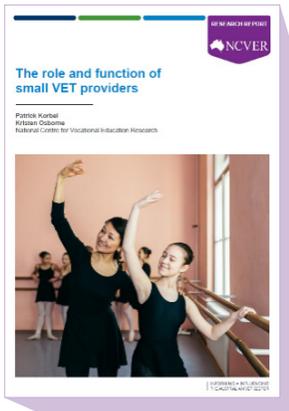
workplace learning.



VET workforce

# Structures and systems for skilling and learning





## The role and function of small VET providers

Patrick Korbel, Kristen Osborne

[ncver.edu.au/research-and-statistics/publications/all-publications/the-role-and-function-of-small-vet-providers](https://ncver.edu.au/research-and-statistics/publications/all-publications/the-role-and-function-of-small-vet-providers)

The aim of this research was to gain a better understanding of the role and function of small providers in the Australian VET system in meeting the needs of learners. Small providers – those with low numbers of students – account for almost one-third of the total, thus justifying a closer look at this segment. In 2017, there were 1 130 registered training organisations (RTOs) from a total of 3 573 non-school RTOs with fewer than 100 students.

We categorised RTOs into three sizes: small providers (those with fewer than 100 students enrolled in VET); medium providers (with between 100 and 999 students); and large providers (with 1 000 or more students). We selected providers that were in the same size category in 2015, 2016 and 2017. Schools were excluded from our analysis as they are RTOs in only some jurisdictions. Accordingly, the findings reflect VET delivered by non-school RTOs with a stable number of students in terms of their size category between 2015 and 2017. These stable small providers made up 24% of providers in the scope of this research but had fewer than 1% of all students in 2017.

### Key messages

- Stable small providers play an important role in providing diversity in student choice. In every state and territory in 2017, all stable small providers combined delivered more national training package qualifications and nationally recognised accredited courses than any single stable large provider with a comparable number of enrolments.

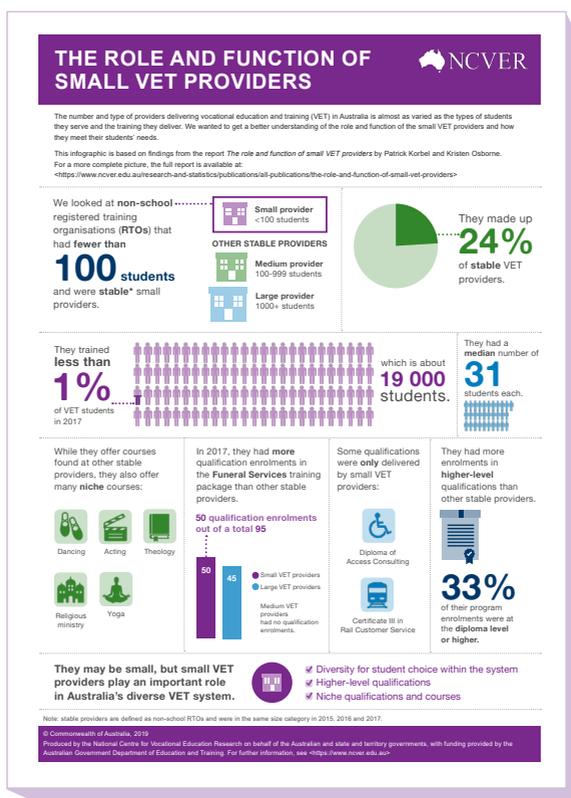
- Stable small providers tend to deliver higher-level and more specialised programs than stable medium and large providers. A higher proportion of enrolments at stable small providers in 2017 were in Australian Qualifications Framework (AQF) programs at certificate IV level and above. For example, in 2017, most enrolments in qualifications in the Funeral Services Training Package, the Diploma of Aviation (Instrument Rating) and the Advanced Diploma of Dance (Elite Performance) were with stable small providers.
- Stable small providers more often delivered highly specialised courses on a fee-for-service basis in areas where there is little or no government funding, such as the performing arts, theology, religious ministry and yoga. In many cases the providers themselves had applied to have them nationally recognised as accredited courses.
- Some stable small providers delivered highly specialised services for key equity groups. Students with a disability made up at least a quarter of students at one in 20 stable small providers (compared with one in 100 stable large providers). Similarly, Indigenous students made up at least a quarter of students at one in 20 stable small providers (compared with one in 100 stable large providers).
- Stable small providers are similar to stable medium and large providers in terms of their geographical reach, rates of graduate satisfaction, regulatory compliance, and the issues faced in reporting training data to the National VET Provider Collection.

# The role and function of small VET providers: infographic

NCVER

This infographic is based on findings from the report *The role and function of small VET providers* by Patrick Korbel and Kristen Osborne. The full, interactive infographic is available on our Portal at [ncver.edu.au/research-and-statistics/publications/all-publications/the-role-and-function-of-small-vet-providers-infographic](http://ncver.edu.au/research-and-statistics/publications/all-publications/the-role-and-function-of-small-vet-providers-infographic).

The number and type of providers delivering vocational education and training (VET) in Australia is almost as varied as the types of students they serve and the training they deliver. We wanted to get a better understanding of the role and function of the small VET providers and how they meet their students' needs.





## Do course durations matter to training quality and outcomes?

Josie Misko, Patrick Korbel

[ncver.edu.au/research-and-statistics/publications/all-publications/do-course-durations-matter-to-training-quality-and-outcomes](https://ncver.edu.au/research-and-statistics/publications/all-publications/do-course-durations-matter-to-training-quality-and-outcomes)

The connection between course durations, training quality and outcomes is of great interest to regulators, training providers, industry stakeholders and the students themselves. In 2017, the Australian Skills Quality Authority (ASQA) undertook a strategic review of the issues related to unduly short training, recommending ‘that training package developers be able to respond to industry-specific risks by setting mandatory requirements, including an amount of training’ (ASQA 2017, p.114).

The ASQA review also noted that terms such as ‘amount of training’, ‘duration and volume of learning’ are often used inconsistently. Discussions with stakeholders during this research similarly revealed that the terms are sometimes used interchangeably.

This research focused on the following qualifications: Certificate III and Diploma in Early Childhood Education and Care; Certificate III in Individual Support; Certificate IV in Disability; and Certificate II and III in Security Operations. The research was conducted in two parts: a qualitative analysis through consultations with providers, regulators and industry stakeholders to investigate how course durations affect the quality of training, and a quantitative analysis of course durations and how they affect subject outcomes.

For the quantitative analysis, duration is calculated as the length of time between a student starting and finishing training activity within a course, based on graduates who have not been granted recognition of prior learning (RPL) to complete a qualification. The resultant figure was then used to divide RTOs into two groups – those with the lowest graduate course durations and those with the highest.

## Key messages

- The consultations highlighted some unease between the desire to specify minimum course durations to ensure that providers act appropriately and the desire to uphold and apply the fundamental features of competency-based training (generally perceived to be not time-based). This tension may always exist however in a system aiming to be flexible enough to meet the skill needs of different students and industry sectors, but rigorous enough to ensure that providers meet the quality standards required.
- The common view among study participants is that a high-quality training experience is not solely determined by the length of the course. Nevertheless, courses considered to be an appropriate or adequate length are those perceived as providing sufficient time for teachers to ensure that students can acquire the theoretical knowledge and practical skills to attain and demonstrate competency, and for assessors to conduct rigorous, reliable and valid assessments of student performance. These are deemed to be the key factors in producing high-quality outcomes.
- Quality is also perceived to be mediated by student and teacher ability and talent, as well as availability of and accessibility to required resources. These include: up-to-date and useful learning resources, equipment and materials; functioning online technologies (where permitted for training); and valuable practical experiences, via suitable work placements or realistic simulations (in the case of security qualifications).
- Any specification or guidance on 'course durations', 'amount of training' or 'volume of learning' for qualifications should be based on the Australian Qualifications Framework (AQF) level; the complexity of competencies and knowledge that are to be achieved; and the amount of content to be covered. It should also take account of the prior experience and knowledge of individual students.
- The statistical analysis finds that, across qualifications, typical graduate course durations for providers (as indicated by the median) vary across a range of course durations.

- In terms of how course durations affect outcomes, the only clear observation was a consistent pattern of higher proportions of withdrawals at courses with the highest median durations. This in turn resulted in lower pass rates for courses with longer durations. For some qualifications the differences are more marked than others.
- Regardless of course duration or the level of occupational licensing regulation applied in some jurisdictions, very high pass rates are observed for Certificate II and III qualifications in Security Operations by comparison with the average pass rates of other qualifications at the same AQF level.



## Completion rates for group training organisations and direct employers: how do they compare?

Lisel O'Dwyer, Patrick Korbel

[ncver.edu.au/research-and-statistics/publications/all-publications/completion-rates-for-group-training-organisations-and-direct-employers-how-do-they-compare](https://ncver.edu.au/research-and-statistics/publications/all-publications/completion-rates-for-group-training-organisations-and-direct-employers-how-do-they-compare)

Australia has two main types of employers of apprentices and trainees: 'direct employers', which are businesses that directly employ an apprentice or trainee; and group training organisations (GTOs), whose role is to employ apprentices and trainees and place them with host businesses.

Under the latter arrangement, GTOs are responsible for selecting and recruiting apprentices and trainees, matching them to host businesses and taking responsibility for meeting all employer obligations, including paying wages and entitlements, arranging formal training and assessment, and providing pastoral care and support throughout the contract.

Group training can be particularly helpful to small and medium-sized businesses, which often find making a commitment to an apprenticeship difficult, in that they lack the resources to manage an apprentice or trainee or are unable to provide the comprehensive on-the-job training required for an apprenticeship or traineeship.

This study compares the contract completion rates of apprentices and trainees attached to GTOs with those attached to direct employers. Overall, completion rates with GTOs are similar to, or slightly better than, those of direct employers; however, further examination reveals that completion rates are dependent on a range of attributes relating to the employer and the apprentice or trainee, and these need to be considered to make meaningful comparisons. In particular, employer size and apprentice demographics are the key characteristics influencing the likelihood of apprentices completing.

After accounting for the different demographic profiles of GTO apprentices and trainees and employer size, the study shows that GTO completion rates for all apprentices and trainees are substantially higher than for small and medium direct employers. For trade apprentices and trainees, GTO completions are higher than for small and medium employers. For non-trade apprentices and trainees, GTO completions are higher than the rates for both small and medium, and large direct employers.



## The dynamics of qualifications: implications for VET

Lisel O'Dwyer, Ian White

[ncver.edu.au/research-and-statistics/publications/all-publications/the-dynamics-of-qualifications-implications-for-vet](http://ncver.edu.au/research-and-statistics/publications/all-publications/the-dynamics-of-qualifications-implications-for-vet)

Changes in the qualification profiles of workers is one indicator of changes in the supply and demand for education and training. Using Australian Census data on highest qualification held (which may understate the incidence of VET qualifications if they were obtained after completing higher education) this project analyses how tertiary qualification profiles in occupations changed between 2006 and 2016. Data from the 2015 Survey of Qualifications and Work, conducted by the Australian Bureau of Statistics (ABS), are also used to examine how well qualifications match workers' occupations.

A specific focus of this analysis is on changes in the proportions of workers with VET qualifications.

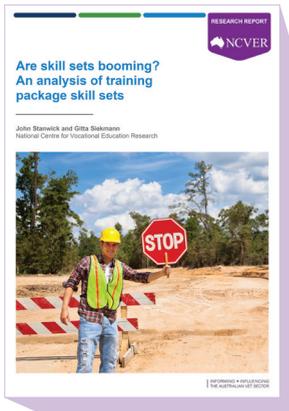
The analysis finds that, over the last decade, the overall workforce has become more educated: the proportion of workers holding VET or higher education qualifications has increased, while the numbers and proportion of workers without post-school qualifications has correspondingly decreased.

The study also revealed a general mismatch in terms of the skill level (and relevance) of the highest qualifications held by workers and the level of skill required for the job, with many more workers holding qualifications that 'exceed' the skill requirements for their occupation. While this may indicate underutilisation of skills and therefore sub-optimal returns on public and private investment in education and training, the study does not consider the broader social and economic benefits of having a more highly educated and skilled workforce.

As the study noted, changes in the mix of VET and higher education qualified workers in the workforce can be influenced by changes to industry regulatory requirements, credentialism and supply-side factors rather than occupational demand per se. In particular supply-side influences such as higher education funding policies, combined with young people preferencing higher education over VET, are key factors in the changing distribution of the qualification profiles within the workforce.

## Key messages

- The supply of qualified workers rose sharply between 2006 and 2016, with around two-thirds of all workers in 2016 holding a post-school qualification compared with just over half (55.5%) in 2006.
- The largest increase in post-school qualifications was for higher education qualifications (33.5%), followed by diplomas (19.6%) and VET certificates (5.3%).
- Younger workers are more likely than older workers to have higher education qualifications, while older workers are more likely to have VET qualifications.
- All major occupational groups experienced a rise in the proportion of higher education-qualified workers.
- Occupations with the largest shifts out of VET qualifications were ambulance officers and paramedics, dental hygienists, technicians and therapists, and medical imaging professionals, with the share of VET-qualified workers in those occupations declining over the 10 years.
- VET is playing an increasingly important role in providing formal skills development for several occupations that have historically been dominated by workers without post-school qualifications, such as truck drivers, storepersons, kitchenhands and labourers.
- In the largest 20 occupations, a key driver of the growth in the supply and demand for higher education qualifications has been the ongoing professionalisation of occupations such as primary school teachers, registered nurses and accountants.
- Workers holding a VET certificate reported the closest match between the qualification undertaken and relevance to their job (90.3%).
- Technical and trades workers with VET certificates and professional workers with diplomas were more likely than other occupational groups to be working in the same field of study as their highest qualification level (82.4% and 72.6% respectively).



## Are skill sets booming? An analysis of training package skill sets

John Stanwick, Gitta Siekmann

[ncver.edu.au/research-and-statistics/publications/all-publications/are-skill-sets-booming-an-analysis-of-training-package-skill-sets](https://ncver.edu.au/research-and-statistics/publications/all-publications/are-skill-sets-booming-an-analysis-of-training-package-skill-sets)

Skill sets have become recognised as an important short form of training for the modern world of work. They are seen to have a variety of purposes, including upskilling, compliance and licensing, meeting a defined industry need and as an entry pathway to further training. An analysis of nationally recognised or training package skill sets forms the specific focus of this report. The investigation uses data from the National Register of VET and the National VET Provider Collection - Total VET Activity.

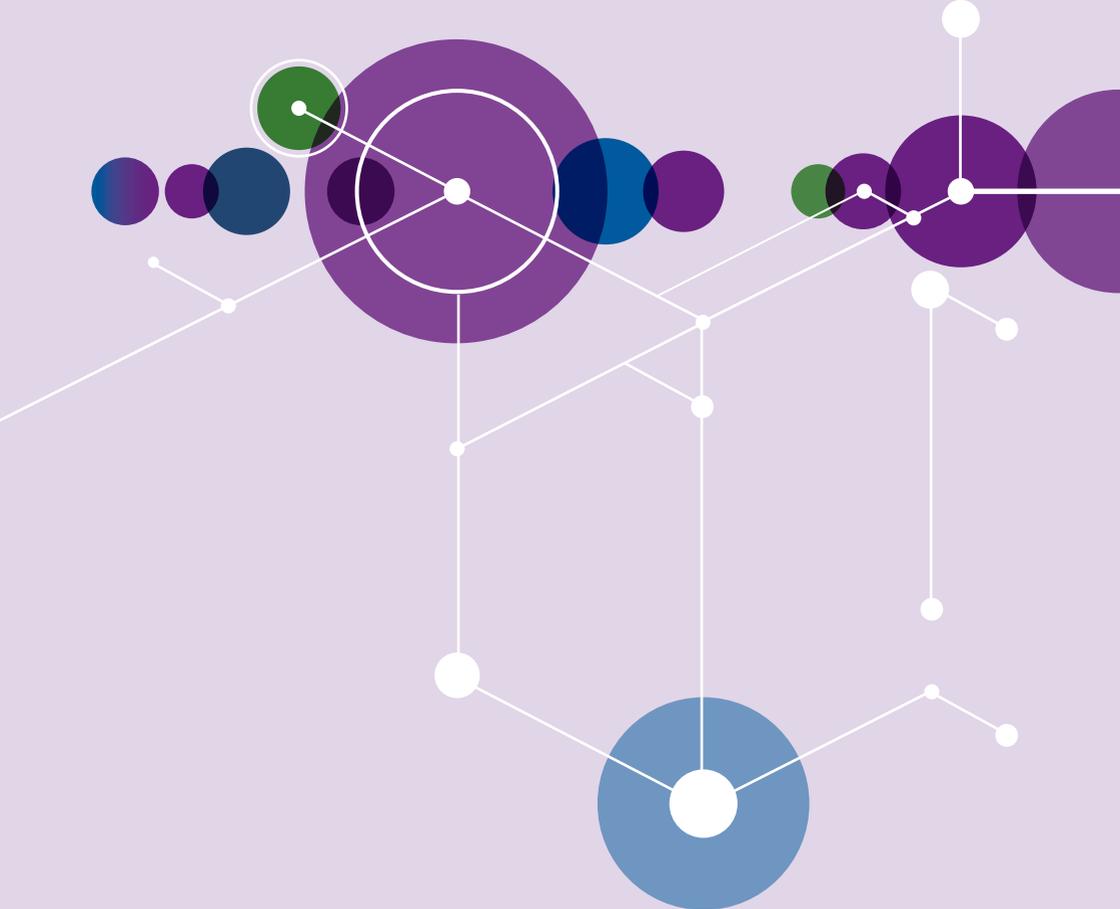
The report identifies how much training package skill set activity is occurring and where, with the findings indicating that activity is clustered around only a small number of skill sets and a small number of training packages. The next phase of work will examine the extent to which skill set activity (training package and other) may in fact be occurring in those instances where the training is being reported as a subject enrolment (and not attached to any program). This will further our understanding of how much of this activity is occurring.

### Key messages

- The numbers of skill sets in training packages have grown over time, from 20 in 2008 to a little under 1 500 existing skill sets by 2019. These skill sets are much more prevalent in some training packages than others, with over 200 skill sets in the Aeroskills Training Package, and seven current training packages with no skill sets at all.
- Reported enrolments in training package skill sets have grown from about 58 000 in 2015 to over 96 000 in 2018. The largest skill set in terms of enrolments in 2018 was 'Responsible service of alcohol', followed by two 'Work zone traffic control' skill sets.

- Reported enrolments in 2018 were dominated by just a small number of skill sets in a small number of training packages. Many of the skill sets with high numbers of enrolments were compliance-related or safety-related, with some of these being refresher courses.
- The analysis overall indicates that training package skill sets are not well utilised, with only about 16% of them having any reported enrolments for each of the years 2015 to 2018.
- It is interesting to observe that, despite the definition of a skill set referring to licensing or regulatory requirements, only four of the 29 units designated by Safe Work Australia as high-risk work licences are incorporated as skill sets in training packages.
- The vast majority of skill sets were funded through fee-for-service arrangements, with government-funded training only accounting for about 10% of skill set activity in 2018.
- The data, however, suggest that participation in skill sets can be stimulated through government subsidies, as evidenced by the rise in government-funded activity in 2016, when New South Wales provided significant government funding for training package skill sets.
- Reported skill set enrolment activity was dominated by two states in 2018: New South Wales and Queensland, which between them accounted for over three-quarters of the enrolments.
- Enrolments tended to be by students who were male (66%) and/or were aged over 25 (73%). In addition, over half stated being employed (58%) and 41% stated already holding a certificate III or higher-level qualification.

# Teaching and learning





## VET for secondary school students: acquiring an array of technical and non-technical skills

Josie Misko, Maree Ackehurst, Rose-Anne Polvere, Tania Erzinger, Patrick Korbel

[ncver.edu.au/research-and-statistics/publications/all-publications/vet-for-secondary-school-students-acquiring-an-array-of-technical-and-non-technical-skills](https://ncver.edu.au/research-and-statistics/publications/all-publications/vet-for-secondary-school-students-acquiring-an-array-of-technical-and-non-technical-skills)

The role of VET in preparing secondary school students for employment, further training and the changing world of work has long been a topic of interest among employers, educationalists and policymakers. More recent attention has also been on VET's role in assisting in the development of non-technical skills (for example, employability skills), with employer groups vocal about the need for potential employees possessing these skills.

This study is one part of a larger program of research investigating whether VET programs delivered to secondary students add value to their post-school destinations. In this report, we explore whether VET undertaken by secondary students, and in some cases by post-school students, equips them with the skills (including the non-technical skills) required to successfully participate in an ever-changing world of work. To do this, we analysed the VET programs of secondary students over the last 20 years, focusing on the number and types of programs undertaken and the characteristics of the participating students. We also undertook a content analysis of the core units of qualifications in selected training packages to identify whether these facilitate the development of non-technical skills.

Data on the numbers of secondary school students in these programs from 2003 onwards have been provided to the National VET in Schools Collection by the jurisdictional boards of studies, and these form the underlying data used in this report. Due to definitional issues and reporting pathways, these data are likely to underestimate the total number of secondary school students undertaking VET programs.

## Key messages

- Participation in VET programs by secondary students over the last two decades has trended upwards (from 60 000 in 1996 to over 240 000 in 2017).
- The number of Indigenous students has also increased substantially (from 5 500 in 2006 to 14 639 in 2017); the proportion of Indigenous secondary students nearly doubled (from 3.2% to 6.0%).
- Over the last decade, participation rates of all students have hovered around 30% (noting this is likely to be underestimated), with the rates of students from government schools continuing to exceed those of students from non-government schools. There has also been a continuing upward trend in more recent years of students undertaking certificate III qualifications.
- In 2017, there were around 18 000 more male secondary school students than females undertaking VET programs. However, proportionately more females were enrolled in certificate III qualifications and above; the converse was true for certificate II qualifications.
- The most popular certificate III programs for females and males were in the occupational and study areas traditionally dominated by each gender: the provision of caring, business, hospitality and beauty services for females; and information technology, trades, sport, fitness and recreation for males. The most popular certificate II qualifications where males outnumbered females were in vocational preparation programs and trade skills development.
- In addition to preparing students for the world of work, secondary schools have a range of educational, social, cultural and personal development goals and these may sometimes run counter to the industry-specific skills required by industry for VET programs.
- Analysis of relevant units of training packages selected for examination found many examples of competencies and content being taught to secondary students undertaking VET that would enable them to develop key non-technical skills.
- Additional exploration of the data and research is required to determine whether there are differences in the further education and initial employment outcomes between secondary students who undertake a VET program and those who do not, all else being equal.



## Skilling the Australian workforce for the digital economy

Victor Gekara, Darryn Snell, Alemayehu Molla, Stan Karanasios, Amanda Thomas

[ncver.edu.au/research-and-statistics/publications/all-publications/skilling-the-australian-workforce-for-the-digital-economy](https://ncver.edu.au/research-and-statistics/publications/all-publications/skilling-the-australian-workforce-for-the-digital-economy)

Digital technologies such as artificial intelligence, robotics and automation are transforming the world of work. Developing the appropriate digital skills in the workforce is an important component in Australia's effort to compete in this rapidly emerging global digital economy.

This research explores the current digital skills demand-and-supply situation in Australia for the general workforce (rather than for Information and communications technology (ICT) specialists). The research approach includes a review of international frameworks of digital skills and case studies in the transport, postal and warehousing, and public administration and safety industries. These industries were selected because a key threat to their productivity, and therefore their contribution to the national economy, is a workforce with inadequate digital skills. A survey of human resources, skills and training decision-makers across Australian industry more generally was also undertaken, with specific attention given to the skills impact of digitalisation.

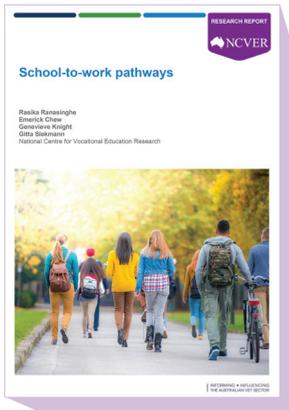
The research highlights that a multi-faceted approach from the Australian Government and industry stakeholders is required to enhance digital skills development in the general workforce. To facilitate this, the authors have developed a digital skills framework, whose purpose is to identify digital skills gaps within organisations and to assist in the development of targeted training programs.

### Key messages

- The degree to which digitalisation is occurring in Australian workplaces is highly variable, as are the approaches of employers in meeting their digital skill requirements. Three different categories of employers were identified, based on their approaches to technology uptake and skills acquisition:

- Aggressive technology adoption and skills-development approach: these employers tend to pursue a wide range of strategies in their digital skills acquisition, including aggressive external recruitment and internal skills development.
  - Keen technology adoption but cautious skills-development approach: these organisations undertake gradual change while ensuring that current productivity levels are not undermined. At the same time, they educate their workforce about the importance of new workplace technologies, with the aim of introducing gradual cultural change.
  - Appreciation of growing need for digital skills, but no investment in skills development: this group tended to expect that newly employed recruits possess the necessary digital skills (which were mostly relatively basic digital skills).
- More than half of the industry survey respondents were not satisfied with the digital skills of their VET graduate recruits and had concerns about the adequacy of VET qualifications in meeting industry skill requirements. An analysis of training packages in the two case study sectors indicated that a significant amount of digital training content was included in the packages. However, this content is mostly pitched at low levels of basic digital literacy. Furthermore, most of the digital skills training was in elective units as opposed to core.
  - The employers in this study had strong concerns about the future availability of workers with sufficient digital skills. Despite this, many are not proactively developing a clear strategy for, and investing in, the future digital skills needs their workforces.

Readers may also be interested in another NCVET report *The Fourth Industrial Revolution: the implications of technological disruption for Australian VET* ([ncver.edu.au/research-and-statistics/publications/all-publications/the-fourth-industrial-revolution-the-implications-of-technological-disruption-for-australian-vet](https://ncver.edu.au/research-and-statistics/publications/all-publications/the-fourth-industrial-revolution-the-implications-of-technological-disruption-for-australian-vet)), which investigated the implications of digital disruption for the VET sector, finding that disruptive technologies are influencing the demand for both technical and soft skills in many occupations, with some skills in decline and others in high demand.



## School-to-work pathways

Rasika Ranasinghe, Emerick Chew, Genevieve Knight, Gitta Siekmann

[ncver.edu.au/research-and-statistics/publications/all-publications/school-to-work-pathways](https://ncver.edu.au/research-and-statistics/publications/all-publications/school-to-work-pathways)

It is well established that a successful transition to the labour market has long-term social and economic implications for both individuals and society. However, the journey from school to the world of work is not straightforward and needs to be better understood.

Based on data from the 2006 cohort of the Longitudinal Surveys of Australian Youth (LSAY Y06), this research explores the school-to-work transitions of Australian youth aged 16 to 25 years. The study uses sequence analysis in combination with cluster analysis to summarise complex longitudinal data in a meaningful way and to investigate transitions in their entirety as ‘pathways’.

This study captures the richness of the transition experience, both visually and analytically. Identifying the five key types of pathways taken by young people on their journey from school to work, this research describes these pathways and the implications of their evolution for labour market destinations over the 10 years from 2006 to 2016, when the cohort was aged 25 years.

### Key messages

- Young people experience diverse and individualised school-to-work pathways. While the majority of young people in the study sample followed a generally simple higher education-to-work pathway or entered full-time work relatively early, some experienced complex post-school pathways, with frequent switching between higher education and vocational education and training (VET) activities, episodes of part-time work and repeatedly moving in and out of the labour market. The five key pathways followed by youth aged 16 to 25 years revealed by the analysis are:

- Pathway 1: Higher education and work
  - Pathway 2: Early entry to full-time work
  - Pathway 3: Mix of higher education and VET
  - Pathway 4: Mixed and repeatedly disengaged
  - Pathway 5: Mostly working part-time.
- The factors that influenced specific pathways include studying VET subjects at school, individual school achievement and socioeconomic issues.
  - The occupational outcomes at age 25 years differed for the various pathways.
  - VET was involved in several pathways and emerges as an important avenue in school-to-work transitions which culminate in work at age 25 years.
  - In Pathway 2, VET provided a direct and early route to work, resulting in 97.4% of these young people being in work at age 25 years — the highest proportion of any of the pathways — and they worked full-time for the longest, 69.8 months on average during the 10 years. Almost half had undertaken apprenticeships/ traineeships, with the highest occupation group being technical and trades. This pathway was characterised by more males.
  - Females who undertook VET had more often followed Pathways 3 and 5 and were mostly in work at the age of 25 years (91.7% and 90.2% respectively).

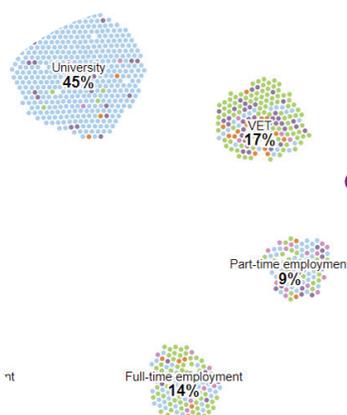
# Visualising school-to-work pathways using LSAY

Kelly Marshall, Peter Mlotkowski, Emerick Chew, Rasika Ranasinghe

The full, interactive infographic is available on our Portal [ncver.edu.au/research-and-statistics/infographics/visualising-school-to-work-pathways-using-lsay](http://ncver.edu.au/research-and-statistics/infographics/visualising-school-to-work-pathways-using-lsay)

This data visualisation is based on findings from the report School-to-work pathways by Rasika Ranasinghe, Emerick Chew, Genevieve Knight, Gitta Siekmann.

It presents the school-to-work pathways of young Australians aged 16 to 25 in the 10 years from 2006 to 2016. It also shows how the profile of young people undertaking education and employment activities within each pathway changes between the ages 16 and 25.



Close up of the dynamic data visualisation based on findings from the report School-to-work pathways.

Research & Statistics | RTO Hub | News & Events

Research & Statistics > Infographics

## Visualising school-to-work pathways using LSAY

By Kelly Marshall, Peter Mlotkowski, Emerick Chew, Rasika Ranasinghe  
15 July 2019

**Introduction**

This data visualisation presents the school-to-work pathways of young Australians aged 16 to 25. The data is from an HCVET study: [School-to-work pathways](#).

**Please note:** this visualisation is best viewed in the Chrome, Firefox and Edge browsers.

This study is based on a sample of 3186 respondents who completed all ten surveys until 2016 of the 2006 Longitudinal Surveys of Australian Youth (LSAY 100). Note that the analysis findings are restricted to the study sample and are not fully generalisable to the general population of 16 to 25-year-old Australians.

The sequence and cluster analysis uncovered five distinct pathways followed by these young people:

- Pathway 1: Higher education to full-time work (45% of the sample)**  
Extended period of post-school higher education followed by employment.
- Pathway 2: Early entry to full-time work\* (22% of the sample)**  
An 'apprentice pathway' to employment. Short spell of post-school education or training leading to full-time work, including as part of an apprenticeship.
- Pathway 3: Mix of higher education and VET (8% of the sample)**  
An extended period of higher education or vocational education and training (VET) eventually leading to more stable employment or further VET activity.
- Pathway 4: Mixed and repeatedly disengaged (8% of the sample)**  
Frequent spells of unemployment or disengagement.
- Pathway 5: Steadily working part-time (4% of the sample)**  
Relatively work entry to the labour market and mostly employed part-time.

\* For many, VET likely extends beyond early post-school years, undertaken jointly in combination with full-time work as part of an apprenticeship/traineeship.

To find out more about the methodology and data, including how the pathways are defined, please refer to the research report [School-to-work pathways](#).

- Each circle represents approximately three people and shows the movement between different monthly education and employment activities of young people.
- The percentages indicate the proportion of young people undertaking an activity at a given month.
- Unemployment refers to people who are not working but are looking for work, Not in labour force refers to those who are not working, not in education or training, and not looking for work.

**Age 16: many now enter university or VET.**

► play | 16 | normal | restart  
 ◀ 15 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25

Now to highlight each pathway:

- Pathway 1: Higher education to full-time work
- Pathway 2: Early entry to full-time work
- Pathway 3: Mix of higher education and VET
- Pathway 4: Mixed and repeatedly disengaged
- Pathway 5: Steadily working part-time

Not in labour force: 0%  
 Part-time employment: 8%  
 Full-time employment: 14%  
 Unemployment: 18%

The graphs below show the change in the profile of young people within each pathway undertaking the different education and employment activities between the ages 16 and 25 in the 10 years from 2006 to 2016.

The number of each graph reflects the proportion of young people in the study sample undertaking each activity at a given time.

**Profile of young people in the study sample undertaking education and employment activities between the ages of 16 and 25**

MONTHS 100 (JAN 2016)

► play | 16 | normal | restart  
 ◀ 15 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25

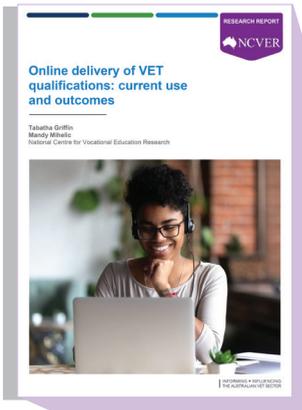
Click to filter only one pathway:

Show all

- Pathway 1: Higher education to full-time work
- Pathway 2: Early entry to full-time work
- Pathway 3: Mix of higher education and VET
- Pathway 4: Mixed and repeatedly disengaged
- Pathway 5: Steadily working part-time

School  
 University  
 VET  
 Part-time employment  
 Full-time employment  
 Unemployment  
 Not in labour force

This information should be attributed to Marshall, K., Mlotkowski, P., Chew, E., & Ranasinghe, R (2019). Visualising school-to-work pathways using LSAY, NCVER, Adelaide.



## Online delivery of VET qualifications: current use and outcomes

Tabatha Griffin, Mandy Mihelic

[ncver.edu.au/research-and-statistics/publications/all-publications/online-delivery-of-vet-qualifications](https://ncver.edu.au/research-and-statistics/publications/all-publications/online-delivery-of-vet-qualifications)

The online delivery of training is well established in the VET sector, and it is not unusual for a course to include training that is delivered online in one or more units. However, little is known about the online delivery of entire qualifications in VET and how this works, given the overarching role of the competency-based training system in the sector.

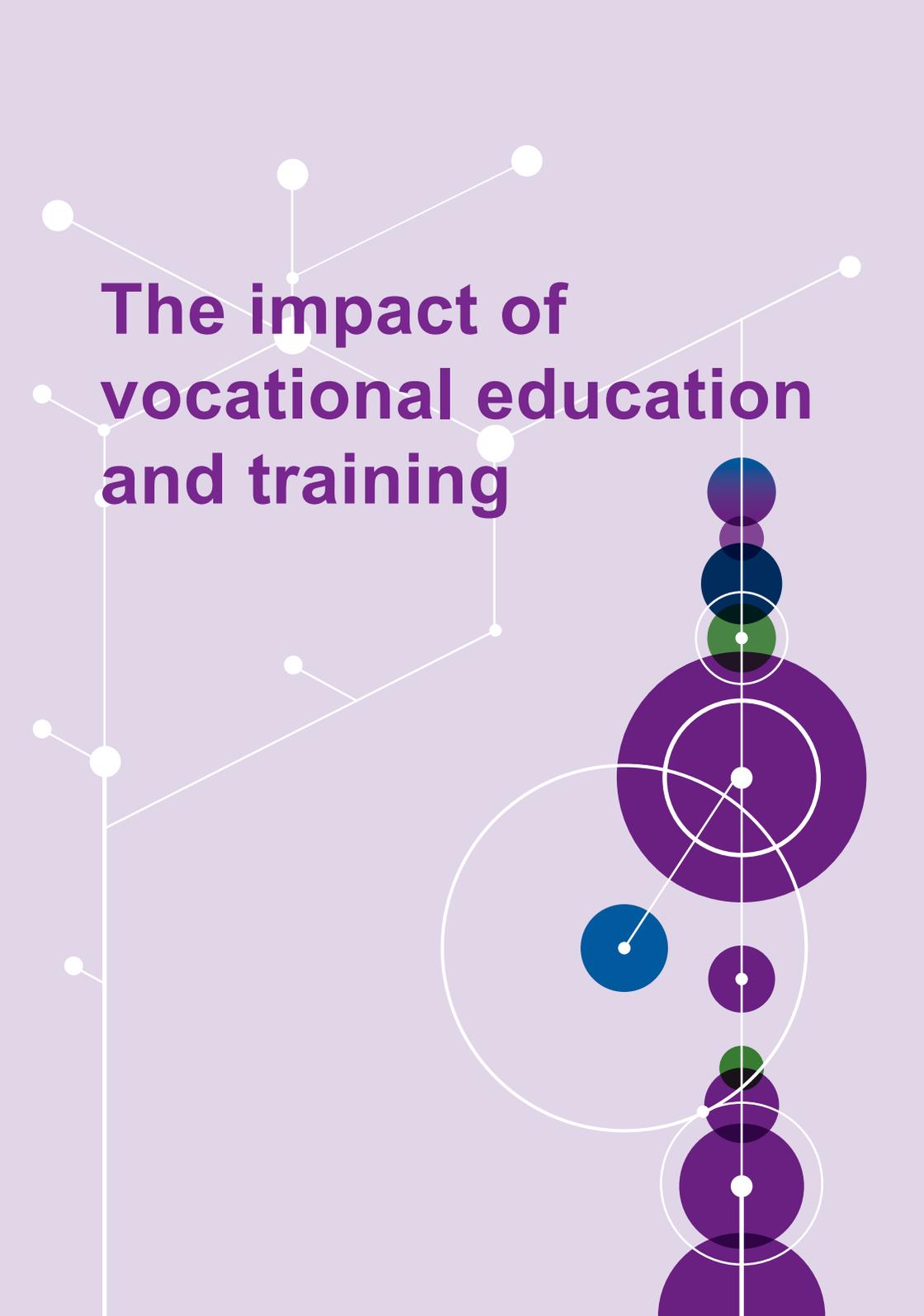
This research provides a contemporary view of how online learning is used to deliver complete qualifications in the Australian VET sector. It estimates the extent to which entire qualifications are delivered online, as well as investigates the nature of this online delivery and whether this training is providing students with a similar experience and outcomes to that of face-to-face training. The final element of this research identifies the factors that contribute to good practice in online delivery.

### Key messages

- It is estimated that 8.6% of all VET program commencements in 2017 were in courses delivered fully online. While this proportion appears relatively small, it is not insignificant, noting that in New South Wales and Queensland more than 10% of courses are delivered fully online.
- Online VET is characterised by higher subject withdrawal rates and lower course completion rates. Analysis of 17 qualifications across six subject areas revealed that qualification completion rates for fully online courses are consistently lower than for all other modes of delivery.

- Higher subject withdrawals and course non-completion can be due to many factors, such as poor quality training, the delivery mode not suiting the student, issues with securing a work placement (if required), or the student lacking access to the necessary tools or technology to complete the course. This research cannot differentiate between these reasons due to limitations in the available data.
- For those students who completed an online course, the outcomes were mixed but in general, comparable to other delivery modes. Overall, student satisfaction measures were lower for graduates of courses delivered online, although they were still relatively high. For many of the individual qualifications examined, satisfaction with teaching (one of the satisfaction measures) was lower for courses delivered online. Conversely, for many of the qualifications, graduates who studied online were more likely to report they had achieved the main reason for doing the training. Additionally, the employment outcomes for graduates of online courses were similar to, or slightly better than, those of graduates of courses delivered via other modes.
- The attributes of good practice in online delivery include:
  - a positive and supportive attitude and ethos in the training provider
  - students with realistic expectations of the course and delivery mode on enrolment
  - well-structured, up-to-date and engaging resources that cater to a range of learning preferences
  - an effective and accessible student support system
  - highly skilled and knowledgeable teachers and trainers, who display empathy and are creative problem-solvers.

Many of these attributes of good practice are not unique to the online delivery context but how they are implemented may be.

The image features a light purple background with a network of white lines and dots. The lines form a complex web, with some dots being larger than others. On the right side, there is a vertical stack of overlapping circles in shades of purple, blue, and green. A large purple circle is the most prominent, with several smaller circles of different colors (blue, green, purple) overlapping it and each other. The overall aesthetic is modern and abstract.

# The impact of vocational education and training



## Higher apprenticeships in Australia: what are we talking about?

NCVER

[ncver.edu.au/research-and-statistics/publications/all-publications/higher-apprenticeships-what-are-we-talking-about](https://ncver.edu.au/research-and-statistics/publications/all-publications/higher-apprenticeships-what-are-we-talking-about)

The concept of utilising apprenticeship-like models of training at higher qualification levels to address the evolving skill needs of Australia's workforce is an emerging issue. Internationally, the application of the apprenticeship model (or similar) at higher VET levels, and in higher education, has fuelled discussions on whether these different models could or should be considered in Australia. In addition, the two trials currently being conducted through the 'Apprenticeship training – alternative delivery pilots' program, funded by the Australian Government, have further focused attention on the potential for higher apprenticeship models.

Through a national forum of industry reference committee chairs and service skills organisations, and interviews with a variety of stakeholders, this research explores how higher apprenticeships might be conceptualised in different industries and education sectors, the extent of their role and demand, possible structures of higher apprenticeships and the potential challenges to their broader use.

A spectrum of perspectives about higher apprenticeships was uncovered through the research, ranging from those who hold a traditional view of how apprenticeships should continue to be implemented, to those who have a broader perspective on how the model could be modified and expanded.

## Key messages

- There is some stakeholder interest in various models of higher apprenticeships. However, the concept is complicated, given that higher apprenticeships potentially span both the VET and higher education sectors and are therefore subject to different educational, funding and regulatory arrangements. These complexities make it difficult for some stakeholders to hypothesise how higher apprenticeships would operate in their industry.
- Given the divergent views of stakeholders, it is unlikely that a 'standard' higher apprenticeship model can be developed and successfully implemented. A more likely scenario is the development of a variety of higher apprenticeships and apprenticeship-like models of learning within the constraints of the current system.
- Whether a higher apprenticeship is undertaken through a contract of training or not, the key determinants of a successful model will be one that it is fit for purpose for the enterprise and has a demonstrable benefit for employers and their employees.

The image features a light purple background with an abstract graphic design. The design consists of various circles in shades of purple, blue, and green, connected by thin white lines. A large, central purple circle is prominent, with several smaller circles of different colors and sizes scattered around it. The overall composition is clean and modern, with a focus on geometric shapes and a limited color palette.

# Promotions, resources and events



# Webinars

NCVER hosted webinars on a broad range of topics relevant to the tertiary education and training sector. The following webinars were presented during 2019, recordings of which are available on the NCVER Portal at [ncver.edu.au/news-and-events/events/webinar-series](https://ncver.edu.au/news-and-events/events/webinar-series).

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## Enhancing the status of VET

Presented by Stephen Billett, Griffith University and Daryl Sutton, Victorian Curriculum & Assessment Authority on 21 February 2019.

This webinar drew on the work of Professor Stephen Billett and colleagues focusing on the perceptions of parents, potential and current students, employers and teachers about the status of VET.

The intent of this work is to help identify and inform policy interventions about promoting the standing and status of the VET sector across Queensland's communities but is likely to have application nationally. The webinar also showed case studies and initiatives aimed at demonstrating the value of VET to potential learners.

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## Small VET providers: the quiet achievers

Presented by Patrick Korbel, Kristen Osborne, NCVER on 20 June 2019.

Discussion revolved around the important role that small VET providers play in offering diversity, equity and specialised training services across the Australian VET sector.

New NCVER research found that small providers contribute to the diversity of the VET system in terms of the number of niche qualifications they offer, often in areas that receive little to no government funding or don't attract enough students to warrant a larger provider having the qualification on scope. The research builds on previous NCVER work to better understand the value that small VET providers contribute to the Australian VET system.

View the research report here - [ncver.edu.au/research-and-statistics/publications/all-publications/the-role-and-function-of-small-vet-providers](https://ncver.edu.au/research-and-statistics/publications/all-publications/the-role-and-function-of-small-vet-providers).

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## **VET for secondary school students: employment and further training destinations**

Presented by Patrick Korbel, Emerick Chew, Josie Misko, NCVET on 29 October 2019.

In this study researchers examined the destinations of students who in 2011 undertook the VET for Secondary School Students (VfSSS) program, five years down the track of the VfSSS studies. To do so they use an integrated data set which links data from the 2011 national VET in Schools Collection to data from the ABS 2016 *Census of Population and Housing*. Of special interest was the extent of the alignment between intended occupation of the qualification and occupation of employment, and linkages between field of education of VfSSS qualification and further training. The researchers also undertook a supplementary analysis to explore differences between VfSSS and non-VfSSS students on employment status and highest level of qualification completed.

The research report related to this webinar will be published in 2020.

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## **The dynamics of qualifications: implications for VET**

Presented by Lisel O'Dwyer, NCVET on 10 December 2019.

NCVER researcher Lisel O'Dwyer explored new research into how industry demand for VET and higher education qualifications has shifted over a decade.

This webinar:

- provided an overview of occupation and qualification profiles and how they have changed
- explored how qualifications and occupations are matching up in today's workforce
- took a closer look at age and gender differences within occupations
- explored the implications this shifting demand may present for the future of vocational education and training.

View the research report here - [ncver.edu.au/research-and-statistics/publications/all-publications/the-dynamics-of-qualifications-implications-for-vet](https://ncver.edu.au/research-and-statistics/publications/all-publications/the-dynamics-of-qualifications-implications-for-vet).



# NCVER presentations

*External presentations by NCVER researchers*

**Presenter:** Lisel O'Dwyer

**Host:** Victorian Adult Literacy and Basic Education Council

**Event:** Resilience, Educate, Empower (VALBEC) Conference

**Topic:** Provision of foundation skills by community education providers in regional Australia: what does it look like and does it help get people into VET?

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**Presenter:** Phil Loveder

**Host:** Department of Education, Skills and Employment (Commonwealth)

**Event:** Indian Government Skills Mission to Australia by the Additional Secretary of the Ministry of Skills Development and Entrepreneurship

**Topic:** Understanding NCVER's role in VET performance monitoring.

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**Presenter:** Glenn Varona

**Host:** Australian Hairdressing Council Industry (AHC)

**Event:** 2019 AHC Industry Day

**Topic:** Numbers in the hairdressing industry and where to find them.

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**Presenter:** Tracy Gamlin

**Host:** Australian Vocational Education and Training Research Association Inc

**Event:** AVETRA 2019 Conference

**Topic:** VOCEdplus for new researchers: avoiding information overload.

**Presenter:** Toni Cavallaro

**Host:** Christian Education National

**Event:** Independent Tertiary Education Conference (ITEC19)

**Topic:** NCVER data as a planning tool.

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**Presenter:** Genevieve Knight

**Host:** Christian Education National

**Event:** Independent Tertiary Education Conference (ITEC19)

**Topic:** VET and the return on investment.

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**Presenter:** Gitta Siekmann

**Host:** UNESCO UNEVOC

**Event:** UNESCO UNEVOC expert's workshop, Bonn

**Topic:** Gender equality in STEM related fields in TVET - an Australian perspective.

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**Presenter:** Phil Loveder

**Host:** Australian Travel Careers Council (ATCC)

**Event:** 2019 Industry leaders and Educators Symposium

**Topic:** Understanding the future skills needs of the tourism, travel and hospitality services industry.

**Presenter:** Simon Walker  
**Host:** Velg Training  
**Event:** VELG National VET Conference  
**Topic:** Transforming understanding of the Australian VET System.

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**Presenter:** Mette Creaser  
**Event:** European Union conference on VET research and analytics  
**Topic:** VET Skills development priorities and research in Australia.

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**Presenter:** Genevieve Knight, Lisel O'Dwyer & Phil Loveder  
**Host:** NCVER  
**Event:** 28th National Vocational Education and Training Research Conference 'No Frills'  
**Topic:** Australian VET returns on investment

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**Presenter:** Ronnie Semo & Olivia Gu  
**Host:** NCVER  
**Event:** 28th National Vocational Education and Training Research Conference 'No Frills'  
**Topic:** Exploring data from the Longitudinal Surveys of Australian Youth (LSAY)

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**Presenter:** Toni Cavallaro & Daryl Fischer  
**Host:** NCVER  
**Event:** 28th National Vocational Education and Training Research Conference 'No Frills'  
**Topic:** Understanding and using our data products and tools: region, industry and more!

**Presenter:** Rose-Anne Polvere & Kelly Frazer  
**Host:** NCVER  
**Event:** 28th National Vocational Education and Training Research Conference 'No Frills'  
**Topic:** VOCEDplus: resource discovery to support practitioners

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**Presenter:** Cameron Forrest  
**Host:** NCVER  
**Event:** 28th National Vocational Education and Training Research Conference 'No Frills'  
**Topic:** Insights from 20 years of the Longitudinal Surveys of Australian Youth (LSAY).

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**Presenter:** Ian White  
**Host:** NCVER  
**Event:** 28th National Vocational Education and Training Research Conference 'No Frills'  
**Topic:** Unaccredited training: why employers use it and does it meet their skill needs?

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**Presenter:** Emerick Chew  
**Host:** NCVER  
**Event:** 28th National Vocational Education and Training Research Conference 'No Frills'  
**Topic:** School-to-work transitions of youth in Australia: a sequence analysis approach using the Longitudinal Surveys of Australian Youth (LSAY).



Phil Loveder, Manager, Stakeholder Engagement, NCVET, speaking at the KRIVET - International Conference on Skills and Workforce Development in South Korea.

**Presenter:** John Stanwick  
**Host:** NCVET  
**Event:** 28th National Vocational Education and Training Research Conference 'No Frills'  
**Topic:** Are skill sets booming? Use and utility of skill sets.

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**Presenter:** Phil Loveder  
**Host:** Korea Research Institute for Vocational Education and Training (KRIVET)  
**Event:** International Conference on Skills and Workforce Development  
**Topic:** The importance of matching skills and jobs through better understanding the complexity of the skills supply and demand equation, and the role of VET in preparing people for jobs of the future.

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**Presenter:** Lisel O'Dwyer  
**Host:** Adult Migrant English Program  
**Event:** AMEP - SEE Forum 2019 Skills for a Better Future  
**Topic:** Foundation skills provision in regional Australia.

**Presenter:** Lisel O'Dwyer  
**Host:** Community Colleges Australia  
**Event:** 2019 CCA Annual Conference  
**Topic:** Foundation skills provision in regional and rural Australia.

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**Presenter:** Cameron Forrest  
**Host:** Australian National University  
**Event:** ANU Beyond Year 12 Conference  
**Topic:** Should school students combine school and work, and other answers from the Longitudinal Survey of Australian Youth (LSAY).

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**Presenter:** Kristen Osborne  
**Host:** Australian Council of Deans of Education (ACBE)  
**Event:** Australian Council of Deans of Education Vocational Education Group 2019 Conference  
**Topic:** Disadvantaged learners in VET; relevant findings from NCVET research.



# In-house seminars by external organisations

## **Associations between latent 10-year exercise trajectories and health, mental health, and vocational outcomes in a large cohort of Australian adolescents and young adults**

Julie Morgan, Jana Bednarz, Oliver Schubert, Faculty of Health and Medical Sciences, University of Adelaide

Physical exercise has protective and therapeutic effects for common mental and physical disorders. However, it is currently unclear at what point in the lifespan it is most valuable to implement exercise-promoting initiatives. We asked whether long-term exercise patterns in 15 to 25-year-olds are associated with mental health, health, and vocational outcomes. Further, we investigated which demographic, social and psychological factors might be associated with long-term exercise behaviours in this cohort.

Findings from this large cohort of Australian adolescents and young adults demonstrate the benefits of long-term regular exercise for health, wellbeing, and education. Findings may inform exercise-promoting strategies implemented at high schools, universities, and vocational training institutions.

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## **Machine Learning**

Professor Javin Shi, University of Adelaide

### ***My Journey of Artificial Intelligence (AI)***

Professor Shi covered core machine learning techniques such as probabilistic graphical models, deep learning and beyond. He also shared his experience with clients in various domains ranging from computer vision, water utility, health, smart agriculture, smart manufacturing (Industry 4.0), mining, and automated trades etc.

## Building Capacity in VET Teachers

Anne Dening, Flinders University

The Australian Government has set a goal to halve the number of Australians 20-64 without qualifications at the Certificate III level or above and double the number of higher-level qualifications completions by 2020. In order to meet these challenges, Australia will need to develop and support good teaching, including in the VET system. This presentation summarises research on how the current policy and vision for the VET sector affects teaching and relates insights from interviews with the teachers themselves. What are the learning strategies being used in VET teacher development, and what would an ideal approach be to developing and supporting the VET teachers of tomorrow?

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## Roundtable

### **VET's response to Industry 4.0 and the digital economy**

NCVER hosted a half-day, invite-only forum, *VET's response to Industry 4.0 and the digital economy: what works*, in Melbourne on 20 November. Representatives from Skills Service Organisations; members of the Education Industry Reference Committee; industry, provider and practitioner-related bodies; policy-makers; and relevant researchers participated in discussions facilitated by Dr Robin Shreeve, AVETRA President, Dr Simon Stratton, Australian Government Digital Transformation Expert Panel, Mr Martin Powell, CEO VET Development Centre, and Mr Phil Loveder, Manager, Stakeholder Engagement, NCVER.

Through facilitated discussions of international and national examples of good practice in the delivery of digital skills in vocational education and training (VET) and the digital skills development of the VET workforce itself, key learnings were collated and these will be used to develop good practice guides.



# Submissions

NCVER's submissions to parliamentary inquiries and public consultations are available at [ncver.edu.au/news-and-events/submissions/submissions-2019](https://ncver.edu.au/news-and-events/submissions/submissions-2019).

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## **Jobs for the future in regional areas**

Submitted on 6 September 2019 to the Senate Select Committee into jobs for the future in regional areas.

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## **High-level consultation on proposed APEC women in STEM principles**

Attended a hearing on 8 August 2019 review into women and science, technology, engineering and mathematics (STEM), held by the Department of Industry, Innovation and Science.

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## **Inquiry into sustainable employment for disadvantaged jobseekers**

Submitted on 31 July 2019 to the Victorian Legislative Assembly Economy and Infrastructure Committee's review.

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## **Vocational pathways to employment: a review of VET for school students**

Submitted on 19 July 2019 to the South Australian VET for Secondary School Students public consultation.

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## **National youth commission**

Submitted on 3 June 2019 to the National Youth Commission inquiry into youth employment and transitions and attended a public hearing in Adelaide.

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## **Australian qualifications framework review**

Submitted on 15 March 2019 to the Australian government review of the Australian qualifications framework.

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## **National regional, rural and remote education strategy framing paper**

Submitted on 1 February 2019 to the Regional Education Expert Advisory Group and attended a select hearing in Adelaide.

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## **Expert review of Australia's vocational education and training system**

Submitted on 15 January 2019 to the Department of Prime Minister and Cabinet Expert Panel.



# 'No Frills' 2019



[ncver.edu.au/news-and-events/events/past-events/past-events/28th-national-vocational-education-and-training-research-conference-no-frills](https://ncver.edu.au/news-and-events/events/past-events/past-events/28th-national-vocational-education-and-training-research-conference-no-frills)

'No Frills' is a well-known annual national conference where researchers, practitioners, providers and industry representatives come together and share knowledge, ideas, insights and solutions surrounding Australia's VET sector.

The conference also provides valuable professional development opportunities through a program of hands-on pre-conference workshops incorporating activities on data and research analytics, and research practice.

The *28th National Vocational Education and Training Research Conference 'No Frills'* was co-hosted with TAFE SA in Adelaide and we warmly thank TAFE SA for their valued involvement and support.

Held on 10-12 July 2019, the conference theme was *The student journey: skilling for life*. While every student's journey is different, more and more research and discussion points to how workers must become lifelong learners to enable them to grow and evolve with their jobs. VET plays a critical role in making this happen.

The 'No Frills' 2019 discussion paper **The student journey: skilling for life** (page 48) explored how, as jobs and industries evolve along with technology, workers will need to continually upskill and reskill to maintain their positions in the workforce.

Delegates came from every Australian state and territory, along with fifteen international.



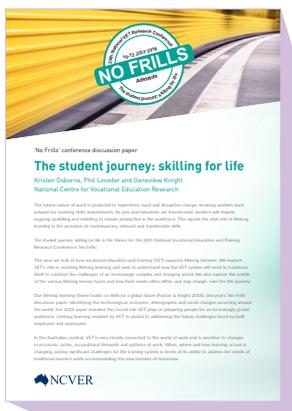
Keynote speaker Fiona Kerr speaking on Day 1 of the 2019 conference.



TAFE SA Tonsley campus entrance.

# 40 presentations on the following topics





## Discussion paper

### The student journey: skilling for life

Kristen Osborne, Phil Loveder, Genevieve Knight

[ncver.edu.au/research-and-statistics/publications/all-publications/the-student-journey-skilling-for-life](https://ncver.edu.au/research-and-statistics/publications/all-publications/the-student-journey-skilling-for-life)

**The student journey: skilling for life** was the theme for the *28th National Vocational Education and Training Research Conference 'No Frills'*.

The future nature of work is projected to experience rapid and disruptive change, meaning workers must prepare for evolving skills requirements. As jobs and industries are transformed, workers will require ongoing upskilling and reskilling to remain productive in the workforce. This signals the vital role of lifelong learning in the provision of contemporary, relevant and transferable skills.

In this discussion paper, we look at how VET supports lifelong learners. We explore VET's role in assisting lifelong learning and seek to understand how VET will need to transform in the future to enable it to confront the challenges of an increasingly complex and changing world. We also profile the various lifelong learner types.

We conclude that the specific role of VET in lifelong learning for Australians is likely to be as varied as the learners themselves, and the areas discussed in this paper represent only a small snapshot of how VET is currently supporting lifelong learning in students across Australia. With the inevitable challenges of technology and work changes over the coming years, VET systems and policies will need to evolve to meet the needs of students in their journey of skilling for life.

## Keynote speakers



**Dr Fiona Kerr**, a prominent thought leader in the fields of cognitive neuroscience, human connectivity and the impacts of technologisation was a conference highlight with one delegate tweeting “hands down the most inspirational, thought provoking and brilliant keynote EVER! Thank you #NoFrills2019”.

**WATCH VIDEO** - [youtu.be/H\\_IpH6AS4qY](https://youtu.be/H_IpH6AS4qY)



Founding member of the SAHMRI Wellbeing and Resilience Centre, **Gabrielle Kelly**, provided insight on why psychological wellbeing and resilience is critical for modern vocational education systems.



Senator the **Hon Michaelia Cash**, Minister for Employment, Skills, Small and Family Business spoke about the need for Federal and State ministers to work together to lift the profile of VET in Australia and meet the changing skills needs of the future.

**WATCH VIDEO** - [youtu.be/7VWpf7FPjSI](https://youtu.be/7VWpf7FPjSI)



The **Hon David Pisoni MP**, South Australian Government Minister for Innovation and Skills discussed Skilling South Australia given its rapid diversification into new and emerging industries.

**WATCH VIDEO** - [youtu.be/VMShNMGOt\\_8?t=170](https://youtu.be/VMShNMGOt_8?t=170)



Dinner speaker **Glenn Cooper AM**, Chairman Coopers Brewery provided an entertaining speech inspired by the Cooper family's ability to compete with industry giants by using their family name to their advantage.



Facilitated by broadcast journalist **Steve Davis**, a panel of practitioner, industry and student voices gave their insights into lifelong learning and whether it is the key to social mobility for workers? “When times get tough don’t cut training... the forces of disruption are around 18 months so if you’re not developing your workers in that 18-month period, you get left behind” says Anthony Kittel, Chief Executive Officer, REDARC Electronics.

**WATCH VIDEO** - [youtu.be/ikaQJtcn\\_e0](https://youtu.be/ikaQJtcn_e0)

## Scholarship congratulations

Scholarships were offered for the third year running. This initiative, which is part of NCVER's commitment to build capacity and capability in VET research, is designed to facilitate attendance and widen participation from across the VET sector.

Congratulations to the following 'No Frills' 2019 scholarship recipients:

**VET Development Centre Practitioner Scholarship: Ms Deb Carr, Think About Learning**

**Presentation:** The RPL candidate – a neglected stakeholder

**NCVER Early Career Researcher Scholarship: Mr Cameron Williams, Black Dog Institute**

**Presentation:** Investing in our future: Identifying and minimising students' detrimental individual differences while strengthening positive characteristics

**NCVER Researcher Scholarship: Mr Mark Williams, Building & Construction Industry Organisation, New Zealand**

**Presentation:** Employers' perspectives of the benefits and barriers to women in trades and what needs to change

## View the conference presentations

Presentations from the *28th National Vocational Education and Training Research Conference 'No Frills'* are available on VOCEDplus - [voced.edu.au/content/ngv%3A83658](http://voced.edu.au/content/ngv%3A83658), NCVER's international tertiary education research database.



NCVER is delighted to co-host the *29th National Vocational Education and Training Research Conference 'No Frills'* with North Metropolitan TAFE WA in Perth on 8-10 July 2020. The 2020 conference program will focus on **Workforce ready: challenges and opportunities for VET.**



# Podcast - Vocational Voices



[ncver.edu.au/news-and-events/podcasts/vocational-voices-podcast](https://ncver.edu.au/news-and-events/podcasts/vocational-voices-podcast)

'Vocational Voices', is the official podcast of the NCVER. Join host and broadcast journalist Steve Davis, and Simon Walker Managing Director NCVER and listen to leading experts discuss current trends in VET.

Listen, follow and subscribe via your favourite podcast apps.



## Season 3

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### Ep 3 - Qualification design for the future of VET

Guest speaker: Peter Noonan, Professor of Tertiary Education at Victoria University and Expert Panel Chair of the recent AQF Review

Qualifications are an essential part of the VET system, and therefore a key consideration in the broader approach to VET sector reform, about the recently released Review of the Australian Qualifications Framework Final Report 2019. The discussion focuses on micro-credentials, identifying general capabilities, the Pathways Policy, and the proposed new qualification types or classification of VET qualifications.

**Podcast transcript** - [ncver.edu.au/news-and-events/podcasts/vocational-voices-podcast/transcripts/transcript-of-qualifications-design-in-vet](https://ncver.edu.au/news-and-events/podcasts/vocational-voices-podcast/transcripts/transcript-of-qualifications-design-in-vet)

## Ep 2 - Youth pathways: from school to work and everything between

Guest speaker: Will Stuble, Year 13

New research has revealed how young people's post-school pathways are diverse, individualised and complex. This episode discusses if the reliance on ATAR, the Australian Tertiary Admission Rank, as our lens for evaluating educational achievements is too narrowly focused, and if so, what are some of the options for broadening our approach to understanding post-school pathways?

**Podcast transcript** - [ncver.edu.au/news-and-events/podcasts/vocational-voices-podcast/transcripts/youth-pathways-from-school-to-work-and-everything-in-between](https://ncver.edu.au/news-and-events/podcasts/vocational-voices-podcast/transcripts/youth-pathways-from-school-to-work-and-everything-in-between)

## Ep 1 - Training packages: meeting students' needs?

Guest speaker: Craig Robertson, TAFE Directors Australia

Competency based training (CBT) is the model of curriculum at the heart of the VET system and for some it's a shorthand way of referring to the system of VET training packages, but critics are arguing that the VET sector's reliance upon training packages is failing to meet the real-world needs of students and industry due to how they define and therefore teach competency.

**Podcast transcript** - [ncver.edu.au/news-and-events/podcasts/vocational-voices-podcast/transcripts/transcript-of-training-packages-meeting-student-needs](https://ncver.edu.au/news-and-events/podcasts/vocational-voices-podcast/transcripts/transcript-of-training-packages-meeting-student-needs)

# Season 2

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## Ep 4 - Unaccredited training and employers use it

Guest speaker: Ian White, NCVET

Why do around half of Australian employers look outside the nationally accredited VET system to provide their employees with training? This episode discusses the reasons why employers choose unaccredited over accredited training, and whether it meets their skills needs.

**Podcast transcript** - [ncver.edu.au/news-and-events/podcasts/vocational-voices-podcast/transcripts/transcript-of-unaccredited-training-and-why-employers-use-it](https://ncver.edu.au/news-and-events/podcasts/vocational-voices-podcast/transcripts/transcript-of-unaccredited-training-and-why-employers-use-it)

## Ep 3 - The student journey: skilling for life

Steve Davis interviews a collection of presenters from the 28th National VET Research Conference 'No Frills', held in Adelaide on 10-12 July 2019



Steve Davis and Simon Walker discusses one of the many current trends in VET.

‘While every student’s journey is different, more and more research and discussion underline the importance of workers becoming lifelong learners so they can grow and evolve with their jobs. And more than ever before, Australia relies on the VET sector to play a critical role in making this happen. Hear from a variety of VET experts about their ideas and research as they discuss how Australia can tackle the many challenges of the changing world of work.

**Podcast transcript** - [ncver.edu.au/news-and-events/podcasts/vocational-voices-podcast/transcripts/transcript-the-student-journey-skilling-for-life](https://ncver.edu.au/news-and-events/podcasts/vocational-voices-podcast/transcripts/transcript-the-student-journey-skilling-for-life)

## Ep 2 - Apprenticeship rates – should you believe the hype?

Guest speaker: Ben Bardon, National Australian Apprenticeships Association

It is hard to dispute that the apprenticeships model, which combines employment with formal training in a trade, is an effective way of developing skills while still earning a wage. So why do apprenticeship numbers appear to be so dire? This episode’s discussion will reveal that the situation is more nuanced than recent media headlines might suggest. They start by discussing the difference between apprenticeships and traineeships, which can skew the perceived decline.

**Podcast transcript** - [ncver.edu.au/\\_data/assets/word\\_doc/0041/6935846/S02E02-Vocational-Voices-Apprenticeship-rates-should-you-believe-the-hype.docx](https://ncver.edu.au/_data/assets/word_doc/0041/6935846/S02E02-Vocational-Voices-Apprenticeship-rates-should-you-believe-the-hype.docx)

## Ep 1 - Industry 4.0 – what does it mean for jobs and skills

Guest speaker: Megan Lilly, Australian Industry Group

How will Industry 4.0, or the Fourth Industrial Revolution as it's also known, affect the jobs we do and how we train for them? The challenge, they say, is to develop an agile skill base that can continually learn and grow, which means traditional education systems will also need to evolve.

**Podcast transcript** - [ncver.edu.au/\\_data/assets/word\\_doc/0041/6935846/S02E02-Vocational-Voices-Apprenticeship-rates-should-you-believe-the-hype.docx](https://ncver.edu.au/_data/assets/word_doc/0041/6935846/S02E02-Vocational-Voices-Apprenticeship-rates-should-you-believe-the-hype.docx)

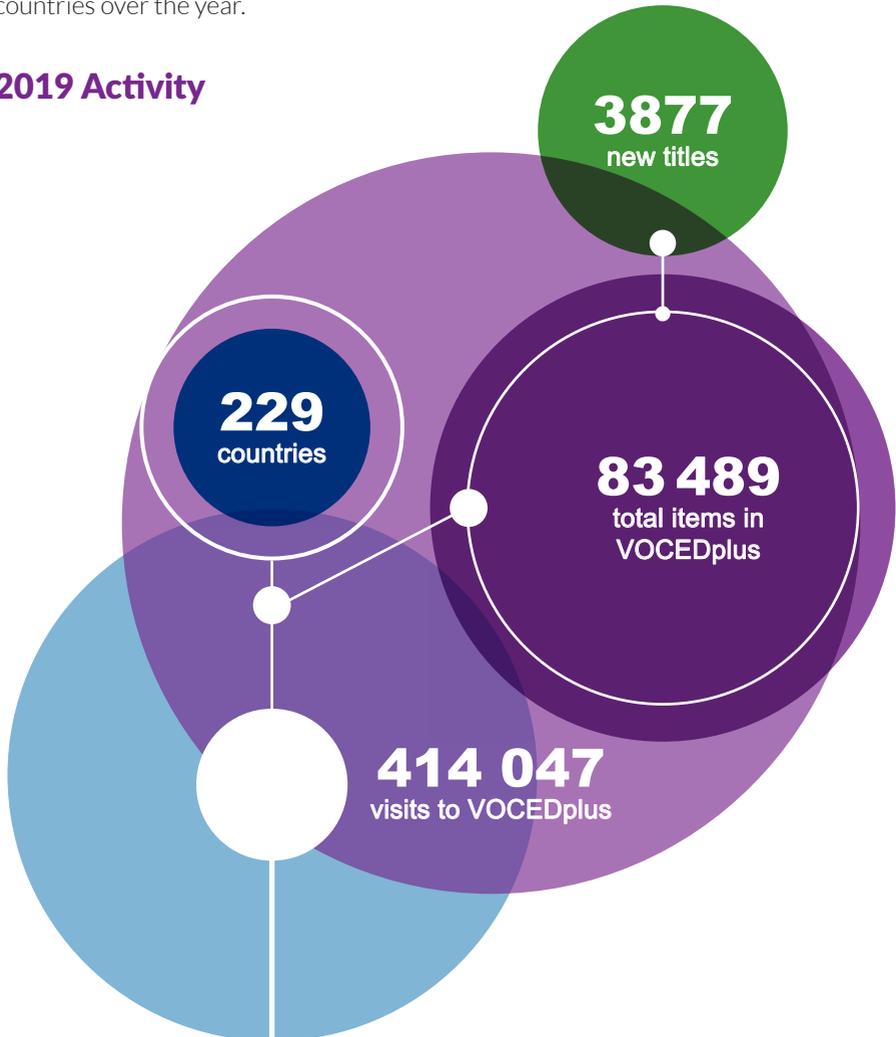
## Season 1

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Season 1 is a full back catalogue of 12 episode's recorded prior to 2019. Visit the NCVET Portal for more information.

In 2019, 3 877 new titles were added to VOCEDplus, NCVER's free international research database for tertiary education relating to workforce needs, skills development, and social inclusion. This brings the current collection to 83 489 items. The VOCEDplus website received 414 047 visits from 229 different countries over the year.

## 2019 Activity





# VET Practitioner Resource



## VET Practitioner Resource

The VET Practitioner Resource draws on VOCEDplus, NCVER products and external links to present a range of information designed to support VET practitioners in their teaching and assessment practice and in undertaking research.

[Guide to navigating the VET Practitioner Resource](#)

The VET Practitioner Resource is a living resource that NCVER continues to develop and update on an ongoing basis. [Feedback and suggestions](#) for content are most welcome.



### Teaching, training and assessment resources

Find information and resources that aim to support practitioners in their daily work.



### Practitioners as researchers

Browse information and resources for undertaking action research associated with current teaching practice or a funded research project.



### The VET workforce

Discover information and resources about the size and profile, work life, and professional development needs of the VET workforce.

[voced.edu.au/vet-practitioner-resource](http://voced.edu.au/vet-practitioner-resource)

The new VET Practitioner Resource (VPR) provides a single access point via the VOCEDplus website to a range of resources designed to support VET practitioners in their teaching and assessment practice and in undertaking research. Launched in July 2019, the VPR draws on the content of the VOCEDplus database, NCVER products and external links. It can be reached from the VOCEDplus home

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**Long awaited central reliable source of quality VET information.**

Yolanda Ballan on LinkedIn

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**What a great resource to assist VET practitioners to stay abreast of best practice.**

Sandra Kelly, TAFE Gippsland

page via *Our Resources* or the Resources menu.

Once on the resource's home page, the *Guide to navigating the VET Practitioner Resource* presents a site map of the information available within the VPR with direct links to the relevant sections of the resource. Items collated in the VPR are organised within the two general categories of 'research' and 'focus on practice'.

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*I'd say it will be an invaluable aid to both researchers and practitioners. It is well-laid out and easy to navigate.*

John Bell, South Australia

The resource is organised into three sections and pages within the resource follow a standard design as far as possible, with common navigation aids and organisation of information:

- Teaching, training and assessment: this section is the largest and has been separated into six topic pages to make finding information easier; find standards, guidance, research and good practice resources to inform daily work, and select from Australian resources with some international examples.
- Practitioners as researchers: this section is for those who would like to undertake research, whether to examine an aspect of their own educational practice or to participate in a funded research project.
- The VET workforce: contains information about the size and profile, working life, and professional development needs of the VET workforce.

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*So much useful information with links to a range of resources in one location - worth a bookmark*

Kerri Buttery, Queensland





# Pod Network

Harvesting tertiary education research

[voced.edu.au/pod-network](http://voced.edu.au/pod-network)

## A refreshed Pod Network

Four years ago, NCVER launched the Pod Network - an initiative to provide quick and easy access to relevant and quality collections of topic-based vocational education and training (VET) research via themed pages called Pods and Podlets. Pods cover broad subject areas of VET research while Podlets are narrower in focus, covering sub-topics of the larger Pod themes. The Pod Network is an intuitive, easy to use platform, enabling quick access to research and resources.



As the VET sector continues to evolve with new trends and priorities guiding the focus of governments, employers, researchers and practitioners, NCVER launched a new version of the Pod Network to reflect these changes, ensuring the resource remains relevant and useful.

The network has been simplified, and new Pods and Podlets that are highly topical in the world of VET have replaced those now becoming less prominent. Each Pod and Podlet now includes a bigger focus on pre-prepared VOCEDplus searches and resources that enable you to easily retrieve results through one mouse click, for example, to relevant sections of the VET Knowledge Bank. Features such as the 'NCVER focus' section and links to other resources such as organisations and statistics have been retained to round out the information provided.

Some examples of the new Pods include Industry 4.0, which covers issues relating to the Fourth Industrial Revolution, such as automation and the new digital economy; and Student outcomes, which provides access to important information on completion, graduate incomes, and underemployment. New Podlets have also been developed, such as 21st century skills, Gig economy, Qualifications and training products, and Retention and completion.

The Pod Network continues to provide easy access to topic-specific research and resources for those who are time-poor.



# VET Knowledge Bank

[voced.edu.au/vet-knowledge-bank](http://voced.edu.au/vet-knowledge-bank)

## Updates to the VET Knowledge Bank

The VET Knowledge Bank continues to be developed and updated to ensure it remains a valuable resource for those in the VET sector, whether they are researchers, trainers, students, or working in the policy arena.



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## Timeline of Australian VET policy initiatives

[voced.edu.au/vet-knowledge-bank-timeline-australian-vet-policy-initiatives](http://voced.edu.au/vet-knowledge-bank-timeline-australian-vet-policy-initiatives)

New content has been added to the Timeline of Australian VET policy initiatives to maintain its currency. When launched, the timeline only included policy and programs up to 2017. The timeline has now been updated to include initiatives released in 2018 and 2019.

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## Glossary of VET

[voced.edu.au/vet-knowledge-bank-glossary-vet](http://voced.edu.au/vet-knowledge-bank-glossary-vet)

Until recently, the Glossary included not only terms and acronyms, but also information on programs, names of government departments and agencies, and information on organisations, research centres and resources.



With the advent of the VET Knowledge Bank, much of this information has now found a new home. Therefore, the Glossary is now limited to acronyms and other abbreviations, and terms and concepts found in the Australian VET sector. These can be browsed via the new Glossary of VET home page.

Information on organisations with a stake in the Australian VET sector can be found in the Organisations and resources section of the VET Knowledge Bank, while information on Ministerial Councils and Commonwealth Departments responsible for skills and training can now be found in the Governance section.

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## Landmark historical overviews

[voced.edu.au/vet-knowledge-bank-landmark-documents](https://voced.edu.au/vet-knowledge-bank-landmark-documents)

The Landmark documents are an historical collection of publications that are considered by history and authoritative commentary to have influenced the development of the Australian VET system, providing vision and/or leading to significant reforms or widespread cultural/attitudinal change.

To accompany the visual timeline of Landmark documents available in the VET Knowledge Bank, a series of historical overviews are being authored by prominent scholars from the VET sector. These overviews take a broad thematic approach to highlight how relevant landmarks have shaped a particular aspect of the sector e.g. governance and policy; quality; equity of access. The overviews cover the period represented on the timeline (1954-2010).

The first four overviews are now available via the VET Knowledge Bank, with the project to be completed in 2020.



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