



Research messages 2015

National Centre for Vocational Education Research





Research messages **2015**

National Centre for Vocational Education Research

The views and opinions expressed in this document are those of the authors/project teams and do not necessarily reflect the views of the Australian Government or state and territory governments.

© Commonwealth of Australia, 2016



With the exception of the Commonwealth Coat of Arms, the Department's logo, any material protected by a trade mark and where otherwise noted all material presented in this document is provided under a Creative Commons Attribution 3.0 Australia <<http://creativecommons.org/licenses/by/3.0/au>> licence.

The details of the relevant licence conditions are available on the Creative Commons website (accessible using the links provided) as is the full legal code for the CC BY 3.0 AU licence <<http://creativecommons.org/licenses/by/3.0/legalcode>>.

The Creative Commons licence conditions do not apply to all logos, graphic design, artwork and photographs. Requests and enquiries concerning other reproduction and rights should be directed to the National Centre for Vocational Education Research (NCVER).

This document should be attributed as National Centre for Vocational Education Research 2016, *Research messages 2015*, NCVER, Adelaide.

IMAGES: GETTY IMAGES/iStock

ISSN 1838-8515 print edition

1838-8531 web edition

TD/TNC 122.24

Published by NCVER, ABN 87 007 967 311

Level 11, 33 King William Street, Adelaide SA 5000

PO Box 8288 Station Arcade, Adelaide SA 5000, Australia

P +61 8 8230 8400 F +61 8 8212 3436 E ncver@ncver.edu.au W <<http://www.ncver.edu.au>>

Follow us:  <<http://twitter.com/ncver>>  <<http://www.linkedin.com/company/ncver>>

Contents

Introduction	5
Qualifications	9
Developing, approving and maintaining qualifications: selected international approaches – Josie Misko	10
Regulating and quality-assuring VET: international developments – Josie Misko	12
Creating vocational streams: what will it take? – Serena Yu	13
Linking qualifications and the labour market through capabilities and vocational streams – Leesa Wheelahan, John Buchanan and Serena Yu	14
Towards a new approach to mid-level qualifications – Gavin Moodie, Leesa Wheelahan, Nick Fredman and Emmaline Bexley	15
Adult trade apprentices: exploring the significance of recognition of prior learning and skill sets for earlier completion – Jo Hargreaves and Davinia Blomberg	16
Competency progression and completion: how is the policy being enacted in three trades? – Berwyn Clayton, Hugh Guthrie, Pam Every and Regan Harding	17
Lessons from VET providers delivering degrees – Victor J Callan and Kaye Bowman	18
The returns to completion or partial completion of a qualification in the trades – Tham Lu	19
Participation	21
Geographical and place dimensions of post-school participation in education and work – Sue Webb, Ros Black, Ruth Morton, Sue Plowright and Reshmi Roy	22
Supporting tertiary students with disabilities: individualised and institution-level approaches in practice – Ellie Fossey, Lisa Chaffey, Annie Venville, Priscilla Ennals, Jacinta Douglas and Christine Bigby	23
Industry restructuring and job loss: helping older workers get back into employment – Victor J Callan and Kaye Bowman	24
From volunteering to paid employment: skills transfer in the South Australian Country Fire Service – Dr Mark Keough	25
Towards more effective continuing education and training for Australian workers – Stephen Billett, Sarojni Choy, Darryl Dymock, Ray Smith, Amanda Henderson, Mark Tyler and Ann Kelly	26

The development of Australia’s national training system: a dynamic tension between consistency and flexibility – Kaye Bowman and Suzy McKenna	27
Jurisdictional approaches to student training entitlements: commonalities and differences – Kaye Bowman and Suzy McKenna	28
Student entitlement models in Australia’s national training system: expert views – Kaye Bowman and Suzy McKenna	29
A preliminary analysis of the outcomes of students assisted by VET FEE-HELP – National Centre for Vocational Education Research	30
Complementary research	31
23rd National Vocational Education and Training Research Conference ‘No Frills’: refereed papers – edited by Laura O’Connor and Maree Ackehurst	32
The outcomes of education and training: what the Australian research is telling us, 2011–14 – Francesca Beddie	33
Linking NAPLAN scores to the Longitudinal Surveys of Australian Youth – Marilyn Lumsden, Ronnie Semo, Davinia Blomberg and Patrick Lim	34
Funding information	35

Introduction

This publication provides a summary of the research into Australia's vocational education and training (VET) sector published by the National Centre for Vocational Education Research (NCVER) during 2015. NCVER's research program aims to contribute to an improvement in VET policy and practice.

NCVER's applied research program focuses strongly on issues that our government shareholders, and key employer and training provider stakeholders, identify as being of the highest priority to them and so, collectively, the nation. Our work is strategic in nature and aims to support the drive for greater industry competitiveness and to lift national productivity through skills.

The research published in 2015 covered a wide variety of the themes, reflecting the relevance of the VET sector to the Australian economy and its increasingly important role in the higher education sector. Work produced can be broadly categorised into two streams: qualifications and participation.

Qualifications

Qualifications are an essential part of formally recognising the successful completion of an educational program but they also play an important role in establishing the requirements for working in many occupations. Maintaining and renewing these qualifications to ensure their continued relevance is paramount in a modern training system.

NCVER's research in this category covered:

- international approaches and systems
- qualifications, education and the labour market
- the delivery and completion of qualifications.



International approaches and systems

By looking at international trends and examining how other countries deal with specific issues in relation to qualifications, quality and the maintenance of standards, Australia might gain insights that will be beneficial to future policy and system development.

Published work:

- *Developing, approving and maintaining qualifications: selected international approaches*, by Josie Misko¹
- *Regulating and quality-assuring VET: international developments*, by Josie Misko¹



Qualifications, education and the labour market

The three-year program of research, *Vocations: the link between post-compulsory education and the labour market*, investigated the relationship between the educational and occupational paths people take and how their study, and consequently their qualifications, relates to their work. Two of these reports applied the concepts of ‘capabilities’, ‘vocation’ and ‘vocational streams’ that were developed during the program, while the third synthesised the findings of the entire research program.

Published work:

- *Creating vocational streams: what will it take*, by Serena Yu²
- *Linking qualifications and the labour market through capabilities and vocational streams*, by Leesa Wheelahan, John Buchanan and Serena Yu²
- *Towards a new approach to mid-level qualifications*, by Gavin Moodie et al.²



The delivery and completion of qualifications

During 2015, several papers were published on the benefits derived from completing whole qualifications, the implementation of the policy associated with completion via competency-based training, and the reasons traditional VET providers decide to move to the delivery of higher education qualifications.

Published work:

- *Adult trade apprentices: exploring the significance of recognition of prior learning and skill sets for earlier completion*, by Jo Hargreaves and Davinia Blomberg¹
- *Competency progression and completion: how is the policy being enacted in three trades?*, by Berwyn Clayton et al.²
- *Lessons from the VET providers delivering degrees*, by Victor J Callan and Kaye Bowman²
- *The returns to completion or partial completion of a qualification in the trades*, by Tham Lu¹

Participation

This category broadly encompasses the participation of various groups in the labour force or in education. Encouraging and assisting the participation of all Australians contributes to productivity while building the diversity of the workforce. The research published in 2015 addressed:

- disadvantaged or disabled individuals and those in regional locations
- older workers, volunteers and established workers
- the effects of policy on participation.



Disadvantaged or disabled individuals and those in regional locations

People with low socio-economic status, people with disabilities and those in remote communities can experience an ongoing cycle of disadvantage in both education and work. Research in this category has focused on ways to support these people and to remove systemic barriers to participation.

Published work:

- *Geographical and place dimensions of post-school participation in education and work*, by Sue Webb et al.²
- *Supporting tertiary students with disabilities: individualised and institution-level approaches in practice*, by Ellie Fossey et al.²



Older workers, volunteers and established workers

The nature of work is changing at an increasingly rapid rate and the need to constantly upskill and to prepare for new careers and jobs is becoming important. Research on this topic has focused on how VET can address the challenges around structural adjustment in the labour market and how skills learnt in life can be valued in formal employment.

Published work:

- *Industry restructuring and job loss: helping older workers get back into employment*, by Victor J Callan and Kaye Bowman²
- *From volunteering to paid employment: skills transfer in the South Australian Country Fire Service*, by Dr Mark Keough²
- *Towards more effective continuing education and training for Australian workers*, by Stephen Billet et al.²



The effects of policy on participation

Three of the four reports published under this theme explore the implementation of student entitlements to vocational skills training, introduced as part of the National Partnership Agreement on Skills Reform (NPASR) of 2012–16. This key national reform aims to create a more accessible and equitable training system by ensuring that all working-aged Australians have access to a government-subsided training place up to their first certificate III level qualification, as a minimum, as well as choice of training provider.

The fourth report in this group investigates the likelihood of eligible students completing their training and accessing VET FEE-HELP, an income-contingent loan designed to assist students undertaking specific VET courses (diploma, advanced diploma, graduate certificate and graduate diploma).

Published work:

- *The development of Australia's national training system: a dynamic tension between consistency and flexibility*, by Kaye Bowman and Suzy McKenna²
- *Jurisdictional approaches to student training entitlements: commonalities and differences*, by Kaye Bowman and Suzy McKenna²
- *Student entitlement models in Australia's national training system: expert views*, by Kaye Bowman and Suzy McKenna²
- *A preliminary analysis of the outcomes of students assisted by VET FEE-HELP*, by NCVER¹

Complementary research

Two of the final three reports from 2015 complement this collection of research, while the third makes an important contribution to the future availability of enhanced data for research into Australia's youth.

Published work:

- *23rd National Vocational Education and Training Research Conference 'No Frills': refereed papers*, edited by Laura O'Connor and Maree Ackhurst²
- *The outcomes of education and training: what the Australian research is telling us 2011–14*, by Francesca Beddie²
- *Linking NAPLAN scores to the Longitudinal Surveys of Australian Youth*, by Marilyn Lumsden et al.³

1 Funded by NCVER's in-house research and evaluation program.

2 Funded by the National Vocational Education and Training Research Program.

3 Funded by the Longitudinal Surveys of Australian Youth Program.

Details of each of these three research programs are available on page 35.



Qualifications



Developing, approving and maintaining qualifications: selected international approaches



[www.ncver.edu.au/
publications/2775.html](http://www.ncver.edu.au/publications/2775.html)

Josie Misko

There are lessons for Australia in the key approaches to the development, approval, maintenance and quality assurance of qualifications adopted in countries overseas. This research takes into account a range of approaches used in selected European Union (EU) member states (Germany, Finland and Sweden), the United Kingdom (England, Northern Ireland and Wales, Scotland, and Ireland) and the nations of New Zealand, Singapore and South Korea. The processes used in Ontario, Canada, and selected accreditation agencies in the United States were also investigated.

This work serves to inform the vocational education and training (VET) sector in Australia about practices used overseas. It provides a useful reference document for agencies charged with developing and reviewing qualifications and showcases the different approaches used to ensure that qualifications remain current for the industries they serve.

Key messages

The report highlights some important issues for Australia, including:

- The introduction of qualifications frameworks, implementation of competency-based or learning outcomes approaches to learning and assessment, recognition of prior learning, and effective regulation and quality assurance processes are all being debated overseas, with varying solutions to the perceived issues being applied.
- The development of hierarchical national qualifications frameworks comprising progressively higher qualification levels is relatively widespread, and increasing. In the main, countries start with existing systems and review these to adapt to new concepts and practices. The use of credit accumulation or credit point systems based on the number of hours typically required for qualification completion is also prevalent.
- The referencing of national qualifications to regional framework models, especially in the European Union but increasingly discussed in our own region, is favoured for improving the transparency, portability, comparability and mutual recognition of qualifications. The main aims are to ensure that qualifications coming from overseas are of the same quality as those attained in the home country and to facilitate labour and student mobility.
- Collaboration between governments (or their delegated agencies) and industry stakeholders is key to developing and/or approving competency standards, educational standards and content that align with labour market needs. Stakeholders almost always involve representatives from industry; in some systems representation is also sought from education and training practitioners and experts, academics, professionals and community groups.

- Removing or retiring qualifications is an issue for systems where there has been a proliferation of qualifications. New Zealand and the United Kingdom have implemented systematic review processes which target for removal those qualifications that have experienced zero or very low uptake over a specified period of time (usually two years).
- Regulatory frameworks reflect their cultural and economic environments. The focus is increasingly moving away from top-down regulation (except for serious transgressions) to a system of collaboration between regulator and provider. Regulators provide advice on what is required to meet specific standards, and providers make internal arrangements to implement and monitor their progress against these standards. Self-appraisal is combined with regular or predetermined external evaluations by the appropriate government agency.
- Countries are keen to ensure that qualifications and skills gained are valued in the labour market by employers and students. This is done by aligning national qualifications and training needs with comprehensive labour market analyses, and applying outcomes-based quality assurance and/or inspection frameworks (including for equity groups). Rates of participation, qualification completion, employment, unemployment, movement into higher qualifications and progression through employment are some key indicators.
- There is a concern about the quality of teachers and teaching, in particular in the European Union states and the United Kingdom, with some countries increasing the level of qualification required for teaching in a VET institution or program.



Josie Misko

The opening-up of the market for education and training, including vocational education and training (VET), has increased the importance of regulation and quality assurance mechanisms in ensuring the integrity of qualifications. This report investigates approaches to the regulation and quality assurance of vocational education and training in a number of countries: New Zealand, selected European member states (Finland, Sweden, United Kingdom), Canada (province of Ontario) and two accrediting agencies in the United States. The insights gained from this investigation into the practices applied overseas could be used to inform the development of VET regulatory and quality assurance approaches in Australia.

Key messages

- Increasingly, training systems are implementing principles of responsive regulation and risk analysis to help ensure compliance and to reduce the burden on regulators and regulated populations. However, the implementation of these approaches requires regulators to have access to sufficient and robust data collection mechanisms to help them to identify effective triggers for risk-based reviews.
- The voice of industry (including employer and employee associations) is commonly heard in the development of qualifications, assessment for qualifications, the provision of practical work experience, and validation of assessments.
- Debates about the quality of teaching are gaining momentum, not only in Australia, but also overseas. The aim is to implement mechanisms to improve the quality of teacher preparation and to ensure continuing professional development.
- External assessments conducted by third parties possessing relevant occupational knowledge and expertise can be used to assure the integrity of assessments and qualifications.
- The New Zealand external evaluation review (EER) approach is worthy of attention, especially as it aims to help providers to develop their capacity for self-assessment. However, a lesson from their experience is to make clear decisions about how to promote the approach to providers to ensure that trust between regulators and providers is maintained.
- The preparation of institutional self-reviews or reports helps to embed self-monitoring mechanisms into the routine activities of providers. However, such processes, if not well managed, can become so resource-intensive that they may draw valuable resources away from core teaching and learning tasks and so hinder the achievement of real continuous improvement.
- Outcomes-based measures of institutional performance can help individuals to make informed choices about where they want to study, and governments to make policy and funding decisions. Their usefulness is highly dependent on the robustness and accuracy of participation and outcomes data and the mechanisms for data collection.

Creating vocational streams: what will it take?



[www.ncver.edu.au/
publications/2785.html](http://www.ncver.edu.au/publications/2785.html)

Serena Yu

This report is part of a wider three-year program of research, *Vocations: the link between post-compulsory education and the labour market*, which is investigating the educational and occupational paths that people take, and how their study relates to their work. In particular, this strand has been investigating the application of vocational streams in the labour market, which they argue can play a role in increasing workforce capacity and in addressing skill shortages. Previous research from the program has identified a vocational stream as a set of occupations linked by work-related capabilities within a broad field of practice. It has also identified two preconditions for a vocational stream: links in underpinning skills and knowledge; and the potential for commitment and cooperation across stakeholders on resolving issues.

As part of the third year of the program, the author interviewed a variety of industry stakeholders, with the aim of finding out how relationships between the social partners could facilitate vocational streams. This research is focused on the agriculture, financial services, healthcare and community services and engineering sectors.

Key messages

- While there is currently the potential for the creation of vocational streams in the four industry areas, they are not flourishing. Further enhancing the viability of vocational streams requires coordination from the social partners and further work on how to support vocational streams. In order to facilitate vocational streams in each of these industry areas, stakeholders should focus their attention on:
 - In engineering there is a need to improve employers' understanding of mid-level skills.
 - While agriculture has a strong potential for regional vocational streams, employers have a low appreciation of how highly capable individuals are developed and retained.
 - In community services and healthcare there is an imperative to improve the scope for collaboration in areas of client and patient need.
 - Financial services has dynamic vocational streams but there is the potential for further gains from improved information sharing.

Linking qualifications and the labour market through capabilities and vocational streams



[www.ncver.edu.au/
publications/2782.html](http://www.ncver.edu.au/publications/2782.html)

Leesa Wheelahan, John Buchanan and Serena Yu

Qualifications are used differently across occupations. In some they are used to signal that a graduate has the skills required for a regulated occupation and in others they may be used more generally to screen applicants for jobs. However, there are many graduates who do not end up in the intended occupation of their qualification. This research is concerned with improving the links between qualifications and jobs and with opening up career options. It proposes the use of vocational streams and productive capabilities, which focus on the broad-ranging knowledge, skills and attributes that individuals need for a number of occupations within an industry.

This is the final report in the three-year program of research *Vocations: the link between post-compulsory education and the labour market*, which investigated the educational and occupational paths people take and how their study relates to their work. This report synthesises the findings of the three different strands: pathways from VET in Schools; pathways within and between vocational education and training (VET) and higher education; and pathways in the labour market.

Key messages

- The researchers conclude that building better links between education and work will help to provide a more coherent approach to vocational development and in order to do this qualifications and employment need to be reformed together.
- The following policy objectives have been identified through the research:
 - Refocus VET in Schools as a pathway to post-school VET or to apprenticeships in skilled occupations rather than a pathway to a job.
 - Differentiate the approach to tertiary education pathways based on the three purposes of qualifications: labour market entry or progression; access to higher-level studies; and widening participation for disadvantaged students. Qualifications will vary in their emphasis on these three purposes and in the way they are implemented.
 - Revise qualifications so that vocational streams are used as a structuring principle and use productive capabilities as the basis for curriculum.
 - Task communities of trust, consisting of social partners with a common objective, with identifying particular vocational streams and their underpinning capabilities.
 - Restructure industry advisory bodies to include representatives from both higher education- and VET-trained occupations to help with building trust when planning workforce development strategies.

Towards a new approach to mid-level qualifications



[www.ncver.edu.au/
publications/2784.html](http://www.ncver.edu.au/publications/2784.html)

Gavin Moodie, Leesa Wheelahan, Nick Fredman
and Emmaline Bexley

This report is part of a wider three-year program of research, *Vocations: the link between post-compulsory education and the labour market*, which is investigating the educational and occupational paths that people take and how their study relates to their work. Previously the authors identified three main roles for mid-level qualifications, as a labour market qualification (entry or upgrade), a transition to a higher-level qualification, and to widen access to higher-level qualifications. They also proposed a new approach to qualifications based on vocational streams and productive capabilities, which would strengthen educational pathways and occupational outcomes.

In the final year of the research, the authors tested this new approach through consultations with stakeholders in four industry areas: agriculture; engineering; finance; and health and community services. This report focuses on the outcomes of those consultations and also suggests how the new approach can be progressed.

Key messages

- Support for vocational streams and productive capabilities varied by industry, with finance showing the highest overall support. Agriculture showed the least support due to a general reluctance by employers to invest in education and training.
- In order to progress the new approach to qualifications, it is suggested that the following should be implemented:
 - Tertiary education curriculum needs to emphasise the different roles of qualifications by moving from being focused on specific workplace tasks and roles to a capabilities approach, which develops a person's theoretical knowledge, technical skills and attributes in a broad field of practice along with the skills for a particular occupation.
 - All the social partners – education, industry, government and employers – need greater involvement in the development of curriculum and qualifications. They should also have equal participation in the membership of qualification and approval bodies to enable there to be a focus on both the educational and occupational purposes of qualifications.
 - Educators and researchers need to learn more about the operation and structure of the different labour markets in which their graduates enter and progress. They should also be involved in further work to explicate and operationalise the concept of productive capabilities.

Adult trade apprentices: exploring the significance of recognition of prior learning and skill sets for earlier completion



[www.ncver.edu.au/
publications/2815.html](http://www.ncver.edu.au/publications/2815.html)

Jo Hargreaves and Davinia Blomberg

The nature of apprenticeships is changing. Increasing proportions of adult apprentices are prompting demand for various alternative pathways to completion. One option for an alternative pathway to accelerate completion is the use of recognition of prior learning (RPL) to identify existing skills and knowledge in combination with gap training. In this study we investigate the extent to which recognition is occurring for adult trade apprentices. The impacts of earlier completion are explored, as is the pay-off to completion in terms of employment outcomes and wages for an adult trade apprentice by comparison with trade apprentices under the age of 25 years.

Key messages

- There are significantly more individuals aged 25 years and over commencing a trade apprenticeship today (40.1% in 2013) compared with ten years ago (14.9% in 2004).
- There are growing numbers of individuals across all ages completing their trade apprenticeship in a shorter timeframe. This is especially noticeable for adult apprentices, with well over half completing within two years via a range of options such as early sign-off, competency-based progression or recognition of prior learning and gap training.
- An RPL-granted subject outcome for trade apprentices 25 years and older has increased from a low base (3.5% in 2009 to 7% in 2013); however, these levels for trade apprentices are markedly lower than peer-age students who either have no training contract or who have a traineeship. The subject enrolments with RPL-granted outcomes for this group are far higher, at 78% in 2013.
- The data confirm that a large number of adults commence an apprenticeship with no formal prior education but with knowledge and skills gained through existing workforce participation; yet RPL is still not being offered by all publicly funded registered training providers.
- Shortened pathways are not adversely affecting outcomes for the individual adult trade apprentice:
 - One in five who completes their qualification reports having at least one subject where RPL was granted. This compares with only one in ten for those aged 24 years and below.
 - Adults using RPL end up with slightly higher average annual wages.
 - Prior experience itself, even without RPL to shorten training, has a positive impact on wages and being employed at a higher skill level.

Competency progression and completion: how is the policy being enacted in three trades?



[www.ncver.edu.au/
publications/2813.html](http://www.ncver.edu.au/publications/2813.html)

Berwyn Clayton, Hugh Guthrie, Pam Every and Regan Harding

This paper examines how competency progression and completion is implemented in practice in three trades. In particular, it focuses on: interactions between teachers and/or assessors and workplace supervisors; the different approaches used to integrate on- and off-the job training; assessment and sign-off practices; and the ways by which workplace supervisors and teachers and/or assessors ensure the outcomes meet the standards outlined in the respective training packages.

In addition to a literature review and situational analysis, the research method includes interviews with 26 TAFE teacher–assessors teaching Certificate III in Commercial Cookery, Carpentry, and Engineering – Metal Fabrication. Twenty-one workplace supervisors in the cookery, engineering, and building and construction industries were also interviewed.

The concepts of competency-based progression and completion are aligned with the notion that progression through training should be based on the skills attained rather than on the time served. The authors show that competency progression and completion is not a new phenomenon and was an early feature of competency-based approaches to vocational education and training (VET) in Australia. Indeed, trends in the data from the National Centre for Vocational Education Research (NCVER) show that over the past decade there has been a gradual increase in the number of apprentices and trainees across all trades completing their qualifications in shorter periods of time. This report investigates some of the interrelated factors that affect progression and completion and shows that a gap remains between the policy construct and real practice, where the time-based approach to apprentice training is still dominant.

Key messages

- Some of the barriers to competency progression include a lack of flexibility in training providers and employer attitudes to allowing apprentices to complete early.
- Variations to training generally occur through informal negotiations and are not always recognised in the apprentice’s training plan, suggesting that the training plans are not necessarily the dynamic document they are intended to be.
- The most important enabler for competency progression and completion is good communication and information flow between teacher–assessors/and workplace supervisors. However, teacher–assessors are more likely than workplace supervisors to claim that communication between the two is adequate.
- While assessment and validation are generally the collective responsibility of teachers–assessors and workplace supervisors, there is now greater involvement of apprentices in their own assessment through collecting evidence and making decisions about whether they are ready to progress.

Lessons from VET providers delivering degrees



[www.ncver.edu.au/
publications/2791.html](http://www.ncver.edu.au/publications/2791.html)

Victor J Callan and Kaye Bowman

This report is focused on the strategic, capability and operational reasons why traditional vocational education and training (VET) providers move to the delivery of higher education qualifications in their own right, in addition to their vocational qualifications. It is particularly interested in associate and bachelor degrees. This became an increasingly important issue following the proposed opening-up of Commonwealth Supported Places to non-university providers under the higher education reforms outlined in the 2014 Federal Budget. However, these anticipated changes have not occurred, potentially limiting VET providers' commitment to make such changes to delivery.

By undertaking six case studies with both public and private VET providers, this research highlights the experiences and lessons learned by these institutions in delivering higher education qualifications. These case studies provide useful information for any VET provider considering adding higher education delivery to its current suite of qualifications.

Key messages

- In terms of strategic considerations, the case study organisations chose to deliver associate and bachelor degrees as a means for providing pathways into higher education for their VET graduates. They generally deliver these degrees in niche markets, those in which they have existing strengths and which will set them apart from other providers. They see their competitive points of advantage as the highly applied and field-based nature of their degrees and their smaller classes, with more personalised support for students than in traditional higher education providers.
- Locating suitably qualified staff to deliver their degrees was not a major challenge. However, organisations highlighted the challenges associated with moving VET staff to teaching in higher education and with providing opportunities for scholarship for staff teaching in higher education. Views on what is appropriate scholarship are still emerging and are more aligned to the applied nature of the higher education programs offered by their organisations.
- The cases suggest that it is important to involve industry in the planning and implementation of higher education degrees. VET providers also reveal that strategy and positioning relating to the delivery of degrees is constantly under review. They have clear short-term goals but longer-term goals are open to change.
- Due to recent changes in VET funding policies in some states and the additional burden of having to report to two separate regulatory bodies, these VET providers have faced some challenges and this has led some of them to reduce the delivery of higher education qualifications in their own right. One view was that a single regulatory body for both VET and higher education would greatly decrease this burden along with the opening-up of Commonwealth Supported Places.

The returns to completion or partial completion of a qualification in the trades



Tham Lu

Many students do not complete full qualifications in the vocational education and training (VET) system because their intention is to obtain only the particular skills they require. This can be achieved through the acquisition of skill sets; these enable flexibility in training to quickly respond to changes in the labour market. Skill sets may also be more appealing to learners due to their relatively lower cost and shorter training duration. Despite the advantages of skill sets, it is clear from previous National Centre for Vocational Education Research (NCVER) research that VET students who complete a full qualification have better labour market outcomes than those who do not.

Investigating partial completion allows us to consider the impact that completion of skill sets has on the returns to training.

Building on the previous research, this particular report focuses on the value of completing a qualification in the trades. Using data from the 2013 Student Outcomes Survey, the research quantifies the benefits of completion of a full qualification relative to partial completion of a qualification. The report also identifies the trade occupations to which completion of a full qualification matters most.

Key messages

- Completion of a full qualification in the trades on average leads to better employment outcomes than completion of modules only. Compared with module completers, graduates are estimated to have a 12% higher chance of being employed after training, a 27% higher chance of having their employment status improved after training, and a 71% higher likelihood of working in jobs that match their training.
- The wage gap between graduates and module completers is relatively small, with graduates estimated to annually earn 2.7% more than module completers.
- The returns to qualification completion vary greatly depending on the trade.
 - The labour market advantages of completion of a full qualification are stronger in the licensed trades than in the non-licensed trades.
 - Completion of a qualification in the electrotechnology and telecommunications trades leads to the highest income return.
 - The construction trades and the electrotechnology and telecommunications trades offer the strongest labour market outcomes to graduates.
- Students who intend to study the trades should be encouraged to investigate the various types of trades and weigh up the possibilities and potential benefits to completing a full qualification. These findings emphasise the important role of career guidance for trade students while they are still engaged in the VET system.



Participation



Geographical and place dimensions of post-school participation in education and work



[www.ncver.edu.au/
publications/2776.html](http://www.ncver.edu.au/publications/2776.html)

Sue Webb, Ros Black, Ruth Morton, Sue Plowright and Reshmi Roy

Previous studies have demonstrated the importance of aspirations as a key influence on young people's engagement with post-school education and training. However, aspirations may be hampered by socioeconomic status and geographic location. This research explores how young people who live in the same neighbourhood may experience it differently and hold different values and aspirations in relation to further education and post-school pathways. The research was conducted in four sites: two neighbourhoods in regional and rural Gippsland, Victoria, and two urban fringe sites in South Australia. The research highlights the importance of having a nuanced understanding of the geography and characteristics of neighbourhoods in order to tailor policy responses to suit specific cohorts of young people.

Key messages

- In all four geographic areas young people are significantly influenced by their educational and career 'inheritance', envisaging they will follow in the footsteps of their parents. By encountering educational cultures different from their own, young people are more likely to make life choices divergent from those they 'inherit'.
 - Boys behave differently from girls. Young men follow the traditions of their fathers, while young women are more likely to leave an area to pursue opportunities.
 - There was no discernible pattern of difference amongst the four areas in relation to expectations that young people progress to university, but schools that were more socially mixed and with students from families with a history of tertiary education were more likely to consider this option.
- Perceptions of place are important and 'not all bad', with many young people electing to stay in, or return to, their familiar environment. However, exposure to new ideas or experiences can 'disrupt' the strong ties of the familiar, leading to opportunities that challenge and overcome disadvantage.
- As has been identified in previous research, practical and financial constraints significantly impact on aspirations and opportunities. A particular concern for young people is access to education provision and the cost of transport. A tolerable travel-to-study distance is a key factor, especially once they finish school.
- Vocational education and training (VET) provides an essential pathway of choice to further education and work.
 - There is evidence of school retention rates increasing because of the presence of VET in Schools programs.
 - Certificate I and II courses establish an important foundation for learning not acquired in a school setting.
 - The status difference between VET and university pathways is an enduring issue and continues to perpetuate a powerfully entrenched view that VET has to do all the 'heavy lifting' in socioeconomically disadvantaged communities.

Supporting tertiary students with disabilities: individualised and institution-level approaches in practice



[www.ncver.edu.au/
publications/2832.html](http://www.ncver.edu.au/publications/2832.html)

Ellie Fossey, Lisa Chaffey, Annie Venville, Priscilla Ennals, Jacinta Douglas and Christine Bigby

This research explores the complex factors affecting the implementation of learning supports for students with disabilities or ongoing health conditions. It focuses on two types of learning support: individualised reasonable adjustments; and institution-level learning supports, the latter being available to all students.

These supports can play an important role in improving outcomes for students with disabilities or ongoing health conditions in terms of their engagement with, and completion of, tertiary education.

Key messages

- A range of reasonable adjustments were identified in the research, including changing assessment formats to suit the student's needs, for example, oral instead of written presentation; the availability of note takers in class; and extended time for students to complete exams. This reflects the diversity of the student population, as well as the various learning environments for which the adjustments are intended. Students also identified a number of reasonable adjustments (for example, extended time to complete assignments) that are typically available as institution-level supports for all students.
- A student's access to reasonable adjustment supports often depends on them disclosing their illness or disability. This is problematic, as many students are concerned about the risks to their reputation which may accompany disclosure. As a consequence, this research highlights the benefits of improving institution-level supports to produce inclusive learning environments, since these do not necessitate disclosure.
- Students and disability services staff judge the effectiveness of learning supports differently. Students focus on the impact that supports have on their ability to cope; their motivation to succeed; and their enjoyment of studying. On the other hand, disability services staff emphasised students completing courses or postponing study until better prepared.
- Best practice for the provision of learning supports involves: strengthening teacher knowledge about the ways by which to adapt tasks and spaces to support individual students; recognising and respecting differences in student needs; and establishing inclusive curriculum design and practice across the educational institution.

Industry restructuring and job loss: helping older workers get back into employment



[www.ncver.edu.au/
publications/2839.html](http://www.ncver.edu.au/publications/2839.html)

Victor J Callan and Kaye Bowman

Globalisation and increased competition bring with them many benefits for business, consumers and the economy. But they can also result in the restructuring of industries not able to compete with changing economic markets. In the past, Australia has witnessed restructuring in many high-profile businesses, especially those in its manufacturing sector, for example, BHP Steel and Mitsubishi Motors and, more recently, General Motors Holden, Ford and Toyota. The human cost of this restructuring is a displaced worker group, currently a growing segment of the Australian workforce.

But what might help displaced workers to find new jobs following restructuring? In this research Victor Callan and Kaye Bowman reviewed past research and undertook four case studies to identify evidence-based practices that lead to successful skills transfer, reskilling, training and the attainment of new jobs for older workers displaced from often lower-skilled jobs in Australian manufacturing industries.

The case studies were undertaken in areas of Australia where there has been a significant impact on the local community with a large employer undergoing major restructuring, resulting in a large number of displaced workers. The regions of interest were the Hunter region of New South Wales, the Geelong region in Victoria, the outer metropolitan area of Adelaide in South Australia and various locations in Tasmania. The case studies show that, while displacement impacts on all affected workers, there are significant challenges for older workers facing unemployment from industries where larger proportions of the workforce have lower skills, few formal qualifications and poorer literacy and numeracy skills. Gaining employment after restructuring is difficult for many displaced workers, particularly if they are older and lower-skilled. This research highlights that early engagement of workers with support and training services, before displacement occurs, is crucial.

Key messages

- While training is important, it is just one component in any package or program designed to reduce the impacts of industry restructuring on individuals.
- A coordinated approach to the provision of training and support is critical. Training is more likely to be effective when training providers and support agencies partner to ensure displaced workers access upfront career counselling, training for in-demand skills and follow-up assistance with job search and attainment.
- Access to training resources for small numbers of displaced employees in small-to-medium-sized enterprises (SME) companies is more challenging than for displaced older workers from large firms, who are more likely to be recognised and supported by government interventions. How this impacts on employment outcomes for displaced older workers from SME firms in the longer-term needs further investigation.

From volunteering to paid employment: skills transfer in the South Australian Country Fire Service



[www.ncver.edu.au/
publications/2824.html](http://www.ncver.edu.au/publications/2824.html)

Dr Mark Keough

This report is an outcome of research collaboration between the South Australian Country Fire Service (SA CFS), Government Skills Australia (GSA) and the National Centre for Vocational Education Research (NCVER). The project looked at the extent to which skills obtained in the voluntary sector are used and applied in the formal employment sector.

Key messages

- It is useful to have a local study to add to knowledge about volunteer recruitment, retention and training across Australia. The challenges are not uniform across the country. SA CFS brigades promote a strong sense of working together which, combined with opportunities for training and an interesting variety of work, have improved the climate for recruitment and retention in recent years.
- This research has shown that volunteers use skills gained through formal and informal vocational education and training in the public safety sector in other parts of their working life. This transfer is recognised most strongly by the volunteers/employees themselves. It also reveals that resources for training are limited and therefore focused quite rightly on operational skills, with formal recognition of more generic, albeit valuable, skills such as leadership, management and team work not possible.
- Volunteering provides career development opportunities for SA CFS volunteers, especially younger ones. The latter often choose to participate in community emergency services groups as a pathway to gaining employment, as well as to contribute to their community and build personal skills and self-esteem.
- Recognition systems that support local learning outcomes in semi-formal, peer and informal settings would bring many benefits, in terms of recruitment and retention of volunteers but also in revealing skills such as leadership and management that reside in a local community.
- There are clear linkages between public safety programs and other industry qualifications pertinent to, for example, skills needed in Agriculture; Food and Forestry; Mining; Public Administration and Safety industries. Greater effort to identify the synergies could provide a wider funding base for public safety volunteer training. Enhanced training opportunities would further strengthen retention and participation incentives, particularly in communities further away from the main population centres.

Towards more effective continuing education and training for Australian workers



[www.ncver.edu.au/
publications/2842.html](http://www.ncver.edu.au/publications/2842.html)

Stephen Billett, Sarojni Choy, Darryl Dymock, Ray Smith, Amanda Henderson, Mark Tyler and Ann Kelly

This report is the final report of a three-year program of research that aimed to investigate what might constitute an effective continuing education and training system. The premise behind the project is that the entry-level focus of the current education and training system may not address the ongoing needs of Australian workers. During the three-year program, the researchers proposed four models of continuing education and training with the potential to form the basis of an effective national system. These models are: wholly work-based; work-based with direct guidance; work-based with educational interventions; and wholly education institution-based. This final stage of the research, involving consultations with VET professionals and personnel from key agencies in the VET sector, sought to assess the suitability and sustainability of these four models.

Key messages

- VET practitioners and managers saw value in the four models. However, they recognised that their success depended upon the models being: enacted in authentic work practices; directly benefiting the workplaces in which they are enacted; supporting improved teaching and learning practices; and enabling consistency around compliance and accreditation requirements.
- Senior personnel from three key agencies (one government and two peak bodies) acknowledged an increasing trend towards work-based learning and highlighted emerging issues. These include a tension between training for immediate skills versus obtaining accredited qualifications, a lack of flexibility by registered training organisations (RTOs) to undertake more training in workplaces due to cultural and cost factors, the need for accredited training to be an integral part of workforce development, and the influence of existing funding models in determining how training is provided rather than supporting what may be more effective.
- While some administrative and regulatory changes may be required, it was evident that a widespread learning culture is a key component in enabling effective continuing education and training. Changes across the training system that would support this focus include: support at the national policy level; greater involvement of employers; willingness on the part of training providers to develop and deliver training in new ways; support from managers and supervisors for different ways of learning; and positive worker engagement.
- The authors argue that the overall findings of the project suggest that a broader concept of a national continuing education and training system is required, one that shifts the focus away from education organised by and through education institutions towards one that better encompasses workers' needs and workplace requirements. Acknowledgment, support and recognition of the value of work-based learning are fundamental to achieving this more holistic continuing education and training system.

The development of Australia's national training system: a dynamic tension between consistency and flexibility



[www.ncver.edu.au/
publications/2849.html](http://www.ncver.edu.au/publications/2849.html)

Kaye Bowman and Suzy McKenna

This paper reflects on the history of vocational education and training (VET) in Australia. A key focus is the development of the national training system, which has emerged over the last two decades. The authors also explore the dynamic tension, built into the system, to achieve both national consistency and sufficient flexibility to ensure that training meets specific local, industry and learner needs.

Key messages

- Since 1992 the aim of the national VET system has been to respond to industry, and to individual and community needs, all within a nationally agreed system to achieve portability of VET skills across the nation and therefore labour mobility. The end goals have been to realise measurable improvements in the national work skills pool and in employment among individual VET graduates.
- The national training system in Australia is underpinned by:
 - national frameworks for VET products aimed at achieving consistency in training outcomes but with flexibility in the way providers deliver and individuals realise their learning goals; and consistent nationally agreed VET provider standards for entry into the nationally recognised training market, but with flexibility to encourage providers to pursue higher standards
 - a national training market, initially using contestable funding approaches and then client demand-driven models with flexibility built in to allow jurisdictions to tailor their approaches.
- Overall, the implementation of national VET reform initiatives has followed a pattern of continuous improvements against the objectives of the national training system – responsiveness, equity, quality, efficiency and public value, financial sustainability and transparency – and then increasing harmonisation of practices across jurisdictions.
- The system is learning from its experience in adopting market principles and in implementing student entitlements.
- A set of clearly articulated principles for market design would assist further reform efforts.

Jurisdictional approaches to student training entitlements: commonalities and differences



[www.ncver.edu.au/
publications/2847.html](http://www.ncver.edu.au/publications/2847.html)

Kaye Bowman and Suzy McKenna

The past two decades have seen some evolution towards a more nationally consistent vocational education and training (VET) system. One of the challenges is to find the right balance between national consistency and appropriate flexibility, to accommodate the regional and local industry requirements and learner preferences that best serve the needs of states and territories. This report maps the implementation by jurisdictions of the most recent training market reforms, agreed to in the 2012–16 National Partnership Agreement on Skills Reform – a student training entitlement. The authors also undertake an analysis of the commonalities and differences in each jurisdiction’s approach. This report will be useful as a composite description and the analysis valuable to the review of the student training entitlement and other aspects of the 2012–16 National Partnership Agreement on Skills Reform, planned for 2015–16.

Key messages

- A set of clearly articulated principles on training entitlements would be useful in any future national partnership agreement. These principles would need to embrace the dynamic of consistency and flexibility that exists across the national training system.
- National coherence should be enhanced wherever possible, in particular by better alignment across all jurisdictions, of student eligibility criteria and the logic underpinning the allocation of subsidies. This is necessary to avoid unreasonable differential treatment of students across Australia.
- A national public-value framework with indicative performance measures and risk management approaches would help to guide an improved design of the publicly funded training market.
- Information and transparency are crucial underpinnings of a demand-driven system.
- Governments need sound regional and national labour market analyses to inform funding decisions.
- To make an informed choice, students and others paying for training must be able to compare training options. More needs to be done to help them to understand their entitlements, know how to judge quality and have a good idea of the outcomes they can expect from their training.
- Flexibility in the public funding of training and in policy implementation by Australian states and territories should focus on ensuring that the right mix and quality of skills are produced to meet industry needs, nationally, regionally and locally, as well as to assist graduates to obtain jobs and/or move to further learning.
- The priorities of public subsidies offered via ‘entitlements’ are likely to be further refined in light of the improved availability of VET information from initiatives like ‘total VET activity’ (for more information see <http://www.ncver.edu.au/totalvetactivity.html>).

Student entitlement models in Australia's national training system: expert views



Kaye Bowman and Suzy McKenna

This occasional paper provides the views of 17 'thought leaders' in the Australian vocational education and training (VET) sector. Their insight and opinions were sought to inform a larger research project focused on the student entitlement reforms that were introduced into the national VET system from 2012. A particular emphasis has been on the implications of the reforms and the challenges faced in its implementation in the context of achieving a balance between national consistency and jurisdictional flexibility.

The interviewees considered key elements of the national training system, namely: standards for VET products (training packages and materials); standards for VET providers; and a flexible training market. The interviewees commented on the consistency and flexibility sought in each of these key elements, highlighting where tensions exist, particularly in student training entitlements.

Key messages

- The views of experts highlight differing observations and opinions, yet also some unifying themes.
- Both consistency and flexibility are required in the national training system, with both balanced effectively to achieve meaningful outcomes at the national and jurisdictional levels.
- The distinct requirements and approaches of each of the jurisdictions have resulted in eight distinct training entitlement schemes being established. This has contributed to perceptions of fragmentation rather than these various approaches being received as 'flexibility' in the national VET system.
- Balancing local and national skills priorities is difficult and a perennial source of tension within the national training system. The entitlement system may not currently address whether and how a student could undertake courses in which there is a national but no local skill shortage.
- The eligibility criteria for the student training entitlement could have a greater level of consistency across the various training entitlement schemes. This would assist in meeting equity goals and provide increased functionality in the national training system.
- Prices, subsidies and fees have always been different across jurisdictions and even within jurisdictions, for good local reasons. Under any entitlement system, however, the subsidy level combined with the student fee needs to provide sufficient resources to allow for measurable quality in training.
- High-quality training experiences and outcomes is paramount to all aspects of entitlement schemes. National standards for registered training organisations (RTOs) and training products must be applied and continuously improved to be fit for purpose in a more marketised training environment.
- Adequate information for consumers about quality in VET and what to look for when choosing a suitable course or provider remains an important requirement in the national VET system.

A preliminary analysis of the outcomes of students assisted by VET FEE-HELP



[www.ncver.edu.au/
publications/2826.html](http://www.ncver.edu.au/publications/2826.html)

National Centre for Vocational Education Research

VET FEE-HELP is an income-contingent loan scheme that assists eligible students to undertake certain vocational education and training (VET) courses (diploma, advanced diploma, graduate certificate and graduate diploma) with an approved provider by paying for all or part of their tuition costs.

Using records from the VET FEE-HELP data collected over the period 2009–14, this report investigates the likelihood of eligible students completing their training and accessing the contingent loan scheme.

Key messages

- Students eligible to receive VET FEE-HELP who commenced their training between 2009–12 have a 21% probability of completing their training.
- Students attending training internally (or via a mix of modes), who are employed and who are undertaking a course at a VET diploma (or graduate diploma or graduate certificate) level, on average, have a 43% probability of completing their course.
- Students attending externally, who are not employed and who are undertaking a course at an advanced diploma level, on average, have an 8% probability of completing their course.
- The likelihood of an eligible student completing their course varies by provider, ranging from 96% to 1%. This variation may reflect differences in the student body, the geographical location of the provider or other factors not investigated in this analysis.
- Compared with earlier recipients of VET FEE-HELP (that is, those who commenced their training between 2009–12), a higher proportion of 2013–14 commencing students are:
 - not employed
 - studying full-time
 - studying externally
 - training in management and commerce.
- Eligible students who are unemployed and commenced training between 2013–14 have about a 96% probability of accessing VET FEE-HELP.

It is interesting to note that students most likely to access VET FEE-HELP in recent times (2013–14) share similar characteristics to those least likely to complete their training historically (2009–12); that is, they are attending training externally and are not employed. Given the substantial increase in recent years in the uptake of the scheme by such students, this may not bode well for future course completions of VET FEE-HELP assisted students.



Complementary research



23rd National Vocational Education and Training Research Conference 'No Frills': refereed papers



[www.ncver.edu.au/
publications/2787.html](http://www.ncver.edu.au/publications/2787.html)

Edited by **Laura O'Connor** and **Maree Ackehurst**

The 23rd National Vocational Education and Training Research Conference, colloquially known as 'No Frills', was held in July 2014.

Researchers and practitioners from a range of disciplines in the vocational education and training (VET) sector gathered at the conference to share information about key issues confronting the sector. A select few speakers at the conference were also offered the opportunity to have their papers peer-reviewed, and these nine refereed papers have been compiled into this book of conference proceedings.

The papers span a broad range of topics, and include pathways and student mobility between VET and higher education, student aspirations, access to education and training, and issues involved with VET reform.

It is hoped that these papers will provide an insight into the array of topics presented at the No Frills conferences and generate interest in attending future conferences.

The outcomes of education and training: what the Australian research is telling us, 2011–14



[www.ncver.edu.au/
publications/2789.html](http://www.ncver.edu.au/publications/2789.html)

Francesca Beddie

From 2011 to 2014 a set of five national priorities directed research into selected aspects of Australia's tertiary education and training sector. The body of work published by the National Centre for Vocational Education Research (NCVER) over this period has explored many of the challenges facing the sector and pointed to some of the solutions.

This summary brings together a range of significant findings and identifies further lines of inquiry. A small but key selection is as follows:

- Employers and enterprises have a crucial role to play in matching skills to jobs, improving the image of vocational education and training (VET), and in workplace learning. The VET sector's role, in partnership with employers, is to re-imagine the nature of vocations and occupational groupings. That partnership should extend to improving the workplace as a site of learning.
- Skill definitions of competency-based training are valued but no longer sufficient in the contemporary VET system, suggesting that:
 - more emphasis should be placed on developing contextual and foundational knowledge as well as building the capacity to learn, analyse and apply critical thinking and analytical skills
 - boosting the literacy and numeracy, and science, technology, engineering and mathematics (STEM) skills of the entire population is an important priority.
- Investment in training can reduce disadvantage, with the biggest returns coming from completing Year 12 and/or certificate level III. However, disadvantage for individuals is complex and the familiar point about the requirement for joined-up solutions needs to be heeded, as does having reasonable expectations about the role of vocational education and its outcomes.
- There is an expectation for VET to meet a number of purposes: to prepare new workers; upskill the existing workforce; and offer alternative pathways for young people and second chances to disadvantaged adult learners. To enable VET to tackle this daunting list requires the deft coordination of policy settings, co-investment in services and a talented VET workforce.
- We still need to develop reliable and meaningful ways to measure the returns from investment in education and training for both employers and society, a complex task in a global economy.

Linking NAPLAN scores to the Longitudinal Surveys of Australian Youth



[www.lsay.edu.au/
publications/2829.html](http://www.lsay.edu.au/publications/2829.html)

Marilyn Lumsden, Ronnie Semo, Davinia Blomberg and Patrick Lim

No single data source in Australia currently provides comprehensive longitudinal data on young people's trajectories from early childhood to tertiary education and entry into the labour market. Linking data from the Longitudinal Surveys of Australian Youth (LSAY) with external data sources would improve the breadth of information available from the survey, without adding burden to respondents.

The primary aim of this project is to assess the feasibility (and practicability) of linking National Assessment Program – Literacy and Numeracy (NAPLAN) scores to LSAY data (which contain data from the Organisation for Economic Co-operation and Development's (OECD) Programme for International Student Assessment [PISA]). A second aim is to determine the similarity between NAPLAN and PISA in measuring underlying academic achievement and whether the two measures rank individuals similarly across the distributions of NAPLAN and PISA.

The NAPLAN tests were first implemented in 2008, which means that the LSAY 2009 commencing cohort (Y09) is the only LSAY cohort to date to have had the opportunity to participate in NAPLAN testing. The analysis undertaken in this paper is restricted to Y09 respondents who participated in the LSAY 2014 survey wave and provided consent to link to NAPLAN.

Key messages

- The project demonstrated that it is technically feasible to link NAPLAN scores to LSAY records; a linking rate of 98% was achieved for consenting LSAY participants.
- It is important to consider more effective strategies to maximise the pool of LSAY respondents available for data linkage. The following strategies are suggested:
 - consider obtaining approvals through existing national governance processes established to support the work of the Commonwealth Government's Education Council rather than separately for each state and territory, with the Commonwealth playing a key role in coordinating changes to the current agreements and existing protocols to support this.
 - obtain consent at the earliest possible time to maximise the number of records available for linking (which also helps to remove bias).
 - avoid the use of written methods in obtaining consent where possible. Telephone and online methods provide better rates of consent.
- The statistical analysis of the NAPLAN and PISA scores showed that there is a reasonable level of agreement between the two measures.
- Expanding the data linkage exercise by joining to multiple years of NAPLAN results would increase the power of the LSAY data by enabling research into the influence of early education outcomes on young people's transitions from school to post-school education and the labour market.



Funding information

Research published by NCVET is funded via one of the three following program streams. For more information, visit <http://www.ncvet.edu.au/aboutresearch.html>.

National Vocational Education and Training Research Program reports are produced by NCVET on behalf of the Australian Government and state and territory governments. Funding is provided through the Australian Government Department of Education and Training. The NVET Program is based on national research priorities approved by ministers with responsibility for vocational education and training.

The authors/project teams are funded to undertake this research via a grant under the NVET Program. The research grants are awarded to organisations through a competitive process, in which NCVET does not participate. To ensure the quality and relevance of the research, projects are selected using an independent and transparent process, and research reports are peer-reviewed.

Longitudinal Surveys of Australian Youth Program work is produced by NCVET on behalf of the Australian Government and state and territory governments, with funding provided through the Australian Government Department of Education and Training. The Longitudinal Surveys of Australian Youth is a research program that tracks young people as they move from school to post-school destinations.

NCVET's in-house research and evaluation program undertakes projects which are strategic to the vocational education and training sector. These projects are developed and conducted by NCVET's research staff and are funded by NCVET. In addition, NCVET staff conducted research on behalf of the Senior Skills Officials Network (SSON), with funding provided through the National Vocational Education and Training Research (NVETR) Program.



National Centre for Vocational Education Research Ltd

Level 11, 33 King William Street, Adelaide SA 5000

PO Box 8288 Station Arcade, Adelaide SA 5000, Australia

Phone +61 8 8230 8400 **Fax** +61 8 8212 3436

Email ncver@ncver.edu.au **Web** www.ncver.edu.au

Follow us:

<http://twitter.com/ncver>

<http://www.linkedin.com/company/ncver>