

Research prospectus 2015–16

National Centre for Vocational Education Research



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NCVER is an independent body responsible for collecting, managing and analysing, evaluating and communicating research and statistics about vocational education and training (VET).

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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>>

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Introduction

The National Centre for Vocational Education Research's (NCVER's) *Strategic plan 2014–16* (NCVER 2014) expresses a vision to *inform and influence vocational education and training in Australia through credible, reliable and responsive research and statistical services*.

NCVER seeks to publish independent, evidence-based and objective research of the highest quality in order to inform and influence policy and practice. We support this by producing research that is far sighted, testing new ideas in a balanced manner, and illuminating best policies and practices, both nationally and overseas.

The desired impact of this research investment is to sustain and improve our excellent Australian tertiary education and training system, geared as close as possible to meeting the current and future skill needs of all individuals, businesses and communities.

NCVER has recently released a compendium of research in the publication *Research messages 2014* (NCVER 2015), which continues the annual practice of producing a short, easy-to-read summary of research output from both our commissioned and in-house research.

We have also expanded and enhanced the way we promote our research; maximising dissemination through more effective marketing and communication strategies, enhanced information services, webinars and supporting conferences.

We are now taking our research program in a new direction, with the aim of further improving how we meet the objectives set out above.

We seek to sharpen the applied relevance of research by investing in the issues that our government shareholders and our key employer and training provider stakeholders identify as being of highest priority to them and so, collectively, the nation.

We also seek to broaden our partnering in both the conduct and the critique of research, not only by engaging with the established research academic community but also drawing in expertise from industry, policy and training providers on appropriate research topics.

There is broad national unity of interest in and aspiration for the vocational education and training (VET) sector. One element is the desire to optimise private and public investment to ensure its graduates are job-ready, to support industry competitiveness relevant to regional needs, and to lift national productivity. There is also broad unity for enhancing the involvement of the student, under a learner-centric system where students have a choice of supported pathways and work-relevant qualifications and skills offered by providers who deliver an education and training experience of highest quality and flexibility.

Analysis of national data and surveys information held by NCVER, complemented by our research investment, builds from this common interest and aspiration for the VET sector. Together, with all interested parties, we will closely and continuously test the performance of the national VET system both quantitatively and qualitatively.

Dr Craig Fowler
Managing Director, NCVER

About the prospectus

This *Research prospectus 2015–16* is presented under an organising framework of four areas of focus:

- Productivity
- Participation and outcomes
- Learning and teaching
- The place and role of VET

This differs from an earlier framework¹, although the detailed content covers similar ground. As a whole the research topics will emphasise where VET is making a difference to the skill needs of Australian society, and to the teaching and learning needs of students and individuals who are at the heart of the system.

Key learnings gleaned from past research effort and topics provide important principles to guide future research priorities and investments. The most important principles that help sort and identify valued research themes and topics are as follow. Research topics need to:

- be broad enough to generate a number of specific and typically linked research projects
- have the potential to address a policy goal(s) or constitute an improvement in practice; this can include high-level evaluation that develops a better understanding of the costs and benefits of various reform initiatives
- be forward looking and, as appropriate, challenge status quo practice
- have shareholder endorsement and broad support from across the sector.

This prospectus outlines a specific set of research topics that addresses the current and emerging issues in the VET sector, so guiding the 2015–16 research program.

The topics proposed in this prospectus have been formulated following an environmental scan of the sector (Loveder 2014), by evaluating the outcomes and subsequent gaps from recent research, and conducting a number of strategic consultations with stakeholders.

NCVER's most recently published body of research (NCVER 2015) goes some way toward helping us understand the issues and future problems to be tackled (Beddie 2015)².

Given the complexity and interrelatedness of topics, a 'best fit' approach has been taken in populating the prospectus framework. Clearly some topics fall within more than one priority area in the chosen organisation framework.

The research topics are set out below according to whether they support the sector to:

- understand: understanding the system and its interactions

1 The five national research priorities for tertiary education and training 2011–13 were endorsed in June 2010, consistent with the advice of the NCVER Board, following an extensive consultation period with stakeholders. In April 2013 the National Senior Officials Committee (NSOC) endorsed carrying forward the national research priorities to the end of 2014.

2 This work summarises what we learned from the 2011–14 research program. For a full list of current research in progress see <<http://www.ncver.edu.au/workinprogress/index.html>>. For published research see <<http://www.ncver.edu.au/>> or <<http://www.voced.edu.au/>>.

- optimise: improving practices to ensure best outcomes
- transform: transforming the system through significant innovation to meet current and future skill needs.

This has been done in order to align the research closely with important priorities and issues requiring specific answers or evidence of outcomes.

The prospectus notionally sets out topics for research to be undertaken across a two-year horizon. However, sufficient flexibility is built in to accommodate emerging sector needs and priorities as they arise. Topics in the prospectus will be reviewed on an annual basis, recognising that not all topics listed will be undertaken in an annual period and some topics may be rolled over, as required.

While our research team has the capacity and capability to undertake a number of the research topics proposed, we will continue to invite external expertise to the research program through contestable or direct commissions. Therefore, NCVER will be inviting various stakeholders – industry, registered training organisations, governments and others – to become active partners to work on research topics that most interest them. NCVER reserves the right to select which topics will be commissioned or undertaken by which experts and to accelerate or directly commission research as needed or when requested by its shareholders.

NCVER seeks to publish and disseminate research findings in multiple formats to meet the various needs of those who engage with the research. This will include reports, infographics, webinars, conference presentations, overviews and synthesis pieces aimed at assisting our stakeholders make sense of research outcomes more broadly.

In addition, the Total VET Activity (TVA) data collection is underway, which will result in a comprehensive picture of both publicly and privately funded training activity for the first time, the benefits of which will accumulate over time. There will therefore be an important focus on research around the potential of new data developments to assist consumers to make informed decisions, training providers to understand their business, and governments and regulators to monitor the extent and nature of training and to manage risk in the sector. When combined with another initiative, the Unique Student Identifier (USI), TVA data will enable a much more refined understanding of individual student pathways and choices.

NCVER is also well positioned to explore data linkages and make best use of complementary datasets (such as the Programme for International Student Assessment [PISA]; National Assessment Program – Literacy and Numeracy [NAPLAN]; Programme for the International Assessment of Adult Competencies [PIAAC] and the Longitudinal Surveys of Australian Youth [LSAY]) to build a more complete picture of the complex pathways and transitions that occur in education and training.

Finally, NCVER is seeking to measure research impact better. For this, a set of key performance indicators have been developed covering:

- the use, relevance and impact of research
- accessibility and reach of information
- responsiveness to stakeholders.

These will help guide our research program and forward investments.

Feedback on the prospectus

Response from a wide range of stakeholders during development of the prospectus in early 2015 confirmed that NCVER is hitting the mark in terms of direction and topics under investigation. The comments influenced several things:

- NCVER will now direct the immediate efforts of the research program based on the priority concerns of stakeholders. In determining this approach it is also sensible for some research identified in the prospectus to precede other topics.
- In various instances there was a clear view from shareholders that the prospectus needed to be more explicit around certain key issues; such as teaching and learning, quality and a focus on individuals and the student experience. This has been reflected in the underpinning aim of the research program as a whole and in the work that will begin in 2015.
- A considerable amount of feedback suggested specific themes for consideration under the existing topic areas; for example, the importance of gender or the need to focus on individual cohorts of students. NCVER is mindful of these important suggestions, which will be considered in the design of individual research projects rather than reflected in the prospectus itself.
- Some topic areas have been combined where there was duplication of effort or a need to revise the best fit of a topic area. Some feedback also touched on issues already under consideration in current research (see <<http://www.ncver.edu.au/workinprogress/index.html>>), and on themes which would benefit from the development of 'good practice guides' or synthesis pieces, which we are taking into account.

The prospectus is intended to provoke continued discussion and interest in research and we invite stakeholders to contact us via email at: <researchprospectus@ncver.edu.au>.

For more information on all research projects underway, please explore the
Research prospectus on the NCVER Portal at
<<http://www.ncver.edu.au/researchprospectus.html>>.

1. Productivity

To sustain and build Australia's human capital

UNDERSTAND

Understanding the system and its interactions

The causes and consequences of changes in skills and knowledge

- 1.1 **Science, technology, engineering and maths (STEM) skills:** *To understand the types of STEM skills and knowledge that apply to occupations covered by the formal VET system.*

This will unpack national and international definitions of STEM skills, their labour demand, and the implications that this may have for VET provision, including classifications in Training Packages

OPTIMISE

Improving practices to ensure best outcomes

Skills and knowledge utilisation and management

- 1.2 **Employers:** *To examine and better optimise the role of employers and industry in VET.*
- Exploring the role of industry in validating skills and competencies and in the provision of skills training
 - Reviewing current best practices and case studies of effective industry/registered training organisation (RTO) relationships
 - Developing training cultures within industry – international evidence of employer engagement and practices relevant to Australia
 - Examining what best practice industry engagement looks like in Australia
- 1.3 **Apprenticeships:** *To find out what works in broadening engagement and enhancing productivity for different groups of apprentices and employers.*
[Note apprenticeships are included in other research areas including for example 1.5b, 2.1, 2.4a and 4.7]
- Innovative partnerships and new approaches to employer engagement and support for Apprenticeships
 - Where are the main constraints inherent in apprenticeship arrangements, including a focus on adult apprentices?

TRANSFORM

Transforming the system through significant innovation to meet current and future skill needs

Productivity through enhancement of human capital

- 1.4 **Skill demand for the future:** *To ensure the outcomes of training provide appropriate skills in relation to the labour market.*
- Exploring how other nations or specific regions balance workforce development needs with student choice and increasing demand for tertiary education
 - What skills do Australians need to succeed in an increasingly modern labour market?
- 1.5 The role of VET skills in raising **national productivity:** *To explore what is happening with national VET investments in terms of current and future economic returns and contribution to national productivity.*
- How is the supply of VET skills meeting the national innovation and competitiveness agenda?
[will be picked up under 4.7]
 - What are the benefits to VET skills (return on investment) – graduate (individual), industry and economic perspectives?
[Note a suite of research activity under this topic will also cover 1.2c, 4.1a and 4.4]
 - The success of VET trained entrepreneurs (examples and case studies)
 - Models for applied research and development in VET using individual or partnership approaches

2. Participation and outcomes

To support and build Australia's workforce diversity

UNDERSTAND

Understanding the system and its interactions

The dynamics of our diverse workforce, including transitions and skills pathways

- 2.1 **Completion rates and outcomes:** *To better understand the extent to which students (including apprentices and trainees) complete the VET course they undertake; and the influence that student course fees and school-based VET pathways have on completion rates and labour market outcomes.*
- This will compare demographic characteristics and outcomes across courses, skill sets and competencies by type of provider using Total VET Activity (TVA) data. Comparisons could include: *TAFE vs rest; private for profit vs enterprise vs non-profit vs TAFE; international vs domestic; VET vs higher education (including pathways and boundary riders); full fee paying vs government subsidised*
 - Training and labour market outcomes for students on a VET in Schools pathway
 - Training and labour market outcomes for students using VET FEE-HELP
- 2.2 **Non-accredited training:** *To better understand the role of training outside the formal qualifications system.*
- 2.3 **Information for consumers:** *To understand how increased access to information on VET outcomes influences and assists student and employer choice, and to explore how consumer information can be improved or maximised.*
- Do current reforms to the VET system (TVA, demand-driven funding, MySkills) assist consumers to make better training choices; especially in terms of comparisons of all available accredited training related to career aspirations, provider customer service and cost-effectiveness?

OPTIMISE

Improving practices to ensure best outcomes

Existing workforce transitions and skills pathways

- 2.4 **Retention and persistence of disengagement:** *To build on current knowledge about factors influencing retention and to provide new thinking in order to tackle the persistence of disengagement (that is, individuals who are not in education, employment or training).*
- Reviewing best practice public policy and funding interventions; as well as assessing the benefits of different approaches to the provision of VET training for disengaged groups (for example, polytechnics and the P-Tech program trade cadetships)
 - Identifying the characteristics of disengaged groups to examine whether they have changed or not over time and to identify areas of persistence using LSAY data
 - Investigating secondary-tertiary connections and articulation pathways
- 2.5 **VET student consumer protection** – national policies, legislation and programs; training advocates and complaints mechanisms
- 2.6 **Regional:** *To examine the extent to which there is effective and efficient use of system infrastructure and access to training provision in regional, rural and remote Australia.* This could include mapping of RTOs and courses delivered; characteristics of students – demographic, participation and outcomes; use, access, suitability and reliability of broadband as essential skills infrastructure (RTO practices and student preferences) and estimates of national economic returns from best uses of broadband for VET training
- 2.7 **Foundation skills (practice):** *To improve practices of funding, delivery and access to foundation skills training.*
- Develop a publicly accessible information resource relating to foundation skills
 - Further explore the feasibility of improving national data on foundation skills covering for example delivery approaches, gaps in provision and the roles of different stakeholders and programs – utilising Unique Student Identifier data

TRANSFORM

Transforming the system through significant innovation to meet current and future skill needs

Workforce transitions and skills pathways for all

Continued focus aimed at transforming the support available for specific cohorts of individuals in the VET system.

2.8 Foundation skills (policy):

- To identify the potential for integrated whole-of-government approach to literacy and numeracy (foundation skills) policy

2.9 Indigenous

- Updated synthesis on Indigenous education and training pathways and outcomes

3. Learning and teaching

To strengthen learning, teaching and assessment practices for the VET workforce and students

UNDERSTAND Understanding the system and its interactions	OPTIMISE Improving practices to ensure best outcomes	TRANSFORM Transforming the system through significant innovation to meet current and future skill needs
<i>The process of learning and teaching, and assessment</i>	<i>The contribution of learning and teaching to skills formation and development</i>	<i>Learning and teaching into new pedagogies</i>
<p>3.1 Student choice: <i>To understand the impact on training participation and outcomes of increased student choice and entitlement to training.</i> Why do students choose one provider over another; is there really a choice, who has choice and who doesn't, are people choosing well, is the demand-driven system and entitlement models impacting on student choice, are training opportunities being provided in an equitable manner?</p> <p>3.2 Social media: <i>To understand the potential for using social media to disseminate and collect information.</i> This will identify the extent to which different social media applications can be used both to distribute information on courses and training, as well as collect student feedback in formal evaluation surveys</p>	<p>3.3 VET workforce: <i>To improve our understanding of the VET workforce in Australia and to improve the ability of the VET workforce to meet demand for emerging skill needs.</i></p> <p>a. To further explore the feasibility of using the VET Workforce Standard to collect, analyse and report on the demographic characteristics, occupations, qualifications and work experience of the VET workforce</p> <p>b. To investigate the effectiveness of different approaches to engaging VET practitioners in professional development</p>	<p>3.4 Quality of teacher training: <i>To improve and transform the quality of teacher preparation.</i></p> <p>a. To compare Australian and international approaches to initial teacher training</p> <p>b. To investigate the satisfaction of current VET teachers with their pre-service and or in-service teacher training programs</p> <p>3.5 RTO teaching, learning and business innovation, as well as contemporary learning environments: <i>To improve our understanding of the potential for contemporary teaching and learning technologies to produce better learning outcomes for students.</i></p> <p>a. <i>Role of training packages:</i> how are RTOs supporting delivery and assessment, how are training packages being used: practices and forms of curriculum, practices and forms of assessment tools</p> <p>b. <i>Learning environments in the workplace and the classroom:</i> How can the workplace as a site of learning be improved? What makes for a good physical learning environment? Taking into consideration but not limited to: simulation of worksite training / learning; digital technologies in VET training; Massive Online Open Courses (MOOCs) in VET (completion rates, costs and benefits, assessment challenges)</p>

4. The place and role of VET

To improve efficiency and drive new value-added products and services to Australia's VET system

UNDERSTAND Understanding the system and its interactions	OPTIMISE Improving practices to ensure best outcomes	TRANSFORM Transforming the system through significant innovation to meet current and future skill needs
<i>The interplay of regulatory, funding and economic factors affecting the VET sector at the national and regional levels</i>	<i>VET sector quality, productivity, sustainability and efficiency</i>	<i>VET sector to generate new value-added products and services</i>
<i>To obtain a more comprehensive view of the extent and type of training activity that is occurring in the VET sector.</i>	<i>To concentrate efforts on a number of current issues impacting quality within the system with the aim of improving outcomes.</i>	<i>A series of works dedicated to blue sky thinking in order to examine a number of factors impacting on the future of VET products and services.</i>
<p>4.1 Funding and finance: Estimating training and training-related expenditure not captured by the VET finance collection</p> <ol style="list-style-type: none"> Approaches to methods and estimates, past surveys and attempts to measure industry and private contributions <i>[Also refer 1.5b]</i> Total VET Activity moderated estimates of all funded activity Industry direct and indirect contribution; funding responsibilities above and beyond direct delivery <p>4.2 Entitlement models:</p> <ol style="list-style-type: none"> How are they impacting on TAFE community support obligations, TAFE infrastructure, specific cohorts of individuals, students overall and outcomes? What other ways are there of achieving the aims of the system outside of an entitlement model approach? <p>4.3 Training markets: With Total VET Activity, develop a full picture of the public and private training market with the aim of understanding efficacies and quality within the system</p> <ol style="list-style-type: none"> Thin and niche markets Market substitution Qualification utilisation (i.e. are training opportunities aligned with employment opportunities?) Provider activities <p>4.4 Industry returns to investing in VET: Understand the value proposition for industry to co-invest in vocational training, especially Apprenticeships <i>[Refer 1.5b]</i></p>	<p>4.5 Quality:</p> <ol style="list-style-type: none"> Synthesis papers on five perspectives to VET quality: provider, learner, employer, funder, regulator Investigate comparability of course hours by course level and field of education as measures of quality within the formal qualifications system Optimising procedures for examining student satisfaction within the VET system beyond what is currently collected nationally and by jurisdiction/provider 	<p>4.6 Series of thought papers - national foundations and frameworks towards a whole tertiary sector (best of VET and higher education share equal standing):</p> <ol style="list-style-type: none"> Australian Qualifications Framework (AQF) and its operation Commonalities and differences in survey instruments of students and employers Common data standards and Open Data access Expanding Unique Student Identifier to schools and higher education – future opportunities <p>4.7 VET in the future: unpacking its role and potential in relation to the value of education in skills development for industry and workforce planning for future demand for skills</p> <p>4.8 VET products: An examination of the <i>life-cycle</i> of qualifications in the VET sector, including their design, review, maintenance and retirement</p>

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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** <http://www.ncver.edu.au> <http://www.isay.edu.au>

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