The national role of NCVER in research: Supporting the Australian VET system

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- AU 23.8 million (3.1/km\(^2\))
- 1 Country but 8 States and Territories
## Politics, Funding and Federalism

### Australia

<table>
<thead>
<tr>
<th>Federal responsibilities:</th>
<th>State responsibilities:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foreign affairs and trade</td>
<td>Health</td>
</tr>
<tr>
<td>Defence</td>
<td><strong>Education Schools and ‘VET’ [?]</strong></td>
</tr>
<tr>
<td>Financial regulation and currency</td>
<td>Transport (e.g. roads and buses)</td>
</tr>
<tr>
<td>Citizenship and migration</td>
<td>Environment</td>
</tr>
<tr>
<td>Telecommunications</td>
<td>Agriculture</td>
</tr>
<tr>
<td>Taxation</td>
<td>Public services (e.g. police)</td>
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<tr>
<td><strong>Higher Education</strong></td>
<td>Infrastructure (e.g. electricity)</td>
</tr>
<tr>
<td></td>
<td>Taxation</td>
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</table>
Australia – Some statistics

- Ageing population demographic – median age 37.3 years
- Australian GDP per capita* was ~$62k US in 2014
- In terms of value add to GDP the three largest industries in 2015 are mining 8.7%, finance and insurance 8.7% and construction 7.7%
- Australia’s largest three industries in terms of employment in July 2015 are health care and social assistance (12.4% of all employment), retail trade (10.5%) and construction (8.9%).

* averages of IMF, World Bank, UN data 2014
Changing Labour Markets

• Major economic features – traditional reliance on primary industries - including agriculture and mining/energy, - manufacturing and construction

• But the structure of the labour and economic market is changing rapidly

• Key challenges included:
  • Structural reform such as manufacturing (especially automotive).
  • Industry 4.0 (Digital disruption)
  • Ageing population = increase in community services and health care
## The risk posed to Australian jobs from computerisation and technology in the next 20 years according to PricewaterhouseCoopers

<table>
<thead>
<tr>
<th>Some most at risk</th>
<th>Some least at risk</th>
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<tbody>
<tr>
<td>Accounting clerks</td>
<td>Medical practitioners</td>
</tr>
<tr>
<td>98%</td>
<td>98%</td>
</tr>
<tr>
<td>Checkout operators</td>
<td>Education, health and welfare managers</td>
</tr>
<tr>
<td>97%</td>
<td>1%</td>
</tr>
<tr>
<td>General admin</td>
<td>Midwives and nurses</td>
</tr>
<tr>
<td>96%</td>
<td>1%</td>
</tr>
<tr>
<td>Wood machinists</td>
<td>Database and systems administrators</td>
</tr>
<tr>
<td>93%</td>
<td>3%</td>
</tr>
<tr>
<td>Sales assistants</td>
<td>Social and welfare workers</td>
</tr>
<tr>
<td>91%</td>
<td>7%</td>
</tr>
<tr>
<td>Factory process and fabrication</td>
<td>Accommodation and hospitality managers</td>
</tr>
<tr>
<td>84%</td>
<td>7%</td>
</tr>
<tr>
<td>Clerical support</td>
<td>Construction, distribution and production managers</td>
</tr>
<tr>
<td>84%</td>
<td>8%</td>
</tr>
<tr>
<td>Food preparation and process</td>
<td>Child carers</td>
</tr>
<tr>
<td>82%</td>
<td>8%</td>
</tr>
<tr>
<td>Drivers and machine operators</td>
<td>ICT support professionals</td>
</tr>
<tr>
<td>80%</td>
<td>10%</td>
</tr>
</tbody>
</table>
Growth markets

- Community services and health
- Hospitality and tourism
- Construction
- Business services
- Retail
- New markets - food and agriculture; biotechnology and pharmaceuticals; advanced manufacturing; mining equipment, technology and services; and oil and gas.
Growing skills needs for a flexible future

- Increased technology and automation in the workplace
- The growth of digital competency and literacy
- Rapid advancement of technology will require different skills sets, with many jobs and skills not yet known
- Focus on reskilling will be required to be adaptive to changing work force requirements
- Increasing need for communication and service skills,
- The contribution of STEM skills on future national productivity
- Qualification Completions vs Skill Sets
- Foundation skills for employment for today and tomorrow
What does this mean for VET

- Digital platforms and impact on learning
- Changing student and employer needs and expectations from training
- Increased demands from mature aged students for re-skilling

- On-going implementation and renewal of National Training Packages and course content to ensure relevance to modern requirements

- Globalisation of training
- Greater diversity in modes of learning – online, face to face, blended, workplace vs classroom
- Increasing complexity of the provider role
Three key questions for VET

1. What skills will the future economy need
2. How to provide those skills to the workforce
3. How to innovate teaching practices to stay contemporary and relevant to emerging skills needs

Reference: The VET Era – Equipping Australia’s workforce for the future digital economy (2016), CSIRO and TAFE Queensland
How evidence based research will help

- Research provides insight into the skills, training and training delivery for the future
- Provides evidence for decision makers to make informed decisions on where, what and how to invest in skilling
- Delivers understanding to match productivity, economic growth and the skills market
- Is an enabler for the development of policy frameworks and Government initiatives that will support a vibrant and quality VET sector
NCVER Role
NCVER Vision

To inform and influence vocational education and training in Australia through credible, reliable and responsive research and statistical services.
NCVER at-a-glance

- The national organisation responsible for collecting, analysing and communicating research and statistics about vocational education and training (VET)
- Trusted custodian of national statistical and survey data
- An independent, Not for Profit company owned by the Commonwealth and State and Territory Ministers with a responsibility for training
- Board of Directors with both independent Directors and representatives from key stakeholders
Stakeholders

Government
- Ministers
- Commonwealth education & training authorities
- State/territory training authorities
- Regulators
- National committees
- VET boards

Industry
- Commonwealth & state-based peak bodies
- Industry skills councils
- Industry associations
- Business & enterprise

VET providers
- Provider peak bodies
- Registered, enterprise & other training providers
- Teachers & trainers

Education – other
- Universities & peak bodies
- Schools & school peak bodies
- Career development professionals & peak bodies

Research, NGOs & others
- Research centres
- Not-for-profit organisations
- Statistical agencies
- International agencies
- Community organisations
- Students

Students
NCVER research program

Research must consider:

• prospective *thought leadership*
• retrospective *policy/system analysis*

• Ensures the delivery of independent, evidence based and objective research outcomes

• Focus on investment in applied research for a range of targeted high priority issues to enable informed decision making by stakeholders

• Priorities for research are determined in consultation with key stakeholders
Core components of the research program are to:

- Provide the evidence base that informs key issues in policy and practice in the VET sector
- Help to raise the profile and reputation of VET as an enabler for national productivity
- Build a body of high quality, innovative and relevant research and knowledge
- Develop robust methods for analysis of national data sets
- Build and sustain capability in VET research and dissemination – both internally and externally
How do we fund our research?

The research program is funded in several ways:

- National contract with the Australian Department of Education and Training to manage the VET competitive grants research program (NVETR);
- Special allocation made to undertake research for the national senior officials (the State and Federal Ministers of Training) on key sector and policy concerns;
- In-house research funded through our core grant from company owners;
- Client-funded research.
Research with Impact

Communication strategies

1. Prioritise Issues and Needs
2. Define research question
3. Conduct research
4. Knowledge Transfer
5. Measure Impact and Adoption

Engage with stakeholders
How does NCVER prioritise?

- Analysis of the key issues, drivers and issues in the sector – *Environment Scan*
  - Understand current and emerging issues
  - Identify knowledge gaps
  - Enable informed and strategic investment in stakeholder priority issues
  - Co-ordination of investment opportunities
  - Enhanced leveraging for research and collaboration
- Consultation and consensus with key stakeholders
- Through the development of a comprehensive but flexible *Research Prospectus*
NCVER Research Prospectus:

An organising framework for prioritising NCVER research

Four key areas:
1. Productivity
2. Participation and outcomes
3. Learning and teaching
4. Place and role of VET
Defining the research question

- Determine whether the issue/opportunity would benefit from a research project
- Articulate the research question and approach and socialise with end-user
- What inputs are required – eg data sources
- Define the research methodology and proposal
- Through inhouse research and externally commissioned research program
Current NCVER Research

Projects are underway looking at diverse topics such as:

• STEM skills in vocational education and training;
• ROI of training
• Improving student participation and success in training
• Foundation skills and vocational pathways
• Role of VET in innovation and entrepreneurship
• Indigenous participation in education and training
• VET in the Future and skills that are going to be needed
• Understanding quality in VET sector
• Disengagement in young people
• Current state of apprenticeships
Research links with overseas agencies

- Regional cluster coordinator (UNESCO-UNEVOC) for Pacific Island region and Centre of Excellence

- Focused on research topics of international interest (including Australia; such as regulatory approaches, quality assessment)

- UNESCO – NCVER project on returns to investing (ROI) in VET from multiple stakeholder perspectives – especially industry

- A project with BiBB, Germany exploring the factors that impact on firms’ costs, benefits and likelihood of engaging in Apprenticeship training in Germany and Australia

- Research on the role of VET qualifications in enabling labour market mobility – focus on China and Australia.
Fact Sheets

Research Reports

Good Practice Guide

Infographics
NCVER VOCEDplus

- Research database for tertiary education
- Covers a range of publication types
- Comprehensive and up-to-date content
- Easy-to-use interface
- Full-text access to over 30,000 documents
- International in scope
- Contains over 65,000 English language records
- www.voced.edu.au
Pods

Living in an information-rich environment means that searching for quality and relevance can be overwhelming, visiting separate information repositories to gather what you need also takes time.

Our team assesses and collects information resources that are topical and pertinent to current VET research. We then ‘package’ these resources into thematically arranged Pods making information quick and easy for you to access.

- Apprenticeships and traineeships
- Career development
- Employment
- Equity
- Financial aspects
- Foundation skills
- Industry
- Migration
- Pathways
- Policy and governance
- Providers
- Quality
- Skills and knowledge
- Students
- Sustainability
- Teaching and learning
- Technology
- Workforce development
- Youth transitions
- Archived pods

New Hot Topics in...
- Apprenticeships and traineeships
- Quality
- Teaching and learning
- Youth Transitions

VOCEDplus Highlights...
June 2015

Pod Help
- Pod Network Home
- My Pod Network
- Pod Network Site Map
- FAQs
- Feedback

VOCEDplus is produced by the National Centre for Vocational Education Research (NCVER), which together with TAFE SA, is a UNESCO regional Centre of Excellence in technical and vocational education and training (TVET). VOCEDplus receives funding from the Australian Government, Department of Industry.
Events for Knowledge Transfer and Sharing

- National and International conference presentations and workshops
- Research Forums
- Webinars
- Social Media
- 27th No Frills Conference *Skilling for tomorrow* (5-7 July 2017, Hobart)
Outputs and Dissemination 2014-15

**Publications**
- 50 published
- 72,445 downloaded
- 50 research citations

**Social media**
- 3237 Twitter followers
- 659 LinkedIn followers
- 5584 social media referrals

**Portal**
- 276,071 visits
- 30,042 Subscribers
- 20,225 Insight
- 22,681 NCVER News
- 13,153 Data Support Bulletin

**Media**
- 21 releases
- 618 citations

**Events**
- 1811 attendees
- 36 conference presentations

**VOCEDplus**
- 332,410 visits
- 66,912 records

Source: NCVER 2014-15 Annual report
Measuring Impact and Adoption

Measuring impact confirms whether the research findings make a difference and contribute to evidence based decision making.

Focus on four key areas of measurement:

- Producing knowledge
- Building capacity
- Informing policy
- Informing practice
Diagrammatic representation of impact assessment within NCVER

**AIM OF THE RESEARCH**
Impact assessed against four domains
1. Knowledge production
2. Capacity building
3. Informing policy
4. Informing practice

**METRICS**
- Various statistics on outputs
- Media citations
- Hansard citations
- Publication citations
- (using Google Scholar MyCite)

**OTHER INFO**
- Company market intelligence reports
- Researcher feedback
- Project evaluations

**CASE STUDIES (STORIES)**
- Thematic
- Combining bibliometric analysis and input from researchers and end users

**Case studies with addition of Editorial Board quality assessments (from 2015)**

**Impact assessment reports and NCVER annual reports**
NCVER’S framework for assessing impact

Jo Hargreaves
National Centre for Vocational Education Research
Summary of learnings

NCVER seeks to support decision makers in the VET sector for future skilling in a digital age to:

- make evidence based policy
- implement informed practices in both teaching and industry

BY

- determining key national issues that would benefit from applied and targeted research
- undertaking high quality and timely research projects
- engaging with stakeholder throughout the research continuum to ensure relevance and promote knowledge uptake
Thank you

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