



25th National Vocational Education and Training Research Conference

CONFERENCE GUIDE

PROGRAM AND ABSTRACT BOOKLET

PRESENTED BY



CO-HOSTED BY



SUPPORTED BY



Australian Government
Department of Education and Training

*Through the National Vocational Education and
Training Research Program*

Thank you to the following organisations for contributing to the *25th National Vocational Education and Training Research Conference 'No Frills'*.

Co-host



Keynote speaker sponsors



Tea break sponsors



Virtual satchel sponsors





WELCOME



On behalf of NCVET and our co-host CQUniversity, welcome to the *25th National Vocational Education and Training Research Conference 'No Frills'*.

The conference is a key part of NCVET's commitment to engage our community in research and build research capacity. It exposes VET practitioners to the value of research and is your opportunity to connect with leading researchers and professionals in the sector.

This year the conference focuses on the enduring themes of equity, engagement and evolution and the program reflects the capability and potential for the VET sector to develop innovative and constructive strategies to address these themes. Over the next two days, we will be covering topics as varied as digital teaching and learning practices, student choice and pathways, the structure of the sector, Indigenous education and skills development.

We hope you enjoy the conference and I encourage you to network with your colleagues in an informal and collegiate atmosphere over the next few days.

I would also like to take this opportunity to thank our event sponsors for their valued contribution.

We hope you enjoy your time in Rockhampton.

Dr Craig Fowler
Managing Director
National Centre for Vocational Education Research



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ABOUT THE CONFERENCE

'No Frills' is a well-known annual national conference where researchers and practitioners in the vocational education and training (VET) sector come together to present, discuss and share information about key issues confronting the sector. It also provides professional development opportunities for new and existing researchers.

The 2016 conference program highlights (but is not limited to) research across three themes:

- **Equity:** supporting diversity through promoting inclusive training opportunities for all Australians
- **Engagement:** students, providers, employers and government working together to improve access, participation and outcomes from training
- **Evolution:** developing a skilled and flexible workforce to adapt to rapid technological change in the workplace, and to improve national competitiveness.

'No Frills' is considered one of the best value events on the VET calendar. We keep the registration fee low by partnering with training providers, showcasing their facilities, and utilising their teaching spaces instead of hosting the conference at commercial venues. This year's event is co-hosted with CQUniversity.

A key part of NCVER's commitment to disseminate research, the conference aims to be informative and practical, and contributes to building capacity for vocational education and training research. It exposes VET practitioners to the value of research for their teaching and their organisation's business development.

For speakers

Presentations will be uploaded and saved on CQUniversity's share drive in allocated rooms, under **NCVER 2016 No Frills Conference**. We ask that speakers check their presentation and audio visual material before presenting. If you have any concerns, please speak with Chelsea Saint or June Ingham (NCVER staff members) at the registration desk during the break preceding your presentation or at the beginning of each day.

Stay connected

Follow us on twitter: @NCVER



Twitter: Delegates are encouraged to tweet during the conference using the hashtag: **#ncver2016**

Please note our Media and Communications Officer will be taking photos and tweeting during presentations.

GENERAL INFORMATION

Conference venue

Co-hosted with CQUniversity, the conference will be held at CQUniversity's Rockhampton North campus.

CQUniversity
Bruce Highway
NORTH ROCKHAMPTON

Local campus enquiries +61 7 4930 9000

Registration desk

The registration desk is located on the lawn area outside building 29, CQUniversity, Rockhampton North Campus. For the pre-conference workshops, the registration desk will be open from 12:45pm on Monday 4 July. The desk will be open from 8:00am on Tuesday and Wednesday.

Networking hub

Located in the space outside Building 29, delegates will have the opportunity to relax over a coffee and mingle with conference delegates.

Pre-conference workshops

This year pre-conference workshops will commence at 1.30pm on Monday, 4 July in the Library (Building 10). Delegates who have pre-paid and registered for the workshops will have their allocated workshop details on the back of their name badge.

Delegate identification and security

All delegates will be given a name badge at registration. For security reasons, we ask that you wear your name badge at all times, which identifies you as a conference delegate. This name badge is also the official entrance pass to all conference sessions, morning and afternoon teas, lunches, the welcome reception and conference dinner (if pre-paid).

Dress

Delegates may choose to wear comfortable smart casual clothing during the conference and social events. The networking hub will be outside so we do suggest layered clothing.

Climate

During July, temperatures in Rockhampton range between a very mild 17°C and afternoons can be really warm with average high temperatures reaching 23°C.

We do recommend you bring a coat as our networking hub will be outside in the courtyard area of Building 29.

Internet access

Wi-Fi will be available during the conference with details provided at the registration desk.

Mobile phones

As a matter of courtesy, please turn off or silence your mobile phone during all sessions.

Parking

There is plenty of free on-site car parking at CQUniversity, please refer to the site map on page 10 for further details.

Taxi

Rocky Cabs	(07) 4924 9535
Yellow Cabs Rockhampton	13 1924
Golden Mount Taxis	(07) 4938 1100

Conference evaluation

We would appreciate your feedback. A survey evaluation will be emailed to you after the conference.

NCVER team

The NCVER team is here to make your conference time rewarding and educational. If you have any questions, please go to the conference registration desk.

Post-conference

Following the conference, papers will be available from VOCEDplus <www.voced.edu.au>, the tertiary education research database produced by the NCVER. Please send an electronic copy of your paper/presentation to voced@ncver.edu.au by 31 July 2016.

An email notification will be sent to conference delegates once all papers received are uploaded.

SOCIAL PROGRAM

Welcome reception

Delegates are invited to attend the welcome reception on Monday 4 July 5.00pm – 6.00pm at the Birdcage Bar located on the CQUniversity campus. This provides a great opportunity for you to meet and network with other delegates. Poster presentations will be on display during this time.

Attending the welcome reception is included in your conference registration fee.

Conference dinner

The conference dinner is available to delegates who booked and paid for the dinner with their conference registration. The green dot on your name tag denotes your registration for the dinner.

The 'Back to the Bush' themed conference dinner is at historic Glenmore Homestead on the evening of Tuesday 5 July at 6:30pm.

Featuring a sumptuous three-course homestyle buffet and entertainment, the night provides a great opportunity to relax and unwind.

We encourage delegates to dress 'country casual' in jeans and boots.

Drinks are not included with the purchase of the conference dinner, however a cash bar will be available. Please note there are no EFTPOS facilities at Glenmore Homestead. Please bring cash if you wish to purchase drinks.

Please note: delegates must organise their own transport to and from Glenmore Homestead. Please refer to the map on page 12 for directions.





Since merging with Central Queensland Institute of TAFE on 1 July 2014, CQUniversity Australia is Queensland's first dual sector university. CQUniversity Rockhampton North is the university's main campus and administrative centre providing a service community for the largely rural Central Queensland region. The campus has lush gardens and lots of greenery, providing a tranquil and picturesque environment. CQUniversity offers over 300 education and training options ranging from short courses, certificates and diplomas to undergraduate, postgraduate and research higher degrees.

ABOUT OUR KEYNOTES



Linda Brown

- **Chief Executive Officer, Laureate Australia & New Zealand**
- **Chief Executive Officer, Think Education**
- **President of Torrens University Australia**
- **Chief Executive Officer, Blue Mountains International Hotel Management School**

Linda became Chief Executive Officer at Think Education on 1 May 2013 and led the tertiary education provider through its acquisition by Laureate International Universities. Laureate International Universities is a network of more than 80 campus-based and online universities that offer undergraduate and graduate degree programs to over 1 million students in 28 countries throughout the Americas, Europe, Africa, Asia and the Middle East.

Laureate Australia comprises three institutions. Torrens University Australia is a new university and Think Education has both higher education and vocational education and training (VET) courses. Blue Mountains International Hotel Management School, with its higher education courses, continues to win awards and is recognised by the industry as the elite training ground for hospitality professionals in Australasia.

Linda has more than 23 years of management experience in the education sector in Australia and the United Kingdom. Prior to joining Laureate, Linda was Deputy Vice-Chancellor and Director TAFE at Swinburne University, Melbourne and before that was a senior executive director in the Queensland Public Service.



Jodi Schmidt

Chief Executive Officer, TAFE Queensland

Jodi is responsible for the overall leadership of TAFE Queensland as an independent statutory body, ensuring it is developed into a flexible and responsive organisation that works closely with industry and the community to meet the needs of stakeholders in a commercially viable way.

Jodi has been part of the vocational education and training (VET) sector since 2005 and has shown strong commitment to the sector both in Queensland and nationally. Prior to her current role, Jodi was Deputy Director-General, Training and Employment within the Department of Education, Training and Employment with overall responsibility for the state's training and employment portfolio, which included directing \$1 billion plus government investment in each year. Her extensive VET experience includes, Acting Chief Executive Officer, Chief Operating Officer and Director of Commercial Strategy for the former Southbank Institute of Technology.

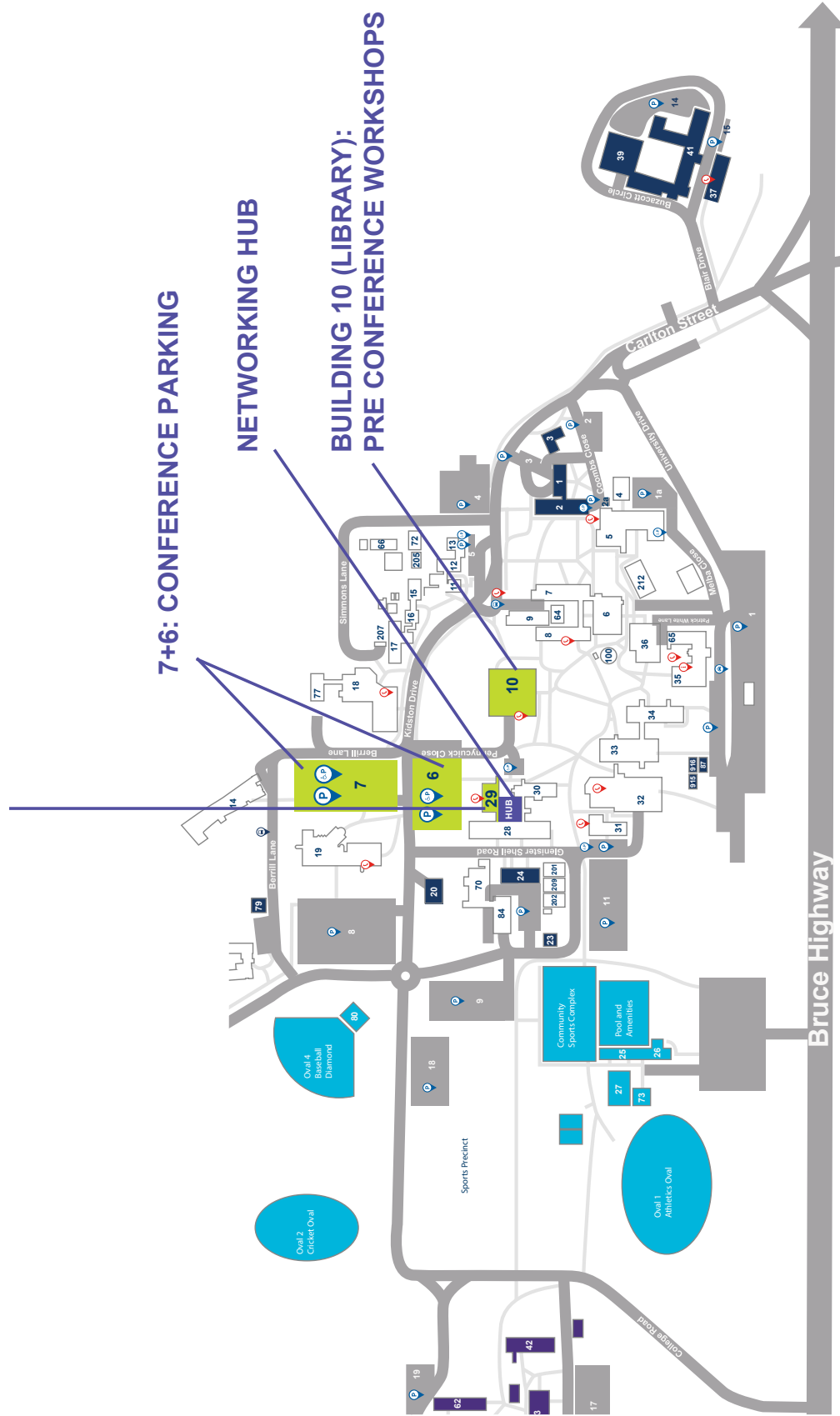
CQUNIVERSITY NORTH ROCKHAMPTON CAMPUS

BUILDING 29: CONFERENCE SESSIONS AND KEYNOTE

7+6: CONFERENCE PARKING

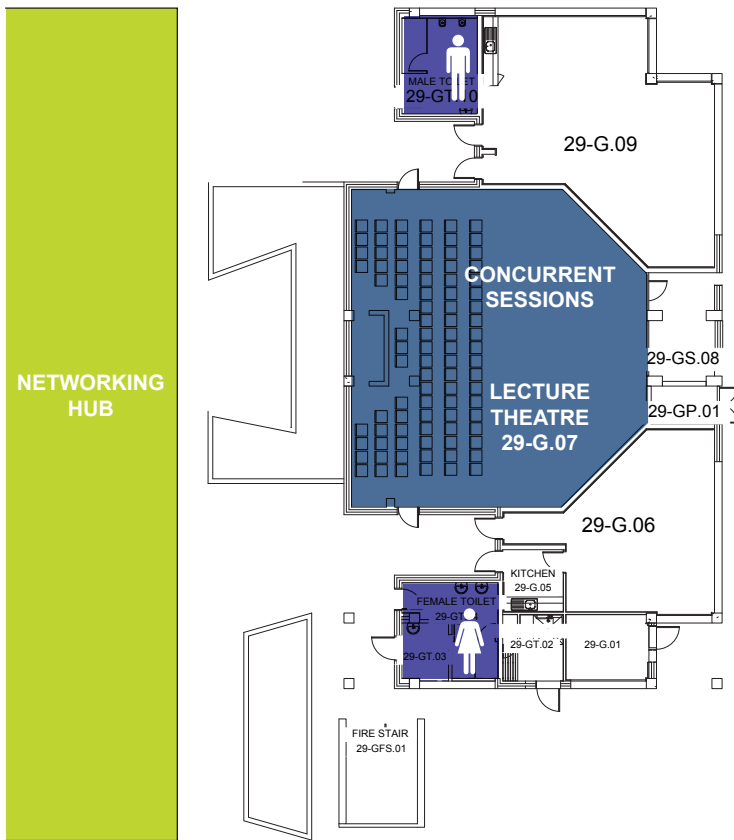
NETWORKING HUB

**BUILDING 10 (LIBRARY):
PRE CONFERENCE WORKSHOPS**

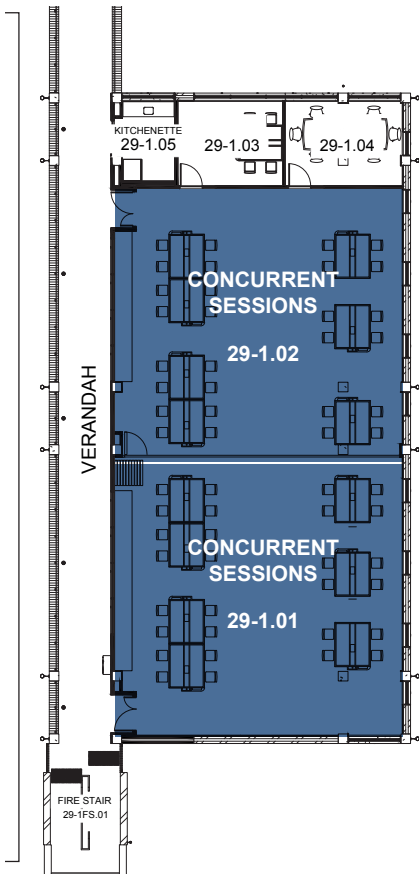


**ROCKHAMPTON
CBD & AIRPORT**

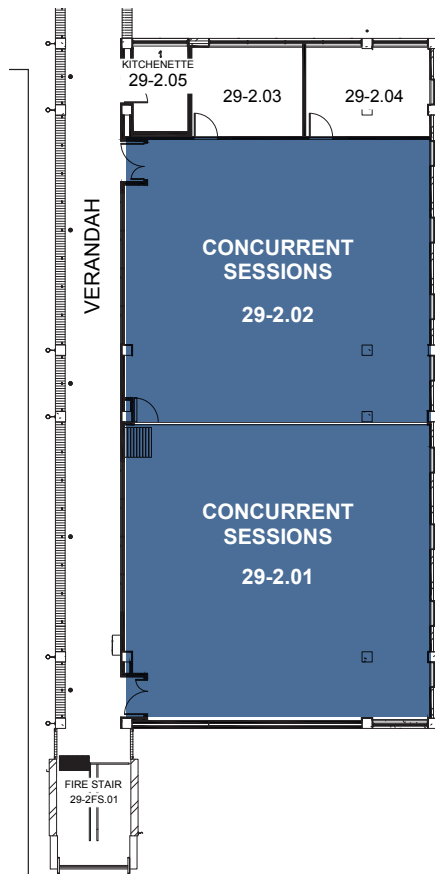
GROUND FLOOR:



LEVEL 1:



LEVEL 2:



DIRECTIONS TO CONFERENCE DINNER VENUE: GLENMORE HOMESTEAD

CQUniversity, Bruce Highway, North Rockhampton QLD 4702

- Head south on National Highway A1 towards Carlton St
- Turn right onto Farm St
- Turn right onto Alexandra St
- Continue onto Belmont Rd
- Turn left
- Keep right

Glenmore Homestead, 48 Belmont Road



CONFERENCE PROGRAM



Pre-conference PD workshops - Monday 4 July 2016

12.45	Registration open (Networking hub)
13.30	<p>Pre-conference Professional Development Workshops (Library)</p> <p>Session 1</p> <p>Workshop 1</p> <p>VOCEDplus - helping you understand the VET sector <i>Maree Ackehurst and Rose-Anne Polvere, NCVER</i></p> <p>The extent and complexity of research, policy, and practice in the VET sector continues to grow. The good news is VOCEDplus can help users manage this flow and stay in tune with issues and changes in the sector here and overseas.</p> <p>This hands-on workshop features resources that can help do this, including the newly released Pod Network, 'Focus on' pages and History of VET Timeline, along with well-used favourites like the Glossary of VET and Special Collections.</p> <p>Learn how to get the best from these along with a 'refresher' on accessing and using VOCEDplus to discover current and past research.</p> <p>Workshop 2</p> <p>Robust questionnaire design - a crash course <i>Chelsea Andrews, NCVER</i></p> <p>Questionnaires can be a valuable tool for gaining insight into issues affecting individuals and populations. However, the value of survey data is highly dependent on the quality of the questionnaire.</p> <p>This workshop will give you the basic skills and knowledge you need to design a robust questionnaire.</p> <p>The workshop will cover:</p> <ul style="list-style-type: none"> • Understanding the potential problems in survey questions • How to run a cognitive interview to test a questionnaire and identify any problems. <p>Participants will leave this interactive workshop with the skills and knowledge to develop and test their own questionnaire.</p>
15:00	Afternoon tea (Networking hub)
15.30	<p>Pre-conference Professional Development Workshops (Library)</p> <p>Session 2</p> <p>Workshop 3</p> <p>How to get the most out of your data <i>Olga Reyes and Marc Ruediger, NCVER</i></p> <p>NCVER's host of innovative data products and tools help users get the most out of their data. In this workshop we will demonstrate a number of these products including VOCSTATS, a popular tool that allows users to construct their own tables via an interactive web interface.</p> <p>We will also take you on a tour of our VET Students by Industry data visualisation product and show examples of our infographics.</p> <p>You'll learn tips and techniques for accessing and analysing data and where to get help along the way!</p> <p>Workshop 4</p> <p>Practical evaluation: a survival guide <i>Adam Harrison, NCVER</i></p> <p>'Does it work?' - a simple question with a complicated answer. This practical, hands-on workshop will discuss the goals and expected outcomes of evaluating programs and activities.</p> <p>We will introduce a variety of evaluation designs and approaches. Participants will workshop practical tips and hints aiming to ensure an evaluation meets diverse stakeholders' needs within time and budget restraints. We will work through applied examples and provide detailed resources for future learning.</p> <p>This is aimed at people from all disciplines and backgrounds who are interested in understanding or undertaking evaluations.</p>
17:00	<p>Welcome reception (Birdcage Bar, CQUniversity Rockhampton North campus)</p> <p>Welcome: Professor Helen Huntly, Deputy Vice-Chancellor, CQUniversity</p> <p>Poster presentations will be on display during the welcome reception. A dedicated poster session with presenters will be held on Tuesday 5 July during morning tea.</p>
18:00	Close

Conference Day 1 - Tuesday 5 July 2016



Equity



Engagement



Evolution



Other

8.00 Registration open (Networking hub)

8.45 Welcome proceedings and keynote address (Lecture theatre, Building 29 - 29.G.07)

Welcome to country: **Wade Mann**, Darumbal Traditional Owner

Welcome and co-host address: **Professor Scott Bowman**, Vice Chancellor and President, CQUniversity

















Keynote address (sponsored by VET Development Centre): **Linda Brown**, CEO, Laureate Australia & New Zealand, *Driving Student Employability*

10.00 Morning tea (sponsored by Australasian Association for Institutional Research) and poster presentations (Networking hub)
Presenters will be on hand to discuss their work with delegates.






Poster presentations

<p>Poster 1 Ensuring equity of access: what can we learn from the deregulation in the Victorian VET System and the widespread rollout of VET FEE-HELP to ensure genuine equity of access to education and training for students, particularly those who are vulnerable?</p> <p>Scarlett Whitechurch RMIT University</p>	<p>Poster 2 Workforce development: improving the skills of low-skilled workers through workplace literacy</p> <p>Anne Alkema Heathrose Research (NZ)</p>	<p>Poster 3 Engaging students with their own learning: the Children's University Australia programme</p> <p>Peta Skujins NCVER</p>	<p>Poster 4 Engaging underrepresented students in higher education and employment: University of Wollongong Pathways Program</p> <p>Keirin McCormack University of Wollongong</p>	<p>Poster 5 eLearning: sinfully good</p> <p>Leo Gregorc VET Development Centre</p>
<p>Poster 6 Unleash the potential of gamification in online courses to meet the need of diverse cohort in VET platform</p> <p>Shweta Singh Educator</p>	<p>Poster 7 Developing technical packages using DACUM Job Analysis to build a skilled workforce capable of adapting rapid technological changes</p> <p>Md Aftabuzzaman Melbourne Polytechnic</p>	<p>Poster 8 Using inquiry-based visual tools to aid inclusiveness in vocational education</p> <p>Felix Kin Peng Hui & Hamzeh Zarei University of Melbourne</p>	<p>Poster 9 The importance of specialised training programs to assist skilled migrant women access the Australian labour market</p> <p>Lisa Thomson AMES Australia</p>	
<p>10:45 Concurrent sessions</p>	<p>POLICY PERSPECTIVES</p> <p>Making sense of total VET activity</p> <p>Melinda Lees NCVER</p>	<p>PRACTICE</p> <p>What's legitimate? Developing a curriculum when the training package doesn't match your industry consultation</p> <p>Sharon Aris Australian College of Applied Psychology</p>	<p>PATHWAYS</p> <p>Factors enabling entry into, and engagement with, VET for young early school leavers: preliminary findings</p> <p>George Myconos & Stephanie Yung Brotherhood of St Laurence, Research and Policy Centre</p>	<p>OUTCOMES</p> <p>Employment outcomes of newly arrived migrants after participation in workforce preparation or entry level vocational training.</p> <p>Monica O'Dwyer AMES Australia</p> <p>(Level 2 29.2.02)</p>
	<p>SKILLS</p> <p>Building innovation skills</p> <p>Michael Hartman Skills Impact</p>	<p>(Level 1 29.1.02)</p>	<p>(Level 2 29.2.01)</p>	
	<p>(Lecture theatre 29.G.07)</p>			

Conference Day 1 continued - Tuesday 5 July 2016

11:30	Concurrent sessions	<p>POLICY PERSPECTIVES</p> <p>Investing for outcomes? Funding, knowledge exchange, and strategic contexts in New Zealand VET</p> <p><i>Nicholas Huntington</i> <i>Ako Aotearoa The National Centre for Tertiary Teaching Excellence (NZ)</i></p> <p></p> <p>(Lecture theatre 29.G.07)</p> <p>Lunch (Networking hub)</p> <p>CQUniversity address (Lecture theatre)</p> <p>Building 'success' into access and enabling courses in vocational education and training for Aboriginal and Torres Strait Islander peoples <i>Professor Bronwyn Fredericks, Pro Vice-Chancellor (Indigenous Engagement), CQUniversity</i></p>	<p>SKILLS</p> <p>STEM: more than the sum of its parts</p> <p><i>Gifta Siekmann</i> <i>NCVER</i></p> <p></p> <p>(Level 1 29.1.01)</p>	<p>INDIGENOUS</p> <p>Wontulp-Bi-Buya College training pedagogy</p> <p><i>Davena Munro</i> <i>Wontulp-Bi-Buya College</i></p> <p></p> <p>(Level 1 29.1.02)</p>	<p>PATHWAYS</p> <p>Engaging underrepresented students in higher education and employment: University of Wollongong Pathways Partnership with South Coast Careers College</p> <p><i>Keirin McCormack</i> <i>University of Wollongong</i> <i>Sarah Watterson</i> <i>South Coast Careers College</i></p> <p></p> <p>(Level 2 29.2.01)</p>	<p>OUTCOMES</p> <p>Re-defining the future for the deaf through accredited training: creating equity and inclusion</p> <p><i>Vanessa Solomon</i> <i>Deaf Services Qld</i></p> <p></p> <p>(Level 2 29.2.02)</p>
12:15						
13:00						
13:45	Concurrent sessions	<p>POLICY PERSPECTIVES</p> <p>Identifying South Australia's industry priority qualifications: a case study in industry and stakeholder engagement</p> <p><i>Joel Pillar & Heidi Greaves</i> <i>Training and Skills Commission</i></p> <p></p> <p>(Lecture theatre 29.G.07)</p> <p>Afternoon tea (Networking hub)</p> <p>Concurrent sessions</p> <p>POLICY PERSPECTIVES</p> <p>Finance of VET: recent changes and the relation to equity, efficiency and quality</p> <p><i>Gerald Burke</i> <i>Monash University</i></p> <p></p> <p>(Lecture theatre 29.G.07)</p>	<p>SKILLS</p> <p>Technical education for communities: targeting the technical skills gap through local vocational education programs</p> <p><i>Kate Evans</i> <i>Cummins South Pacific</i></p> <p></p> <p>(Level 1 29.1.01)</p>	<p>INDIGENOUS</p> <p>Special vocation? How Indigenous people's caring responsibilities predict their subsequent participation in vocational education and attainment of qualifications</p> <p><i>Heather Crawford</i> <i>Centre for Aboriginal Economic Policy Research, Australian National University</i></p> <p></p> <p>(Level 1 29.1.02)</p>	<p>PATHWAYS</p> <p>Pre-enrolment career advice to vocational education and training community services program students</p> <p><i>Suewellyn Kelly</i> <i>CQUniversity</i></p> <p></p> <p>(Level 2 29.2.01)</p>	<p>OUTCOMES</p> <p>Training and labour market outcomes of VET in Schools students with analysis of ABS microdata</p> <p><i>Patrick Korbel & Luke Verghese</i> <i>NCVER & ABS</i></p> <p></p> <p>(Level 2 29.2.02)</p>
14:30						
15:00	Concurrent sessions	<p>POLICY PERSPECTIVES</p> <p>Finance of VET: recent changes and the relation to equity, efficiency and quality</p> <p><i>Gerald Burke</i> <i>Monash University</i></p> <p></p> <p>(Lecture theatre 29.G.07)</p>	<p>SKILLS</p> <p>The erosion of the trades skills base in the sign and graphics industry</p> <p><i>Andrew Bryson</i> <i>Industry Testing Assessment Centers</i></p> <p></p> <p>(Level 1 29.1.01)</p>	<p>INDIGENOUS</p> <p>Enhancing training advantage for remote learners</p> <p><i>John Guenther</i> <i>Flinders University/ Ninti One Limited</i></p> <p></p> <p>(Level 1 29.1.02)</p>	<p>PATHWAYS</p> <p>Embedding for engagement in childhood education and care</p> <p><i>Helen Huntly</i> <i>CQUniversity</i></p> <p></p> <p>(Level 2 29.2.01)</p>	<p>OUTCOMES</p> <p>Disengagement in young people: how persistent is it?</p> <p><i>Peta Skujins</i> <i>NCVER</i></p> <p></p> <p>(Level 2 29.2.02)</p>


Conference Day 1 continued - Tuesday 5 July 2016

	POLICY PERSPECTIVES	SKILLS	INDIGENOUS	PATHWAYS	OUTCOMES
15:45	<p>Concurrent sessions</p> <p>Trends in VET: policy and participation over the past 20 years</p> <p><i>Georgina Atkinson</i> NCVER</p> <p>(Lecture theatre 29.G.07) </p>	<p>A model for developing resources to improve literacy outcomes for Carpentry trainees</p> <p>Jean Parkinson & James Mackay Victoria University of Wellington (NZ)</p> <p>(Level 1 29.1.01) </p>	<p>Mind the gap - Indigenous capability program for VET educators</p> <p><i>Janet Nicholds</i> VET Development Centre</p> <p>(Level 1 29.1.02) </p>	<p>Articulation between VET and higher education qualifications: enhanced pathways and professional outcomes</p> <p><i>Frank Bogna</i> CQUniversity</p> <p>(Level 2 29.2.01) </p>	<p>Vocational education in Mission Australia's youth survey</p> <p><i>Leah Cave</i> Mission Australia</p> <p>(Level 2 29.2.02) </p>
16:30	Concurrent sessions end				
18:30	Conference Dinner (Glenmore Homestead)				

Conference Day 2 - Wednesday 6 July 2016

8.00	Registration open (Networking hub)				
8.30	Keynote address (sponsored by VETnetwork Australia) (Lecture theatre)				
	Jodi Schmidt, CEO, TAFE Queensland, Embedding digital and technological disruption in the VET sector: TAFE Queensland/CSIRO joint research project on future skills demand and the role of the VET sector in evolving to provide those skills.				
9.15	Presentation (Lecture theatre)				
	Vocations: the link between post-compulsory education and the labour market <i>Professor John Buchanan, The University of Sydney</i>				
10.00	Morning tea (Networking hub)				
10:30	Panel discussion (Lecture theatre)				
	Vocations: the link between post-compulsory education and the labour market <i>Professor John Buchanan, The University of Sydney</i> Facilitator: Ms Jodieann Dawe, National Manager, Research and Engagement, NCVET Panel members: Ms Linda Brown, CEO, Laureate Australia & New Zealand Mr Stephen Conway, CEO, TasTAFE Mr Michael Hartman, CEO, Skills Impact				
11:45	Concurrent sessions				
	SKILLS Community education providers, work-based learning and foundation skills <i>Don Pergut</i> Community Colleges Australia (Lecture theatre 29.G.07)	PROFESSIONAL DEVELOPMENT Crossing vocational thresholds in practice-based learning <i>Karen Vaughan</i> NZ Council for Educational Research (NZ) (Level 1 29.1.01)	INFORMATION Evolving the VET researcher's information space <i>Maree Ackehurst & Rose-Anne Polvere</i> NCVER (Level 1 29.1.02)	DIGITAL Can assessment design in online courses impact student engagement and completion rates? <i>Toni-Maree Pettigrew</i> Sarina Russo Institute (Level 2 29.2.01)	WOMEN IN VET Going where few have gone before: women in non-traditional trades <i>Anne Jones & Hugh Guthrie</i> Victoria University (Level 2 29.2.02)
12.30	Lunch (Networking hub)				
13:15	Concurrent sessions				
	QUALIFICATIONS Encouraging qualification completion: why do trainees 'drop out' and what can we do about it? <i>Anne Alkema & Adrienne Dawson</i> Heathrose Research & Industry Training Federation (NZ) (Lecture theatre 29.G.07)	PROFESSIONAL DEVELOPMENT Promoting engagement in professional development to maximise value for staff and higher education providers <i>Brian Dillon</i> Bay of Plenty Polytechnic (NZ) (Level 1 29.1.01)	STUDENT CHOICE Students' career choice and justifications: implications for VET policy and career guidance <i>Hywel Ellis</i> University of Newcastle (Level 1 29.1.02)	DIGITAL Digital evolution through eversion - nurturing a new generation of VET teachers <i>Leo Gregorc</i> VET Development Centre (Level 2 29.2.01)	WOMEN IN VET Beauty and the beast: VET students and issues in beauty therapy training <i>Mary McKenzie</i> CQUniversity (Level 2 29.2.02)

Conference Day 2 continued - Wednesday 6 July 2016

	QUALIFICATIONS	PROFESSIONAL DEVELOPMENT	STUDENT CHOICE	DIGITAL
14:00	<p>Concurrent sessions</p> <p>Education and industry reform in greyhound racing - advancing welfare science and industry sustainability</p> <p><i>Cecelia Huynh</i> <i>Greyhound Racing NSW</i></p> <p>(Lecture theatre 29.G.07)</p> 	<p>Informing professional development at Northern Sydney Institute</p> <p><i>Kathryn Austin & Patricia O'Donovan</i> <i>TAFE Northern Sydney Institute</i></p> <p>(Level 1 29.1.01)</p> 	<p>In their words: learner 'choice' in fully-contestable training markets</p> <p><i>Justin Brown</i> <i>Australian Council for Educational Research (ACER)</i></p> <p>(Level 1 29.1.02)</p> 	<p>Clinical education on a small scale - designing and developing mobile applications to support clinical education in vocational education and training</p> <p><i>Darryl Clare & Sally Clarke</i> <i>CQUniversity</i></p> <p>(Level 2 29.2.01)</p> 
14:45	<p>Closing remarks, Best Poster Award and 2017 co-host handover (Networking hub)</p>			
15:00	<p>Conference close</p>			

Please note:

- Speakers and presentations are subject to change without notice.
- The conference close time will give delegates who are travelling adequate time to take the 1655 flights out of Rockhampton to most Australian capital cities.

Listed in alphabetical order of presenter surname.

Evolving the VET researcher's information space

INFORMATION

Maree Ackehurst & Rose-Ann Polvere, NCVER

The team behind the VOCEDplus database have created a new platform for accessing high quality VET information resources in one location. The impetus for this has been the rise of the Internet and the ability to more widely disseminate information. Open access to online literature is increasing continuously; a 2013 paper stated that 90% of all the data in the world has been generated over the last two years (Dragland 2013). Whilst more open access to this increasing amount of digital information has been beneficial for researchers, locating the most relevant and credible literature in such a saturated environment can be challenging.

The VOCEDplus Pod Network is a progressive, dynamic product providing a sustainable technological resource and service to researchers at their point of need. The network provides convenient access to a multitude of thematically grouped resources relating to the VET sector such as: Apprenticeships and traineeships, Standards, Employment, Foundation skills, Industry, Pathways, Providers, Quality, Skills and knowledge, and Youth transitions. The VOCEDplus team incorporated evidence of research foci in the NCVER Research Prospectus with a taxonomy of known VET terminology to map these thematic groups. The team also engaged with advisors from amongst NCVER's Research Division during development.

The core strategic objective of the VOCEDplus Pod Network is to empower researchers via constantly evolving content that is both relevant and current. It saves time and effort by providing access to a range of Australian and international research and resources within VOCEDplus and externally. This enables researchers to keep pace with the latest research developments within the VET sector through one entry point to a wide suite of constantly updated information on a topic including: latest news; NCVER's focus in the area; events; featured authors; relevant organisations; conferences; multimedia; links to other Pods; and more specific resources within each of the themes in the shape of Podlets.

This paper discusses this innovative approach to empowering researchers in the VET sector through the development of the VOCEDplus Pod Network. Presenters will cover the journey from original motivation through to development and beyond to reflect on the reception and success of the Pod Network since launching in early 2016.

Developing technical packages using DACUM Job Analysis to build a skilled workforce capable of adapting rapid technological changes

POSTER

Md Aftabuzzaman, Melbourne Polytechnic

Victoria has a number of competitive advantages that create a diverse, flexible and resilient economy. Despite these advantages, the Victorian economy has underperformed in recent years. The Victorian Government has identified the construction materials and technologies industries as one of a number of sectors strategically important for the state. This sector has the potential for strong growth and jobs. The construction industry is a major sector in the Victorian economy contributing \$21.6 billion or around 6.7% of the State's gross value added in 2014. Construction is undertaken within a complex system that coordinates the activities of many actors in order to design, build and complete projects within regulatory and institutional frameworks. The construction sector accounts for 238,000 jobs (Dec 2014) or 8.2% of the workforce, placing it as Victoria's fifth largest industry sector. Productivity improvement in the construction section is key concern for the overall economic well-being and prosperity of Victoria/Australia. The Productivity Commission's 2014 Inquiry into public infrastructure found some evidence that Australian productivity and efficiency in construction industries lagged behind some comparator countries. The construction workforce is dominated by the technician and trade group, followed by labourers, managers and clerical and administrative workers. The workforce needs to be trained according to the emerging skills requirement of the industry.

This research aims to explore the unique industry needs assessment technique (DACUM job analysis) for the identification of skills required for building and construction industry. Industry training is accomplished by using training packages. Training packages are developed by Industry Skills Councils on behalf of industry. They are sets of nationally endorsed standards and qualifications for recognising and assessing people's skills. A training package describes what sort of skills and knowledge a person needs in the workplace. Training packages need to be continuously improved and nationally endorsed to ensure they continue to meet the needs of industry, training participants, and the community. DACUM job analysis can provide a significant input in the continuous improvement process of training packages. In the DACUM process, a qualified facilitator works with a panel of experts who collectively and cooperatively describe the occupation in the language of the occupation by developing a job profile chart. The chart contains a list of general areas of competence called duties and several tasks for each duty. Brainstorming techniques are used to obtain the collective expertise and consensus of the panel. The completed chart represents a graphic profile of the duties and tasks performed by successful workers in the occupation. The panel identifies the general and emerging knowledge/skills, tools, equipment, supplies, and materials required for successful workers. In addition, the list includes the important worker behaviours essential for success, and the future trends

and concerns likely to cause job changes. With the support of the relevant industry bodies, the knowledge and insight gained from DACUM job analysis can be applied to develop strategies for conducting industry needs assessment and improving curriculum and training components in building and construction industry in Australia.

Workforce Development: Improving the skills of low-skilled workers through workplace literacy

POSTER

Anne Alkema, Heathrose Research

In New Zealand the 2006 Adult Literacy and Life Skills (ALL) identified that workers in primary industries, manufacturing, construction, retail and wholesale trade, and health and social services, have the lowest literacy and numeracy skills levels across the New Zealand labour market. Statistical modelling conducted by the Ministry of Education reports that population changes since 2006 will have little to no overall effect on this distribution of skills as measured by PIAAC - the results of which are to be released in July 2016.

In March 2015 the Ministry for Innovation, Business and Employment (MBIE) released its employment forecasts which showed that for the 2015-2018 period, opportunities for lower skilled workers in food processing, retail, accommodation services, business services and construction will account for 28 percent of employment growth. In addition, by March 2018, low-skilled occupations will still make up 45 percent of the workforce.

Given the findings on literacy and numeracy, and short- and medium-term skill needs, there is an ongoing need to upskill workers. A funding source for doing this in New Zealand is the Tertiary Education Commission's (TEC) annual \$20 million Workplace Literacy Fund.

In 2015 the TEC wanted to know about the reach of the fund, the extent to which it was getting to target groups and industries. The TEC also want to know more about what it takes to get programmes underway in workplaces. Heathrose Research conducted this work through a literature scan, analysis of TEC data, phone interviews with 16 stakeholders and employers, an online survey of 15 workplace literacy providers and case studies in seven workplaces.

The research concluded that funded programmes have the appropriate reach, in terms of industries and populations. However, it is supply rather than demand driven in that providers market themselves and programmes to employers. The programmes themselves deliver on more than literacy and numeracy. They support business and individual growth with the messaging about literacy and numeracy sometimes getting lost along the way. The ongoing challenge for employers and employees is to sustain the gains and the work once the funded programmes are finished.

This presentation will discuss the key findings including the indicators of good practice in workplace literacy programmes. It will also invite discussion about the supply / demand conundrum, the contribution upskilling in literacy and numeracy makes to workforce development, and the opportunities and approaches that can be used to support sustainable practice in workplaces.

Encouraging Qualification Completion: Why do trainees 'drop out' and what can we do about it?

QUALIFICATIONS

Anne Alkema, Heathrose Research; Adrienne Dawson, Industry Training Federation, NZ

Around 139,000 people participate in industry training in New Zealand, through traineeships and apprenticeships. These people work, generally full time, and complete qualifications while they are working. From 2011 onwards, policy changes in industry training in New Zealand have looked to address the non-completion of industry training qualifications. However, while there has been some improvement in rates of completion for trainees and apprentices, non-completion remains an issue. The Ministry of Education reports that in 2014 there was still only a five-year cohort qualification completion rate of 42 percent, which is lower than rates in other countries.

There is a considerable amount of research and literature about non-completion, but very little of it comes from talking with non-completers themselves. The literature review conducted for this project showed that much of what has been written comes from quantitative data, interviews with employers, training organisations and those still in the training system.

Therefore in late 2014, this research was initiated into the factors that contribute to the non-completion of Level 3 and 4 qualifications. Ako Aotearoa, Industry Training Organisations (ITOs) and the Industry Training Federation subsequently funded the research. Heathrose Research conducted the research through a literature scan, screening tool survey with 488 trainees, and qualitative interviews with 114 non-completing trainees from 10 ITOs.

The latter method is a key point of difference for this research, as to date non-completing trainees have been more talked about than talked to. Unpicking the factors from trainees' perspectives provides a different point of view. It gives us insight into the intersection of

their work, their training and their personal circumstances that have led to their non-completion. It highlights that for most of them there is no single factor, rather it is the interplay of factors in which there is often a tipping point. In turn it provides us with information about options for interventions that can effectively address their non-completion.

This presentation will focus on the key themes from the interviews with trainees, the recommendations made by the researchers based on the findings, and how these recommendations are being implemented within the industry training sector.

What's legitimate? Developing a curriculum when the training package doesn't match your industry consultation

PRACTICE

Sharon Aris, Australian College of Applied Psychology

This paper presents a case study of how a curriculum for a Diploma of Youth Work was developed when key results from the industry consultation didn't align with the training package. Most specifically, when a considerable area of necessary affective practice skills - in this case revolving around the necessary dispositions to work successfully with young people - was not expressed in any readily accessible form in the training package.

This misalignment reflects the tension between the apparent singularity of skills in competency-based training and the cumulative and embodied skills demanded by industry.

Using thinking tools from Legitimation Code Theory which provides a framework for the study of knowledge and education, the underlying knowledge and skills required by youth work industry and knowledges and skills valorised in the training packages were mapped. This revealed a 'code clash' between them. A second map was then developed that unpacked the embodied skills and thematic knowledge expressed in the industry consultation. A curriculum was then developed that satisfied the competency requirements with an added dimension of 'capability' to bridge this gap.

This evaluative process provides a snapshot of how, whilst the imperative for quality and evaluative rigour in the vocational sector has never been higher, twenty five years of vocational and industrial reform have left a legacy model of competencies and competency-based training that reflects an outdated model of industry that doesn't reflect the workplace realities and workforce complexities of the community service industries. This process provides one model for thinking beyond immediate practices to the powerful knowledges underpinning them.

Trends in VET: policy and participation over the past 20 years

POLICY PERSPECTIVES

Georgina Atkinson, NCVET

The vocational education and training sector has, over time, been seen as a major way of meeting the skill needs of Australia. As such there are ongoing policy initiatives over the history of VET in Australia which emphasises this imperative to a greater or lesser extent. This presentation focuses on three major VET related policy initiatives in recent times aimed at improving labour market responsiveness and student choice; namely student entitlement models, accelerated apprenticeships, and apprenticeship incentive initiatives. The presentation sets the scene by reflecting on policy and trends in participation in publicly funded vocational education and training, including apprenticeships and traineeships, over the last twenty years. It also considers the general labour market conditions over this period of time. The presentation will make some general observations about the data in reference to policy and the labour market but will not assume causal links. This paper is based on a report prepared by NCVET looking at trends in policy and VET data.

Informing professional development at Northern Sydney Institute

PROFESSIONAL DEVELOPMENT

Kathryn Austin & Patricia O'Donovan, TAFE Northern Sydney Institute

As education moves towards a consumer oriented market, the power is shifting into the hands of the student and the experience offered by an institution will play a pivotal role in engaging students. Organisations today need to focus on selecting the best set of strategies which will allow them to meet the needs of their customers effectively.

A total of 418 respondents from Northern Sydney Institute (NSI) completed the COMPLETIONCAT® (CAT) survey to measure capability in managing the student journey from first interest to completion. In the new funding paradigm in NSW, completions are a critical imperative.

The challenge for training providers spans the entire student experience, from interest in a course to completion of studies. The need for connections between students' aptitude, instructional experience, the workplace and relevant assessment leading to completion requires further research.

Other challenges presented by the results included: staff engagement in a time of organisational change, the culture shift to thinking of students as customers as the purchasing power is in their hands and improved delivery modes incorporating digitisation and connectivity.

Leadership emerged as the most critical challenge. Training for the future for jobs that are yet to be clearly defined requires an adaptive and collaborative leadership style which is able to respond to a shifting and transforming market place. This is a considerable change from the current top down style that drives performance within clear parameters.

The capabilities demonstrated by the COMPLETIONCAT® results have been incorporated into a leadership development program at NSI to prepare managers for a transformed educational environment. This includes, targeted training using the CAT results to guide the inputs, the development of a mentoring program using identified change agents within the organisation, formal and informal professional development using the 70:20:10 model of organisational capability building and the provision of opportunities to gain qualifications in leadership and management.

This program enables on-going development of staff at various levels of the organisation over time. Measurement of achievement will be through the use 360° feedback, staff surveys, evaluations of the program, improvements in digital skills, performance interviews staff enrolments in professional development online and completion of formal education opportunities.

The type and focus of professional development to prepare leaders for this change has become a critical key performance indicator for the organisation.

Articulation between VET and higher education qualifications: enhanced pathways and professional outcomes

PATHWAYS

Frank Bogna, CQUniversity

Students undertaking qualifications within the VET sector at times seek to have their award recognised and contributing to qualifications within higher education. Conversely, students within higher education may also seek VET qualifications part way through their studies for professional enhancement and acknowledgment of their knowledge and skills as an interim to completion of their qualification.

The recognition of equivalent learning content and assessment within these educational frameworks is a recurring concern for students, VET teachers and higher education lecturers. This situation becomes problematic where registered training organisations (RTO's) and universities have no shared understanding of the scaffolding and accompanying knowledge and skills within similar qualifications in VET and higher education that comprise a particular discipline area, or how the learning and assessment occurs.

As a recently formed regional dual sector provider of training and education, CQUniversity has embarked on a number of articulation arrangements embracing a shared knowledge between its VET and higher education qualifications, through seeking commonalities in knowledge, skill and closely aligned Australian Qualifications Framework (AQF) levels in various discipline areas. In the area of Occupational Health and Safety (OHS) within the School of Health, newly introduced recognition processes for completed VET qualifications provide articulated pathways into higher education studies.

Another initiative has involved reverse articulation, providing higher education students with VET qualifications part way through their degree, thereby extending opportunities for them to be more marketable and confident in using newly acquired VET qualifications to seek employment in their relevant field whilst continuing completion of their higher education studies.

These initiatives benefit students, training and educational institutions, regulators and industry through earlier entry into the job market and the utilisation of both vocational skills, academic foundation skills and graduate attributes. Articulation and reverse articulation coordinated through the same institution provides an assuredness of the scaffolding of knowledge and skills addressed as preparedness for embarking on a higher education degree. However, such a process should not preclude other higher education institutions and VET providers from developing similar partnerships and shared arrangements.

In their words: learner 'choice' in fully-contestable training markets

STUDENT CHOICE

Justin Brown, Australian Council for Educational Research (ACER)

Now in the developmental stage, this study aims to investigate the drivers influencing student behaviour, and their impact on choice of provider and course in competitive training markets. Based in Victoria, the research will work closely with three RTOs to understand (a) the extent to which young people's choices are restricted by local training supply and labour market needs; and (b) how the VET system and underpinning RTO practices are equipping young people with information needed to make an 'informed choice' in a marketised training environment.

There are five research questions:

- What are the main drivers influencing student behaviour and choice of provider and course?
- To what extent are young people (15-24 year olds) aware of the various entitlements and eligibility criteria concerning their participation in VET? What are their attitudes towards them, and what impact do they have?
- What role does 'choice' have when explaining the patterns in training participation and outcomes among groups of young people?
- What are the perspectives of the target group (and the practitioners who train them) on the opportunities and 'freedom to choose' their provider, course, and occupation in their particular region?
- How can current approaches to measurement and reporting in VET be broadened to reflect more comprehensive outcomes for young people?

Using a mixed methods approach, the focus will be on identifying three distinctive markets of Victoria in which young people participate in VET at a higher rate than in other parts of Victoria (and Australia) and where there are high rates of youth unemployment. The initial stage of the research will involve mapping what VET options are available in these three regions for young people through a detailed document analysis, followed by a comprehensive analysis of archival quantitative data. The findings from these strands will then be explored in more detail by working closely with three RTOs, each catering to different segments of the 'youth' or 'school leaver' market. At each RTO, semi-structured interviews will be conducted with practitioners and managers, and a selection of focus groups will be conducted with VET learners. The multi-level approach to data collection will capture new information and different perspectives on these issues while retaining a focus on the learner perceptible.

This project is one of seven grants awarded in 2015 through NCVET's National Vocational Education and Training Research (NVETR) program. The principal researcher is Justin Brown, Senior Research Fellow (VET) at the Australian Council for Educational Research (ACER) in Melbourne.

The Erosion of the Trades Skills Base in the Sign and Graphics Industry

SKILLS

Andrew Bryson, ITAC (Industry Testing Assessment Centers)

In 2015 the Australian Sign & Graphics Association (ASGA) recognised that action must be taken to build the skills base in their industry for the future. The challenge for the signs and graphics industry is more complex than just attracting enough apprentices and ensuring better qualification completion rates.

Since 2000 ASGA and the industry have witnessed volatility in the number of signs and graphics apprenticeship commencements annually across all states and territories. Despite industry growth, the number of apprenticeship commencements and apprenticeship completions has not kept pace with industry requirements.

Critically there has also been an overall reduction in the number of qualified workers employed in the industry. Workers have been hired to fill employment gaps that have normally been performed by qualified tradespeople. Although this situation can provide a short-term fix for employers to meet existing demands, the erosion of a strong skills base across the industry will have a detrimental effect on its ability to drive continued business expansion and innovation.

New technologies such as digital signs, LED, laser, water jet, laser engraving, vehicle and fleet wraps, metal and photo imaging, and 3D printing have revolutionised the signage industry and made many of the traditional skills and course content redundant.

Government reviews of VET have seen the emergence of competitive funding models. As a result, the certificate III in Signs and Graphics, which has traditionally been delivered by TAFE institutes, has been discontinued in many states and is under threat in others. These cuts have seen more students denied the opportunity to participate in the industry and have seen employers struggling to recruit qualified workers or apprentices.

ABSTRACTS

Employers have expressed the view that the training delivery is inflexible and the course content is not providing the skills required.

The industry also has very low participation rates of women, non-English speaking and indigenous workers. This is not only inequitable, but a lost opportunity.

However, the industry has many unqualified workers who are skilled and technologically savvy. Without qualifications these workers have limited employment mobility in the industry and may not have all the essential foundation and technical skills necessary to meet the needs of their employers.

The research was to determine why there is such volatility in the number of signs and graphics apprenticeship commencements annually across all states and territories, why the number of apprenticeship commencements and completions has not kept pace with industry requirements and why has there been an overall reduction in the number of qualified workers employed in the industry.

In recognition of the issues impacting on the ability of the industry to ensure a skilled and flexible workforce, the Industry Testing and Assessment Centre (ITAC) was commissioned by ASGA to conduct research into current skilled worker trends in sign and graphics.

This research resulted in a report to ASGA in early 2016 that made a number of recommendations. These recommendations covered a wide variety of actions including, recognition for existing workers, industry working more closely with training providers, industry driving changes in course delivery, content, currency and flexibility, moving to a different employment model for apprentices, industry promotion programs for disadvantaged and under-represented groups and school-based programs.

Data for this research was gathered from state Trade Commencement Registrations, NCVET, the Australian Bureau of Statistics and direct employer surveys.

The presentation will discuss the findings of the report and the considerations made in developing the recommendations.

Finance of VET: recent changes and the relation to equity, efficiency and quality

POLICY PERSPECTIVES

Gerald Burke, Monash University

The paper examines major changes in the funding of VET from 2010 and apparent changes in equity, in efficiency in meeting workforce needs and in quality standards. It briefly discusses the operation of the training market and why good and bad outcomes may have occurred. It suggests ways in which shortcomings might be addressed.

From 2010 there has been a rise and then fall in student numbers, fluctuating total levels of real funding in the public system, a substantial decline in government real recurrent expenditure per annual hour of training, shifts in funding shares between Commonwealth and states, expansion of government funding to private RTOs under various entitlement schemes, huge growth of VET FEE-HELP, cuts in government grants to employers of trainees, and a relative decline in assistance to VET students through Youth Allowance and Austudy.

The paper draws on previous analyses in this area. It uses data on funding, students and graduates from NCVET, the Productivity Commission, budget papers and annual reports of the Australian Department of Education and Training and the Department of Social Services and selected state and territory information.

Vocational education in Mission Australia's Youth Survey

OUTCOMES

Leah Cave, Mission Australia

Mission Australia's Youth Survey 2015 captured the voices of nearly 20,000 young people from across Australia. One of the key areas which this survey explores is young people's participation in work and study and their future plans in these areas. Mission Australia has focused on those who indicated that they planned to go to TAFE or undertake an apprenticeship and has looked at the characteristics of these young people compared to those who did not indicate plans to undertake vocational education (voc-ed) in the future. The key differences between these cohorts will be highlighted throughout the presentation along with implications for policy and practice. Significantly, it was found that young people intending to take a voc-ed pathway were less likely to indicate plans to complete Year 12 or to go onto university, were more likely to indicate plans to get a job, more likely to highlight the importance of getting a job and more likely to be currently unemployed and looking for work than young people who were not intending to take a voc-ed pathway.

There are likely to be a number of different factors influencing the importance of employment for young people with a voc-ed focus, including parental employment or local socio-economic status, and these factors will be explored in more detail within the presentation.

Further breakdown by each individual pathway (higher education, employment, apprenticeships and TAFE) chosen by respondents to the Youth Survey 2015 will also inform analysis and be described within the presentation.

It is hoped that providing a more detailed profile of students planning to undertake voc-ed in the future that schools, services and the education system more generally will be able to be more responsive and supportive of these young people.

Clinical education on a small scale - designing and developing mobile applications to support clinical education in vocational education and training

DIGITAL

Darryl Clare & Sally Clarke, CQUniversity

Research indicates that mobile devices and applications provide many benefits for health care professionals. One of the most significant benefits identified is increased access to point-of-care tools, which has been shown to support better clinical decision-making and improved patient outcomes.

In the field of education, recent research has shown that 81 percent of students use mobile devices to study and, of the different types of learning technologies available, students found that adaptive learning technologies with mobile devices were the most effective, with 85 percent indicating a moderate or major improvement in grades.

New emerging trends in a younger generation of learners, including 'Bring Your Own Device' (BYOD) methodology and mobile device only Internet connectivity, create an opportunity to produce learning material and clinical-decision making tools for small scale devices.

This presentation documents the design and development of mobile applications produced to support clinical education and clinical decision-making. It demonstrates that using new and diverse media and modes of communication may be effective tools to reinforce key concepts to health care students, especially younger generations where mobile technology has become an integral part of their lives. It will demonstrate that this level of development now can be done 'in-house' at institutions and at relative low expense.

Special vocation? How Indigenous people's caring responsibilities predict their subsequent participation in vocational education and attainment of qualifications

INDIGENOUS

Heather Crawford, Centre for Aboriginal Economic Policy Research, Australian National University

Questions about the extent to which informal caring responsibilities affect participation in education and educational attainment are important to many policy areas. Policy development in areas of formal child care, aged care, disability services, paid parental leave, family-friendly policies in workplaces, female labour force participation and gender equity can be informed by evidence of how caring affects educational participation and attainment. This is particularly true for women, who bear the brunt of providing informal care in Australian society.

Indigenous Australians are more likely to have informal caring responsibilities than non-Indigenous Australians, with contributing factors including higher fertility rates, higher rates of disability and poorer access to formal care services. Peak fertility for Indigenous women is in the 15-24 year age group, a time when many young people complete secondary education and embark on post-school education. Vocational education remains the predominant form of post-school educational engagement among Indigenous Australians, despite increasing numbers participating in higher education. Yet there is little research examining relationships between caring responsibilities and Indigenous people's participation in vocational education and attainment of vocational qualifications.

The release of the Australian Census Longitudinal Dataset (ACL) by the Australian Bureau of Statistics provides a valuable opportunity to examine outcomes for the Indigenous population in 2011 in the light of their circumstances in 2006. Longitudinal data – information relating to the same individuals over a period of time – can support analyses of individual transitions, yielding clearer insights into social processes. Using cross-sectional census data to assess change over time in outcomes for the Indigenous population is additionally challenging because of changing Indigenous identification. This means that when using census data to compare average outcomes of the Indigenous population in 2011 with 2006 (for example), we do not know the extent to which those who identified as being Indigenous in 2011 are the same people (after taking births and deaths into account) as those who identified as being Indigenous in 2006. Changes in identification might therefore be driving any observed change in average outcomes for the population, resulting in misleading conclusions about whether outcomes are improving or worsening. Longitudinal information can help to address this problem because, even if people change identification, groups (however these groups are delineated) comprising the same individuals over time can be analysed. The ACL provides a relatively large Indigenous sample (about 22,000 people who were identified as Indigenous in 2006).

ABSTRACTS

The research presented here draws on multivariate analysis using the ACLD to examine how Indigenous people's caring responsibilities in 2006 were associated with their subsequent entry into TAFE and attainment of their first educational qualification. The analysis examines whether caring for children and caring for someone with a disability have different associations with vocational education participation and attainment. The presentation will conclude with a consideration of some policy implications and reflections on the strengths and limitations of the ACLD for this type of research.

Promoting engagement in professional development to maximise value for staff and higher education providers

PROFESSIONAL DEVELOPMENT

Brian Dillon, Bay of Plenty Polytechnic, Tauranga, NZ

Professional development (PD) is a key mechanism by which organisations support improvement of practice, and is prominent in the education sector. As with any activity requiring an investment, be it time, money or intellectual effort, a return will usually be expected. Given that such expectation can extend beyond the participating individuals, it is highly desirable that alignment of objectives and outcomes should be clear for all stakeholders, to make their own judgments about prior to engagement.

The value of PD at Bay of Plenty Polytechnic (BoPP), a small-to medium sized regional tertiary education organisation, is a largely unknown quantity, aside from the ability to determine an annual spend on PD (approximately \$450 000 NZD), and how many PD leave days were used. Understanding the value, both current and potential, of this significant investment in staff PD was the focus for the author's recent MBA research.

Data from institutional records was analysed, and 13 interviews were conducted with polytechnic staff. This presentation discusses the findings related to the three guiding research questions: (1) What views do BoPP staff hold of PD, based on their experiences? (2) What value is added to individuals and the organisation from undertaking PD, and (3) What could be done to improve levels of engagement by staff, and value to the organisation through PD?

Very clear views of PD and its purpose emerged. Socialisation in PD is important, and can occur across a spectrum of activities and contexts. Influences on engagement in PD are many and varied, with managers having significant influence on both staff views, and the approval process. In terms of outcomes, PD policy was shown to have minimal impact on some practices, with considerable variance in interpretation and application. Understanding of the possibilities for, and potential value from PD across the organisation is low, with a desire expressed by many participants to see this increased, and managed centrally. A further conclusion was that some gaps currently exist in processes post-PD activity.

Three recommendations are made to enhance BoPP's PD process: (1) provide clearer direction on PD policy, and the organisation's purpose for PD, (2) implement a knowledge management model to create wider awareness of organisational PD, and (3) develop an evaluation model for PD. Implementing these recommendations should see an increase in value being returned to staff, the organisation, and wider stakeholders. While this research was sited within a single institution, it is expected that the learning shared in this presentation will offer a model for others seeking to identify and evaluate outputs of PD in their own settings.

Students' career choice and justifications: implications for VET policy and career guidance

STUDENT CHOICE

Hywel Ellis, University of Newcastle

There is a long-standing concern about a potential disconnect between VET policy aims, which require distal systemic and societal thinking, and the way children think about their identity as developing members of the workforce, which tend to focus on local and familiar notions of self. Informed by Howard et al's (2015) examination of children's understanding of the factors influencing their career choices, this presentation reports on the relationships among: the number of career choice influences named by students, the specificity of those influences, the interaction between those influences and the local and distal factors shaping student's career choices, in relation to demographic variables. Thinking about VET sector policy aims and what the influences are for different groups of students can inform a more focused analysis of how best to support school students as they move through school and enter the workforce.

The number and elaborated nature of students' stated reasons for choosing a particular career are known to follow maturation. The presumption is that older children are more likely to be able to offer a justification for career choice and to do so in more elaborate ways that acknowledge complexity. However the capacity of younger children to provide justification for their choices and how these justifications compare with those of older children and young people has only been partially investigated.

Drawing on a large longitudinal data set with more than 12 500 student surveys covering the school years 3 to 12 in NSW, we analyse student responses to the questions 'What do you want to do as a job?' and 'What are the reasons for choosing this job?', with a focus on the (approximately) 16% of students who indicated a VET pathway.

To add further to understanding the nature of these influences, we categorise and map how influences differ for different groups of students (based on age, sex, SES, prior achievement, location, etc). Questions like 'At what age do children start to connect their own skills to a desired vocation?' and 'In what ways does that differ for male and female children?' are considered.

In this presentation we discuss opportunities to raise the awareness of students and those who influence them, VET providers and policy makers (of the factors influencing career choices). The findings presented here have particular implications for youth-servicing professionals working in the VET sector, both in and beyond schools.

Howard, K A S, Flanagan, S, Castine, E, & Walsh, M E 2015, *Perceived influences on the career choices of children and youth: an exploratory study*, *International Journal for Educational and Vocational Guidance*, 15(2), 99-111. doi: 10.1007/s10775-015-9298-2

Technical Education for Communities: Targeting the technical skills gap through local vocational education programs

SKILLS

Kate Evans, Cummins South Pacific

Employers around the world are experiencing critical shortages of skilled technical workers. Young people in our communities lack employable skills, including technical and language skills, as well as problem solving, analysis and the proper attitudes and belief systems for success.

At the same time, unskilled jobs are disappearing, and rising levels of unemployment and poverty are causing individual and community hardship. Young people who receive no skills training, or who are trained for jobs that are not in demand in their communities, frequently drop out of school and the workforce and into poverty. Communities around the world are suffering from widening gaps in wages and incomes due in part to skills set disparities. These gaps have created significant pressures not only on those trying to support their families, but also on the very economic stability of the communities where they live.

Technical Education for Communities (TEC) is a solution. TEC is a global initiative of the Cummins Foundation that targets the technical skills gap through local vocational education programs. The program delivers industry-relevant skills training so that graduating students can secure good jobs in their community. TEC has a community focus and seeks to build coalitions with like-minded partners to sustain improved education outcomes. Business partners have engaged at an individual site and at a global level across multiple sites.

TEC begun with programs in ten sites around the world. These sites were selected after reviewing a variety of factors, including local leadership engagement, local industry need and commitment to coalition building. By using a standard education model and set of tools, the program helped partners develop effective curriculum, market relevant skills, qualified teachers, career guidance and the practical experience needed by students.

TEC coalition partners engage through steering committees to help guide the school, and serve as teachers and mentors, and provide workplace learning opportunities such as apprenticeships, internships and job shadowing opportunities. Together, we are working to make our global communities stronger through skills training.

In Australia, the underrepresentation of women in industries considered to be 'male-dominated' such as mining, construction & utilities and automotive, continues to affect gender equality, industry performance and our nation's economy. Similarly, employment opportunities for Indigenous Australians remain poor and are getting worse. A targeted approach to recruitment of these groups through TEC has seen participation numbers increase and it is anticipated individuals will move into sustainable employment, education or further training pathways.

The TEC program in Australia has a particular focus on the automotive industry, predominantly for roles that lead to employment opportunities in the light vehicle, heavy vehicle, mining and engineering industries.

TEC target's students in VET in Schools (VETis) programs and will eventually be delivered through eight Trade Skills Centre facilities across Australia.

Industry collaboration is at the forefront of this type of project.

Building 'success' into access and enabling courses in vocational education and training for Aboriginal and Torres Strait Islander peoples

CQUNIVERSITY ADDRESS

Bronwyn Fredericks, CQUniversity

Aboriginal and Torres Strait Islander students are underrepresented in vocational education and training. Access, bridging or enabling education courses and programs seek to address this underrepresentation and while it is generally accepted that they are important strategies in increasing Indigenous participation, there is little evidence on the success of such programs. Moreover, while the sector promotes the possible mobility between the vocational education and training sector and the higher education sector and vice versa for undertaking such courses, there is little evidence to support this. This presentation presents the results of a research project undertaken at three dual-sector universities which focused on Indigenous learning journeys via enabling programs. The research considered interpretations of 'success' from the perspectives of students and teachers participating in enabling courses. The research found enabling programs were an 'important' and 'exciting journey' for students that brought about transformation of the inner self through the building of 'resilience', 'strength', 'confidence', 'self-esteem', 'self-worth', 'cultural understanding' and 'identity'. Success was experienced across multiple dimensions of students' lived experience including 'cultural identity', 'voice', 'self-realisation', 'self-acceptance' and 'pride'. We propose that access, bridging and enabling courses and programs need to consider Indigenous understandings of 'success' to assist in affirming Indigenous cultural identity whilst simultaneously developing study skills in the vocational and educational sector.

Digital evolution through eversion - nurturing a new generation of VET teachers

DIGITAL

Leo Gregorc, VET Development Centre

In 2015 the VET Development Centre (VDC) launched the Innovation in Learning Program (ILeP) - a three year Victorian VET initiative established to promote cultural change in technology integration. Its goal was to provide innovation and professional development support for practitioners using digital pedagogies. This program was informed out of applied research undertaken in 2014 where we questioned what kind of professional learning specifically supported the sustained use of and the impediments to adopting digital learning technologies. A critical component of this program was a structured review and reflection process, designed for ongoing continuous improvement. The research aim in 2015 was to consider to what degree ILeP supported innovation and change for practitioners and organisations, as well as inform ways to mature the programs' roll-out in 2016.

The VDC used case studies, peer reviews, surveys, structured interviews and focus groups to evaluate the effectiveness of the first year of the program. The diversity of these different methodologies supported our aim to understand in what ways our interventions influenced the funded project outcomes and to provide us with valuable feedback on ways that we could continue to support the sector in achieving digital maturity. The participating target groups (n=130), while not statistically significant, provided us with a valuable opportunity to directly engage with the respondents. This methodology enabled us to record a rich and informative dialogue and consequently provided us with recommendations that can be easily transferable to the greater VET community.

This presentation will continue the conversation about ways to support technological innovation in VET. Leo will share his findings from the research and offer recommendations for continued professional development in the area of cultural change and teaching innovation. He will also offer commentary on the importance of having a clear strategy for integration, exploring the intersection at which an organisations' business and education needs crosses the pedagogic and academic requirements of teachers and students. His presentation will also position the VDC research outcomes juxtaposed against the current global trends in using technology for learning.

eLearning: Sinfully good

POSTER

Leo Gregorc, VET Development Centre

Informed out of 6 years of applied research, empirical observation and personal learning experiences in developing quality learning objects, this infographic has been developed to help you connect to your inner digital self and design learning experiences that make a difference. Sinfully good eLearning is possible when you understand how you approach digital learning design. This poster shares wisdom viewed through the lens of the seven deadly sins/graces/virtues.

The path begins with identifying your approach to creating digital learning experiences – is it slothful? Do you lust after resources or skills you don't have? Or do you envy others work? These or any of the other deadly sins could be blocking your creative genius. Did you know that there are seven heavenly graces that pair with these archetypal sins and that by understanding their associated virtues you can cross the Rubicon into digital design grace?

As you interact with this graphic, identify, acknowledge, intervene and apply change to your professional practice and unlock your creative genius. Follow your path to digital enlightenment.

Enhancing training advantage for remote learners

INDIGENOUS

John Guenther, Flinders University/Ninti One Limited

For some time Aboriginal and Torres Strait Islanders have been readily participating in VET certificate programs, above rates for non-Indigenous Australians (albeit at lower levels of attainment than non-Indigenous Australians). Relatively high participation rates are not however translating into higher levels of employment. Successive 'Closing The Gap' reports point to a widening gap in employment participation, particularly in remote areas. This suggests that the role of VET certificate courses in improving employability of participants is problematic. Compounding the problem of transition to employment is the problem of attrition. In remote parts of Australia, attrition rates for VET courses are very high, for example certificate I courses have attrition rates of more than 90 per cent. It would appear that on the whole, participants are not getting what is needed from their courses and they are dropping out as a result. However, this is not the case for all courses.

To address these concerns a research project titled *Enhancing Training Advantage for Remote Learners* funded by NCVER, is examining what makes programs more successful. The project, auspiced by Ninti One Limited with research partners from around Australia, will be conducting five case studies on successful programs in a variety of remote Australian contexts to determine what factors make them work well to achieve better retention and employability for participants.

This paper and presentation will report on initial findings of the five case studies. It will also present an analysis of quantitative data from VOCSTATS and the five programs to illustrate the kinds of achievements that are possible in an efficient, and effective VET program for remote learners. Some formative implications from the findings will also be discussed.

Building Innovation Skills

SKILLS

Michael Hartman, Skills Impact

How can we drive innovative outcomes across an industry sector? The answer is through collaboration, or more specifically, through the development of skills and processes that support collaboration.

This presentation takes a look at the success of the ForestWorks' Innovation Skills Program, a model developed to grow and build innovative capacity in the forest and wood products industry. The model is focussed on developing the collaborative capabilities of businesses which in turn drives innovative outcomes across the industry. Benefits to those businesses who engaged in the program included the development of new skills, lucrative networks, solutions to difficult problems, and the discovery of new and previously unanticipated innovations.

Unlike many other skills initiatives, ForestWorks' Innovation Skills Program provided multiple platforms for skills development. These included innovation-themed forums and round tables which allowed businesses and their workforces to increase their understanding about, and engagement with, innovation approaches. There were also topic specific Innovation Working Groups which equipped participants with the skills to develop and maintain collaborative business relationships in a context relevant to their businesses. Specific training programs supported: leaders to improve their leadership skills; business members to develop their innovative thinking and practice, and facilitators to use a standardised process for enabling innovative practice. The program also supported new thinking, fresh attitudes and a cultural change.

The Innovation Skills Program demonstrated that enabling and supporting people to collaborate and innovate is possible yet there are no shortcuts. This model, centred on the development of collaboration skills, provides an innovation framework for success which can be applied to many industries.

Using inquiry-based visual tools to aid inclusiveness in vocational education

POSTER

Felix Hui & Hamzeh Zarei, University of Melbourne

Inquiry-based learning is an assisted process that starts by posing questions, problems or scenarios rather than a flow of established information. Although the use of text-based material prevails inquiry-based learning, its effectiveness crucially depends on several preconditions such as an adequate grasp of the language. Nonetheless, the readiness of these preconditions is hardly satisfactory in a diverse cultural environment such as Australia. In order to address the challenge, visual tools such as graphs, diagrams, maps, and posters are well accepted as a basis for organisational learning and dissemination of information.

This paper examines the use of visual tools in inquiry-based learning in vocational education. We examine some of the effective tools that are commonly used in industry. The significance of visual learning is explained through examples of how they are applied in a learning

environment. We cross-pollinate learning theories from the literature to fine tune the application of graphics in vocational learning. The use of visual tools enhances student learning outcomes in terms of establishing a connection between relationships of concepts. It also helps students to remember the concepts by presenting information in a succinct manner.

In a case study, a group of graduate students from varying backgrounds are given a poster assignment in an industry related learning course. The student learning outcomes were measured by using a survey questionnaire to rate their level of understanding of the topic before and after the assignment. They were also asked to evaluate the ability of the assignment to instil knowledge and train for the real problem solving situation. The effectiveness of the assignment is compared against a similar written assignment. The findings show that one-pagers or posters are effective means of training in graduate learners.

We see that in properly structured exercises of problem-based learning, learners can acquire knowledge and know-how by using visual tools to represent ideas and learn how to behave in actual circumstances. In vocational training visual learning tools resemble what industry workplace needs from organisational learning. It is concluded that visual learning tools have the potential to make up some of the linguistic requirements of vocational learning by screening complex relationships in an illustration of artifacts. Visual tools for inquiry-based learning can be applied in vocational education where complex concepts need to be unravelled and presented in a logical and simplified manner. Examples of such situations could include problem-solving, decision-making or quality control at the workplace.

In summary, this paper will review the common inquiry-based visual tools, present the results of our current research and update any on-going research work especially in the vocational education sector.

Embedding for engagement in childhood education and care

PATHWAYS

Helen Huntly, CQUniversity

Engaging with the childhood education and care industry is often fraught for students and employers who have to negotiate different jurisdictions of accrediting authorities and requirements of registration bodies. This presentation presents initial findings from a unique initiative designed to improve access, participation and enhanced employment outcomes from vocational training for students, employers, and ultimately government policy in the childhood education and care sector. Childcare training package competencies are embedded in a university initial teacher education program. Completion of these competencies provides for a both-ways articulation, alignment with national standards and accreditation of programs with key stakeholders in the childcare industry, early childhood and teacher registration bodies.

Articulation and reverse articulation are two key features of this initial teacher education program that engages students, employers and local communities. The former articulation pathway is now well known in the VET sector—accreditation of a Diploma of Children's Services (Early Childhood Education and Care) qualification into a Bachelor of Education program with effective recognition of prior learning processes. For these students, a university enabling program with units in English, Mathematics and Science is recommended. Together with the requirements of the employability skills for written and oral communication embedded in the diploma competencies, this provides a seamless articulation pathway into university study to become a registered teacher in either early childhood settings or primary schools.

However, another pathway premised upon the principles of reverse articulation is also possible. Embedding Diploma-level competencies into the common first year of the Bachelor of Education (Early Childhood) and the Bachelor of Education (Primary) provides initial teacher education students at CQUniversity with access to dual qualifications and enhanced work experiences. This challenging curriculum design process and its initial outcomes are the focus of this presentation.

Embedding competencies in the first year of these initial teacher education programs enables students to claim the diploma as an interim award. This in turn enhances employment opportunities for paid part-time work while students are completing their Bachelor of Education program. Such an outcome is of benefit to employers also because it addresses the severe staff shortages currently experienced in the early childhood education and care sector, especially in regional rural and remote communities. Furthermore, these students are enhancing their capabilities as future registered teachers upon graduation from the program.

The presentation will be presented in three sections. First, an overview of the processes developed to embed diploma competencies in the Bachelor of Education programs will be provided. Second, the conceptual framework created for this curriculum with embedded competencies illustrates the intellectual rigour scaffolding the programs' development. Third, with both quantitative and qualitative data, a critical analysis of findings to date will give voice to the challenges and opportunities afforded when embedding VET sector competencies in bachelor level programs for engagement with the early childhood education and care industry.

Investing for Outcomes?: Funding, knowledge exchange, and strategic contexts in New Zealand VET

POLICY PERSPECTIVES

Nicholas Huntington, Ako Aotearoa - The National Centre for Tertiary Teaching Excellence

Ako Aotearoa, is New Zealand's National Centre for Tertiary Teaching Excellence. Its ultimate goal is to improve learner outcomes through greater understanding of effective practice (via project funding), support professional development and lead debate on what makes for high-quality, genuinely learner-centred tertiary education. Unlike many similar bodies, Ako Aotearoa's remit covers all types and aspects of post-compulsory education and it has a strong history of supporting both projects and capability development in the VET sector.

In recent years, in response to both internal review and changes in the political and strategic education environment, Ako Aotearoa has repositioned itself from being primarily a 'research funder' to an active agent for change at both practitioner and more strategic/organisational levels. At the same time, New Zealand's VET system has been undergoing significant changes. These have included major qualification and quality assurance reforms, significant structural reforms, and the blurring of barriers between secondary and post-secondary education provision.

Through a focus on Ako Aotearoa's work in VET, this presentation will explore the relationship between funding, the strategic drivers affecting education systems, and issues of knowledge transmission and transfer. It will firstly discuss New Zealand's VET system and key themes driving the current direction and recent development of that system. It will then explore the reflection of these themes in the body of VET work funded by Ako Aotearoa, the strategies being adopted to encourage the translation of this work into practice, and the challenges involved in understanding how projects create change 'on the ground'.

Education and industry reform in greyhound racing - advancing welfare science and industry sustainability

QUALIFICATIONS

Cecelia Huynh, Greyhound Racing NSW

In 2015, Greyhound Racing New South Wales commissioned a study to review and assess best practice in rearing, socialisation, education and training methods for greyhounds in racing. One of the key issues to emerge from this study was the lack of formalised education for breeders and trainers participating in the greyhound industry. The study found that knowledge of industry participants was informal and based on what was passed on by others in the industry. This situation was considered inadequate and a potential threat to the sustainability of the industry. In this presentation we will explore why formal education is now important for industry sustainability. We will consider how and why it is that current industry education and training, which relies mainly on a process of trial and error rather than the implementation of a systematic approach, is ill suited to the needs of the industry and the expectations of the broader community. In doing so we will argue that formal education can assist in the widespread adoption of a more sophisticated animal welfare and canine performance science within the greyhound racing industry. We will present a case study of Greyhound Racing New South Wales's strategy for developing a national training package for licensed greyhound trainers and breeders.

Going where few have gone before: women in non-traditional trades

WOMEN IN VET

Anne Jones & Hugh Guthrie, Victoria University

This presentation will discuss a 2014/15 Auto Skills Australia (ASA) commissioned project which investigated how to increase the participation of women in automotive trades occupations.

The ASA study included interviews with 87 industry participants (43 tradeswomen and female apprentices, 44 employers). The research team took a novel approach using a socio-ecological model to investigate, analyse and understand the experiences and perceptions of female tradeswomen and employers. These models are mainly used in the health sector but have also been used by a number of researchers internationally to look at occupational preferences.

Socio-ecological models consider that complex problems such as changing female participation in traditionally male occupations depend on multiple layers of nested and intersecting factors:

- individual attitudes, capabilities
- immediate relationships with family, friends, school teachers, employers and work colleagues that affect young women's decisions to choose and stay in a trades career

- community level factors that influence the experiences women have with trades such as workplace organisation and employment conditions
- societal factors that have a pervasive influence on the female trades experience such as rigid beliefs about gender and work.

This approach produced new understandings of the female tradeswoman and employer experience and evidence leading to suggestions for a range of new approaches to increasing female participation in traditionally male trades.

For this particular industry the key outcomes from the research included:

- development of a profile of the attributes of young women likely to choose and succeed in one traditionally male trade
- an understanding of the factors that attract women to automotive trades occupations
- identification of the value that employers who employ tradeswomen recognise that these women add to their businesses
- an understanding of employer and co-workers attributes and behaviours that facilitate the participation of women in trades
- identification of the RTO attributes that facilitate successful female apprenticeships
- strategies for transforming traditionally male trades based workplaces into workplaces that welcome female tradespeople
- recommendations for a comprehensive approach to increasing female recruitment and retention based on analysis using the socio-ecological model, a site-saturation approach.

This year we hope to apply this approach to a broader range of non-traditional trades, including licensed, building and engineering trades.

Pre-enrolment career advice to vocational education and training community services program students

PATHWAYS

Suewellyn Kelly, CQUniversity

The intent of the research proposed in this paper is to explore the feasibility of providing pre-enrolment career advice for students considering study in VET community services programs at CQUniversity Australia (CQU). The proposed research will investigate the impact of providing pre-enrolment career advice to potential community services program students and how this may empower people to make informed decisions about course selections. The project will use interviews and surveys to gain feedback from participants about how the provision of pre-enrolment career advice could be beneficial to a successful study experience at CQU. If the project demonstrates positive outcomes for certificates III and IV community services participants, this concept could be expanded into additional discipline areas. The objective of this research is to identify processes that may provide potential VET students with sufficient information for informed career decision choices prior to enrolment into CQU community services programs.

A literature review confirmed that at present, career advice programs have primarily focused on school aged, or recently exited school aged young people (Halliday-Wynes & Misko, 2012) rather than adult learners. A research report from the Career Industry Council of Australia advises that informed decision making guidance about suitable career and education choices should be provided to people of all ages given that people may change employers and careers a number of times in their working life (Halliday-Wynes & Misko, 2012). Anderson (2004) supports the position that research into the outcomes of adult choices and participative decision making is insufficient and requires further study that is discrete from those which focus on school aged young people. Furthermore, the Organisation for Economic Co-operation and Development (OECD) report by Watts (2010) informs two important principles that may contribute to quality VET decisions. Firstly, that all people who might benefit from career advice are made aware of both VET courses and other available options (Watts, 2010). Secondly, that people who are interested in VET options have access to informed decision making choices through career advice provided by qualified career counsellors prior to enrolment (Watts, 2010).

The research questions to be addressed in the proposed study are:

- What are the students' current understandings of study requirements and career opportunities in community services work?
- Does pre-enrolment career advice better prepare prospective students for study requirements in community services program?

Outcomes of this project could be beneficial to all CQU students, teaching and administrative staff through informed decision making processes by potential students. This could lead to higher retention rates, increased student satisfaction and may lead to further studies in this area beyond the context of CQU.

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Training and labour market outcomes of VET in Schools students with analysis of ABS microdata

OUTCOMES

Patrick Korbel, NCVET; Luke Verghese, ABS

Vocational education and training (VET) has a long association with school education. From the technical schools of the 1970s, to the development of VET in Schools programs in the 1990s and the integration into the high school certificate in the early 2000s. Currently, around 40% of students in Years 11 and 12 enrol in a VET in Schools subject. But what is the impact of VET in Schools and what outcomes does it help to achieve? This presentation reports on a collaboration that has allowed a look at the destinations of VET in Schools students five years down the track.

This research project aimed to facilitate detailed analyses of the training and labour market outcomes of students who have undertaken VET in Schools programs. These outcomes were investigated by looking at a range of personal and training characteristics. A supplementary aim of the project was to foster closer working relationships between NCVET and the Australian Bureau of Statistics (ABS) in areas of mutual interest.

NCVET used a number of datasets for this research project, including the integrated VET in Schools data with 2011 Census of Population and Housing (Census) produced by ABS. The integrated dataset facilitated more detailed analysis of the longitudinal outcomes of young people who participated in VET in Schools. In order to access the integrated data, the ABS collaborated with NCVET to release a detailed microdata file to authorised researchers through the DataLab. The DataLab is a data analysis solution provided by the ABS for high-end data users who want to undertake complex analysis of unit record files (microdata). This approach provides an example of how the ABS is transforming its approach to expanding microdata access to better support research and decision-making.

Using the extensive data available from the census, NCVET was able to investigate a range of education and employment outcomes for students five years after undertaking a VET in Schools course. The analysis covers outcomes such as labour force status, income, non-school qualifications and occupation and student characteristics such as Indigenous status, remoteness and characteristics of their VET in Schools study.

The analytical results from this project will be of interest to researchers and policy makers such as those who are interested in outcomes from participation in VET. In addition, those interested in how the ABS is transforming access to microdata will be benefit from this presentation.

Making sense of total VET activity

POLICY PERSPECTIVES

Melinda Lees, NCVET

With two years of total VET activity (TVA) data under our belts, No Frills 2016 provides the perfect opportunity for NCVET to re-engage our stakeholders on all things TVA.

The purpose of this session is to provide a recap of what TVA is, present the 2015 TVA data and do a live demonstration of some of the interactive data products available to our stakeholders.

Since the launch of TVA last year, there have been improvements in data quality and coverage, making the latest release even more complete than ever before. This presentation will highlight these improvements and explore our now greater understanding of the VET industry with respect to the size of the market, differences in TAFE v private providers as well as show how the industry is using the data eg article references, media mentions & number of data requests.

We will conclude by highlighting 'What's next for TVA?', showcasing our upcoming product suite releases for August & September 2016.

In the case that TVA 2015 is not available at the time of the conference, we propose the following:

1. No presentation, rather deliver a workshop on how to use our TVA products/services/VOCSTATS OR
2. A presentation on 2014 TVA with additional analysis since the launch

NOTE: NCVET's No Frills 2015 TVA presentation was prior to the release of 2014 data. The presentation focused on what TVA is and what reporting/resources would be produced. No data was shared until the launch of TVA 2014 in November 2015.

Engaging underrepresented students in higher education and employment: University of Wollongong Pathways Program

POSTER

Keirin McCormack, University of Wollongong

The University of Wollongong recognises that everyone's education journey is different and seeks to provide alternative pathways to higher education or employment. The aim of the Pathways Program is to raise the educational capacity of the Illawarra South East Region, by supporting individuals to access vocational qualifications, providing clearly articulated pathways to higher level qualifications and addressing financial and transitional barriers. Working with individuals who are underrepresented in higher education, the Pathways Program provides an active intervention for targeted equity students, namely: individuals from low SES, regional and Indigenous backgrounds. While the program offers a pathway for young people who are unsuccessful in getting into university via their ATAR score (Australian Tertiary Admission Rank), it is primarily marketed to mature aged individuals who may have previously been disengaged with education and are seeking an opportunity to upskill and improve their employment outcomes. With pathways offered at the University of Wollongong's Bega, Batemans Bay, Shoalhaven, Southern Sydney, Southern Highlands and Wollongong Campuses, the program is engaging regional communities and making education more accessible for individual in rural and remote locations.

The success of the Pathways Program is dependent on collaborative partnerships between the University of Wollongong and local Registered Training Organisations (RTOs). Since 2013, the University of Wollongong, has partnered with over fifteen RTOs including, TAFE NSW, TAFE SWSI, Illawarra Retirement Trust, Eurobodalla Adult Education, Casey College, WISE Education Group, WEA Illawarra, Southern Pathology and UOW College. It is with our partner organisations that students embark on their education journey as they work towards completing a Certificate IV or Diploma qualification.

The three core components of the Pathways program sit alongside this vocational qualification, seeking to achieve the programs mission statement of – creating opportunities for individuals to access education, empowering individuals to overcome barriers and achieve their aspirations and commitment to providing tangible pathways to education and employment. The components of the program are:

- scholarships towards the cost of a Certificate IV qualification
- co-enrolment in a university approved Bridging and Transition subject
- articulation to a number of UOW Degrees in the disciplines of Arts, Business, Commerce, Information Technology, Nursing and Social Science.

In 2015 over 350 students completed the Pathways Program, with an estimated 75% going on to enrol in a university degree. The current successes of this program confirm that vocational training-based university pathways are a valid way to engage individuals with their education and increase their aspirations, awareness and attainment.

This poster presentation will show how students' progress through the various phases of the Pathways Program, document student stories and program achievements and reflect on what makes the University of Wollongong's Pathways Program a unique initiative for engaging equity students in higher education.

Engaging underrepresented students in higher education and employment: University of Wollongong Pathways Partnership with South Coast Careers College

PATHWAYS

Keirin McCormack, University of Wollongong; Sarah Watterson, South Coast Careers College

The Illawarra South East and Far South Coast regions of NSW display some of the highest unemployment rates in the state. In 2013, the University of Wollongong (UOW), with campuses in these regions, first identified an opportunity to work with disengaged and underrepresented student groups to provide a pathway to employment and education in partnership with local registered training organisations (RTO's). Pathways is designed to be an innovative approach to improving the participation of low SES, rural and remote and Indigenous people in higher education from Wollongong to Eden.

From this 2013 pilot the Pathways program was born; the three core components of the Pathways Program are:

- co-enrolment in a vocational qualification with our partner organisations alongside the Bridging and Transition Subject
- scholarships to assist with the financial barriers to education
- a guaranteed pathway to higher education.

Pathways involves cross-sectoral collaboration to offer individuals tangible progression opportunities and pathways to gain employment and further their education. The three core components of the Pathways Program sit alongside the vocational qualification, seeking to achieve the programs mission statement of – creating opportunities for individuals to access education, empowering individuals to overcome barriers and achieve their aspirations and commitment to providing tangible pathways to education and employment.

The success of the Pathways Program is dependent on collaborative partnerships between the UOW and RTO's. Since 2013, UOW has partnered with over fifteen RTO's including, South Coast Careers College (SCCC). SCCC were one of the founding partners and as part of the pilot in 2013, partnered to offer the first Pathways Program titled 'Pathways to Careers in Health'. Ten students successfully completed the program, achieving a certificate IV in aged care. The program resulted in all students gaining employment, with five students enrolling in a university degree. Since then the partnership has continued to grow; in 2015 over 350 students participated in the Pathways Program across our five regional locations with an estimated 75% going on to further study.

This presentation will focus on the collaboration between UOW and SCCC, it will outline the key challenges and opportunities inherent in implementing a partnered program in this context including navigating administrative requirements of different organisations, managing the expectations of students and meeting the needs of the community. The presentation will also focus on the administrative and student engagement framework that allows for this model of delivery in two educational settings, the broader impacts for the communities in which these programs operate; the outcomes for our students and some of the key learnings outlined in the program evaluation including the Stakeholder Survey and Student Surveys, that have led to the expansion of the program in 2016.

Beauty and the beast: VET students and issues in beauty therapy training

WOMEN IN VET

Mary McKenzie, CQUniversity

Little, if any research has been undertaken into VET students studying beauty therapy. Students of beauty therapy are in the challenging position of combining work and family with learning new skills of navigating physical nearness and managing emotions while performing intimate body work. Maintaining resilience while in vocational education and training (VET) is important for all students, however for VET students in beauty therapy courses, the overlapping commitments of work, life with the complex nature of beauty studies, constitute an area of stress. For some students, the resulting stress impacts on life satisfaction and course completion. An analysis of the literature finds that focusing on physical proximity with skill, intuition and knowledge emerges in medical and educational settings, yet the beauty industry is a relatively unknown area of study.

This presentation highlights how the demands of multidimensional obligations impede life satisfaction resulting in heightened levels of stress and conflict in students' personal and study lives. This presentation suggests preventive measures to alleviate stress and provides recommendations in order to sustain students and pedagogical strategies for teachers in a thriving area of VET training. For the training organisation, students' stress may decrease their ability to stay in training, with subsequent withdrawals and non-completions resulting in reduced financial return. Given the huge and continuing growth of the beauty industry along with sustained interest in this area of VET, this paper is relevant to developers of other courses to identify students' needs and promote student success, and consequently, improve financial returns.

Wontulp-Bi-Buya College Training Pedagogy

INDIGENOUS

Davena Munro, Wontulp-Bi-Buya College

Wontulp-Bi-Buya College (WBBC) situated in Cairns, Queensland has been educating and providing training programs for adult Aboriginal & Torres Strait Islanders since 1983. Our registered training organisation (RTO) which is recognised in the VET sector, delivers nationally accredited courses, in Certificate III in Addictions Management and Community Development; Certificate IV in Alcohol and Other Addictions Counselling; Certificate IV in Indigenous Mental Health (Suicide Prevention); Certificate III, IV and Diploma in Theology and Ministry. All courses are designed and delivered with a cultural appropriate pedagogical framework that ensures the success of each and every student who dedicates their self to the training. It is also through continuous improvement that not only changes with governmental requirements are implemented but also most importantly the continuous evaluation of student and employer satisfaction are adapted and up-held. We are continuously observing students who have diverse levels in education, little or no employment outcome opportunity due to social impacts and little or no work opportunity. It is part of the cultural appropriate component that WBBC do not discriminate against those who are less privileged in the way of education and training disabilities. We are also finding that a majority of students are not in the position to fully adapt to positive social change in the specified time frames and with the lack of service in community; in turn creating barriers as a registered training organisation who is obligated to report on quantitative research only to ensure compliance to government policies.

ABSTRACTS

The College has a non-for profit status and is reliant on various governmental-funding models, which are essential to the delivery of current courses, however with new national legislated changes to current frameworks, we are observing our training institution gradually being directed away from crucial key components of outcomes through qualitative research data and reporting, which steer away from principles of closing the gap in Indigenous disadvantage. In the last four years, the orientation of VET as part of the Indigenous Advancement Strategy has become highly centralised on employment and outcome strategies, opposed to wellbeing and personal development. Even though WBBC has unceasingly directed its attention to becoming effective in the marketisation of the VET sector by adapting to changes to ensure compliancy to funding frameworks. It is becoming evident that we are being slowly directed away from our vision to equip many students in social wellbeing, in turn creating massive gaps in the support mechanism through WBBC's training pedagogy, and the inability to assist with the social wellbeing, disadvantaging First Nations people and communities.

Factors enabling entry into, and engagement with, VET for young early school leavers: preliminary findings

PATHWAYS

George Myconos, Brotherhood of St Laurence, Research and Policy Centre

Persistent low completion and participation rates of young people in VET – particularly those from low SES communities – pose significant challenges to policymakers and VET practitioners alike. We present early findings of research now underway into the factors that impede or facilitate participation, engagement and completion of vocational training, with a particular focus on young people at the margins of the system. The settings are Victoria, Queensland, and Tasmania. The research looks at distinct phases of the young person's experiences, from: 'intent to enrol, to the quality of their enrolment experience, and then the level of engagement and completion. This presentation will report on the analytical framework we have devised that can shed light on these phases. It will also convey insights gleaned from initial consultations, interviews and focus groups with intermediary agencies and services who are in close proximity to these young 'hard to reach' people. These consultations precede direct interaction with young people. Included will be young people who have commenced, but not completed, vocational training as well as those who may have balked at undertaking training.

Mind the gap - Indigenous capability program for VET educators

INDIGENOUS

Janet Nicholds, VET Development Centre

Key issues addressed in this presentation are research done by the VET Development Centre (VDC) in developing and conducting a program to support VET staff in working with Indigenous learners, the evaluation of this program and the constraints and challenges faced by the VDC in working in this area

Strong student-teacher relationships are critical to the success of education programs. Educational research points to 'quality teaching' as one of the important success factors in delivering high quality and equitable education and training. In the VET sector, as in other educational sectors, the delivery of training to Indigenous learners is often by non-Indigenous educators. The creation of culturally safe learning environments is a vital ingredient to successful learning, meaning educators with cross cultural awareness are better equipped to work effectively with Indigenous learners.

This presentation shares action research conducted by the VDC over the last four and a half years. The research is focussed on designing, delivering and evaluating professional development to support VET educators in working with Indigenous learners. This work has been funded by the Victorian government and is aligned to the Wurreeker Strategy. It is informed by the federal government's 'Closing the Gap' campaign.

This work includes the design and delivery of professional development programs for teachers in TAFE, private registered training organisations and adult community education providers. Delivery commenced in 2011, with programs delivered in 2011, 2012, 2013 and 2015 and planned for 2016. Grants were funded for training organisations to conduct projects aimed at building staff capacity to work with Indigenous learners in 2015 and again in 2016. Participants in programs and grant recipients evaluated their experience and the feedback received was used for continuous improvement. An independent evaluation of the program was conducted in late 2015 by ACER.

The presentation will report on:

- The outcomes of an environmental scan of best practice in Indigenous education which supported the design, delivery and evaluation of professional development programs and prioritising of grant applications.
- The design and delivery of professional development programs delivered in 2011, 2012, 2013 and 2015 to support VET teachers working with Indigenous learners and changes to this in response to the experience gained in previous years and other pressures.

- The conduct by training organisations of VDC funded projects aimed at building Indigenous capability of the organisation.
- Evaluation outcomes and VDC's response to these.

Employment outcomes of newly arrived migrants after participation in workforce preparation or entry level vocational training

OUTCOMES

Monica O'Dwyer, AMES Australia

The aim of the paper is to detail employment outcomes of newly arrived migrants 12 months after completing programs focused on workforce preparation or entry level vocational training certificates.

Employment in Australia is a significant settlement milestone for newly arrived migrants. AMES Australia, a national provider of the Adult Migrant English Program (AMEP), offers specific classes within the AMEP that focus on workplace orientation or preparation, which include work placements and information and orientation to the Australian labour market. In addition, AMES provides vocational program such as the Certificate III in Individual Support (Ageing, Home & Community) (CHC33015) and Certificate III in Early Childhood Education and Care (CHC30113) for newly arrived migrants from non-english speaking backgrounds.

There is a lack of data about the longer term employment outcomes for recently arrived migrants and the linkage between workforce preparation classes or vocational training. The Research and Policy Unit of AMES Australia are currently investigating the employment situations of clients who were enrolled in vocationally orientated classes between September 2014 and September 2015. Data was collected through a structured telephone interview at six and twelve months following course completion. Rather than a random sample of clients, this study undertook to contact all students who had commenced programs. To date 70% of students enrolled during this time frame (approximately 480 people) have been contacted and interviewed six months post-completion. In order to maximise participation rates bi-lingual interviewers with a similar language profile were recruited to conduct the telephone interviews.

The interviewers collected data about labour force participation, current and previous employment situation(s), including industry, occupation, wages, and hours of work. Detailed information was also collected about job searching activities. Participants provided feedback on the course they undertook and were asked about additional employment-orientated assistance and support they required. The survey data also captures further study pathways. This data will give insights into how AMES can improve programs to support people into employment. It will also help identify clients who may require further assistance to ensure that they receive the necessary support to maximise the impact of participating in vocational training or employment readiness courses. Using reflexivity and drawing upon the findings of this initial study a possible framework to continue to better monitor employment outcomes of our clients will be developed.

The presentation will discuss the initial outcomes of the study, implications for the design and implementation of vocational training programs aimed at recent migrants from a non-english speaking backgrounds, as well as methodological insights into conducting research within this population.

A model for developing resources to improve literacy outcomes for carpentry trainees

SKILLS

Jean Parkinson & James Mackay, Victoria University of Wellington (NZ)

During the last decade, emphasis on literacy development in the vocational sector in New Zealand has been on incorporating literacy work into vocational teaching. Such incorporation of literacy teaching into vocational teaching, also known as 'embedding', has benefits for students, in that literacy work is targeted and relevant to their field of study. However it is not always easy for vocational teachers to achieve this embedding, given that they are not literacy specialists.

In this talk we outline and exemplify a model of how such embedding can be achieved. The model of embedding that we describe draws on the expertise and values of vocational professionals as well as on the expertise of language specialists. We describe collaboration between carpentry tutors and literacy specialists to develop resources to teach a key piece of writing for carpentry students, the builders' diary. The builders' diary is ideally a daily account of what the writer did. Professional builders keep diaries to record when and where they did a job, as well as dimensions, materials and costs. For carpentry students, diaries have a wider pedagogical purpose, functioning not only in student assessment but also as a future reference for the student. Thus the student diary records not only what was done and the materials and tools used, but also how it was done.

A first step in this collaboration between carpentry tutors and literacy specialists identified the key features of the builders' diary from the perspective of carpentry tutors, and the multiple social and educational purposes that the builders' diary fulfils. A second step involved collection of a range of student diaries and subsequent assessment of these by the carpentry tutors to distinguish the more expertly

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written diaries from the less expertly written ones. A third step concerned analysis of the language features of the more expertly written diaries. Based on an analysis of both the written language as well as the embedded visuals, teaching resources for use in carpentry teaching were developed.

These teaching resources are used in guiding student acquisition of the diary. Teaching activities include peer-review activities that enable students to respond to the diary writing of peers. This sensitises students to the language features of diaries and provides peer support for acquisition of the diary. These resources help achieve equity in that they are especially valuable for non-native speakers, for whom more explicit teaching of language features is particularly beneficial.

Our work is situated within a wider 'Language in the Trades' project, which examines language use in four trades at a New Zealand Polytechnic, including carpentry, automotive technology, electro-technology and plumbing.

Community education providers, work-based learning and foundation skills

SKILLS

Don Perlgut, Community Colleges Australia

Despite many years involvement in accredited VET, community education providers are often considered as providers of art, craft and pottery classes. This presentation reports on a research project that explores the extent to which community providers are delivering work-based learning and foundation skills. Commissioned by the Department of Education and facilitated by Community Colleges Australia, the project involves a large-scale survey of community education providers followed by semi-structured interviews with a selection of providers.

The results show that community providers are very much involved in delivering a range of work-based learning programs including traineeships, apprenticeships, mandatory work-based learning and programs designed for individual business clients. A significant number of community providers demonstrate entrepreneurial flair and daring by conducting a business specifically designed to provide work-based training opportunities such as a café, nursery or beauty salon. Challenges and obstacles for community providers delivering work-based learning are explored.

Perhaps less of a surprise is the finding that community providers are very much involved in delivering foundation skills. The research examines the range of conditions and practices used including: the qualifications of trainers; the characteristics of learners; the curriculum/training packages used; classroom and workplace practices; approaches to pedagogy and assessment and outcomes for students.

The research fills a gap in our understanding of the role of community education providers in supporting productivity and meeting the foundation skills needs of Australians.

The presentation concludes with charting a vision for the value and importance of community education providers in the delivery of VET.

Can assessment design in online courses impact student engagement and completion rates?

DIGITAL

Toni-Maree Pettigrew, Sarina Russo Institute

This paper reviews student's feedback and statistical data on student engagement and completion rates in two assessment designs in two online courses, Diploma of Community Services and Diploma of Leadership and Management. In one course, assessment reflects a typical assessment design students complete a project, an assignment and respond to a series of open questions. Students are required to explore the content and apply their learning to successfully complete the assessment tasks. The other course employs a simulated assessment design; students are provided with progressive scenarios that reflect a typical workplace activity. Students explore course content and apply knowledge in the context of a mock company and the company's intranet. The mock company intranet is based on earlier work produced by the National VET e-Learning Strategy. Students must explore the intranet to locate company policies and procedures to complete the assessment tasks successfully. Assessment artefacts are collected using a range of educational technologies that replicate the contemporary work environment allowing students to engage with 'real' work activities. Statistical data coupled with student and teacher feedback indicates that simulated assessment design has improved student engagement, decreased length of study and increased completion rates. The use of technologies in replicating a 'real' work environment has also improved students confidence in being able to transfer learning to the workplace. As a result of the findings the institute has implemented a strategy to introduce simulated assessment design across all courses from certificate II to diploma.

Identifying South Australia's industry priority qualifications - a case study in industry and stakeholder engagement

POLICY PERSPECTIVES

Joel Pillar & Heidi Greaves, Training and Skills Commission

In early 2015, the South Australian Minister for Employment, Higher Education and Skills, the Hon Gail Gago MLC requested that the Training and Skills Commission seek feedback from industry in order to identify priority qualifications for each industry sector over the next 5-10 years.

The objective and outcome of this consultation included the development of an Industry Priority Qualifications (IPQ) list which will be used to help guide future government investment in training and skills development, and specifically, future iterations of South Australia's Subsidised Training List.

A survey was chosen as the primary method to gain feedback on IPQs, however, numerous qualitative inputs were also used to complement the quantitative data from the survey.

There was an unprecedented level of industry engagement and buy-in to produce the final IPQ report, including:

- initial survey design and testing
- survey promotion and community engagement from key industry stakeholders
- moderation and qualitative feedback on survey results
- development of a model to convert the priorities of 18 industry sectors into an overall list for the state
- significant feedback from industry following the release of the Interim Report in November 2015.

This approach to consultation received strong support from industry stakeholders.

The survey received 850 responses from across industry including employers, registered training organisations, government bodies, non-government organisations, industry associations, industry skills councils, unions and individuals.

The final IPQ report was published in early March 2016. It includes a summary of the survey results, qualitative feedback from industry on their skills needs into the future, and a list of qualifications sorted into priority tiers for each ANZSIC industry and for South Australia overall.

Embedding digital and technological disruption in the vocational education and training sector: TAFE Queensland / CSIRO joint research project on future skills demand and the role of the VET sector in evolving to provide

KEYNOTE ADDRESS

Jodi Schmidt, TAFE Queensland

This presentation shares the findings of a joint research project with the CSIRO on evolving VET to embed skill needs emerging from digital and technological disruption and other future trends. This applied research project is directly related to the future role of innovation in VET and staying ahead of the curve in meeting client and industry expectations.

VET is fundamental to the Australian economy and delivering the skills needed for the future world of work as well as to drive and respond to productivity growth. Knowing what those skills are and preparing the sector to deliver in a way which resonates with the clients of tomorrow are fundamental to the future survival of training providers.

To that end, TAFE Queensland and the CSIRO have entered a partnership to investigate what technological and digital disruption mean for the workforce of the future and how VET will need to evolve to meet these needs.

This applied research project will examine the future skilling needs of the nation and the adjustments that the VET sector need to make to accommodate this future demand. The project will consider two key points:

- future demand for skills and occupations in the Australian economy
- how the VET sector needs to adapt its course content and delivery to prepare workers for the future economy.

The project will draw on CSIRO's foresighting and megatrends methodologies and TAFE Queensland's experience in training delivery and strong links to industry to identify trends in the demand for skills in the Australian economy. The focus will be on ten years from now.

The research will take account of technological changes, globalisation, industry structure, demographics, working patterns and other key trends. These trends will be overlaid with the training demand that will be required to support these changes and to drive future productivity growth.

ABSTRACTS

Recent reports into the future of work illustrate a dramatic shift in the skills that Australians will require to continue to be engaged within the future labour market. These reports specifically identified current skills being delivered within the VET sector as being impacted by future changes in the workforce, including digital disruption and automation. A key component of the discussion now needs to be how the education and training sector will respond to, and to an extent, drive these changes.

In response, this research project will identify the key groups that are most likely to be at the greatest risk of economic marginalisation. In addition to individuals the research will also examine the impact on enterprises that are currently major employers of VET graduates.

The project will leverage existing research by the CSIRO on the future of work and utilise additional data inputs, including NCVET, ABS and other relevant data sources.

STEM: More than the sum of its parts

Gitta Siekmann, NCVET

SKILLS

Skills and knowledge in the disciplines science, technology, engineering and mathematics (STEM) are often portrayed as requirements to educational and professional success but even more so to a nation's prosperity and competitiveness. However, without a reference to a definition or a consistent definition of what STEM skills are - statistics, policy development, career advice and funding support run the risk of being disjointed and may not address the problem of mismatched skills.

Currently we see headlines of a STEM crisis or STEM myth, and that STEM skills are in shortage or oversupply. Confusion arises from applying the definition of STEM too broadly and thus attempting to be generic and specific at the same time. We suggest using the acronym STEM in its original conception in the education sector as an interdisciplinary approach to learning and thinking that dismantles the traditional barriers separating the four disciplines, and integrates them into real-world, rigorous, and relevant learning experiences. At the same time we discourage the use of the acronym as an umbrella term for qualifications and occupations in scientific and technical fields, disregarding the subtleties and differences within the field. While investigating workforce and skills in demand it may be easier to think of a desired STEM product or output such as improved technology or scientific discoveries rather than distinct STEM qualifications occupations. This approach will subsequently consider a variety of skills and occupations from all disciplines, including the arts and humanities, under a combined direction.

The emphasis in the current STEM debate is placed on secondary schooling and higher education. This emphasis fails to recognise the major contribution of the VET sector to STEM products and services providing a skilled workforce. It not only provides the majority of qualifications and occupations in the engineering and technology workforce but its learning model teaches the application of skills in real or simulated workplace requirements in close collaboration with industry and employers. This model combined with the ability of agile training product responses and tailored short courses makes the VET sector an ideal environment for skill development.

Unleash the potential of gamification in online courses to meet the need of diverse cohort in VET platform

Shweta Singh, HETC

POSTER

Introduction: Traditional learning has seen the transmission of teacher's knowledge and experience to their students but this paper will highlight the possibilities offered by gamification to enhance online learning. Gamification is the process of using game mechanics, elements like story, challenges and characters to engage and motivate learners to have pleasant learning experience. This paper will illustrate how using diverse teaching-learning tools through online platform will enhance student's learning power from diverse background.

This paper is based on the experience gained through working at HETC-a privately owned registered training organization who endeavours to bring a renaissance in online learning by applying some unique pedagogic inventions.

Methodology: The present study explored the impact of the blended learning, clustering of assessments, design of modules, virtual workshops which has impacted various demographic of Students across Australia. The concept of Content gamification is used in HETC in many faculties. This concept is used in making learning content more interesting by introducing more game elements and game thinking while developing the learning material.

HETC's unique pedagogic designs of various courses have a blend of technology and old school format. HETC has embraced gamification theories and put that into practice. Some innovative practices in use are like clustering of assessment, having quiz style questions, holistic approach to collect evidence for assessment. Scaffolding of knowledge is used which helps learners to gradually upgrade their learning capacity from one step to the other. Competency based training helps mature learners to gather knowledge on online platform at their own pace. Gamification takes advantage of this distributed learning.

This paper will reveal some unified approach that can cater for diverse cohort of Australians to undertake qualifications. This paper will highlight the notions of Life Long Learning and training which is beneficial for second Chance learners.

HETC has embraced the concept of 'Visible Learning'-whereabouts the trainers learn through the eyes of students on an online platform.

HETC has developed some innovative way to balance the new generation learners and the Baby Boomers (older generation) to learn on online platform. It supports the Learners through flexible learning model.

Results: The gamification of online courses and pedagogic strategies applied has contributed to improve autonomy, motivation and critical thinking skills of diverse cohort of learners. The objective of engaging diverse cohort has been successful as HETC has strong bond between its professional trainers and design of online studies.

Conclusions: The study indicates that the approaches used, supported by a professional trainer and timely feedback, constitute good tools in order to improve self-directed learning, understanding, as well as some social abilities of diverse cohort in VET Platform. It also supports the overarching requirement of Australian Government which has an ageing population. The paper illustrates lots of evidence of gamification approach used at HETC

Disengagement in young people: How persistent is it?

OUTCOMES

Peta Skujins, NCVET

Disengaged youth are perennially of major concern to policy makers as they are an 'at risk' group in terms of future labour market engagement. One way to quantify the disengaged group is by looking at those who are not in employment, education or training (NEET). Being NEET at a young age can affect future employability, and the NEET group is therefore of interest from a policy perspective. Short spells of NEET may be normal for young people (e.g. if they are travelling, volunteering, or starting a family). Those who are persistently NEET are likely to be more problematic as they may not be developing the skills and abilities needed for future employment success. This presentation will examine how persistent NEET is defined, the characteristics of those who are persistently NEET in the Longitudinal Surveys of Australian Youth (LSAY), and differences between those who are persistently NEET compared with those who may have ever been NEET.

LSAY tracks young people from 15 to 25 years of age, and collects information on the months that they are employed or unemployed, and start and end dates for education and training. From this information we developed a monthly calendar of engagement, to track NEET status by month. The ever NEET population are those young people who were NEET in any month in the sample. One definition of persistent NEET is a continuous 6 month or longer spell of NEET.

The background characteristics of the persistent NEET group compared with those who are ever NEET or never NEET (i.e. always engaged) are examined. These background characteristics include demographics (gender, Indigenous status, disability), and education history including attainment. For those who are not in the labour force (i.e. not in employment and not job seeking) we can also determine the main activity of the individual at the time of the survey.

Limitations of the study include the base population, with some individuals not being eligible for PISA, which the LSAY sample is based on. These include individuals in gaol and those with low English language ability, who may be more likely to become NEET than other young people. Additionally, attrition is a concern in LSAY and those who become NEET may be more likely to drop out of the sample.

Engaging students with their own learning: the Children's University Australia programme

POSTER

Peta Skujins, NCVET

The Children's University Australia programme, run by the University of Adelaide, seeks to engage students with their learning in general, as distinct to prescribed curricula. It is an important aspect of the programme that students are able to direct their own learning experiences and shape their own education aspirations, whilst under the positive influences of education role models.

The CUA programme is a clear approach between students, government, community organisations, private enterprises and providers of higher education to encourage engagement with lifelong education and training. A key strength of this approach is that whilst maintaining clear links with the university sector the programme staff are clearly focussed on further education in general. The programme focus is on young student's developing future aspirations, seeing these as real possibilities and recognising education as an effective strategy to reach them.

Since the inception of the programme in a single South Australian school, approximately 80 schools nationally and around 3500 students have become involved. In 2015 Children's University Australia (CUA) contracted the National Centre for Vocational Education Research

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(NCVER) to evaluate the programme. The evaluation aim was to determine programme impacts on students, the school, and the broader communities, and to find areas for improvement. The research was designed to capture data from students, their parents, and school teachers. Surveys, focus groups, and administrative data were used. Data captured at the CUA graduation ceremonies showed the positive effects of the programme, with students feeling engaged with their learning and enjoying the learning activities, and proud of the results of their efforts. Results of the surveys and focus groups will be presented, and the effects on students and potential improvements to the programme will be discussed.

Re-defining the future for the Deaf through accredited training: creating equity and inclusion

OUTCOMES

Vanessa Solomon, Deaf Services Qld

Building on 40 years of experience in teaching Auslan, Deaf Services Queensland has recently extended its course offering to include accredited courses through the establishment of a Registered Training Organisation (RTO), Access Training and Education. Access Training and Education, despite being a relatively new RTO are already demonstrating they are the leading provide for accredited Auslan training, due to their innovative approach and use of technology, a supporting mentoring program and partnerships with governments across various levels (e.g. the Australian Government Department of Human Services, Queensland Government Department of Education and Training).

Supporting inclusivity, Access Education and Training creates pathways from non-accredited training, to accredited training to then progress onto applying for professional registration as an Accredited Translator/Interpreter with the National Accreditation Authority for Translators and Interpreters. (NAATI). This pathway allows students who may not be suitable to enter into the Certificate II in Auslan (currently the lowest AQF level course), to enter into training through a non-accredited pathway (please see diagram on the following page). This also includes Access Education and Training's "Pre-Intensive Interpreting Course" (PIIC), consisting of 3 theory-based units of the Diploma of Interpreting which is used as an introduction to the Diploma of Interpreting.

Results based on feedback from the first cohort of the PIIC course have shown that this approach to developing course pathways is cohesive to developing a skilled workforce. The use of technology to deliver the course by Deaf people across Queensland has ensured the course is engaging and supports the diversity of the student cohort. The mentoring program has allowed Students to shadow Accredited Interpreters, ensuring that upon completing students are adequately prepared for the workforce (which has demonstrated an increased need for Qualified Auslan Interpreters).

In conclusion, we believe our approach is creating a future for Deaf people where communication is open, transparent and easy, allowing every Deaf person to communicate freely with others, as demonstrated in the following short clip. <https://www.youtube.com/watch?v=CVr8W-tDQ-A>

The importance of specialised training programs to assist skilled migrant women access the Australian labour market

POSTER

Lisa Thomson, AMES Australia

Women migrants from the non-main English speaking countries are one of the largest groups of new entrants to Australia. As a group they experience higher levels of over-qualification and underemployment than other migrants. They are hidden from view where their role has shifted from being well-educated paid professional to re-domesticated as wives, spouses and partners. This group of women are ineligible for employment support via settlement programs or mainstream jobseeker services. However, they need some support and guidance to navigate the Australian labour market and secure work in a job aligned to their skills and expertise.

This paper is based on two studies conducted by AMES Australia's Research & Policy Unit. The first is a National study of recently arrived skilled migrant women who arrived either as a secondary applicant in the Skilled Stream or a primary applicant in the Family Stream and their experience of job searching in Australia. The second is a longitudinal study looking at employment outcomes of skilled migrants who complete the Skilled Professional Migrant Program (SPMP) which is run by AMES Australia. The SPMP aims to help skilled professional migrants find a job aligned to their education and experience by equipping them with the skills and knowledge to engender employment success. It is a four week intensive workshop style course, which includes an extensive range of job search activities and practice, career counselling and professional mentor support. Together these two studies provide evidence about the experiences of skilled migrants seeking employment.

The first study based on face-to-face interviews and focus groups from a National sample of 63 women found that the experience of securing employment for many partner migrant women was solitary and frustrating. This study revealed that the process is often one of trial and error as they search for reliable information relevant to their situation. The respondents repeatedly found that time and resources were wasted trying to discover support services (if they were available) and to identify where to find suitable jobs commensurate with their

skills, experience and qualifications in an unfamiliar and foreign labour market and community. Without understanding the expectations of Australian workplaces in terms of recognition of skills and qualifications, proficiency in English, understanding soft cultural skills and workplace culture it was difficult to secure a job. Many experienced unemployment, underemployment in temporary, part time and casual jobs, and deskilling as a result of working in low skilled occupations.

The second study has tracked the outcomes of the SPMP over four years. The program has successfully demonstrated with structured support and training, skilled migrants are able to access the labour market more easily. The employment outcomes for this course are high.

From an economic perspective, migrant women are an underutilised source of human capital in Australia. If Australia is committed to bringing skilled migrants and their partners to Australia more resources need to be made available to support them to enter the labour market quickly. Ultimately, this enhances the settlement process and the whole Australian community benefits.

Crossing vocational thresholds in practice-based learning

PROFESSIONAL DEVELOPMENT

Karen Vaughan, NZ Council for Educational Research

The recently-completed Knowing Practice project explored practice-based learning (apprenticeship or vocational immersion) in three very different fields: general practice medicine, building and construction, and technical engineering.

During an initial analysis of the first round of data collection, project researchers began developing the idea of “vocational thresholds” to account for the striking similarities in transformational learning experiences reported by participants across the three fields. These vocational threshold experiences move learner-practitioners to a new level of capability, with a connected understanding of theory and practice. The vocational thresholds are anchored in authentic practice and are often personally and professionally troubling to practitioners. Crucially crossing a vocational threshold transforms not only what the practitioner knows and can do, but the way they are.

Knowing Practice involved observations and interviews with 41 GP registrars, carpentry apprentices, and technical engineering cadets and 34 of their workplace-based mentors, advisors, and teachers. I firstly present the field-specific vocational thresholds and their impact based on the insights and perspectives of participants. I then look at the ways systemic learning arrangements, including roles for mentoring and teaching, could help shift practitioners’ meaningful experiences into a vocational threshold zone.

Knowing Practice was co-funded by the New Zealand Council for Educational Research (NZCER) and Ako Aotearoa – The National Centre for Tertiary Teaching Excellence.

Ensuring equity of access: what can we learn from the failings of deregulation in the Victorian VET system and the widespread routing of VET FEE-HELP to ensure genuine equity of access to education and training for students, particularly those who are vulnerable

POSTER

Scarlett Whitechurch, RMIT University

The deregulation of the Victorian VET System which began in 2009 and the deregulation of VET FEE-HELP in 2012 has led to widespread and in some cases, extreme, exploitation of students – particularly those who are vulnerable members of society such as young people, people with low skills and literacy levels, people of low socio-economic status, people with disabilities, new immigrants and the unemployed. The deregulation has also led to widespread course fee increases, where by much of the fee was not directly related to delivery costs, but instead provided huge profits for private providers. The incentive of large profits has led to many instances where the quality of the education and training delivered has been very poor. This has led to ill-equipped graduates and highly publicised instances of public safety concerns where ‘qualified’ employees did not have the adequate skills or knowledge to perform their jobs safely – for qualifications in childcare and aged care, this meant that children and elderly people were put at risk.

The current Federal Government has recently expressed an interest in nationalising the VET system in Australia, with the intent of deregulating fees and moving towards funding parity between public and private training providers (the draft plan is to be presented at the 2016 COAG meeting in March). It is in light of these proposed changes – particularly the deregulation of the entire VET system in Australia, that this poster seeks to articulate how fee deregulation in the Victorian VET System, coupled with the deregulation of VET FEE-HELP led to things going so unexpectedly wrong - specifically how gaps and disconnections in public policy directly contributed to widespread system failure in Victoria. This will be partially based on an earlier policy analysis, published in the Publicus Consilium: Deakin Public Policy Review 2015 (Vocational Education and Training FEE-HELP: increasing equity, but for whom, the student or the government? pp.47-57) and incorporate further research and analysis. Key learnings and recommendations will be developed to outline how important it is to get not just the ideology, but the policy right when implementing deregulation of the essential service of education and training and ensure genuine equity of access for all students.

