

## FROM THE PRESIDENT

### The value of our research

Some many years ago when I was settling in Australia and trying to find where my natural academic home and research pastures were I came across a paper called 'No Small Change' (MacDonald et al 1993) which was both a reflection back on the disparate nature of VET research and infrastructure and simultaneously the clarion call for the restructuring of the discipline. How lucky I was to be at the cross roads when things began to take shape. While the waves of a national system, competency-based training, industry standards and an open market rolled through VETland, we benefited from the establishment of a national research centre, annual competitive grant funding, focused conferences and then a researchers association. It has transformed the VET sector, and transformed researching and researchers in the VET sector. And yet not all is well. With one breath I look back at the progress and realise we are part of something significant, something VET researchers in other lands may often be jealous of. However, while we rejoice in having a platform and a voice, we also know how 'soft' that voice seems at times. How little we often feel along side taller research disciplines and how distant we feel from policy makers. I recommend the reading of the Billett and Dymock report on our website to understand how 'rickety' is the bridge between our research and any impact on policy. Indeed, I have heard several voices indicating that the doing of research and the marketing of research many indeed be two separate skills.

This year AVETRA has played a role in addressing the balance. Many of you have responded to calls for relevant research you have completed in several areas and we have made four submissions: to the Productivity Commission (2),

Skills Australia and the 21st Century Apprentice review. Our message has been clear. Firstly, decisions about future direction should be based on research findings rather than speculative articles and pressure group ideas. Secondly, we have tried to distill and focus your research findings to influence the groups that have been charged by government to provide options for the future.

The 'rickety' bridge has many loose planks where knowledge falls through. Have we done relevant research? How valid are our findings? Are powerful people accessing that knowledge? Is it being used to support future changes? Are those changes politically acceptable? It seems there are far too many gaps to slide through on the bridge in most cases, but we continue to try to cross successfully.

There are some very gritty researchers in our network who are passionate and vocal about their work and this sector. Perhaps we have often been too well spoken. If skill shortages are to be a continued national discourse, perhaps we should be focusing more on the big questions government wants answered rather than just our local issues, and finding more ways to shout more about what we have found. For me, the fears of researching, the apprehension of delivery, are all too often displaced by the depression of dissemination, when others seem not to be bothered anyway.

It is up to all of us to make sure that our research is relevant, not just to us, but to the powerbrokers – illuminating the critical questions and enabling us to shout – look at what we have found out!

**Llandis Barratt-Pugh**  
President, AVETRA



**AVETRA Conference**  
**Canberra**  
**12–13 April, 2012**

< The AVETRA Annual Conference provides members with the opportunity to learn, meet our colleagues and disseminate our research findings.

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# Research shows how e-learning can support workforce development

New research from the Flexible Learning Advisory Group (FLAG)\* provides a picture of how e-learning can help to overcome barriers to workforce development.

Prepared by the University of Sydney's Workplace Research Centre, the *Enabling workforce development* report investigates the impact of e-learning on workforce development in nine industry sectors funded and supported by the Australian Flexible Learning Framework (Framework).

The report identifies the type of critical workforce development challenges e-learning can help overcome. This is analysed at three levels of economic activity: **individual**, **workplace** and **industry**.

For each of these economic levels of activity the challenges have been broken into three types. These types relate to **access** to education facilities and resources; **motivation** to engage with training; and **experience** of education (negative legacies of prior education experiences).

For example, e-learning can make a significant difference as part of a broader battery of workforce development:

- At the **individual level**, where past experiences of learning (especially unpleasant experiences) were seen to occasionally result in a prejudice. It was found that e-learning helped overcome this challenge, and in many ways provided a good opportunity for 'second chance' learning.
- At the **workplace level**, as a way to **motivate** employer interest in training because it can reduce the time and costs of training. E-learning offers the opportunity to minimise staff down-time and eliminate travel time. By ensuring training fits in with flows of production and service provision, the **cost benefits** of e-learning are made very attractive to employers.
- At the **industry level**, by improving **access** where there are strong **networks** of employers within the industry. E-learning is useful in connecting workplaces for the benefit of the industry overall.

The report highlights that e-learning also has the potential to support other aspects of education and workforce development policy, especially in terms of boosting levels of adult literacy and making greater use of workplaces as sites for learning.

FLAG Chair, Mr Raymond Garrand, said that the report is a valuable resource to help business and industry understand which workforce development challenges e-learning is best suited to.

"Increased investment in workforce development by industry will be critical for enterprises and the economy and this new research highlights the important role that e-learning can play," Mr Garrand said.

The report also sets out the supportive arrangements that should be in place for e-learning to contribute to workforce development, including:

- clear drivers (eg skills shortages) which prompt interest in new training approaches
- adequate IT infrastructure
- a coherent workforce development model
- an industry e-learning champion.

The report summarises the workforce development challenges and levels of economic activity in a training matrix, as well as case studies of the community services, retail and dairy farming industries. The case studies illustrate that, in its many forms, e-learning can make a significant contribution to achieving successful workforce development.

Read and download the full report: *Enabling workforce development: Insights from industries using e-learning*.

\*The Flexible Learning Advisory Group (FLAG) is an advisory group of the National Senior Officials Committee (NSOC). FLAG is the key policy advisory group on national directions and priorities for information and communication technologies ICT in VET and adult and community education (ACE), and manages the implementation of the Australian Flexible Learning Framework.

## Do the learning cultures of VET Institutes (Vocational and Higher Education Programs) support transition to Higher Education Institutes?

### Abstract:

It has long been recognised that the learning environment of the Vocational and Education Training (VET) sector differs from Higher Education institutes (universities). This research report comprises a literature review of the key factors that distinguish a learning culture within Vocational and Education Training institutions from a university learning culture. It presents two case studies of learners who have attained both vocational and higher education qualifications through a VET institute, and have subsequently articulated to other Higher Education institutes to continue their studies. The case studies document whether the Learning Cultures of VET institutes (Vocational and Higher Education Programs) support transition to Higher Education institutions.

Robyn Megna  
Monash University



Berwyn Clayton, Peter Kell and Kevin Heys at the 13th AVETRA conference.

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# A snapshot of what to look forward to from NCVET: Research Consortia and Community of Practice

NCVER strives to improve policy and practice by funding research into key issues in Australia's tertiary education and training sector. This funding is provided through the National VET Research and Evaluation (NVETRE) program and incorporates various funding rounds and scholarships for researchers and practitioners.

The 2010/2011 financial year has been very active for NCVET, with the NVETRE program funding five research centres or consortia to conduct substantial three-year programs of research, as well as several scholarships through the Community of Practice program. We have also been finalising work for the previous research consortia program that was conducted over the period 2008 to 2010.

Based on previous experience with research consortia, NCVET's Managing Director Tom Karmel points out that 'by offering substantial funding and longer timeframes in which to conduct the research, NCVET has been able to attract high calibre researchers, build a significant body of knowledge and promote substantive interaction between researchers, policy-makers and practitioners'.

However, NCVET also recognises the importance of building researcher capacity in the sector. Scholarships offered as part of the Community of Practice introduce individuals and their employer to the value of using research and data to make evidence-based decisions and solve real work problems. Ten novice researchers received a scholarship in 2011 and they will be mentored throughout the year as they research a workplace issue and write a paper.

The projects selected in 2010/2011 highlight some of the prominent topics



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on the agenda of post-compulsory education practitioners, particularly social inclusion, the role of VET and pathways to the workforce and the importance of managing VET's carbon footprint.

## Social inclusion

Through the three-year programs researchers from the Centre for Research into Disability and Society from Curtin University will examine participation in apprenticeships and traineeships for people with a disability. This program of work will consider the economic and social outcomes of participation in VET for people with a disability and their transition into the world of work.

The Centre for the Economics of Education and Training at Monash University will explore the issue of social exclusion in regional Australia. The program will highlight the multi-dimensional nature of social exclusion and seek to determine how VET can contribute to socially inclusive outcomes, with a particular focus on its regional and geographic dimension.

The Melbourne Institute of Applied Economic and Social Research from the University of Melbourne will consider the impact of a range of disadvantage types, including socioeconomic status; indigenous descent; living in a remote area; and having a disability, on labour market outcomes and social exclusion. The program aims to assist policy makers to design effective interventions by providing evidence on the causal relationships between disadvantage and participation and between participation and social inclusion.

Four of the Community of Practice projects as well as three of the five NVETRE programs have a social inclusion theme.

Anne Bowden from TAFE NSW New England Institute and Rodney Towney from TAFE NSW Western Institute are both looking at improving the completion rates of Indigenous students. Anne will be examining the attitudes of trainers and assessors and how this may impact completion, whereas Rodney will focus on the students' attitudes and reasons for non-completion.

Ibrahim Diab from Victoria University will focus on improving the outcomes of students with low literacy from African backgrounds. The research will include employer interviews to examine what

factors might persuade employers to provide work experience and employment options to these students.

The final Community of Practice project, which will examine the issue of social inclusion, is being prepared by David Gutteridge from Government Education and Training International in Tasmania. This work will look at the integration of adult international students into their local community. The aim of the project is to improve international student's overall satisfaction by developing strategies to increase the involvement of these students in local community activities.

## The role of VET and its pathways to the workforce

Through their three-year research program the Adult and Vocational Education research group from Griffith University will seek to understand the changing requirements of the VET training system. Given Australia's ageing population there is an increasing reliance on a mature-age workforce. This research aims to identify the impacts this has on the VET sector – specifically the need to shift the primary focus of VET from initial preparation to continuous education to serve the needs of the labour market.

A more general examination of educational and occupational pathways will be undertaken by the LH Martin Institute at the University of Melbourne in order to enhance connections between education and work. This three-year program aims to identify factors that support or inhibit non-compulsory study, in order to increase VET participation and consequently, successful transitions from VET to the workforce.

Four Community of Practice projects and two three-year programs of research will examine the role of the VET system and its impact on the labour market.

Kathy Piccardi from the Metropolitan South Institute of TAFE, and Natalie Jaques from the Central Institute of Technology will be examining the roles of enterprise learning consultants (ELCs) and casual VET practitioners respectively, and how they contribute to VET institutions.

Another area of interest in the Community of Practice relates to how employers use training. Tracey Singh from the Sunshine Coast Institute of TAFE will be examining how enterprise registered training

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organisations (ERTOs) can use collaboration to improve training. Emmaline Lamond from the Australian Industry Group will investigate to what extent employers make use of formal learning compared to non-formal approaches.

### Managing VET's carbon footprint

Finally, two Community of Practice scholarships will examine the topical and timely issue of the impact of a carbon-constrained economy. Penelope Johnston from TAFE SA regional will look at the development of voluntary carbon inventories and carbon management strategies within the TAFE SA regional institute. Kelly Bramhill from the Australian Institute of Management South Australia will consider the preparedness of businesses to operate in a carbon constrained economy, and the VET sectors' support of sustainable practices.

NCVER looks forward to supporting all of the researchers throughout their projects and seeing their final results.

For further information about NCVER's managed research programs visit the NCVER website: [www.ncver.edu.au](http://www.ncver.edu.au)

Consortia programs:  
[www.ncver.edu.au/workinprogress/researchprograms.html](http://www.ncver.edu.au/workinprogress/researchprograms.html)

Community of Practice:  
[www.ncver.edu.au/research/opportunities.html#Community\\_of\\_practice\\_scholarships\\_for\\_VET\\_practitioners](http://www.ncver.edu.au/research/opportunities.html#Community_of_practice_scholarships_for_VET_practitioners)

Other managed research:  
[www.ncver.edu.au/workinprogress/managedresearch.html](http://www.ncver.edu.au/workinprogress/managedresearch.html)

**Laura O'Connor, NCVER Research Management**

## Learner identities and educational engagement:

### A framework for understanding learner identities of Northern Australian regional learners with implications for educational pedagogy, policy and practice

Learning is a social process, informed by social interactions and connected through place, time, language, culture and context. Addressing the inequities in educational outcomes impacts on individuals', communities and nations' employment and wellbeing and is underpinned by understanding the influences that inform adults' decision making about engagement in formal education. Learner identities are socially informed and connected to learners' communities based in school, peer, family, local and global contexts. These learner identities are mutable and non linear as they relate to complex sets of social relationships. This research's outcomes examine the disparities between individuals' learner identities and those operating in a range of learning contexts. The discontinuities in learner identity impact, significantly, on the meaning-making frameworks and resources that learners' access to engage their learner identities and mediate their engagement in formal education.

The study analyses twenty regional adult learners' in-depth narratives and identifies the key themes in their learning experiences that impact on their engagement in formal education. The research finds that peoples' identities related to learning, that is, their learning identities, formed a core part of the adults' decision making across a range of educational experiences, institutions and purposes over their lives. It also describes the ways adults' engagement with post compulsory learning is mediated by an individual's socially informed learner identity. The management of learning

identity draws on and creates identity resources to manage the intersections of discordant, or opposing, learner identities. This learner identity work is described here in terms of a sense of agency within learning contexts.

This thesis identifies and typifies participants' learner identities and provides a framework for describing learner identities by adapting educational institutions and experiences to support the development of learner identities that successfully engage with post compulsory learning. The resultant learner identity framework draws on social perspectives of learning and identity and social capital theory to describe the key features of different learner identities. The four broad groupings of learner identity are described as resistant, persistent, transitional and enacted.

This study found that the work of people and educational institutions to develop and maintain their identity, as it relates to being a learner, is conflicted, discontinuous, and can have an impact on behaviour without the overt knowledge of the participants. Developing an understanding of the underlying themes within the learning profiles can inform educational policy and practice in order to improve the engagement of disenfranchised regional learners. In addition, it can improve learners' perceptions of their relationships to educational institutions and their own social networks.

**Ruth Wallace  
Charles Darwin University**



The AVETRA Annual Conference provides opportunities for researchers to meet each other in collegial circumstances.

## Apprentices' social support research

Many apprentices are in an important transitional phase as they move from school to work. If not negotiated successfully these transitions may be associated with increased risks for poor health and/or mental health outcomes. Apprentices' social context, including their own resilience, resourcefulness and the availability of support, influences their ability to successfully navigate the school-to-work transition. The focus of findings reported here are on two studies by Tim Corney and Karin du Plessis (Incolink, Victoria) which was published in recent issues of *Youth Studies Australia* in 2010 (volume 29) and 2011 (volume 30). The studies focused on construction industry apprentices and the aim of the research was to gain a better understanding of the nature of apprentices' natural support systems.

The first study was a survey of 146 apprentices. The majority of apprentices (90%) were able to identify supportive people in their lives. Apprentices shared events, disclosed confidences and looked for support from family members, romantic partners and close friends. The key attributes of these relationships with significant adults were trust, respect and friendship, with the gender of the support person of lesser importance. Irrespective of

who the apprentice chose to share a secret with, trust was a key aspect of that relationship. Trust is future-oriented and impacts on the longevity of a relationship. These significant adults were important to apprentices because they could be trusted, and conversely the trust that they have in these people contribute to the significance of these relationships. However, 10% of apprentices indicated that they had 'no one' that they could turn to for support. This type of isolation and detachment from a social network has implications for individuals' wellbeing and could place individuals at risk for poor health and mental health outcomes. In addition, this could have implications for apprentice retention and non-completion of apprenticeships.

The second study was a survey of 106 apprentices. It again found that a number of people in apprentices' personal lives, but also in the workplace, are important to their social support. These significant others were often seen as role models or mentors, with the majority of supportive relationships (63%) located in apprentices' personal lives (e.g., parents, close friends, romantic partners), and approximately a third located in apprentices' workplaces or training institutes (e.g., employers, co-workers, teachers at TAFE). For the most

part these relationships had developed organically, and apprentices particularly valued the reciprocity, support and friendship these relationships offered.

While both studies highlight apprentices' ability to draw on their social networks for support, the findings underscore the need for increasing resources for socially isolated apprentices who might not benefit from current informal social support structures. These apprentices are most at risk of poor mental health outcomes and non-completion of their apprenticeship. It is evident that for these 10% of young apprentices alternate support structures need to be developed. For example, this could include formal industry-based programs such as mentoring, buddy systems or online support. In particular, it is hoped that the new Victoria-based Apprentice Support Officer roles, developed under COAG national partnership initiatives, could assist in meeting apprentices' need for support, especially amongst isolated young workers.

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**Karin du Plessis, Incolink & Honorary Fellow at Melbourne University,**  
**Tim Corney, Incolink & Honorary Fellow at Swinburne University**

## Dynamic integrated learning: managing knowledge development in road transport

The road transport sector has been quick to introduce new technology into its operations, which is changing the way information and knowledge is presented to drivers, from the "old" technology where it was explicit, to the "new" technology where the knowledge required for performance is abstract, remote, and "hidden". Subsequently, these drivers' ways of thinking and learning must change to make the transition from the old technology to the new. So, while technologies have been introduced to manage emissions, reduce maintenance costs, increase safety, and make road transport more economically competitive, they sit alongside increased demands associated with vehicle utilisation. Also, integrated electronic systems have changed how information is presented to the driver through abstract computerised symbols. Additionally, these systems have

replaced the earlier methods of driving, which previously relied on sensory inputs such as vibrations, sound, and even smell, and instead require a new set of cognitive skills that are reliant on a higher order of conceptual knowledge. The ability to learn these new types of knowledge, therefore, has implications for developing and maintaining professional competence in a rapidly changing society.

This investigation seeks to understand and elaborate how learners who work in circumstances that might be described as being relatively socially isolated come to further develop their working knowledge. The focus here is on road transport workers (i.e. truck drivers) who often work alone, yet are faced with learning to accommodate and respond to new work challenges and ways of working. Increasingly, these workers are required to engage with and understand work

knowledge that is represented symbolically through computerised display systems and that requires capacities distinct from those required by earlier generations of road transport workers. In particular, how road transport operators learn new types of knowledge, in view of the recent introduction to heavy road transport of technologies such as computerised engine management systems, automatic gearboxes, and computerised displays (also known as Driver Information Systems or DIS), is considered within this study. Moreover, given the relative social isolation that comprises their work, it is important to understand how the personal and social (i.e. internal and external) contributions to learning development interact in this process of learning.

Whilst recent research has identified interrelations between both personal and

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social contributions to individuals' learning and knowledge development, and how they interact, to varying degrees, there is a need to map a comprehensive account of how these learning practices are enacted in situations of relative social isolation where many people work and learn. Hence, this dissertation advances an integrated account of this learning that combines both individual and social influences to explain the underlying processes that affect knowledge construction.

Moreover, as much learning occurs throughout working life, such as in the case of road freight transport workers where it occurs in relative isolation without the benefits of expert guidance, supervision, or help, there is a need to account for how individuals' personal agency and self-directed learning are exercised in these circumstances, particularly when addressing learning that is difficult to access and construct. Hence, a direct contribution provided through this dissertation is a model that builds on the knowledge-creation approach to learning proposed by Paavola et al. (2004) and Nonaka and Takeuchi's (1995) model of knowledge creation. The Dynamic Integrated Learning Model, proposed here, builds upon and assists in explaining the dynamics and interrelatedness of different factors that contribute to learning and, therefore, enhance workplace performance.

The findings both support and further elaborate the concept of a relational interdependence between social and personal contributions as an explanatory base to understand workers' learning and development. As such, they support Billett's (2006b) claim that, "rather than being reciprocal or mutual, these relationships are negotiated and differ in intensity: they are relational" (p.14). Furthermore, the research identified that there was interdependence between social and personal factors and these were enacted relationally depending upon both situational (i.e. work tasks) and individual factors (i.e. personal preferences and knowledge).

Jason Lewis

Abstract from PhD thesis completed at Griffith University

## Gender performance in Information Technology (IT) and Library Studies

For many years the "pipeline metaphor" has been used to explain gender disparities in IT professional training. This metaphor posits that in gendered professions, few people from the minority gender enter training and this combined with subsequent leakages between developmental stages within a profession generates low completion. The reasoning for a scarcity of men in certain areas of Libraries has followed a similar logic. In this study, I argue that the notion of performativity (Butler 1999) coupled with Paechter's ideas of communities of practice of masculinities and femininities, presents opportunities both theoretically and methodologically to destabilise normative gendered discourses associated with the communities of practice of IT and Library training in VET. In advancing this argument, I employ qualitative and quantitative instruments in a sequential crossover strategy to explore lecturer's recognition and understandings of gender and the gendered nature of IT and Library professions as well as how this manifests in a South Australian TAFE.

Quantitative data was drawn from organisational enrolment data and a questionnaire to teaching staff in the IT and Library Studies programs at a TAFE SA Institute. Qualitative data was also produced from the same questionnaire about IT and Library Studies, in conjunction with observations undertaken in four IT and Library Studies classrooms and interviews with six lecturers in the programs included in the study. An analytic frame informed by performativity and its components interpellation, citationality and signification (Butler 1999) encouraged lecturers to articulate narratives usually unable to be spoken within the discursive field of "key drivers"

and "meritocracy" used to explain IT and Library training progression for minority genders in each of the professions.

The findings suggest that "meritocracy" is not the only explanation for gender disparity in completions in IT and Library Studies. The gender of students has a significant role in their success in training. Tensions exist for students between the various performativities that exist in the training environment – their learned performance of femininities or masculinities; femininities allowable within the IT profession; masculinities allowable in Libraries; performances of an IT or Library worker. If these tensions become too great, they may go some way to explaining completion rates in IT and Library Studies. Further whilst lecturers are interpellated into normative discourses of meritocracy, gendered scripts (for example scripts of caring, temporality and ethnicity) as well as professional scripts that align to these, lecturers attempt to "breakout" from these normative discourses.

The study finds three causes for the gender disparity additional to those suggested by the "pipeline metaphor". Firstly, lecturers' normative modelling of gender, and IT and Library professionals provides limited signification of other allowable performances of these roles to students. Secondly, there is a greater gender disparity in the IT and Library Studies programs than the professions, limiting students exposure to professional performativities of minority genders. Finally, the gendered training environments in TAFE also contribute to the disparity.

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**Karen Poulten (2011), Unpublished Honours thesis. BAVE (Honours) University of South Australia.**