Australian vocational education and training
Research messages 2004

2004

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Preface

Research messages 2004 is a collection of summaries on all research projects published or completed by the National Centre for Vocational Education Research in 2004. It is the first year such a product has been produced by NCVER.

The summaries are clustered under five broad themes used by NCVER to organise all of its VET research and analysis. The five themes are:

- Industry and employers
- Students and individuals
- Teaching and learning
- VET system
- VET in context.

Fifty-six pieces of work are included and each summary provides details of how to access the full research reports.

We commend this publication as a key information resource to all those working in Australian vocational education and training and related areas. NCVER plans to use this publication as a reference document for consultations on future research priorities.

NCVER acknowledges the funding of the Australian National Training Authority in relation to the majority of the research included in this publication. We thank also each of the authors of the individual research projects and Penelope Curtin for her contribution.

Established in 1981, NCVER is an independent body responsible for collecting, managing, analysing, evaluating and communicating research and statistics about vocational education and training. Its vision is that Australia's VET policy and practice are informed by a sound base of quality information.

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Acronyms

ACE	adult and community education
ANTA	Australian National Training Authority
AQF	Australian Qualifications Framework
AVETMISS	Australian Vocational Education and Training Management Information Statistical Standard
CEDEFOP	European Centre for the Development of Vocational Training
NCVER	National Centre for Vocational Education Research
OECD	Organisation for Economic Co-operation and Development
RPL	recognition of prior learning
TAFE	technical and further education
VET	vocational education and training

Adult learning through fire and emergency service organisations in small and remote Australian towns

Christine Hayes, Barry Golding, Jack Harvey

Communication and other literacy skills are vital to public safety organisations. This report investigates the impact literacy levels may have on the ability of volunteers to meet demands for more formal training and assessment. The role of these organisations to develop the skills of people in rural and remote communities is also considered. The research finds public safety organisations are important sites of adult learning, particularly for men. While the introduction of more formalised training presents opportunities, such as building community capacity, challenges also exist. Strategies to overcome potential barriers include developing training and assessment that relates to local situations, adapting training and assessment materials to suit learners, and including hands-on, practical training where possible.

Key messages

- Fire and emergency service organisations are important locations within rural and remote communities of Australia for adult learning, particularly for men.

- A relatively high proportion (40%) of fire and emergency service volunteers in rural and remote areas have not completed any formal education beyond Year 10. Their local fire and emergency service organisation provides a community context for them to be engaged in new forms of learning.

- Increasing community expectations, legal and other pressures are driving a demand for more formal training and assessment of volunteers. Although some volunteers are attracted by the prospect of gaining qualifications in a range of skills that can be used within and outside the organisation, others are reconsidering their voluntary commitment because of perceived difficulties with what they regard as unnecessary external imposition of higher and more formal demands.

- A proportion of volunteers (at least three in every 20) can be expected to have some difficulties with the standard training and assessment offered because of limited communication and/or literacy skills. This proportion is likely to increase as training and assessment demands increase.

- Literacy and communication skills training must be integrated within emergency services practice, delivered in context and accessible to all.

- Developing the skills of key people to mentor and support volunteers with low literacy skills as they complete regular training will be important to help overcome barriers to active membership. Trainers and assessors need to be skilled in working with a range of learners as well as in technical skills. Brigade/unit and regional officers may also benefit from a greater understanding of how they can assist a range of learners. One way to develop these skills is to create stronger links with local adult learning organisations experienced in providing literacy and/or communication skills training to people with a range of skills.

- Adult learning organisations, where they exist in small and remote communities, have traditionally not been involved with the training of fire and emergency service volunteers. There are opportunities to rethink networks and funding models to facilitate training through existing local structures, with flow-on effects to the community.

> *Adult learning through fire and emergency service organisations in small and remote Australian towns* can be found on NCVER's website <http://www.ncver.edu.au/research/proj/nr2L03.pdf>

A fair go: Factors impacting on vocational education and training participation and completion in selected ethnic communities

Judith Miralles

There are differences between, and among, people in ethnic communities. This study seeks to provide a more nuanced snapshot of VET participation and completion rates among Arabic, Bosnian, Cantonese, Spanish, Turkish, and Vietnamese communities. It investigates the effectiveness of English as a second language programs as a pathway to training. Overall, the participants of this study favour programs which provide clear pathways to employment, offer language support, acknowledge existing vocational skills, and include work experience in their training. The critical role of teachers was also emphasised by participants, particularly teachers sensitive to cultural issues such as language and values, and who constructively use cultural diversity in training programs.

Key messages

- The research verified a generally low awareness and valuing of vocational education and training amongst the participants for the six language groups taking part in the research, widespread dissatisfaction with English as a second language programs, and little understanding of traineeship and apprenticeship opportunities.

- The main purpose of training, from the perspective of the participants in this study, is to get a job; undertaking training is generally not reconsidered once a job is found.

- The primary preference is for vocational programs with integrated English language support.

- Enrolment and completion in vocational education and training are strengthened in programs that:
  - provide clear pathways into employment
  - provide language support
  - acknowledge and address cultural issues
  - have teachers who understand issues faced by trainees (cultural, language and settlement), and who have, in turn, the ability to explain cultural and professional values and practices to trainees
  - acknowledge trainees' existing vocational skills
  - include work experience in their training.

A fair go: Factors impacting on vocational education and training participation and completion in selected ethnic communities can be found on NCVER's website <http://www.ncver.edu.au/research/proj/nr2L04.pdf>

Australian vocational education and training statistics: Older learners 2002

Alison Anlezark

The increased focus on the economic and social consequences of Australia's ageing population has implications for employment, education and training policies. Training for older people (aged 45 years and over) clearly has a role to play in ensuring Australia has a skilled workforce and workers remain productive and in their jobs longer. This publication provides trends and changes of older learners over recent years and examines their characteristics, the training they undertook and their motivation to study.

Highlights

- Across the education sectors, older learners are most prevalent in the public VET system, comprising 20.5% of all public VET students, compared with 12.2% of all apprentices and trainees, and 7.2% of all higher education students.

- In 2002, 6.9% of all Australian people aged 45 to 64 years participated in the public VET system. However, two-thirds of this group are aged under 55 years, and therefore closer to middle age than 'retirement age'.

- Older learners in VET are by no means a homogeneous group. However, they are more likely than their younger counterparts to be female, studying with ACE providers, studying part-time, and from rural areas.

- Older learners in VET choose different types of training than younger learners. They prefer shorter, less formal VET, such as subject only or mixed-field programs, and often study for personal interest rather than job-related outcomes.

- Older learners are more likely to undertake non-assessed courses than their younger counterparts. However, older learners who undertake assessed subjects are less likely to withdraw or fail than younger learners.

- Older apprentices and trainees are likely to be existing workers rather than newly recruited employees.

- People who undertake training later in life tend to be those still in the labour force and those who have completed some form of post-school education. The higher the level of prior education, the more likely the older person is to participate in training.

Australian vocational education and training statistics: Older learners 2002 can be found on NCVER's website <http://www.ncver.edu.au/statistics/aag/oldlearn02/oldlearn02.pdf>

Course completion and instructional experience in TAFE

John Polesel, Merryn Davies, Richard Teese

This report investigates students' learning experience at a TAFE institute and determines the factors that influence students to continue or discontinue their studies. Students who reported satisfaction with their learning experience highlighted relationships with teaching staff and respect for their expertise and organisation as significant factors in their experience. Students who were dissatisfied with their experience were in the minority. They were considerably more likely to leave their course before completion. The study recommends ongoing diagnostic assessment within courses, and more detailed evaluation of students at enrolment to determine their learning needs and suitable strategies to meet these needs.

Key messages

- The quality of instruction in TAFE is crucial for early school leavers and other groups whose experience of formal school-based learning has been less than satisfactory.

- This study identified links between TAFE students' instructional experience and their course completion.

- Students strongly endorsed the quality of instructional experience in TAFE institutes, particularly emphasising relationships with staff and quality of teaching.

- Indicators of unsatisfactory experiences included poor relationships with instructors, a sense of struggling with course content and difficulties in accessing administrative or support services, and were associated with poor experiences in earlier learning environments, for example, at school.

- Progressive assessment within courses should provide insight into why students are leaving courses prematurely. Screening students at enrolment to determine learning needs and strategies to address these needs may assist in helping students to choose more suitable courses.

> *Course completion and instructional experience in TAFE*
> can be found on NCVER's website
> <http://www.ncver.edu.au/research/proj/nr9026.pdf>

Entering industry: A case study of links between a school VET program and the building and construction industry

Anthea Taylor

This report provides insights into the school-to-work transition and early career experiences of 72 young people from a low-income region who undertook a one-year building and construction school VET program. The majority of students reported improved confidence and enthusiasm, and satisfaction with their transition to work and early career experiences. Further, they recognised the value of persevering with their training despite challenges, and this was reflected in the high retention rate in apprenticeships for this group.

Key messages

- The building and construction industry poses particular challenges for young people wishing to pursue a career in this industry, such as the fluctuations in activity. The industry offers little opportunity for part-time work and relies heavily on overtime.

- Apprenticeships are the sector's major avenue of recruitment, but the industry has a high number of workers without post-school qualifications. Youth are receiving mixed messages about the effectiveness of Year 12 or high school completion.

- The school VET program case studied was clearly instrumental in assisting young people to make decisions about a career in the building and construction industry and contributed to the high retention rates of subsequent apprentices undertaking the program.

Entering industry: A case study of links between a school VET program and the building and construction industry can be found on NCVER's website <http://www.ncver.edu.au/research/proj/nr1025.pdf>

Equity in vocational education and training: Research readings

Editor: Kaye Bowman

Building equity into Australia's VET system is a key component of the National Strategy for Vocational Education and Training 2004–2010. This book of readings aims to contribute to this important facet of the national strategic plan.

The book reviews the achievements which equity groups have made, reports on the issues they face and discusses how to integrate equity and diversity management models into a framework to achieve a more inclusive VET system. It includes chapters on the five recognised equity groups—women, people from non-English speaking backgrounds, people from rural and remote areas, people with a disability, and Indigenous Australians. Additional chapters consider other possible groups such as early school leavers, older workers, men, people in correctional services and people with low literacy skills, and examines the merit of these becoming equity groups.

Key messages

- The target equity group approach of the past five years has generated a great deal of knowledge and understanding of the complexity of the social and economic disadvantage of various groups and has influenced VET policy and provision. However, 'whole group' targeting strategies often fail to recognise diversity within groups.

- From 2004, any list of 'equity' groups should include:
  - Indigenous Australians
  - people with a disability
  - people with low proficiency in English (rather than people from a non-English speaking background)
  - people who live in socially and economically vulnerable regions (rather than rural and regional areas)
  - early school leavers and others with poor educational attainment
  - people in correctional institutions
  - women seeking to re-enter the workforce (rather than all women)
  - older workers who have been displaced from the workforce and those at risk of displacement
  - older men in small rural and regional towns/areas.

- There is no one best way of tackling equity in VET. Both the equity group approach and the managing diversity approach have their strengths and weaknesses and need to be used in combination.

- More effective integration of equity into the core planning, design and delivery of VET programs in order to manage the diversity which is a core characteristic of VET is important. The next development challenge for the VET system involves building equity and diversity into every facet of the VET system.

- Implementing a diversity management approach will require leadership from the top of VET institutions; the linking of compliance, organisational development and market factors; the support of, but not 'ownership' of, equity by equity specialists; and monitoring performance to ensure that diversity management delivers full benefits.

- Greater policy coherence would be realised if equity were considered from the point of view of the individual rather than from each education sector; a cross-sectoral approach is likely to benefit both individuals and providers as well as wider society.

Equity in vocational education and training: Research readings can be found on NCVER's website <http://www.ncver.edu.au/research/proj/nr2201.pdf>

Exploring locality: The impact of context on Indigenous vocational education and training aspirations and outcomes

Susan Gelade, Tom Stehlik

The impact of urban, regional, and remote location on Indigenous VET students' aspirations and outcomes is examined in this report. It finds that the availability of desired courses, teaching staff, and community attitudes to learning in the various locations influence the success of outcomes of Indigenous students. However, successful outcomes other than those related to employment or further education can emerge from VET. Accordingly, the authors suggest benefits, such as improved literacy and confidence, and community wellbeing, should be considered when formulating Indigenous learning approaches.

Key messages

- More realistic employment opportunities exist for Indigenous learners who complete their vocational education and training programs in urban areas, than for those in regional and remote areas.

- Compared with regional and remote learners, urban learners encounter less racist attitudes toward their entry into employment or training, are able to access a wider variety of Indigenous employment and training programs, and participate in programs more closely related to work available to them.

- Indigenous learners in regional areas often compete with each other and a large pool of unemployed people for specific Indigenous employment opportunities.

- Employment opportunities for Indigenous learners in remote settings are severely limited. They are largely unaware of opportunities for expanding their learning, or for employment, and so have few aspirations for further education or to seek work. Hence, VET needs to relate more concretely to the conditions and opportunities presented by remote localities.

- The Community Development Employment program appears to be the only avenue for expansion in employment opportunities for remote learners.

- Considerations such as family and community responsibilities, and connection to the land prevent regional and remote learners from relocating to urban areas in order to greater access employment opportunities.

- Many regional Indigenous learners are committed to further training, which may be related to the lack of immediate employment opportunities and the alternative to unemployment offered by TAFE institutes.

- The majority of both regional and urban Indigenous learners are apprehensive about moving into mainstream courses due to a lack of confidence in their potential for success.

- The availability of desired courses, teaching staff and community attitudes to vocational education and training in the various locations are all issues impacting on successful outcomes for further training and employment.

- Further investigation is needed into how structures linking Indigenous training to work opportunities can be established, in particular, how training can be more closely connected to the Community Development Employment program.

- Successful outcomes of Indigenous involvement in vocational education and training are not always related to further education or employment. Therefore, Indigenous learning approaches should acknowledge the importance of outcomes such as increased confidence, improved literacy, and the ability to promote and facilitate family and community knowledge and wellbeing.

Identifying the key factors affecting the chance of passing vocational education and training subjects

David John

This report suggests future performance reporting should consider segmentation of the student population according to a mix of age, employment status, and previous educational achievement.

Key messages

- Passing VET subjects is influenced by a variety of demographic factors. In particular, the likelihood of passing is significantly reduced for people who are Indigenous, have a disability, are of non-English speaking background, are unemployed, or are aged 19 years and less. There is also strong evidence that the unemployed and the young are important student groups in relation to having a lower likelihood of success.

- The likelihood of passing is significantly affected for students who are a member of more than one equity group.

Identifying the key factors affecting the chance of passing vocational education and training subjects can be found on NCVER's website <http://www.ncver.edu.au/pubs/dr303.pdf>

Improving Indigenous completion rates in mainstream TAFE: An action research approach

Jo Balatti, Lyn Gargano, Martha Goldman, Gary Wood, Julie Woodlock

Indigenous engagement with vocational education and training has improved significantly, but successful Indigenous completion rates are lower nationally when compared to the overall population. This report, based on an action research project, examines intra-institutional factors at four Queensland TAFE institutes to better understand and take action on issues affecting Indigenous completion rates. In the context of policy development, the authors conclude mainstream programs require examination at three levels—intellectual, cultural and social—to develop effective responses to facilitate successful Indigenous completion rates. At organisation level, the authors recommend examination of organisational culture for consistency of values and beliefs, and practices in terms of content, teaching, support, and collaboration.

Key messages

- The increase in Indigenous students in mainstream programs has meant that Indigenous business has become whole-of-TAFE business. This is in strong contrast to the previous custom of relegating Indigenous business to the Indigenous training units.

- Institute practices have not generally kept pace with the increasing number of Indigenous students in mainstream programs. If mainstream is to continue for Indigenous students, practices need to be examined. Some areas requiring more attention are:
  – the relationship between the Indigenous training units and the rest of the institute
  – the development of appropriate expertise of all staff
  – the resources and intra-institutional collaboration required by staff
  – the organisational support available to students with respect to education, career and work planning, attendance, creating a sense of belonging, and literacy and numeracy skills.

- While at a national level Indigenous performance in mainstream courses is below that of the total VET student population, there are institutes and/or particular programs within institutes where performance is comparable to or better than that for total VET students.

- Training organisations that consider their Indigenous clientele as comprising a number of client groups with different needs and expectations offer better learning opportunities.

- Training organisations need to review the impact of all policies and practices on Indigenous take-up of the learning opportunities offered, not only Indigenous-specific policies and practices.

- Concerted effort is needed to increase the number of Indigenous teachers and trainers—especially males—in TAFE institutes.

- Indigenous students in mainstream programs who need support are getting less than do Indigenous students whose TAFE experience is through the Indigenous training units.

- Indigenous students doing mainstream programs in mainstream organisations run the risk of being ignored. The risk is increased when:
  – the number of Indigenous students in any given course is small
  – learning interactions do not sufficiently draw on the intellectual, social and cultural capital that students bring by virtue of being Indigenous
  – the monitoring of Indigenous students' learning as a group in mainstream programs is not a specific responsibility in any managers' portfolio
  – there are limited opportunities for students to influence the learning opportunities offered.

- Relevant multi-departmental representation on action research teams is essential for maximising their capacity to improve organisational practices leading to improved Indigenous outcomes.

Lifelong learning and older workers

Tom Karmel, Davinia Woods

Discussion about Australia's ageing population has focused on the importance of increasing labour force participation rates of older people. This report examines the influence of education and training on the participation of older people in the labour market, and the pay-off of undertaking education and training as an older person compared with that undertaken earlier in life. It would seem that the more qualifications held, the higher the chances of employment and education. Lifelong learning and training are beneficial to maintaining and increasing employment rates, as well as being an effective strategy for older people seeking employment.

Key messages

- People with higher levels of education qualifications tend to have high levels of engagement with the labour market. The relationship is particularly strong for women.

- Education levels of older cohorts will rise over coming decades as current, relatively well-educated cohorts age. Even with current education participation rates, this should lead to higher rates of engagement with the labour market among older groups, especially for women, than would otherwise be the case.

- This 'education effect' is even more important when working hours patterns are taken into account, because the better qualified tend to work more hours (to a large extent because more are engaged in full-time employment).

- The education effect has been important in explaining the current working patterns. For males, the positive education effect has been against a long-term decline in labour force participation. For females, it has contributed to long-term increases.

- The education effect will partially offset the impact of the ageing of the population, but the demographic impact of the ageing population dominates. Factors other than education are also likely to impact on employment-to-population

rates, and governments need to concentrate on work incentives and community attitudes as well as education and training, if they wish to increase the proportion of the population working.

- Lifelong learning has a role to play. Qualifications acquired later in life have as good, and in some cases, better, pay-off to employment-to-population rates for older age groups, as do qualifications obtained at a young age.

- On the whole, the more qualifications the better, although the evidence on lower-level qualifications and incomplete qualifications improving employment rates is mixed.

- Older people who have undertaken training are more likely to retain their employment status relative to their employed peers not receiving training. So training appears to be helpful to maintaining employment. However, one explanation for this is that employers provide training to those they expect to retain as employees.

Lifelong learning and older workers
can be found on NCVER's website
<http://www.ncver.edu.au/research/core/cp0303_2.pdf>

Moving on from enabling courses: Why do some students remain in enabling courses?

Susan Dawe

Some students who complete a preparatory or pre-vocational course in the VET sector re-enrol in the same 'enabling' course or at the same level of qualification in following years. This report indicates that re-enrolling in enabling courses is a positive outcome. Students who re-enrol in enabling courses are either diversifying into other learning areas or advancing within the same level of qualification, studying to retain and improve their skills, or to gain further skills and experience to progress within the VET system or into the workforce.

Key messages

- About 6% of the total number of students in public VET system courses in 2001 were undertaking preparatory or pre-vocational courses; that is, 'enabling' courses. There is a higher proportion of 'disadvantaged' groups in enabling courses than in mainstream VET courses.

- An important objective of enabling courses is to increase the student's self-esteem, confidence and motivation for further study or employment. In particular, students need to become independent learners who are motivated to succeed by their own goals or perhaps community goals in Aboriginal communities.

- Successful strategies to help students to move on from enabling courses to higher-level qualifications or work include: developing clear pathways for students; providing work placements or work experience as part of the enabling course; and encouraging students to gain either part-time paid or voluntary work.

Moving on from enabling courses: Why do some students remain in enabling courses?
can be found on NCVER's website
<http://www.ncver.edu.au/research/core/cp0202.pdf>

Stepping stones: TAFE and ACE program development for early school leavers

Johanna Wyn, Helen Stokes, Debra Tyler

The ACE sector and TAFE institutes provide programs for young people which re-connect them to education. This report suggests these programs and settings are considered effective pathways for some young people who have left school early. The researchers found students are attracted to the programs by the quality of relationships between students and staff, flexible mode of delivery, choice of study areas, and opportunities for personal autonomy, as well as the integrated youth support structures.

Key messages

- The ACE sector and TAFE institutes are offering young people who have left school early a second chance to continue their education.

- A student-centred approach to learning adopted by teachers (for example, self-paced learning and group devised work) plays a key role in student satisfaction with the second-chance programs offered by TAFE and ACE. Flexible delivery and timetabling allows students to balance study, work and other interests.

- Moving to higher-level courses on completion of their initial program often depends on advice and advocacy from program staff. Students need advice about, and access to, the next steps in education.

- Successful re-entry programs are student-centred and relevant to young people's lives.

Stepping stones: TAFE and ACE program development for early school leavers
can be found on NCVER's website
<http://www.ncver.edu.au/research/proj/nr0015.pdf>

To train or not to train: The role of education and training in prison to work transitions

Margaret Giles, Anh Tram Le, Maria Allan, Catherine Lees, Ann-Claire Larsen, Lyn Bennett

The focus of the Western Australia correction system on more rehabilitation and the provision of skills is designed to assist offenders gain self-sufficiency. This report examines the study and work experiences of state prisoners before and during their incarceration and their expectations of post-release outcomes. It finds that differences in work and study patterns result from choices made by prisoners within the constraints of prisoner management plans, prison jobs and course availability, and their previous work and study backgrounds. Prisoners undertaking VET courses perceive more positive employment prospects than those undertaking non-vocational education courses or prison work only.

Key messages

- In Western Australia most prisoners work in commercial or domestic jobs while in prison. About half of all prisoners study to complete basic adult education, schooling, short courses or full qualifications in vocational education and training or higher education—including postgraduate study. Most of those who study work as well. Some study but do not work, and a handful do not study or work.

- The differences in work and study patterns result from choices made by prisoners within the constraints of their individual prisoner management plans, prison jobs and course availability, and with regard to their previous work and study backgrounds. As much as possible, programs are tailored to individual needs.

- Prisoners undertaking VET courses expect better labour market futures (such as work, more enjoyable work and more money) than those who are undertaking non-vocational education courses or work only. Some new projects utilising New Apprenticeships are seen to be agents for change. Prison work on its own, even that involving commercial endeavours, is not seen by prisoners as being an entry to a career outside prison.

To train or not to train: The role of education and training in prison to work transitions can be found on NCVER's website <http://www.ncver.edu.au/research/proj/nr3022b.pdf>

What is all that learning for? Indigenous adult English literacy practices, training, community capacity and health

Inge Kral, Ian Falk

Remote Indigenous communities are under increasing pressure to share responsibility for community well-being and capacity building. Their challenge is to achieve social and economic sustainability without losing core values of Indigenous law, culture and language. Education, training and employment are essential elements to this future scenario. This report is based on a study of a remote Indigenous community in its quest to implement a culturally appropriate health service, and integrate training and employment of local Indigenous people as a means of strengthening community capacity.

Key messages

- Adult literacy is increasingly seen as a major factor affecting the participation of Indigenous people in training and community life. However, adult literacy levels are generally low and most adults do not have sufficient proficiency in English language, literacy and numeracy to meet the VET sector's entry to training requirements.

- VET in remote Indigenous communities must make allowances for those who may speak English as a second, third or even fourth language. Not everybody in the community has to be literate in English when there are key people to act as brokers or mediators for a less literate group.

- There is increasing emphasis on ensuring that 'culturally appropriate' VET opportunities in remote Indigenous communities are made more accessible, so that Indigenous people can gain the employment skills to take future control of their communities. Currently, much training does not fit with the meaning and purpose of community life. Literacy, in particular, is more likely to be adopted if it is linked to meaningful community activities, including cultural, religious and governance activities, as well as training and employment.

> *What is all that learning for? Indigenous adult English literacy practices, training, community capacity and health* can be found on NCVER's website <http://www.ncver.edu.au/research/proj/nr2L05.pdf>

Accommodating learning styles: Relevance and good practice in vocational education and training

Peter Smith, Jennifer Dalton

This research was designed to identify how VET practitioners viewed learning style differences between students and how they took account of those differences in designing and delivering teaching. It involved surveys, focus groups and case studies in five TAFE institutes and one professional network of public and private trainers. The research found that teachers have developed a range of personal methods of identifying individual and group learning styles and a range of techniques to respond to them.

Key messages

- Vocational education and training providers now deliver programs in new and more flexible ways using a wide range of media and approaches, and in a variety of locations. The diversity of students also means that teaching staff need to be able to adapt to different learner groups and individuals.

- VET teachers are generally alert to the fact that there are group and individual learning style differences among their VET clients. Teachers see the identification of style and their responses to it as part of good professional practice and is required to achieve client satisfaction.

- Teachers rely strongly on previous experience. They have developed a range of personal methods to identify individual and group learning styles, and a range of techniques to respond to these different styles. Their methods are interactive, based on observations of learner reactions to the learning context and media used and then modified as appropriate, rather than based on particular learning theories.

- There is need for professional development that more clearly indicates to teachers the capacities for training packages to accommodate learning styles through design, delivery and assessment. Based on this research, professional development in learning styles is likely to be best achieved through practical examples of good practice and practical teaching settings, rather than through espousing particular theories of learning style.

- Students were limited in their knowledge of their learning style, but felt that teachers did take account of their learning characteristics in their teaching. Nevertheless, there is need for the development and implementation of effective learning-to-learn training for students.

> *Accommodating learning styles: Relevance and good practice in vocational education and training* can be found on NCVER's website <http://www.ncver.edu.au/research/proj/nr3013.pdf>

Exploring assessment in flexible delivery of vocational education and training programs

Patricia Hyde, Berwyn Clayton, Robin Booth

This report highlights the diversity of assessment methods used in flexible delivery modes of teaching across Australia's VET sector. While assessment practice is underpinned by training package and course curriculum requirements, other factors influence the methods teachers and assessors choose. These include the availability of qualified workplace assessors, the proximity of students to teachers or assessors, the need to ensure students' work is their own, and the involvement of learners and workplaces in the assessment process.

Key messages

- A diversity of flexible delivery and assessment arrangements operate across the Australian VET sector. Assessment approaches are linked to the requirements of the training package, the delivery mode, the industry, the nature of the competencies, the level of the qualification and the learner groups. However, other factors also influence the selection of assessment methods. These are: availability of qualified workplace assessors; authenticity of student evidence; the role of the learner in the assessment process; and the role of the workplace in assessment through third-party evidence. The role of the workplace or enterprise is important in assessment planning.

- Sound assessment design is required at all stages of the development and implementation of flexible delivery. This is to take account of the difference in the degree of face-to-face contact that may exist between learners, assessors and teachers in flexible and more traditional delivery approaches.

- Well-designed self-assessment tools are an integral part of VET flexible delivery to ensure a learner-centred approach. Self-assessment tools are useful in assisting the learning process, the recognition of prior learning and the recognition of current competence.

Exploring assessment in flexible delivery of vocational education and training programs
can be found on NCVER's website
<http://www.ncver.edu.au/research/proj/nr0007.pdf>

Fully on-the-job training: Experiences and steps ahead

Susanne Wood

Fully on-the-job training is perceived to offer benefits to apprentices/trainees, employers and registered training organisations. This report finds fully on-the-job training is viewed by learners and registered training organisations as a good way to learn as it provides flexibility for all concerned and financial incentives to employers. With appropriate support for learners, benefits of this type of training include learning that is customised. Fully on-the-job training offers later employment opportunities for learners and employers.

Key messages

- Fully on-the-job training theoretically does not involve any off-the-job training. However, it is very rare for 100% of training to take place as part of the productive work of the learner. In this study, and in reality, fully on the job refers to training—both theoretical and practical—where the majority is conducted in the workplace as part of the normal experience of the employee.

- Registered training organisations are aware of constructive measures to assure the quality of fully on-the-job training. This includes a good working relationship and regular contact between both the training organisation and employer, and the training organisation and trainee. The pastoral care and mentoring role of the provider is seen as particularly important. However, the majority of trainees felt that their registered training organisation did not maintain sufficient contact with them.

- While registered training organisations and trainees are generally in favour of fully on-the-job training, important areas for improvement must be addressed. Suggestions include improving: the level of networking among students, especially from outside the firm; the level of trainees' time management skills; the balance between work and study loads; the level of theory training; the breadth of trainees' skill base and work experience; employers' training capacity; and the way trainees are valued in the workplace.

- Fully on-the-job training is seen as a good way to learn. This type of training provides financial incentives to employers and flexibility for all concerned. With appropriate support systems in place for trainees, fully on-the-job training offers significant benefits, such as customised pace; incidental learning, encompassing real work experiences which lie outside formal training components; learning that is relevant to enterprise and individual needs; and the identification of employment opportunities for trainees and employers alike.

Fully on-the-job training: Experiences and steps ahead can be found on the NCVER website <http://www.ncver.edu.au/research/proj/nr0021b.pdf>

Generic skills in vocational education and training: Research readings

Editor: Jennifer Gibb

Possessing generic or employability skills is vital in the current labour market. The VET sector, like other education sectors, must ensure its clients gain and develop generic skills. This volume of readings summarises NCVER managed research into generic skills undertaken in 2001 and 2002. The work covers four main topics: defining and specifying generic skills; exploring training providers', teachers' and learners' perspectives of these skills; exploring the workplace perspective of generic skills; and assessing these skills. To ensure that people gain the generic skills they need, the research suggests improving the documentation of these skills in training packages, and sharing good teaching, learning and certifying practice.

Key messages

- With significant changes in the economy and in the way in which organisations and workplaces now operate, generic skills have become important assets for modern workers. Jobs today require flexibility, initiative and the ability to undertake many different tasks, with an emphasis on the importance of information and social skills. Employees need to demonstrate teamwork, problem-solving, the capacity to deal with non-routine processes, to handle decisions and responsibility and communicate effectively.

- Employers and workplaces play a very significant role in fostering and maintaining the generic skills of their workforce.

- Good practice in delivering generic skills training is based on adult learning principles and the provision of a variety of experiences and learning strategies, ensuring their transferability to new contexts. Generic skills are best acquired when taught in a real-life and/or real-work context.

- An integrated approach to the inclusion of generic skills in training packages contextualises and deals with both technical and generic skills holistically.

- Each sector of education—school, TAFE, ACE, higher education—has a role to play in helping people to develop these skills. Partnerships between these players makes the development of these skills more effective.

- Many generic skills are developed outside the workplace and educational institutions, and hence the community also has a role in fostering their development. Partnerships between individual learners, parents, employers, education and training providers are needed to create the environments in which a person acquires generic skills.

- Combinations of generic skills can help learners in their responses to many of life's situations. It is important to recognise that generic skills have wider applicability than just to employment— they are essential to active citizenship, community and family life.

Literacy in the new millennium

Michele Lonsdale, Doug McCurry

The conception of literacy is changing to reflect the profound economic, social, political and cultural changes of the past half century. In this report, the authors examine three broad literacy ideologies. While current research places literacy in social practice, government policy aligns more with the cognitive and economics-driven models of literacy. The authors find the need for a new national literacy policy which is flexible and accommodates current and future literacies, and supports community capacity-building.

Key messages

- The world has so changed in recent years, for example, the emergence of the globalised economy, 'the information society' and 'the knowledge society', that the concept of literacy needs to encompass a broader range of abilities than in the past.
- There appear to be three main conceptions of literacy in Australia today:
  - an autonomous, individual model associated with a psychometric tradition of testing quantifiable levels of ability
  - an economics-driven model associated with workforce training, multiskilling, productivity, 'functional' literacy and notions of human capital
  - a sociocultural model, whereby rather than simply reproducing what is taught, literacy enables learners to make sense of the world and construct their own perspectives.
- There is no universally accepted definition of literacy. In general, literacy today is perceived to be social by nature rather than merely a set of skills, and the meaning of literacy depends on the context in which it is being used.

> *Literacy in the new millennium*
> can be found on NCVER's website
> <http://www.ncver.edu.au/research/proj/nr2L02.pdf>

Maximising confidence in assessment decision-making: Current approaches and future strategies

Berwyn Clayton, Sue Roy, Robin Booth, Robyn House

This report provides a review of approaches to quality assurance of assessment in the VET sector in Australia and overseas. It also examines eight potential models that can be used by individual or groups of assessors within a training organisation. The models include a diagnostic assessment tool, an assessment principles checklist, and guidelines for the development of assessment instruments. The report provides background to the development of the resource kit.

Key messages

- Consistency and quality of assessment have been recognised as problematic due to limited quality assurance practices and questionable assessor training processes and expertise.

- Strengthening quality assurance is recommended as the principal strategy for improving the assessment process. However, this needs to be part of a more comprehensive approach to improve assessor quality and assessment practice.

- Suggested quality assurance guidelines include:
  - a clear and regularly reviewed policy on assessment processes for assessors, including a code of practice
  - detailed written information about assessment processes for learners, supported by personal contact
  - a documented outline of how assessors have gone about the assessment process
  - the development of shared assessment tools that are benchmarked to improve quality
  - processes to support assessors, including mentoring and team support processes— especially for those working in isolation
  - procedures for assessment review on a regular basis, including assessment moderation and verification processes to inform practice
  - ongoing professional development for assessors.

Maximising confidence in assessment decision-making: Current approaches and future strategies can be found on NCVER's website <http://www.ncver.edu.au/research/proj/nr9029_2.pdf>

Profiling the national vocational education and training workforce

NCVER

Future workforce planning in private and public enterprise requires reliable information on which projections are made. Currently limited information exists about VET professionals. This report consolidates two national studies on the TAFE workforce, and on VET professionals in private and public registered training organisations. The findings have important implications for workforce planning. Within the TAFE sector, the number of teachers aged over 45 is almost double the average for the Australian workforce, and the employment status is shifting from permanent qualified teachers to non-permanent teachers who are less qualified. Outside the TAFE sector, the credentials of VET professionals are also an issue. In addition, the report presents a rationale and options for a regular national data collection of the VET workforce.

Key messages

- The VET workforce has a strategic role in the economy in equipping the workforce at large with the skills needed by industry. It is important that the VET sector is able to plan for the future and can do so on the basis of reliable projections of its own workforce. At the moment there are no reliable projections.

- The VET workforce is not well understood statistically. There are several weaknesses in the currently available data which impede future workforce planning. These include:
  - no single accepted measure of employment levels, with estimates of the TAFE workforce ranging from 39 000 to 90 000
  - no consistent definitions in TAFE administrative systems of key workforce concepts such as 'employee', 'teacher' and 'permanent'.

- The proportion of people engaged on a casual or sessional basis in TAFE is much higher than is found in the workforce as a whole. This may act as a brake on enhancing professional capability, as non-permanent staff tend to have shorter tenure and, in general, less opportunity to participate in professional development exercises.

- In common with the workforce in general, the VET workforce is ageing. Although there is no current problem of labour supply, there will be a high number of people retiring in coming years, particularly those employed by TAFE institutes.

- There are mixed messages on the qualifications of the VET workforce. While the proportion of VET professionals holding a post-school qualification is relatively high at two-thirds, and higher still in TAFE at four in five, relatively few have a qualification in education or training. This proportion will need to increase if vocational education and training is to remain quality-assured.

- The profile of the TAFE workforce appears to have more in common with those in higher education and schooling than it does with other parts of the VET workforce, such as those employed by non-TAFE providers or those providing training within enterprises. Movement of employees across the VET workforce forms a potential recruitment pool for TAFE institutes grappling with an ageing workforce, but this may raise issues about standards and modes of teaching and learning.

Profiling the national vocational education and training workforce
can be found on NCVER's website
<http://www.ncver.edu.au/research/core/cp0303.pdf>

Two-dimensional work: Workplace literacy in the aged care and call centre industries

Peter Waterhouse, Crina Virgona

This study investigates and documents workplace literacy in aged care facilities and call centres, within the context of the changing nature of work and the consequent changes demanded of the workforce. The report acknowledges the effectiveness of training approaches and procedural practices in these industries.

Key messages

- The modern workplace is constantly changing, is technology-driven and is demanding a highly literate, responsive workforce, many of whom are employed through casual or part-time arrangements.

- Casual workers need good learning skills and other generic skills associated with employability, as well as the capacity to read workplace cultures.

- Transferability, that is, the generic literacy and communication skills which workers can translate to other workplaces, is a significant requirement, one to which trainers should give more prominence.

- The opportunities for critical literacy—a political and creative perspective on the workplace culture—are extremely limited for workers in aged care and call centres. Their mandatory work practices—which include literacy practices—leave little space for questioning the status quo.

- In aged care, literacies are mediated by the funding and accreditation processes and accountability requirements. Universal industry practices in aged care have been determined by 'proceduralisation' which acts to simplify and standardise the work of personal care attendants. The transferability of skills and knowledge between facilities is often taken for granted.

- The literacies of call centre operators are also highly regulated. Through the application of technology, their literacies are micro-managed. The call centre approach to training its workers lacked broader educational agendas.

- The challenge for the VET system is to serve the broad needs of individuals, the community and the economy, and resist the narrowing of literacy and generic skills to accommodate individual company requirements.

> *Two-dimensional work: Workplace literacy in the aged care and call centre industries*
> can be found on NCVER's website
> <http://www.ncver.edu.au/research/proj/nr2L06.pdf>

Creating markets or decent jobs? Group training and the future of work

John Buchanan, Justine Evesson

Group training organisations act as intermediaries between enterprises and apprentices and trainees to facilitate on- and off-the-job training. This report examines the role of the group training organisations in Australia's labour market. The authors believe that the value of these organisations lies in their capacity to provide effective work-based training whereby risks are shared across employers.

Key messages

- While the existence of group training as a phenomenon is well known in VET policy circles, it is poorly understood by most people, including those in VET policy circles.

- In the past, too much attention has focused on group training organisations as objects of government policy concern. Too little attention has been paid to the role they play in the labour market.

- Group training organisations are best understood as intermediaries that are embedded in particular labour market flows. We believe it is erroneous to treat them as if they are 'stand alone' organisations from which 'outcomes' can be 'purchased'. At their best they help to promote decent, sustainable work-based learning situations by facilitating a fairer sharing of the risks associated with employment and skill formation. They are able to do this because policy from an earlier era nurtured a network of group training organisations built around a practical vocational ethic. This is an ethic that blends the best of commercial competence, a commitment to developing coherent occupational structures and an ethos of care and support at both the personal and local level.

- The authors argue that changes in policy since the early 1990s are likely to undermine the provision of quality group training services.

- This outcome is not inevitable. If it is to be avoided, the authors believe policy concerning group training will need to change direction. In particular, group training organisations should not be expected to emulate labour hire organisations or employment agencies specialising in employment-based training. Instead, the best features of the group training model, especially the minimisation of down time and operating on a not-for-profit basis, should underpin future reforms, including in relation to all organisations providing intermediary services in the labour market.

Creating markets or decent jobs? Group training and the future of work
can be found on NCVER's website
<http://www.ncver.edu.au/research/proj/nr1016.pdf>

Employers' contribution to training

Sue Richardson

A highly skilled workforce is widely viewed as essential for prosperity in economies characterised by rapid technological change. However, the development of high-level skills across the workforce is expensive and requires major investment from individuals, governments and employers. This report explores an alternative approach to estimating Australian employers' contribution to skills development of the workforce. The measure is based on the increase of workers' productivity as a result of learning skills on the job. Workers' productivity is obtained by observing how fast wages grow with additional years of general work experience and of tenure with the current employer. The author estimates that, on this basis, total investment in employment-based training is much larger than previously believed.

Key messages

- This report provides new estimates of employers' contributions to skills development based on measuring the increase in the productivity of workers, indicated by wages growth, as a result of skills learnt on the job. Using this method the total value of the employer contribution in 1996 is estimated to be in the order of 5% of the wage bill, or approximately $16 billion.

- This new estimate is in stark contrast to previous estimates of $3.9 billion for the employers' contribution in 1996, based on employers' inputs to skills development or their invested dollars in training.

- The strength of the new approach used in this report is that it enables the learning-on-the-job dimension of skills development to be included

in the employers' contribution. The limitation of the new approach is that it involves views about how the labour market works and judgements about how the costs of obtaining skills on the job are shared between workers and the employer that are not beyond dispute.

- Overall, the new approach is promising in providing estimates of employers' contributions to skills development that are closer to the true mark and would benefit from further refinement.

Employers' contribution to training
can be found on NCVER's website
<http://www.ncver.edu.au/research/proj/nr1005.pdf>

Group training in Australia: A study of group training organisations and host employers

Phillip Toner, Duncan Macdonald, Nic Croce

Group training is an Australian initiative to encourage the employment of apprentices and trainees. This report examines the structure and function of group training organisations over time and identifies the factors that drive group training organisations to change their structure and function. The authors find that group training is a critical component of Australia's skill formation system.

Key messages

- Group training involves an organisation employing an apprentice or trainee under an apprenticeship/traineeship contract and placing them with a host employer.

- Since its inception in the 1970s employment in group training companies has grown from just a small percentage of total apprentices and trainees to employing around 14% of the total.

- Group training appears to complement other training investment rather than substitute for it (that is, without group training less training would occur).

- Group training companies are highly adaptive and responsive to their policy and commercial environment.

- Host employers, in the main, are very satisfied with the services provided by group training companies.

- Seventy per cent of group training apprentices and trainees are hosted by workplaces with fewer than 200 employees.

- The main reasons for employers using group training are, in descending order of importance: savings on recruitment and selection; avoidance of administrative complexity; saving on employment costs; and lack of continuous work.

- Government attempts to increase labour market participation of equity groups through group training have proved to be relatively successful.

- Group training activities are becoming more commercially driven and this may threaten the quality of training generally and, in particular, training opportunities for the more disadvantaged.

- Newer group training companies (post-1990) tend to be smaller, less likely to be in receipt of government funding (joint policy funding) and more likely to be operating a variety of related labour market activities which have become available through deregulation of labour market and training programs.

- Deregulation has provided alternative means of financial support for the group training function, but means, in turn, less government supervision and more emphasis on price as the basis of competition rather than provision of support services.

> *Group training in Australia: A study of group training organisations and host employers* can be found on NCVER's website <http://www.ncver.edu.au/research/proj/nr1031b.pdf>

Innovation agents: VET skills and innovation in Australian industries and firms

Phillip Toner, Jane Marceau, Richard Hall, Gillian Considine

This study examines the role of vocational education and training and occupations in innovative industries and firms. The authors find vocational education and training is vital to developing knowledge and practical skills across a broad range of occupations, and people in vocational occupations are among principal sources of ideas for technological innovation. Further, innovative firms reported a high level of satisfaction with public and private training, which the authors conclude is due to the high level of consultation between firms and TAFE. However, firms identified the need for employees to develop generic skills, such as working in teams and developing problem-solving and communication skills, as an opportunity for the VET sector to meet unmet demand.

Key messages

- Innovative industries are those which have implemented new technology or significantly improved products or processes. The composite index of innovation shows that industries undertaking innovation in Australia are clustered into three distinct groups—high-innovation industries, medium-innovation industries and low-innovation industries.

- Innovation-intensive firms regard VET as a critical transmission mechanism in the diffusion of knowledge and development of practical skills for a broad range of occupations.

- Training is an essential element in the maintenance and growth of firms' business. The innovation-intensive firms case-studied spend two to four times more on training as a share of gross wages and salaries than other firms.

- An employee's generic employability skills (for example, communication, working in teams) are particularly important in supporting innovation.

- Innovation-intensive firms use a wide range of training providers. These include TAFE institutes, private providers, equipment and other vendor suppliers, professional associations and in-house providers. However, a certain amount of training is necessary to make the training economically feasible for the providers to customise content, assessment and delivery.

Innovation agents: VET skills and innovation in Australian industries and firms
can be found on NCVER's website
<http://www.ncver.edu.au/research/proj/nr1011.pdf>

Mechanisms for increasing employer contributions to training: An international comparison

Andy Smith, Stephen Billett

This report outlines a range of policy options employed internationally, including levies, leverage and partnership arrangements to enhance employer contributions to training. Ultimately, the authors find decisions about expenditure on training resides with employers. If new policies are to be effective and build upon enterprises' commitment to training, it is critical they align with employers' needs, and increase enterprise commitment. For government, a key strategic policy goal is to promote a recognition of the value of training to employers.

Key messages

- The level of employer expenditure on training in Australia is often assumed to be lower than that in other comparable countries. Recent data suggest increases in reported employer expenditure, with levels now comparing favourably with that of countries often held as models for Australian policy and practice.

- Approaches to securing enterprise investment in training by government form a continuum, from low-level intervention to compulsion and regulation, and range from approaches which attempt to secure voluntary commitment through to legislating enterprise expenditure on training. Voluntary commitment is often seen as the most desirable and self-sustaining approach, but is difficult to secure from enterprises.

- In Australia the prevailing view is that the level of enterprise training depends on a business case. In some other countries different factors play a part; for example, a social contract that requires employers to provide developmental opportunities for their staff.

- Potential policy mechanisms for encouraging increased expenditure are:
  - levies: which need to be localised, targeted and independent of government
  - partnerships: which are likely to recognise specific needs, such as changes in technology
  - leverage: which aims at increasing training by enterprises through reducing the cost to employers in subsidies or lower wages
  - regulation: which is appropriate for likely public benefit; for example, in improved standards of food handling.

- Ultimately, decisions about expenditure on training depend on individual employers' interests, values and commitments. Improving and enhancing employers' perceptions of the value of training are vital to increasing the levels of expenditure.

Mechanisms for increasing employer contributions to training: An international comparison can be found on NCVER's website <http://www.ncver.edu/research/proj/nr2013.pdf>

Training needs of emerging industries

Josie Misko, John Saunders

Innovative companies in emerging industries have diverse and important training needs. This study examines the training requirements of emerging industries and the role Australia's VET sector plays to develop further employees' skills and knowledge. As innovative companies often operate at the leading edge of their technological fields, the training they require is highly specialised and sometimes unique. While the VET sector already provides customised training for employers, there are opportunities for the sector to advance the currency of its knowledge, develop programs to deliver special training, and extend the expertise and knowledge of its teachers.

Key messages

- This study examined companies and organisations developing innovative products and services. Innovative companies pass through four distinct stages of development, each with different requirements for staff employed and the types of training needed.

- In the first stage, the organisation often consists of a few employees working almost exclusively on researching and developing a concept. These individuals usually include the originators of the idea and a few highly qualified or experienced specialists such as mechanical engineers, physicists, chemists and highly experienced tradespersons. In this stage, the company often 'buys in' the specialised qualifications, expertise and experience rather than engage in training.

- In the second stage, more people are employed to develop and refine processes and build and test prototypes. These new employees are generally experts in their fields, often with practically oriented qualifications and experience.

- In the third stage, the organisation tentatively embarks on manufacture and sale of its products. At this point it requires employees for the more commonplace processes of production, administration and clerical support. Sales and marketing personnel may also be employed; however, these functions are often still handled by personnel originally involved in establishing the company.

- In the fourth stage, the organisation engages strongly in production, sales and marketing. Lower-skilled personnel are required for production, supply and distribution. Qualified and experienced personnel are needed for marketing, sales, finance and quality control, and also for management and human resource functions. Research and development often becomes a smaller part of overall operations.

- The majority of training needs of innovative companies did not differ greatly from those of ordinary companies. Where they did differ was generally in the areas of leading-edge technology in which they were working. In such cases they were often working with technology which was in advance of that taught by vocational education and training.

- Vendors of products and materials were also often at the leading edge of their fields and provided training to innovative companies.

- Overall, no great change is needed in VET training to meet the needs of emerging industries. Changes that are required mostly relate to the currency of technological knowledge possessed by VET teachers. To be of greatest value to emerging industries, vocational education and training needs to:
  - upgrade and maintain currency. To do this VET should consider:
    - working collaboratively with innovative companies in determining training needs, and developing and providing customised training applicable to the leading-edge technologies involved, and
    - working collaboratively with vendors of products and materials to innovative companies, to help the vendors develop specialised training, train vendor trainers in training delivery and provide access to training facilities.

  Such collaboration potentially benefits, not only VET, in terms of maintaining currency of technological knowledge, but also innovative companies, in the form of customised, up-to-date training, and vendors, in the form of better provision of their specialised training.

Training of existing workers: Issues, incentives and models

Giselle Mawer, Elaine Jackson

This report presents issues associated with incentives for training existing workers in small to medium-sized firms, identified through a small sample of case studies from the retail, manufacturing, and building and construction industries. While the majority of employers recognise workforce skill levels are fundamental to the success of the business, their understanding and support of the national VET sector varies markedly. Employers and employees tend to prefer informal, on-the-job training because the returns to the enterprise are more immediate. Accredited training which is supported by employers and employees is mainly driven by external mandates, such as occupational health and safety, licensing and contractual requirements and industrial awards.

Key messages

- The small sample of 12 small- to medium-sized companies included in the case studies provided limited accredited training because they:
  - have recruitment strategies focused on the already skilled and treat training primarily as a 'maintenance' issue rather than as a key strategy in overall workforce and business development
  - train existing workers on an individual basis as identified specific needs arise and do not perceive a high need for training for lower skilled workers
  - value experience and skills acquired on the job over accredited training. Supplier training is a significant and highly valued component of their overall training, particularly in the retail sector
  - do not have much knowledge of the formal VET system and are unaware that the skills being gained through on-the-job training could be counted towards nationally accredited qualifications through recognition of prior learning
  - use and support accredited training mainly to meet mandated requirements, especially in highly mobile and casualised industries such as building and construction.

- To hook these small- and medium-sized companies into accredited vocational education and training requires:
  - the availability of staff with formal responsibilities for training or a senior manager who values the formal VET system
  - industry and employer associations playing a greater role in promoting accredited skills development and better formal recognition of the structured and semi-structured learning such as the training provided by suppliers and equipment manufacturers for the existing workforce. The majority of employers and employees at the case study sites do not see skills development for the existing workforce as the responsibility of government, although they are appreciative of government incentives.

Training of existing workers: Issues, incentives and models
can be found on NCVER's website
<http://www.ncver.edu.au/research/proj/nr3017.pdf>

Working together: Industry and VET provider training partnerships

Victor Callan, Peta Ashworth

The number and variety of industry–VET provider training partnerships in the VET sector is growing considerably. Today, having the right strategic relationships is one of the keys to enterprise success. This report investigates the nature of the larger and more commercial of these industry–VET training partnerships and provides practical guidelines for training providers when setting up and managing partnerships. The authors found that these partnerships: are generally established and managed by a core group of senior provider and industry staff; involve a single local industry partner and provider situated in close proximity to each other; and are ongoing and often involve more than just direct delivery of training.

Guidelines identified for successful partnerships include: recognising the competitive realities industries face; building in customisation and flexibility into the training where feasible; accepting 'break even' outcomes as the best initial result a training provider can expect from a partnership; recognising the start-up phase takes commitment from senior management and that maintaining longer-term partnerships requires evaluation and feedback; and building training staff capabilities.

Key messages

- Because the training being offered through these industry–provider partnerships involves substantial levels of flexibility and the use of a variety of modes of delivery, many industry respondents rated the training as being world class.

- For providers, the major drivers for establishing training partnerships are to generate additional revenue, to provide staff with stronger links with industry, and to build additional staff capability.

- For industry and employers, the gains are an enhanced capacity to focus on core business, to build customisation and flexibility into their training, and to deal with a skills shortage. Learning how to better access government financial support is another often major driver.

- High levels of mutual trust are important within the partnership, with mutual trust and regular open communication being a major driver for extending the partnership.

- Employers value longer-term partnerships, and so providers need staff who have good communication and relationship-building skills. The challenge for providers and industry is to maintain the partnership when there is high staff turnover.

- Partnerships are not expected to be highly profitable; an initial 'break even' outcome is the primary goal, whereby a mix of financial and non-financial outcomes are realised from the training partnership. It is the quality of the partnership more than the actual financial costs that employers consider important. Therefore, it is critical to build a learning environment within the partnership where individuals are encouraged to seek and provide regular feedback and review.

- Employers expect providers to understand the competitive realities businesses are facing as they try to build training and ongoing skills development into their organisations and industries.

Working together: Industry and VET provider training partnerships
can be found on NCVER's website
<http://www.ncver.edu.au/research/proj/nr2009.pdf>

Alternative mechanisms to encourage individual contributions to vocational education and training

Sandra Haukka, Jack Keating, Stephen Lamb

This report examines a range of mechanisms to encourage individual contributions to and participation in vocational education, drawing on international examples, and presents available findings about the effectiveness of these mechanisms in the Australian context. The research suggests learning accounts and paid educational leave offer the most potential. Mechanisms must offer incentives for individuals to invest, preferably in conjunction with incentives for employers.

Key messages

- Financing vocational education and training has become increasingly challenging and expensive, demanding increased expenditure by employers and individuals to sustain and develop the VET system. Student fees and charges accounted for only 4.5% of recurrent revenue in 2002. State and territory governments and the federal government are the major contributors (approximately 80%), but further growth in expenditure is constrained by competing demands such as health and welfare expenditures caused by the ageing population.

- Individual investment in vocational education is influenced by weighing the costs and benefits. Returns to individuals with VET qualifications in terms of earnings and levels of employment are above those who have not completed their secondary education or who have only completed secondary studies. Nevertheless, they are still below the earning and employment levels achieved by university graduates. Returns also vary according to age, gender, type of VET qualification, duration of course and mode of study.

- Increasing expenditure by individuals requires mechanisms that will expand the demand for ongoing vocational education and training and raise the perceived rate of return on investment. This could include taxation breaks, superannuation incentives and schemes that involve incentives for both individuals and employers. The system needs to target lower paid and lower educated groups, and may require cooperation between state and territory governments and the federal government.

- Many of the mechanisms to increase demand for vocational education and training, such as taxation breaks, involve additional expenditure by governments. Consequently, governments require a broader range of policy levers that would maximise VET demand, while providing incentives to maximise individual and employer contributions.

Australian vocational education and training statistics: Training packages

Ann Blythe

Training packages were introduced into the VET sector in the mid-1990s. Developed by industry, training packages consist of a set of nationally endorsed standards, guidelines, and qualifications for training, recognising, and assessing skills. This publication presents an analysis of data on training package activity undertaken by VET students, including apprentices and trainees, in Australia throughout 2002. It also identifies major changes in activity over the period 1998–2002.

Highlights

- In 1999, students undertaking training packages as their major course accounted for 8.5% of total training activity. By 2002, this had increased to 41.2% of total activity.

- Across all training packages, 29.0% of students were up to 19 years of age; 18.4% were aged 20–24 ; 37.2% were aged 25–44 and 15.4% were aged 45 and over. The proportion of teenagers undertaking training in training packages was significantly higher than teenagers participating in accredited courses or subjects only.

- In 2002, there were 838 000 enrolments associated with training packages. Close to 70% of this activity was undertaken across ten training packages.

- At 31 December 1998, 14.9% of apprenticeships and traineeships were being undertaken in a qualification within the training package framework. By 31 December 2002, this proportion had increased to 84.4%.

- In 2002, of apprentices and trainees commencing in a training package qualification:
  - 28.1% were undertaking a qualification at AQF level II or lower, 64.0% at AQF level III and 7.9% at AQF level IV and above
  - proportionately, there were more apprentices and trainees in contracts of one to two years duration (32.8%) than in contracts of up to one year (28.7%), two to three years (22.9%) and over three years (15.6%).

Australian vocational education and training statistics: Training packages
can be found on NCVER's website
<http://www.ncver.edu.au/statistics/aag/ trainpack/trainpack.pdf>

Australian vocational education and training statistics: Trends in 'traditional apprenticeships'

Louise Brooks

This report analyses trends in 'traditional apprenticeships' compared with those in 'other' apprenticeship contracts since 1996. It shows that growth in the system of apprenticeships and traineeships has mostly been outside 'traditional apprenticeships'. Traditional apprenticeships are those contracts within the *trades and related workers* occupation group which are at AQF level III qualification or above, with more than two years expected duration for full-time and more than eight years expected duration for part-time or school-based contracts. Using this definition, from 1996, apprenticeships and traineeships are grouped into 'traditional apprenticeships' and 'other' apprenticeships and traineeships.

Highlights

- 'Traditional apprenticeships', such as those undertaken in trades like plumbing, carpentry and hairdressing, have increased in number from 101 300 in December 1996 to 115 400 in December 2002.

- In December 2002, 'traditional apprenticeships' made up around one in three of all apprenticeships and traineeships.

- Over the same period the total number of apprentices and trainees rose by 205 800 to 369 100, meaning 'traditional apprenticeships' accounted for 7% of the total growth.

- 'Traditional apprentices' are overwhelmingly male, young, employed full-time and training towards an AQF level III certificate.

- More than three in four of all teenagers employed in the trades at December 2002 were undertaking a 'traditional apprenticeship', up from around two in three at December 1996.

- Between 1996 and 2002, 'traditional apprentices' as a proportion of employed tradespersons was stable between 9% and 10%.

- Numbers of 'traditional apprentices' rose in some trades, such as construction, but fell in others, such as mechanical and engineering.

- Apprentices and trainees are now found across all industries, not just those reliant on the trades, and they are increasingly likely to be female, older and employed part-time.

> *Australian vocational education and training statistics:*
> *Trends in 'traditional apprenticeships'*
> can be found on NCVER's website
> <http://www.ncver.edu.au/statistics/aats/trends/tradapp.pdf>

Australian vocational education and training statistics: VET in Schools 2003

Nhi Nguyen

This summary publication provides statistical information on both the characteristics and nature of training undertaken by students involved in recognised vocational education and training while at school. This particular training is commonly referred to as 'VET in Schools'.

VET in Schools is characterised by a number of specific features. These are: vocational programs undertaken by school students as part of their senior secondary certificate, which also provide credit towards a nationally recognised VET qualification within the Australian Qualifications Framework; and training which reflects specific industry competency standards and is delivered by a registered training organisation or by the school in partnership with such an organisation.

There are two main options for undertaking VET in Schools: through course or subject programs, commonly referred to as 'VET in Schools programs'; and through school-based New Apprenticeships, which also contribute to a senior secondary certificate.

Highlights

- In 2003, 202 900 students participated in VET in Schools programs, representing almost half of all senior secondary school students. There were also 12 300 school-based New Apprenticeship commencements in 2003.

- VET in Schools programs were available in almost all schools offering senior secondary curriculum in 2003. Participation was higher among students in government schools (52%), than for students in Catholic (37%) and independent schools (25%).

- VET in Schools program students were typically in Years 11 and 12, and hence mostly 16 and 17 years old. Proportions of males and females were generally equal. Students who undertook school-based New Apprenticeships were generally younger (with 84% aged 16 and under), and more likely to be female (53%). In addition, a larger proportion were Indigenous Australians (8%).

- The majority of VET in Schools program training in 2003 was at lower AQF levels, with 65% of students undertaking training at AQF level II and a further 18% at AQF level I. The majority of school-based apprentices and trainees (75%) were also undertaking training at AQF level II.

- Most (80%) VET in Schools program students undertook a training package qualification, the most popular ones being in hospitality, information technology and business services. While fewer than 5% of VET in Schools program students undertook retail training package programs, nearly half of all school-based apprentices and trainees undertook retail package qualifications. The remainder undertook nationally recognised courses and subjects not related to training packges.

- Of the VET in Schools program subjects undertaken in 2003, just over 60% resulted in a pass. A relatively high proportion of subjects resulted in a fail (18%). The remainder were continuing in the subject.

> *Australian vocational education and training statistics:*
> *VET in Schools 2003*
> can be found on NCVER's website
> <http://www.ncver.edu.au/statistics/aag/
> schools2003/sp413.pdf>

Effective measures for school-to-work transition in the vocational education system: Lessons from Australia and Korea

Tae-Hwa Jung, Josie Misko, Kisung Lee, Susan Dawe, Sun Yee Hong, Kwan-Choon Lee

The importance of close connections between VET systems and industry is highlighted in this report. The report finds that any system of entry-level training, which aims to help students make a successful transition from school to work, must have support mechanisms and frameworks in place to enable accurate assessment of industry and labour market needs.

From Australia's perspective, the Korean experience provides useful insights to improving school retention rates, and establishing formal pathways for VET students who are not undertaking apprenticeships and traineeships. From the Korean perspective, useful lessons include developing intersectoral linkages between industry and education, applying flexible teaching and training methods, implementing a national qualifications framework, and introducing apprenticeship-type arrangements.

Key messages

- In both Australia and Korea reforms have been implemented in the VET system designed to improve the ability of schools and colleges to provide the relevant knowledge and skills required by students for effective participation in the workforce.

- Inadequate literacy and numeracy skills and work and study habits of Australian students have been identified as areas of concern. No such concerns have been raised about the literacy or numeracy skills or work and study habits of Korean students.

- The Korean system of having defined pathways for substantial numbers of vocational education students (for example, the 2+1 programs) may be useful in developing more effective pathways to work for Australian students who are not in formal apprenticeships and traineeships. These programs must be structured to provide industry-relevant and appropriate off-the-job and on-the-job training.

- If Korean students are to make a smooth transition to work, there is a need to consider alternative models of training. These include school-based vocational pathways and apprenticeship-type vocational pathways. There is also a need to increase the number and variety of subjects in vocational high schools, especially VET subjects.

- Vocational education and training and vocational qualifications should be linked in Korea, as is the case with the Australian Qualifications Framework in Australia.

- Formal articulation programs between vocational high schools and vocational colleges, as in Korea, have the capacity to provide seamless pathways between school and further education. In Australia, they would define a specific route for students to follow for advanced qualifications and skills and knowledge.

> *Effective measures for school-to-work transition in the vocational education system: Lessons from Australia and Korea* can be found on NCVER's website <http://www.ncver.edu.au/research/core/cp02_03.pdf>

Managing better: Measuring institutional health and effectiveness in vocational education and training

Graham Maxwell, Peter Noonan, Mark Bahr, Ian Hardy

Vocational education and training policy is increasingly focused on the importance of quality in each VET institution's capacity to deliver effective programs. This report addresses institution-level monitoring and evaluation of performance and provides a comprehensive model which institutes can use for this purpose. The model draws on background theory and practice and identifies a range of relevant indices across three dimensions: inputs, processes, and outputs/outcomes. The results are an important first step to an improved and empirically based understanding of the factors that contribute to successful outcomes from VET providers.

Key messages

- Current national system-level performance measures are insufficient for producing and maintaining quality VET institutions.

- The model of performance measures suggested for VET institutions identifies relevant indices across the three dimensions of inputs (institutional resources, staff and student characteristics), processes (for example, quality of decision-making, institutional climate and culture) and outputs/outcomes (for example, student and employer satisfaction). Because of the importance of processes in linking and mediating inputs and outcomes, the model gives priority to measures relating to processes (such as quality of decision-making and institutional climate and culture).

- Institutional self-monitoring and self-evaluation are considered significant challenges in improving the effectiveness of the VET system.

> *Managing better: Measuring institutional health and effectiveness in vocational education and training* can be found on NCVER's website <http://www.ncver.edu.au/research/proj/nr2011.pdf>

New Apprenticeship pathways: An option for associate professionals?

John Stanwick, John Saunders

The VET sector is an important source of qualifications for associate professionals. The report offers employers, industry organisations, and professional associations an insight into the benefits of contracted work-based training arrangements, like New Apprenticeships, for training associate professionals. However, relatively few undertake training at this level through apprenticeship-type pathways.

Key messages

- Associate professionals perform complex technical and administrative functions, often in support of professionals. Analysis of labour market statistics over the period 1996–2002 shows associate professionals to be the second fastest growing occupational group in the labour market, with a higher percentage of job openings than any other group. However, only one-third of existing associate professionals hold the normally stipulated minimum qualification of a diploma.

- Associate professionals are desperately needed in some countries. However, in some industries the training of associate professionals appears to be somewhat laissez-faire, with loose and informal training arrangements, often with individuals pursuing training on their own accord. It is suggested that the formal arrangements, and structured training and work experience offered by New Apprenticeships may be utilised as an appropriate means for training associate professionals.

- Because associate professionals are a very diverse occupational group, the training arrangements employed must take special account of the nature of work they do. Training models which differ from the 'traditional' apprenticeship approach need to be considered.

- Two such models developed from discussions with respondents to this study comprise a period of full-time study towards a diploma (nominally one year) followed by two or more years of work-based training with an employer.

- There was a notable lack of awareness of the New Apprenticeship system in the six industries covered in this research, and, if the concept of apprentice-type training at associate professional level is to gain acceptance, a term other than 'apprentice' may need to be used.

> *New Apprenticeship pathways: An option for associate professionals?*
> can be found on NCVER's website
> <http://www.ncver.edu.au/research/core/cp0201.pdf>

Pathways from rural schools: Does school VET make a difference?

Sue Kilpatrick, Susan Johns, Barton Loechel, Libby Prescott

This report investigates the medium-term outcomes of VET programs delivered by rural schools. Most other studies of post-school outcomes are conducted six months after students leave school. It discovers school-based VET programs successfully retain students who may have left school, and assist students' transition from school to work. Work placements are particularly valuable to assist the transition from school to local jobs and apprenticeships, and increase youth retention in the community. Rural students using school VET programs as a pathway to local employment were more likely to report that VET influenced their decision to continue with senior secondary school, helped their literacy and numeracy skills and led to a job related to their school VET course. The study found an increase in employment and further education rates for school VET students after three years out of school, suggesting that immediate post-school destinations studies present a limited experience of post-school experiences in regard to education training and employment.

Key messages

- This study of a small sample size of rural school students found that the links noted in other research between VET in Schools programs and later study and employment pathways do hold true in the rural context as well as the urban context. Indeed, the findings suggest that school-based VET programs in rural areas have special potential to develop skills and pathways for the future workforce of rural Australia.

- Rural school students who participate in VET programs are more likely to indicate their intention to live in a rural location during their working life than those who do not undertake a VET program.

- Rural school students apparently undertake VET and work placements as a pathway to their goal of local employment, and their choice of VET field of study is generally aligned to their employment goals, as are their post-school education and training choices.

- VET courses in rural schools are successful in terms of retaining students who otherwise may have left school early, and work placements aid the transition to local jobs and apprenticeships, thereby increasing the retention of young people in the rural community.

- There is a need for more flexible pathways from school-based VET programs in the primary industries area as well as for females.

Pathways from rural schools: Does school VET make a difference?
can be found on NCVER's website
<http://www.ncver.edu.au/research/proj/nr1028.pdf>

Resourcing vocational education and training in Australia

Tom Dumbrell

This report provides an overview of funding arrangements implemented as a result of the 1992 ANTA Agreement which established a unified national system of vocational education and training with joint Commonwealth, state and territory responsibility. The report discusses the outcomes of government, industry and individual investment in training, and includes examples of overseas funding models.

Key messages

- The lack of integration between the public VET system and the large, but less well-documented privately funded sector hinders rational public and private investment in vocational education and training.

- The challenge for the funding of VET is to improve the level of integration between public and private VET expenditure. A more holistic approach is vital for both economic efficiency and equity.

- Comparing overseas funding models like levy schemes, and approaches which aim to increase demand for training, such as tax incentives, vouchers, loans and learning accounts, may be useful in helping Australia achieve greater educational equity.

Resourcing vocational education and training in Australia
can be found on NCVER's website
<http://www.ncver.edu.au/research/proj/nr1006.pdf>

Shifting mindsets: The changing work roles of vocational education and training practitioners

Roger Harris, Michele Simons, Berwyn Clayton

Reforms to Australia's VET sector have had a significant impact on practitioners' work in public and private providers. This study analyses practitioners' perceptions of, and reactions to, the changes. The scope of these changes has been substantial and has required shifts to practitioners' habits, norms, skills and knowledge. While the greatest changes have been increased work responsibilities and shifts in relations with industry in particular, a key theme is the varied impact the changes have on VET organisations and practitioners.

Key messages

- Three major external drivers of change have impacted on the daily working lives of VET practitioners over the past three years. These are government policy, the expectations of industry and the community, and funding and financing.

- The greatest changes in the working lives of practitioners have been in the areas of work responsibilities, relationships with industry and relationships with colleagues.

- The introduction of training packages, increased competition among training providers and changes to funding have had the greatest impact on practitioners' work. These are followed by technology, competency-based training and flexible delivery.

- Practitioners are generally positive about the changes. Private providers are most positive and are more focused on external matters, such as funding, understanding changes to vocational education and training, and meeting industry needs. Those in public providers are more focused on matters concerning teaching–learning practice, such as flexible delivery, training packages and the effects these have on their roles and work. They are more negative than those in private providers in their attitudes to change.

Shifting mindsets: The changing work roles of vocational education and training practitioners can be found on NCVER's website <http://www.ncver.edu.au/research/proj/nr0005.pdf>

The funding of vocational education and training for students with disabilities

Chris Selby Smith, Fran Ferrier

This report looks at how the VET system currently allocates funds to support students with a disability, and suggests other funding models to promote their participation. Four options for funding to support the participation of disabled students in vocational education and training are proposed, and range from: continuing current arrangements; making modifications to current arrangements (such as waiving or reducing fees or providing better support); making available additional base funding to give providers an incentive to expand their course offerings and increase the range of support for people with a disability; and using a case management approach. Students with a disability were less likely than VET students as a whole to be studying higher-level courses, to be in employment, to undertake further studies, or to achieve successful module or employment outcomes.

Key messages

- The current funding arrangements by governments enable the participation of considerable numbers of students with disabilities and provide support for capital works for facilities for students with disabilities. This is achieved by general funding to training providers to support students in vocational education and training with a disability. Additional funding is also available for special purposes, including particular support needs.

- Factors such as the type, level and location of the course, the type and severity of the

disability, the needs of people with disabilities who have not yet entered vocational education and training, and the interaction between VET study and other aspects of the lives of these students all need to be considered when selecting a preferred model for funding.

> *The funding of vocational education and training for students with disabilities*
> can be found on NCVER's website
> <http://www.ncver.edu.au/research/proj/nr1018v1.pdf>

Understanding equity strategies of training providers

John McIntyre, Veronica Volkoff, Mez Egg, Nicky Solomon

Limited research has been undertaken to identify and examine systemic issues associated with the provision of vocational education and training to equity groups. This report focuses on the institutional relationships and policies that determine equity provision, and proposes three principles for framing equity practices. Case studies of two large metropolitan TAFE institutes revealed that in one, equity is embedded into all aspects of policy, organisation structure and program delivery, while in the other, a 'managing diversity' philosophy operates, which views disadvantage positively, such that 'difference' is perceived as a strength.

Key messages

- Three key principles for VET equity practices follow:
  - Equity strategies are likely to be successful if they are adequately resourced, are implemented by a committed management team and reach the appropriate disadvantaged individuals.
  - Equity policy and strategies should reflect the complexities of socioeconomic disadvantage and the context of the local community.
  - Equity is an area which is continually evolving, and strategies should be continually revised to reflect its dynamic nature.

- Traditional concepts of equity, whereby particular groups are the focus of equity provision, are no longer relevant in the current VET policy environment with its emphasis on outcomes, such as completion or entry to employment.

- A shift in emphasis from equity for individual learners or targeted groups to a focus on whole-of-VET-system approaches to equity is appropriate, given the importance of outcomes. In this context, the strategies adopted by providers in identifying equity clients, customising courses and developing pathways to employment and further training are important.

- A number of statistical tools exist for identifying catchment areas, including postcode analysis.

Understanding equity strategies of training providers can be found on NCVER's website <http://www.ncver.edu.au/research/proj/nr9037.pdf>

Valuing recognition of prior learning: Selected case studies of Australian private providers of training

Larry Smith

This report adds to the work on recognition of prior learning, particularly as it focuses on the RPL processes of private registered training providers—how it is practised and the factors that facilitate or impede its implementation. It reports that advantages of RPL can be found in the information gained from students', trainers' and employers' processes of acquiring and assessing recognition. However, the demand on resources—time and funds—are viewed by providers as factors which limit the promotion of RPL and its use by students, particularly those from disadvantaged groups.

Key messages

- The RPL process and supporting information need to be clear, concise and jargon-free.

- The administrative costs associated with RPL, both in time and money, appear to be a significant disincentive for both candidates and providers and may be adding to the disadvantage experienced by equity groups.

- Effective RPL requires experienced professional assessors able to make informed professional judgments.

- The 'shelf life' of qualifications and experience used for the purpose of RPL needs to be addressed, particularly in those industry areas like information technology where change is both rapid and pervasive.

- There is concern regarding the differences in standards of assessment among training providers, which may be a problem if a student is seeking a significant amount of RPL towards a qualification carrying the name of a new provider.

- The focus for assessment of RPL candidates should be on their capacity to perform 'the task' in the workplace to industry standards, not the elements of competency underpinning the task.

- The RPL process itself has the potential to provide students with positive outcomes, such as helping them to understand their strengths, weaknesses and interests, and improving their confidence and motivation to learn.

- Information gained through the RPL process can be useful in assisting employers to maximise the potential of the candidate (their employee) within the business, and has the potential to aid the development of learner-centred training programs.

Valuing recognition of prior learning: Selected case studies of Australian private providers of training can be found on NCVER's website <http://www.ncver.edu.au/research/proj/nr2030.pdf>

VET in Schools: A post-compulsory education perspective

John Polesel, Sue Helme, Merryn Davies, Richard Teese, Tanya Nicholas, Margaret Vickers

This study investigates the views of TAFE teachers, school teachers and school students on VET in Schools programs. It discovered most schools agree that offering VET programs as part of the higher school certificate is a useful means of improving students' learning and success at school. VET in Schools programs are also generally believed to provide students with opportunities and pathways which may not have otherwise been available. VET programs are seen by students as providing essential opportunities and alternatives to the traditional pathway to university. The range of factors affecting the ability of schools to offer good VET programs are described, as is TAFE's role in assisting early school leavers.

Key messages

- Vocational education and training in schools plays an essential role in making the curriculum inclusive of a broader range of needs; it improves learning and gives many students a chance of success at school, some experiencing it for the first time.

- Schools and students are beginning to view VET (and consequently TAFE itself) in a more favourable light. By appreciating VET, schools are also paving the way for a more positive view of TAFE as a post-schooling option.

- Some school personnel are opposed to VET, believing it is disruptive, that it does not fit into the school timetable, or that it is unnecessary. For most, however, VET is seen to play an essential role in improving learning and securing a range of good outcomes for school leavers.

- The development of good VET programs depends on both attitudinal change (among staff and the school community) and structural change (in the school's operation).

- The schools that are able to offer more comprehensive VET programs have high enrolments, a proactive principal, the capacity to offer courses on a cost-neutral basis or to charge students, a view of VET as improving learning, proximity to a TAFE institute and a good relationship with TAFE.

- The main barriers to implementing VET in schools tend to be financial (training teachers, provision of adequate facilities, either onsite or bought in, fees charged to students) or institutional rather than teacher resistance.

VET in Schools: A post-compulsory education perspective can be found on NCVER's website <http://www.ncver.edu.au/research/proj/nr1029.pdf>

What's in it for me? Recognition of prior learning in enterprise-based registered training organisations

Kaaren Blom, Berwyn Clayton, Andrea Bateman, Marie Bedggood, Elvie Hughes

Recognition of prior learning is a crucial element in lifelong learning, but limited information exists about skills recognition implementation and outcomes within Australian enterprises. This study examines the nature of recognition within individual enterprises, including the processes employed, strategies in place for promotion and support, and perceived benefits for enterprises and employees. It finds a 'one-size-fits-all' approach to RPL is rarely effective, but should be linked to the enterprise's overall business and training plans, which ensures it evolves as part of the organisation's needs.

Key messages

- The six enterprises and their employees involved in this study provided significant information about how the RPL process can operate within enterprise-based training organisations. They demonstrate that a 'one-size-fits-all' approach is inappropriate in developing such recognition processes.

- The place of RPL in the enterprise's overall business and training plans will always evolve according to the needs of the organisation. Recognition is therefore part of broader organisational processes, including the enterprise's assessment and training agenda.

- The recognition processes within the enterprises studied were complex, requiring extensive infrastructure and a significant commitment to the process from all stakeholders. Where employees had a reasonable level of support in undertaking the process from their employer, there were rarely complaints about any aspects of it.

- Enterprises see whole-of-organisation benefits in implementing recognition processes, which confirm employees' skills developed over a

period of time and represent significant corporate knowledge. Working with limited training resources, RPL enabled them to achieve training efficiencies. However, for business reasons, organisations sometimes require that all staff undertake specified training, and recognition processes are not allowed.

- Employees see both organisational and personal benefits from the process. The benefits include: having existing personal skills recognised and certified; accessing a process that offered a high degree of flexibility; identifying skill gaps; achieving nationally recognised and portable qualifications which are recognised outside the enterprise; and having opportunities for networking with other staff within their organisations.

What's in it for me? Recognition of prior learning in enterprise-based registered training organisations can be found on NCVER's website <http://www.ncver.edu.au/research/proj/nr2029.pdf>

What works where you are? The implementation of training packages in rural Australia

Berwyn Clayton, Kaaren Blom, Andrea Bateman, Pam Carden

Vocational education and training can assist rural communities to develop the necessary skills to survive and prosper in changing social and economic environments. This report investigates the implementation of training packages in five rural communities, and the strategies which providers, community and industry stakeholders use to achieve positive outcomes. Providers in the rural communities reveal that flexibility is the key to successful training. However, some funding and delivery policies/regulations hinder their efforts. The authors find that policies and incentives that support collaboration will assist training diversity in non-metropolitan Australia.

Key messages

- Training packages have been extensively implemented in the rural communities of Ainsworth, Baldwin, Colton, Duncan and Ellis. Providers of vocational education and training servicing these rural communities were constantly challenged by 'thin' markets—or markets characterised by low activity and thus lacking depth or volume—and the small numbers engaging in training. Funding for training provision and the range of training on offer were consequently limited.

- Some policies and regulations governing funding and the delivery of training were seen by rural providers as working against their efforts to supply innovative solutions to meet the training needs of their communities. They would welcome some flexibility in the application of policy and regulations together with differential funding formulas.

- There was evidence of extensive collaboration in the provision of training between stakeholders in rural communities. Networking and partnerships have allowed resource and information sharing, avoidance of unproductive duplication of effort, and positive outcomes for providers, learners, enterprises and the communities.

- While competition policy has engendered a healthy training market, collaboration in rural communities is a sensible strategy for delivering effective vocational education and training. Any policies and incentives that support collaboration will assist in the broadening of training possibilities in non-metropolitan Australia.

What works where you are? The implementation of training packages in rural Australia can be found on NCVER's website <http://www.ncver.edu.au/research/proj/nr2003.pdf>

Building innovative vocational education and training organisations

Victor Callan

This report identifies six characteristics of highly innovative organisations. VET providers are examined to determine how well they perform as innovators against these characteristics. The report indicates that, typically, VET providers identify innovators, develop partnerships and promote innovation through teams and communities of practice well. To develop innovation further, the author suggests VET organisations need to broaden the range of strategies they are using to promote innovation and offers practical steps to do so.

Key messages

- Highly innovative organisations engage in at least six practices. They:
  - create learning cultures which promote innovation as a core capability
  - have leaders who are failure-tolerant
  - identify their innovators
  - reward people who bring forward innovative ideas
  - use partnerships
  - promote innovation through teams, teamwork and communities of practice.

- A series of case studies and vignettes revealed that VET enterprises:
  - are making good progress as innovators but this progress is uneven
  - have predominantly used only three of the six characteristics to build innovation: identification of innovators; partnership with industry; and teamwork
  - are experiencing a gap between the rhetoric about innovation and its funding
  - are needing more leaders who, rather than just playing around at the edges, want to build corporate cultures which deeply value innovation and innovators.

Building innovative vocational education and training organisations can be found on NCVER's website <http://www.ncver.edu.au/research/proj/nr3011.pdf>

Building sustainable adult literacy provision: A review of international trends in adult literacy policy and programs

Rosa McKenna, Lynne Fitzpatrick

This report summarises an extensive study of adult literacy policies and practices in vocational education in six countries—Canada, New Zealand, United States, Ireland, United Kingdom and Australia. The policies and programs of the six countries were compared across policy contexts and concepts, program development and delivery, and regulatory frameworks, product development and quality assurance.

Australia, compared with the other countries studied, has a strong focus on the integration of literacy with VET standards and national qualifications, and a relatively advanced quality assurance system. To build further on literacy policy and practice, the authors suggest providing national leadership, expanding national research and referral programs, expanding flexible funding arrangements and continuing to develop diverse delivery modes, promoting consistent reporting and quality assurance, and building the capability of the existing teaching workforce.

Key messages

- Australia has achieved considerable success in the integration of literacy with vocational education and training which operates within national qualifications and quality assurance frameworks. It also has a strong base for developing national policy settings and putting in place an effective national reporting system on the outcomes of literacy provision.

- Australia has not refreshed its literacy policy since 1996, unlike the other countries studied, to take into account the new dimensions and approaches to literacy that have emerged in recent times. It is also unclear how these literacies relate to other recognised generic skills.

- Australia needs to pay closer attention to literacy teaching workforce issues and build the capability of the existing workforce in the light of an expanding range of teaching methods, new technologies, emerging new literacies (such as effective use of technology) and the diverse range of contexts for delivery. In fact, it appears that in Australia opportunities for professional development are decreasing. Improving certification to enhance professionalism might also be needed to aid the replacement of practitioners who are leaving or about to leave due to age.

- Efforts are needed to develop a better understanding of current literacy provision—in all its forms—and rates of success compared with apparent levels of literacy need. The best documented programs are those offered through the VET sector as accredited stand-alone courses, while Australia's provision through informal non-accredited courses is not documented. In addition, the effectiveness of literacy teaching that is integrated within VET skills programs is not currently measured.

Building sustainable adult literacy provision: A review of international trends in adult literacy policy and programs can be found on NCVER's website <http://www.ncver.edu.au/research/proj/nr2L07.pdf>

Education research in the knowledge society: Key trends in Europe and North America

Peter Kearns

There is increasing worldwide focus on education reform, driven by rising pressures for lifelong learning, the burgeoning impact of technology and an escalating pace of change in much of industry and society. This report examines the key trends in Europe and North America in the search for more effective means of strengthening the impact of educational research on practice. It analyses trends to accumulate, communicate and achieve stronger interaction and interface between research, policy, and practice. The author suggests that the knowledge development process in vocational education and training should involve three stages—the first stage providing initial research information, before moving toward an 'intermediate' and then a 'mature' stage of evidence-building through feedback and testing of the research.

Key messages

- The past decade has witnessed a heightened urgency for education policy reform at a time when the impact of research on policy and practice has not kept pace with change. This has stimulated a search for better ways to heighten the impact of research on educational policy and practice.

- The interest in the role of educational research in reform of education has coincided with the emergence and impact of the globalised knowledge society, with objectives such as effective knowledge management assuming increased importance.

- The OECD in particular has taken the lead over the past decade by emphasising the need to improve the interface between research, policy and practice. This emphasis is also reflected in the educational research and development activities in North America and in the European Union, including the work of CEDEFOP, the European Union research agency for the VET sector.

- The establishment of cross-sectoral linkages to enable knowledge bases common to all sectors of education and training is seen as crucial as the focus on education moves from sector to system. International linkages have also been strengthened to enable the evolving education and training knowledge base to draw upon international experience and research findings.

- The heightened importance of developing and maintaining the knowledge base of society is likely to broaden the research role to one which encourages collaborative learning and co-development of knowledge. This involves moving away from traditional linear research–development–implementation models to interactive models for knowledge development, with closer relations between research, policy and practice.

- The role that NCVER currently plays in the management of the VET research effort will continue to be important, as will an ongoing leadership role in building the VET knowledge and evidence base and strengthening the research impact on VET policy and practice.

> *Education research in the knowledge society: Key trends in Europe and North America*
> can be found on NCVER's website
> <http://www.ncver.edu.au/research/core/cp02_07e.pdf>

International benchmarking of vocational education and training

Tim Wyatt

This report critically examines two approaches to benchmarking vocational education and training—benchmarking through performance indicators and benchmarking through comparative case studies. The author finds both approaches provide useful information, although the case study approach enables a more thorough analysis of particular issues and can take greater account of complex and diverse institutional structures.

Key messages

- The term 'benchmarking' describes a large variety of different measurement and evaluation tools used with the aim of improving organisational performance.

- The case study approach is less constrained by the varying coverage and availability of statistical data for each country and provides valuable insights into how each system works.

- A 'comparative case studies' approach to benchmarking VET systems highlights similarities and differences between the performance of the education and training systems in different countries. This approach analyses the specific circumstances (and changes in them) within countries, identifying trends rather than making comparisons between them.

- Benchmarking using the performance indicators developed by the OECD for its publication, *Education at a glance* has a number of key problems, including problems of definition, data availability, and data quality. There are significant gaps in international data sets in regard to VET. The most serious of these is that the OECD data classifications do not have a separate category for VET that adequately reflects the complexity of VET provision in Australia.

- International experience has highlighted various lessons, including the fact that benchmarking is a participative exercise which needs to be well focused and sensitive to the needs of the organisations and stakeholders involved.

International benchmarking of vocational education and training can be found on NCVER's website <http://www.ncver.edu.au/research/proj/nr9010.pdf>

Keeping up with technology: A pilot study of TAFE and the manufacturing sector

Phillip Toner

Australia's innovation capacity is, in part, reliant on its teaching workforce—to teach and promote new technologies to industry. This pilot study examines how VET teachers, in particular TAFE teachers, maintain the currency of their skills and knowledge base. It also explores their role in the development and diffusion of innovative practices and new technologies in the manufacturing sector. Despite the lack of recognition of TAFE teachers in national innovation policies and programs, they do provide a technology diffusion function. However, there are impediments to maintaining the currency of teacher skills and equipment, including inadequate capital expenditure on equipment, an ageing teaching workforce and reduced access to professional development and return-to-industry programs.

Key messages

- Most studies on innovation have focused on emerging industries and the ability of the VET sector to help them meet their skills and knowledge needs. This study focuses on the manufacturing sector, a traditional client of vocational education and training, and examines in particular how well TAFE teachers maintain the currency of their skills, and support innovative work practices and the adoption of new technologies in the sector.

- The manufacturing sector has a particularly high level of innovation and a large VET-trained workforce, so it is imperative that TAFE maintains not only current skills and knowledge about the latest technology, but also its capacity to support innovation in the sector.

- TAFE teachers are involved in seeking information about, and supporting, innovation and technical development through a wide variety of approaches outside their normal teaching activities. However, this role in technology diffusion, deployment and innovation goes largely unnoticed and it has become even harder as work levels have intensified and key staff numbers have been reduced.

- Both TAFE teachers and the employers they service are satisfied with the currency of teachers' skills and knowledge. Neither are satisfied with the currency of equipment for teachers, nor with the formal professional development available for maintaining that skills and knowledge currency. However, industry associations have concerns about staff qualification levels.

- Teaching staff surveyed note that there are no formal mechanisms for evaluating new technologies and equipment for incorporation in teaching programs.

- The role of the VET sector in technology diffusion needs to be more widely acknowledged. It needs to be more integrated into national innovation policy and research and development programs because of its dual role of ensuring that appropriate training is available and promoting new technologies to small and medium-sized enterprises. The VET sector also needs to acquire more capacity to monitor technological trends and innovation in industry, and to help assess the implications of this for vocational education and training.

Keeping up with technology: A pilot study of TAFE and the manufacturing sector
can be found on NCVER's website
<http://www.ncver.edu.au/research/proj/nr3012.pdf>

Social partnerships in vocational education: Building community capacity

Terri Seddon, Stephen Billett

Interest in social partnerships in Australia and throughout the world has rapidly increased. Their value in building social capital, stronger communities and enhancing capacity for local governance has been recognised. This report analyses social partnerships in community contexts and identifies that partnerships are complex and multi-layered and successful partnerships require: acknowledgement and negotiation of the interests and expectations of all participants; development of resource and support structures; recognition of volunteer contributions; and development of outcomes that recognise the full range of achievements and success within the partnership. The implication of the range and nature of social partnerships and their effect on VET policy are also discussed in the report.

Key messages

- Social partnerships are based on relationships between government, social agencies and communities (or any combination of these) who engage in voluntary, mutually beneficial, innovative relationships to address common societal aims by combining their resources and competencies.

- In Australia, all levels of government are investing in a range of social partnerships—in health, community, regional and rural development, welfare support, as well as in education and training.

- The project has identified two types of partnerships:
  - community partnerships which grow out of community concerns and are formed to address local issues or problems
  - enacted social partnerships initiated by agencies external to local communities, with the aim of developing and/or supporting particular functions within those communities.

- Vocational education and training is characterised by both community and enacted social partnerships, both of which are utilised to support vocational learning, particularly for young adults, through a variety of local initiatives.

- The success of social partnerships, as measured by both the community and the auspicing body, depends on a number of factors. These include:
  - acknowledging and negotiating the interests and expectations of all partners, sponsors and organisations involved in the partnership
  - developing resources and infrastructures to maintain and support the partnership
  - recognising the value of volunteer contributions
  - specifying the outcomes to take account of the full range of achievements and definitions of 'success' within partnerships.

Social partnerships in vocational education: Building community capacity can be found on NCVER's website <http://www.ncver.edu.au/research/proj/nr2002.pdf>

The role of Community Development Employment Projects in remote and rural communities

Josie Misko

The Community Development Employment Projects scheme provides funds to help Indigenous communities in rural and remote Australia provide employment, skills development, and various essential and desirable municipal services. However, there is room to improve the range and quality of employment and community development activities available. There is also room for increasing the number of participants who engage in and complete courses leading to trade and other formal qualifications.

Key messages

- The Community Development Employment Projects scheme continues to reduce rates of unemployment for Indigenous Australians in the bush. Nevertheless, the movement of participants into unsubsidised employment in areas with thin labour markets remains difficult.

- The Community Development Employment Projects scheme cannot be expected to solve the problems of unemployment or under-employment for Indigenous Australians in the bush or elsewhere. Major changes in the way we think about the types of economic development possible in rural and remote areas are essential. However, this scheme can assist by providing funds to support employers to provide training and employment for participants, and paid part-time work for those between jobs.

- This study confirms that the flexibility of the Community Development Employment Projects scheme enables rural and remote communities to access substantial blocks of funds and resources to customise activities and enterprises and thus improve the physical and social environments of local communities. The scheme provides opportunities for individuals to experience regular work and undertake training. This engagement enables participants to act as positive role models for children and others where participation in employment and training is not always the norm.

- Indigenous leaders want their communities to develop the professional and trade skills required by all communities, and they agree that the level of initial and advanced education needs to be raised. Conclusions about the extent to which this scheme is able to meet these needs are not straightforward. The scheme cannot be blamed for the poor initial education of Indigenous Australians, nor can it be expected to provide the academic preparation in specific subjects required for entrance into professional courses. However, it can improve access to education and training for participants by coordinating training provision and providing encouragement and financial support for training delivery and participation. There is also room for the scheme to develop closer training linkages with external funding agencies and programs.

- The success of the Community Development Employment Projects scheme in encouraging participants and communities to engage in education and training will also be heavily dependent on the availability of qualified tradespersons and accredited trainers and assessors to deliver, supervise and assess training. It will also be dependent on the availability of training programs and accommodation for training supervisors or staff. The scheme will have to develop appropriate strategies to attract suitably qualified personnel to the bush to provide these services.

- Indigenous leaders in rural and remote communities want the scheme to continue. However, there is a need to ensure that all participants are engaged in relevant and productive activities. Programs should be made available to help scheme managers and community leaders to identify and increase the range of possible productive employment and community development activities, entrepreneurial ventures and relevant training. There is also room for enhancing the business development and governance skills of those who are responsible for the management of these schemes.

The role of vocational education and training in attracting foreign investment from multinational companies

Phillip Toner

Based on a literature review and 12 case studies of multinational corporations operating in Australia, the study finds the quality of the domestic VET-skilled workforce is ranked equal third in importance, out of 15 factors, when multinational companies consider investing in Australia. To make the VET system more attractive to foreign investment, the multinational corporations in the case studies made a number of recommendations, including better publicising of VET overseas and improving the skills of production-level workers.

Key messages

- Multinational corporations are increasingly significant in the global economy and in individual national development. This is due to the predominant role that multinational corporations play in technology development and transfer, and in the international trade of goods and services and financial transactions. However, multinational corporations do not necessarily bring benefits, particularly if the investment simply reflects changes in ownership.

- The survey results and the broader literature review found that decisions relating to investment by multinational corporations depend upon a multiplicity of factors. The case studies show that the quality of the domestic VET-skilled workforce is ranked equal third in importance out of 15 factors in the decision to locate the investment in Australia. However, only four of the 12 multinational corporations studied evaluated the local labour market and training system as part of the investment location decision-making process. The most important factors are proximity to customers and quality of infrastructure.

- The study also found that the skills of the local workforce are sufficiently developed to use the overseas-designed production technologies and overseas-designed products on which the local multinational corporation subsidiaries are particularly dependent. However, most of the firms experienced shortages of VET-skilled workers, and these are reported to adversely affect firm performance. Firms use a range of measures to redress their recruitment difficulties, including training their existing workforce, using labour hire and offering higher wages.

- Almost all the case study multinational corporations provided training through external providers to their employees, often in management and leadership. Three of the 12 firms in the sample 'found it necessary to assist or require external training suppliers to improve their performance'.

- Multinational corporation subsidiaries have a marked effect on their local suppliers, requiring improvements in product/service delivery times, quality and price. Many of the subsidiaries assist their suppliers to achieve these improvements through technology transfer and training.

- To attract more foreign investment in Australia, survey respondents suggest better overseas publicity of the current Australian VET system, and improving the literacy, numeracy and production knowledge of lower-level manufacturing workers.

> *The role of vocational education and training in attracting foreign investment from multinational companies* can be found on NCVER's website <http://www.ncver.edu.au/research/proj/nr3008.pdf>

Vocational education and training and innovation: Research readings

Editor: Susan Dawe

Innovation in business, particularly across the major industries on which Australia's economy rests, requires a skilled workforce. This book of research readings highlights the role of Australia's VET sector in business innovation. Various chapters consider what the innovation process in business means for Australian workers and identifies the contributions of the VET sector to innovation. Other chapters, based on international comparisons, evaluate elements of the national innovation system currently missing or under-emphasised. The book finds that VET providers have a vital role to play in the provision of training for innovative enterprises. To do so, providers must identify their strengths and build industry partnerships in these areas which may require working more effectively across disciplines and developing more personalised arrangements for delivery. VET providers also have a role assisting the 'diffusion' (transfer and adoption) of innovation in technology, especially among small and medium-sized enterprises.

Key messages

- Innovations range from high-profile scientific discoveries to low-profile changes in processes or practices. They have in common that they are doing something new or differently which adds value to a business operation, or is useful to the community in which it is applied.

- Previous policy has focused on innovation based on scientific discovery and research and development. However, local business investment in this type of innovation is comparatively low.

- Policy needs to move from this 'scientific discovery' notion of innovation to one where innovation is seen as a continuous learning process.

- Work practices and workforce skills are critical to the innovation process. VET programs increasingly will need to develop an individual's capacity to think and act creatively with confidence.

Vocational education and training and innovation:
Research readings
can be found on NCVER's website
<http://www.ncver.edu.au/research/proj/nd3113.pdf>

Vocational education and training, innovation and globalisation

Richard Curtain

Innovation, from high-profile scientific discoveries to lower profile changes in processes or practices, is crucial to Australia's economic development. However, its impact on the wider community is usually relatively small. Promotion of innovation across all sectors is required to produce the biggest changes. This report focuses on the roles of the VET sectors of Finland and Singapore—countries with strong track records in innovation. It finds that, in Australia, the development of a national innovation system would be facilitated by a whole-of-government approach. Further, the national VET sector is ideally placed to have a more direct role in the promotion and diffusion of smaller-scale innovations provided that incentives in the form of specific funding are put in place.

Key messages

- Australia has improved its innovative capacity, but performance is uneven and has still not kept pace with key international competitors. While Australia is ranked in the top six OECD countries for government expenditure on research and development, business investment in innovation is far below comparable OECD countries. Leaving innovation to market forces alone will not help Australia improve its performance. A whole-of-government approach supporting a national innovation system is needed. A key feature of such a system is active cooperation within and between levels of government.

- There is a danger in focusing only on those innovations concerned with a small number of high-technology sectors as contributors to economic growth. The benefits of innovation to the Australian economy also come from ensuring that new technologies and work processes are adapted widely throughout all sectors of the economy. The VET sector should have a more direct role in promoting and diffusing smaller scale innovations focused on processes and development rather than the sector seeking to engage in pure research. This would enable the VET sector to diffuse business innovation and enhance its links with business, particularly with small and medium-sized enterprises in general and especially those in regional areas. This requires appropriate funding support as part of a more diverse set of performance targets for VET providers.

Vocational education and training, innovation and globalisation
can be found on NCVER's website
<http://www.ncver.edu.au/research/proj/nr1012.pdf>