

Quality is the key: Critical issues in teaching, learning
and assessment in vocational education and training

John Mitchell
John Mitchell & Associates

Clive Chappell
University of Technology Sydney

Andrea Bateman
Bateman & Giles Pty Ltd

Susan Roy
NSW Department of Education
and Training



Program 3:
Analysing critical issues in teaching,
learning and assessment

*Supporting vocational education and training
providers in building capability for the future*

CONSORTIUM RESEARCH PROGRAM

Need more information on vocational education and training?

Visit NCVER's website <<http://www.ncver.edu.au>>

- ✓ Access the latest research and statistics
- ✓ Download reports in full or in summary
- ✓ Purchase hard copy reports
- ✓ Search VOCED—a free international VET research database
- ✓ Catch the latest news on releases and events
- ✓ Access links to related sites

Quality is the key

Critical issues in teaching, learning and assessment
in vocational education and training

John Mitchell
John Mitchell & Associates

Clive Chappell
University of Technology Sydney

Andrea Bateman
Bateman & Giles Pty Ltd

Susan Roy
NSW Department of Education and Training

The views and opinions expressed in this document are those of the author/project team
and do not necessarily reflect the views of the Australian Government,
state and territory governments or NCVER

Publisher's note

Additional information relating to this research is available in the following support documents:

- ✧ *Critical issues: A literature review on teaching, learning and assessment in vocational education and training*
- ✧ *Complexities and opportunities: A discussion paper on critical issues in teaching, learning and assessment in vocational education and training*
- ✧ *Quality: A critical issue in teaching, learning and assessment in vocational and further education—A three-country comparison*
- ✧ *VET networked for quality: A description of a selection of VET networks and how they contribute to building and promoting good practice in teaching, learning and assessment*
- ✧ *Demonstrating quality: Fifteen case studies of good practice in VET*

They can be accessed from NCVER's website <<http://www.ncver.edu.au/publications/1710.html>>.

© Australian Government, 2006

This work has been produced by the National Centre for Vocational Education Research (NCVER) on behalf of the Australian Government, and state and territory governments, with funding provided through the Australian Department of Education, Science and Training. Apart from any use permitted under the *Copyright Act 1968*, no part of this publication may be reproduced by any process without written permission. Requests should be made to NCVER.

The views and opinions expressed in this document are those of the author/project team and do not necessarily reflect the views of the Australian Government, state and territory governments or NCVER.

The author/project team was funded to undertake this research via a grant under the National Vocational Education and Training Research and Evaluation (NVETRE) Program. These grants are awarded to organisations through a competitive process, in which NCVER does not participate.

The Consortium Research Program is part of the NVETRE program. The NVETRE program is coordinated and managed by NCVER, on behalf of the Australian Government and state and territory governments, with funding provided through the Department of Education, Science and Training. This program is based upon priorities approved by ministers with responsibility for vocational education and training (VET). This research aims to improve policy and practice in the VET sector. For further information about the program go to the NCVER website <<http://www.ncver.edu.au>>.

ISBN 1 921170 30 1 print edition

ISBN 1 921170 36 0 web edition

TD/TNC 87.10

Published by NCVER

ABN 87 007 967 311

Level 11, 33 King William Street, Adelaide, SA 5000

PO Box 8288 Station Arcade, Adelaide SA 5000, Australia

ph +61 8 8230 8400 fax +61 8 8212 3436

email ncver@ncver.edu.au

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

<<http://www.ncver.edu.au/publications/1710.html>>

Foreword

This research report is one of the products of a nationally based research consortium: *Supporting vocational education and training providers in building capability for the future*. This consortium's work forms part of the National Vocational Education and Training Research and Evaluation Program managed by the National Centre for Vocational Education Research (NCVER) and funded by the Department of Education, Science and Training on behalf of the Australian Government and state and territory governments.

Effective vocational education and training (VET) providers and practitioners are key to meeting Australia's changing vocational skill needs and ensuring that employers and individuals alike get the training they deserve. This means that practitioners need skills which make them effective in a potentially wide variety of learning contexts and in supporting the learning of very different client groups. Providers, too, need the structures, cultures and systems which support both their staff's work and their ability to meet their clients' needs.

The consortium draws on the expertise of a wide range of individuals and groups and involves nine interlinked research activities, focusing on VET workforce and organisational capability issues.

The consortium's research program encompasses a broad range of issues, including the career development of VET practitioners, the cultures and structures of VET providers, how well they support learning at work, the human resource management and educational leadership approaches, as well as the decision-making approaches, that they use. These will be considered in other consortium products.

Teaching, learning and assessment—the subject of this report by John Mitchell and his colleagues—are at the core of a provider's business. It notes that providers need to be increasingly flexible and responsive. Practitioners need new knowledge and a range of new or higher-level skills and abilities in order to deliver quality service and outcomes. The report is complemented by a range of other valuable support documents which we believe are a useful addition to the VET research literature on this topic.

Tom Karmel
Managing Director, NCVER

Readers interested in teaching, learning and assessment issues are referred to other work the consortium is conducting. Work in progress can be accessed from the consortium's website at <<http://www.consortiumresearchprogram.net.au>>.

In addition the following work is relevant:

- ✧ Mitchell, J, McKenna, S, Bald, C & Perry, W 2006, *New capabilities in VET: Insights from Reframing the Future project teams on how to build capabilities for implementing the national training system*, Commonwealth of Australia, Adelaide.
- ✧ Guthrie, H, Perkins, K & Nguyen, N 2006, *VET teaching and learning: The future now 2006–2010—The roles, knowledge and skill requirements of the VET practitioner*, Department of Education and Training, Perth.

To find other material of interest, search VOCED (the UNESCO/NCVER international database <<http://www.voced.edu.au>>) using the following keywords: teaching; learning; assessment; quality.

Contents

Key messages	6
Executive summary	7
Introducing the research activity	10
Brief	10
Methodology	10
Products	11
Critical issues from the VET literature	12
A changing environment	12
What do learners and clients want?	13
Skills and resources needed by VET practitioners	13
Implementation of innovative approaches	14
Overall themes	15
The initial proposition: Complexities and opportunities	16
Complexities	16
Opportunities	17
Testing the proposition	17
What do learners and clients want from VET?	18
Initial findings	18
Refinements from the case studies	18
Refinements from the focus groups and mini-conferences	19
Summary	20
What skills and resources are needed by VET practitioners?	21
Initial findings	21
Refinements from the case studies	22
Refinements from the focus groups and mini-conferences	23
Emerging profile of a new VET practitioner	23
How VET practitioners can be supported to develop the new roles and skills	24
How does innovation occur and how can it be transmitted in VET?	26
Initial findings	26
Refinements from the case studies	27
Refinements from the focus groups and mini-conferences	28
Summary	29
Beyond complexities and opportunities, quality is the critical issue	30
Governments want quality provision and outcomes	30
Practitioners want quality provision and outcomes	31
Summary	34
References	35
Support document details	37

Key messages

This research forms part of a wider program of research designed to assist vocational education and training (VET) providers to build their capability for the future. Through a literature review, discussion paper, consultations and field research, this project identifies critical issues in teaching, learning and assessment to inform and influence practice in the rapidly changing VET environment.

- ✧ The VET sector is distinguished by complexity and opportunity. Many critical issues were identified by stakeholders under the banner of these two terms but, for the majority of VET stakeholders, quality is the most critical issue in teaching, learning and assessment.
- ✧ The concept of quality provokes different responses from VET stakeholders. Some stakeholders focus on managing quality systems and quality indicators, while others focus on creating cultures to stimulate continuous improvement. Ideally, both perspectives are needed.
- ✧ VET practitioners need to extend their existing skills to meet the challenges of the new VET environment, which includes a range of learning styles, new assessment practices, diversity of clients (from industry to individual students) with a diversity of requirements (such as customised service), and enhanced technologies. They need the time and space to do this.
- ✧ VET practitioners will need to adopt a variety of methodologies to develop these new skills. Work-based learning takes into account new thinking about adult learning and learning organisations and can involve coaching, mentoring, industry release and work shadowing as well as participating in networks, communities of practice and professional conversations. It has been shown to be successful in supporting the achievement of high-quality teaching, learning and assessment.
- ✧ All VET stakeholders will need to adopt innovative approaches to their various roles. For individuals, critical success factors include their adopting new work roles, such as learning manager or facilitator. VET organisations need to develop an agile, flexible, creative and innovative culture balanced, but not dominated, by the need to comply with systemic quality requirements.
- ✧ Partnerships and networks support the achievement of high-quality teaching, learning and assessment by encouraging the exchange of information, ideas, techniques and approaches between VET practitioners, their clients and industry representatives.

Executive summary

The main finding from research conducted in 2005 into the critical issues in teaching, learning and assessment in vocational education and training (VET) was that ‘quality is the major issue’. While the research identified many issues—such as the need for providers to be increasingly flexible and responsive in meeting the multiple demands of industry clients and individual students—ultimately most parties want quality in teaching, learning and assessment, leading to benefits for individuals, enterprises and the nation.

This report was undertaken as part of the program, *Supporting vocational education and training providers in building capability for the future*, by a consortium of researchers during 2005 and 2006. The brief was to identify critical issues in teaching, learning and assessment, in order to inform and influence VET practice.

The project included developing a literature review and a discussion paper, holding focus groups and two mini-conferences, conducting field research in the United Kingdom and consultations with a range of stakeholders, investigating networks in vocational education and training, conducting an online forum and preparing 15 case studies.

Key findings

The environment for vocational education and training is changing, prompting the need for VET practitioners to extend existing skills and to develop new skills in teaching, learning and assessment. Changes in the VET environment include: skill shortages; new technology in industry; the structure of work; the needs of youth, the disadvantaged and mature-aged workers; competition between providers; and the expectations of industry and the community.

In this challenging environment, the critical issues in terms of addressing what industry clients and individual learners want include: meeting the increasing demand for the customisation and personalisation of training services; developing a deeper understanding of individuals’ learning styles and preferences; and effectively providing services and support for different learner groups, such as learners from equity groups and learners in the online learning environment. Other critical issues include: understanding the many different ways learning can occur in workplaces; and developing partnerships between practitioners in vocational education and training, providers delivering in enterprises, and enterprise-based managers and trainers.

Critical issues in terms of the skills and resources needed by VET practitioners include the following.

- ✧ Many VET practitioners need improved skills in implementing training packages, despite their widespread availability in the sector, in some cases, for the past seven or eight years.
- ✧ VET practitioners need skills to enable them to take advantage of the new digital technologies as they become available.

- ✧ VET practitioners need skills and resources to provide effective support for learning that occurs in the workplace.
- ✧ An increased awareness of the broad spectrum of types of learning (for example, formal and informal learning) means that new skills and resources are needed in the design of learning programs and resources. New skills are also needed to provide assessment services, for example, to conduct assessment in the workplace, to provide recognition processes (of current competence and prior learning), and to assess generic skills.

Our research suggests that, as the context in which vocational education and training operates changes, a notional ‘new practitioner’ is emerging whose role is to meet the increasing expectations of industry clients and individual students. The new VET practitioner doesn’t rely on the old certainties such as pre-set curriculum and classroom instruction, but develops attributes, attitudes, ideas and techniques to meet the needs of clients. The new practitioner looks outwards at market needs and seeks to meet those needs. The attributes of the new VET practitioner reflect a new hybrid mix of sound educational practice on the one hand, and contemporary business strategies on the other. This mix is understandable, given that VET practitioners are being encouraged to work more closely with industry and enterprises.

To address the specialised demands of each enterprise client and every student, the VET practitioner needs a raft of new skills, so many, in fact, that many practitioners need to be able to draw on the specialist skills and knowledge of colleagues and partners by working in teams or partnership arrangements. New skills are required by the full range of VET practitioners, from those employed by registered training organisations, either part- or full-time, to workplace trainers and assessors employed either by an enterprise or by a registered training organisation. New skills are needed by all VET personnel, from managers to frontline trainers and support staff, in both public and private registered training organisations.

Given the breadth of the range of new skills required in vocational education and training, practitioners will need to use a variety of techniques to develop these skills. Work-based learning, which takes account of new theories of adult learning and learning organisations, provides a proven methodology for skill building. It can involve coaching, mentoring, industry release and work shadowing, as well as participating in networks and communities of practice and professional conversations. Networks also support the achievement of high-quality teaching, learning and assessment. They encourage the exchange of information, ideas, techniques, approaches and tools between VET practitioners and also provide a mechanism for providers to interact with and obtain feedback from their enterprise clients.

In the context of innovation, the needs of individual practitioners and enterprises and industry differ. For individuals, critical success factors relating to innovation include their adopting new work roles, such as learning manager, facilitator, mediator, broker or strategist. For VET organisations, critical success factors include developing an agile and flexible culture that encourages diverse thinking and individual initiative. For the VET system, critical success factors affecting innovation include making changes to policy and facilitating practitioners’ development.

Ways to transmit good practice range from issuing publications of case studies, to supporting staff who are skilled in dissemination, to an array of staff development activities. The staff development may be either formal and structured or informal and unstructured or a mixture.

In preparing a discussion paper to stimulate public comment on this project, the researchers suggested that the two themes that best described the VET sector were ‘complexity’ and ‘opportunity’. Under the banner of these two themes, the researchers identified many different critical issues. However, in further research one critical issue emerged of equal significance to both governments and practitioners: the issue of quality.

The research shows that governments across Australia, England and Scotland agree that a vibrant, high-quality VET sector is needed, one capable of rapidly responding to new skill demands, new labour market conditions, new contexts for learning, as well as to the increasing expectations of clients. There is a heightened recognition by these governments that improving the quality of teaching, learning and assessment practice is essential if the sector is to respond to new challenges.

The report reveals that *governments* across three countries are focused on improving the quality of VET provision and outcomes. However, balancing this is an additional finding from two other components of this research—a study of networks in Australian vocational education and training and the preparation of 15 case studies of good practice in VET—which confirms that Australian VET *practitioners* are also focused on quality. Although most practitioners generally accept that the achievement of high-quality outcomes requires adequate inputs and a variety of strategies, they also recognise that there is no one solution and no ‘quick fix’.

Introducing the research activity

This is the final report of Research Activity 3—‘Critical issues in teaching, learning and assessment’—from a research program consisting of nine research activities. The research program, *Supporting vocational education and training providers in building capability for the future*, is being undertaken by a consortium of researchers during 2005 and 2006. The program is managed by the National Centre for Vocational Education Research (NCVER) and funded by the Australian Government and state and territory governments through the Department of Education, Science and Training.

Brief

The brief for the research activity (RA3) was to identify critical issues in teaching, learning and assessment, in order to inform and influence VET practice. The three specific goals guiding the structure of this report were to:

- ✧ identify what individual learners and industry clients want from VET in terms of teaching and learning experiences, services and support, and propose how these can best be met (the first three chapters of this report)
- ✧ identify the skills needed by VET practitioners in the design of learning programs and resources and in the provision of assessment services to meet the needs of different client groups and propose how these skills might be developed most effectively (the fourth chapter)
- ✧ summarise the critical success factors—individual, organisational and systemic—in developing and implementing innovative approaches to teaching, learning and assessment in VET providers, and propose how models of good practice might be most effectively transmitted (the final two chapters).

Methodology

The methodology used in the research activity, following Creswell (2003), was a ‘mixed methods’ or pragmatic approach, which enabled the simultaneous use of multiple research methods. These methods included a literature review, a discussion paper used to stimulate discussion, the convening of four focus groups—in Hobart, Perth, Sydney and Armidale—and two mini-conferences in Melbourne and Wollongong attended by around 175 VET practitioners. Other methods used were field research undertaken in the United Kingdom, consultations with a range of stakeholders, an investigation of networks in vocational education and training, the conducting of an online forum and the preparation of 15 case studies.

Products

In addition to the provision of this final report, the project involved the preparation of the following five support documents:

- ✧ a literature review entitled *Critical issues: A literature review on teaching, learning and assessment in vocational education and training* which examines international and Australian trends in teaching and learning policy and practice
- ✧ a discussion paper entitled *Complexities and opportunities: A discussion paper on critical issues in teaching, learning and assessment in vocational education and training* as the basis for four focus groups and an online forum
- ✧ a commentary on developments in England and Scotland in teaching, learning and assessment entitled *Quality: A critical issue in teaching, learning and assessment in vocational and further education—A three-country comparison*
- ✧ a paper on VET networks entitled *VET networked for quality: A description of a selection of VET networks and how they contribute to building and promoting good practice in teaching, learning and assessment*
- ✧ a set of 15 case studies from Australian VET that illustrate good practice in teaching, learning and assessment entitled *Demonstrating quality: Fifteen case studies of good practice in VET*.

These five support documents are available from NCVER's website at <www.ncver.edu.au/publications/1710.html> or on the consortium's own website at <www.consortiumresearchprogram.net.au>.

Critical issues from the VET literature

To commence the project, the researchers prepared a literature review: *Critical issues: A literature review on teaching, learning and assessment in vocational education and training*. The purpose of the literature review was to highlight recent thinking and research at the national and international level about teaching, learning and assessment practices in the VET sector.

A changing environment

The review began by indicating what the literature is saying about the environmental factors driving the changes and creating challenges in VET teaching, learning and assessment. In a major study that addressed the future European provision of vocational education and training, Moynagh and Worsley (2003) identified a number of drivers of change likely to impact considerably on VET provision. These drivers included: technological developments, consumerism; staff shortages; engaging more learners such as mature-aged and youth; and the increasing competition between providers. These future drivers of change for Europe are similar to the drivers of change in Australian VET, identified by Mitchell et al. (2003). These included: the rising complexity and uncertainty in society and the economy; the changing structures of work; the changing structures of industry and employment; an appreciation of the value of generating and applying knowledge; the aggressive spread of the proposition that workers need to add value; public policy; new technology; shrinking time horizons; and the shift from mass production to market segmentation (Mitchell et al. 2003, p.14).

The European drivers of change also fit with the findings of Dickie et al. (2004) who found considerable consensus in Australia over the features of the environment in which VET professionals will be expected to work in the future:

... an environment characterised by increasing diversity in the client base; increasing sophistication in client expectations; change in products and expansion of options for training delivery; changes in employment, work roles, team structures and places of work; increasing competition and increasing demand; and globalisation of the training market.

(Dickie et al. 2004, p.4)

Dawe and Guthrie (2004) provide an example of this future environment in their discussion of the new roles VET providers can play in providing training for innovative enterprises. They found that assisting innovative enterprises requires the use of different strategies by VET practitioners and the development of additional capabilities by VET providers.

Harris, Simons and Clayton (2005) asked VET practitioners to identify drivers of change. Practitioners perceived that drivers of change were largely attributable to influences outside their place of employment. They named government policy as having the most marked effect, influencing curriculum practices and the way training is provided. The second major driver was the expectations of industry and the community; and the third was economics/finances. These three factors were judged to be closely interrelated and to drive one another, with policy being

the prime driver of change affecting VET practitioners, especially at this time of transition to training packages. Internal drivers included increased expectations for responsiveness, pressure for greater accountability, rethinking approaches to teaching and learning and access to learning opportunities, changing workloads, and student characteristics.

What do learners and clients want?

Following the scan of the environment summarised above, the first section of the literature review addressed the following question: What do individual learners and industry clients want from VET in terms of teaching and learning experiences, and services and support, and how can these best be met?

The literature shows that the move from mass production to mass customisation is now an established feature of the service economy in the Western world, with VET service provision being no exception (for example, Mitchell 2003; Miliband 2004). VET industry clients and individual learners increasingly expect that products and services will fit their particular needs, and that customised programs and even personalised services will become standard offerings (for example, Leadbeater 2004). Hence, this section of the literature review examined the development of the view that customising services for groups is often not enough as learners may want services personalised, 'just for me' (for example, Mitchell et al. 2003).

Critical issues identified in this section included the following.

- ✧ One critical issue for contemporary VET is meeting the increasing demand for the customisation and personalisation of training services.
- ✧ A second critical issue for the VET teacher or trainer is developing a position on learning styles, including gaining the following: a deeper understanding of individuals' learning styles and preferences; an improved awareness of his/her own approach to learning styles, as a teacher; and a clear appreciation of the debates around learning styles.
- ✧ A third critical issue is effectively providing services and support for different learner groups, such as learners from equity groups and learners in the online learning environment.
- ✧ A fourth critical issue is practitioners understanding the many different ways learning can occur in workplaces, especially when the training only occurs on the job and often in an informal manner.
- ✧ A fifth critical issue is the development of partnerships between external teachers and enterprise-based managers and trainers to address the needs of both the employer and the employee.

This brief summary of critical issues demonstrates that the environment in which VET practitioners operate is becoming increasingly complex.

Skills and resources needed by VET practitioners

The second section of the literature review addressed this question: What skills are needed by VET practitioners in the design of learning programs and resources and in the provision of assessment services to meet the needs of different client groups, and how might these be developed most effectively?

This section of the literature review focused on the skills needed by VET practitioners in the design of learning programs and resources. One important critical issue is that many VET practitioners need improved skills in implementing training packages, despite their widespread

availability in the sector, in some cases, for seven to eight years (for example, Chappell et al. 2003; Schofield & McDonald 2004). Another critical issue is that VET practitioners need skills to take advantage of the new digital technologies that become available each year (for example, Palmieri 2003). A further critical issue is that VET practitioners need skills and resources to provide effective support for learning that occurs in the workplace (for example, Stephenson 2001; Boud 2003; Wood 2004). Each of these three critical issues has vast dimensions.

New skills and resources are needed in the design of learning programs and resources because there are different types of learning; for example, deep versus surface level learning; informal and formal learning; self-directed and structured learning; and learning focused on technical skills and learning focused on generic skills (Hager 2004; Waterhouse & Virgona 2004). Each of the different types of learning has implications for program design and for the skills required by teachers and trainers. Each of the different types of learning impacts on VET providers and systems.

This section of the literature review also focused on the skills needed to provide assessment services. A critical issue for VET practitioners is determining what ought to be the focus of the assessment process, such as a focus on outcome or process (for example, Hager 2004). Many practitioners need new skills to conduct assessment in the workplace, to provide a recognition process and to assess generic skills (for example, Centre Undertaking Research into Vocational Education & the University of Ballarat 2003; Clayton et al. 2003; Booth & Roy 2004; Blom et al. 2004; Schofield, McDonald & Leary 2004; Hager 2004; Clayton et al. 2004b; Smith 2004). Each of these issues remains the subject of debate within the sector.

This section of the literature review then focused on how practitioners might develop these new skills. Given the range of new skills required in VET, practitioners will need to use a variety of different ways to develop these skills. Mitchell, Henry and Young (2001) advocate that work-based learning be used for staff development in VET, based on a revised and augmented definition of work-based learning that takes into account new thinking about adult learning and learning organisations. Work-based learning can involve coaching, mentoring and networking. One work-based learning strategy gaining in popularity and which encourages collaboration and sharing between peers is the professional conversation (for example, Maxwell 2001).

Implementation of innovative approaches

The third section of the literature review addressed the following question: What are the critical success factors—individual, organisational and systemic—for VET providers in developing and implementing innovative approaches to teaching, learning and assessment, and how might models of good practice be most effectively transmitted?

The literature review indicated the need for a wide range of different types of innovation to suit the learning needs of individuals as well as the needs of enterprises and industry. The review also recommended different ways to transmit good practice, from publications of case studies through to staff development activities involving networks or communities of practice or other action learning activities. The staff development may be either formal and structured or informal and unstructured or a mixture.

This section of the literature review first considered the critical success factors—individual, organisational and systemic—for VET providers in developing and implementing innovative approaches to teaching, learning and assessment. For individual VET practitioners, critical success factors include adopting new work roles, such as learning manager, facilitator, mediator, broker or strategist (for example, Guthrie 2004; Mitchell et al. 2005). For VET organisations, critical success factors include developing a culture that encourages diverse thinking and taking the initiative (for example, Mitchell et al. 2003; Callan 2004). For the VET system, critical success

factors affecting innovation include developing more resources for teaching and learning and assessment, facilitating practitioners' development, making changes to policy, and promoting creativity rather than having a primary focus on compliance (for example, Down 2002; Schofield & McDonald 2004)

This section of the literature review then went on to acknowledge critical barriers to the implementation of innovative approaches. The barriers include lack of funding, lack of clear policy guidelines at systemic level, lack of structures and processes within organisations, and lack of experience of practitioners in innovation (for example, Dickie et al. 2004). As there are many complexities involved in innovation, barriers will invariably arise and will always need to be addressed.

The final part of this section of the literature review suggested how models documenting good practice in innovation might be transmitted. Strategies can range from tapping into networks, to offering staff incentives for continuous innovation, to fostering people with dissemination skills (for example, Scott 1999).

Overall themes

A recurring theme across each section of the literature review is that the environment for vocational education and training is changing, prompting the need for VET practitioners to develop new skills in teaching, learning and assessment. Another theme implicit in the review is the value of collaboration across the sector. To develop the new skills in the most effective manner and to disseminate examples of innovation, efforts are required from different parties—individual practitioners, VET organisations and VET systems—and ideally these efforts will be collaborative.

The initial proposition: Complexities and opportunities

As the VET sector is demand-driven, core activities such as teaching, learning and assessment do not occur in a vacuum, but are affected by factors in the overall VET environment. These factors include industry shifts, enterprise training demands, technology changes and customer requirements.

The profile of the VET environment that emerged from the literature review and from initial discussions within the sector in mid-2005 was characterised by two features, complexities and opportunities: first, there is an increasing awareness of the complexities of teaching, learning and assessment in VET in a constantly changing training environment; and second, there is a growing awareness that there are new opportunities for innovation in teaching, learning and assessment in VET, leading to the delivery of new or improved services.

Complexities

The first theme—complexities—is supported by a raft of VET research, particularly generated in the last few years by the High-level Review of Training Packages Project (for example, Chappell et al 2003; Schofield & McDonald 2004) and the Enhancing the Capability of the VET Professional Project (Dickie et al. 2004). Research from these projects demonstrates that major challenges still need to be resolved, such as implementing training packages in different settings and effectively assisting different learner groups and different communities. There is a new awareness in the sector of the complexities involved in catering for learning styles and preferences, understanding different types of workplace experiences, and providing assessment services such as recognition of prior learning.

Some complex issues for the VET sector, both now and in the next few years, include:

- ✧ addressing skill shortages affected by multiple factors, some of which are not controllable, such as trends in the global economy
- ✧ understanding the training implications of the changing structures of both work and occupations
- ✧ analysing the changing structures of industry, including the convergence or shrinking of some old industries and the emergence of new industries
- ✧ keeping abreast of rapid technological developments and how they impact on business processes and consequent skill needs
- ✧ countering the impacts of imminent VET staff shortages
- ✧ developing new strategies for engaging more VET learners, such as mature-aged workers and youth
- ✧ understanding the impacts on training of changes to industrial relations legislation
- ✧ appreciating that enterprises commonly seek training that delivers a business benefit
- ✧ participating in an increasingly competitive arena for VET providers.

Opportunities

There is another view within the VET community in mid-2005: that there is almost limitless scope for innovation in teaching and learning at individual, group and organisational levels. A report in mid-2005 voicing this positive view was the Queensland Government green paper (Department of Employment and Training 2005). Apart from providing an analysis of challenges facing VET, the paper identified a range of opportunities for VET in:

- ✧ tackling the urgent shortage of trades skills
- ✧ strengthening the national skills base for the longer-term future
- ✧ making the VET system more responsive and flexible
- ✧ developing a new engagement with employers to tackle skill shortages
- ✧ satisfying the renewed interest by industry in employability skills
- ✧ meeting the previously underestimated needs of associate professionals
- ✧ developing the skills of the ageing workforce
- ✧ increasing labour force participation through new skilling strategies for the underskilled.

The green paper is forward-looking, aiming to achieve ‘a better match between the supply of skills and the rapidly changing demands of society’ (p.3).

This second theme—opportunities—is based on evidence that VET practitioners are capable of being innovative and meeting challenges posed by the complexities, provided adequate support and systems are put in place. Concrete examples of practitioners effectively taking up opportunities are provided in recent reports such as *Building industry training networks* (Mitchell 2004), *40 ways of shaping our future* (Mitchell et al. 2004) and *New ways of working in VET* (Mitchell et al. 2005).

Testing the proposition

The proposition that emerged from the literature review and initial discussions is summarised as follows. Fostering, implementing and sustaining innovation in teaching, learning and assessment in vocational education and training involves many complex issues. But the opportunities are substantial, potentially leading to the enhancement of teaching practice and the improvement of outcomes for students, enterprises and industry. For vocational education and training to thrive, the tension between complexity and opportunity needs to be embraced. The complexities deserve to be addressed continuously, just as the opportunities deserve to be pursued relentlessly.

It was decided by the research team that the proposition that vocational education and training was characterised by both complexities and opportunities in relation to teaching, learning and assessment would be used as the basis of the discussion paper produced in late June 2005. The discussion paper was then used as the focal point for four national focus groups, two mini-conferences, an online forum and other consultations around the sector.

Each of the next three sections of this report are organised around a further exposition of the initial proposition and subsequent findings from the research—including the preparation of 15 case studies—that led to refinements of the initial proposition.

What do learners and clients want from VET?

Based on the literature review and initial consultations in the sector, the researchers prepared a discussion paper that summarised the critical issues in teaching, learning and assessment in vocational education and training. This section of the report briefly summarises the initial findings, as set out in the discussion paper, in relation to the following question: What do learners and industry clients want from VET—in terms of teaching and learning experiences, and services and support—and how can these best be met?

This section also summarises refinements to the initial findings arising from the case studies undertaken for this research activity and resulting from written and verbal feedback from four focus groups and two mini-conferences.

Initial findings

Critical issues identified from the literature review and initial consultations included the following:

- ✧ the increasing demand—and opportunities—for the customisation and personalisation of training services
- ✧ the need—and opportunities—for the VET practitioner to cater for a range of learning styles and preferences
- ✧ the need—and opportunities—to effectively provide services and support for different learner groups, such as learners from equity groups and learners in the online learning environment
- ✧ the need—and opportunities—for VET practitioners to understand the many different ways learning can occur in workplaces, especially when the training only occurs on the job and often in an informal manner
- ✧ the need—and opportunities—to develop partnerships between external teachers and enterprise-based managers and trainers to address the needs of both the employer and the employee.

Refinements from the case studies

One of the 15 case studies, ‘Client clarity about training needs’, provides an example of an industry client developing very specific understanding of its employees’ training needs and developing appropriate training in conjunction with a training provider. The two parties worked in partnership to deliver benefits to both the employer and the employees. The two parties are Kimbriki Recycling and Waste Disposal Centre, a local government recycling and waste disposal operation located at Terrey Hills on the Northern Beaches of Sydney, and the Gordon Institute of TAFE whose headquarters are in Geelong, Victoria.

The Kimbriki/Gordon Institute case study extends and enriches the broad finding from the initial research about the increasing demand—and opportunities—for the customisation and personalisation of training services. The case study provides a clear example of the new trend for industry clients to undertake research and to work in partnership with VET providers. This is an example of what Engestrom (2004) calls ‘co-configuration’. Co-configuration means that the customer becomes a real partner with the provider of the product or service. In co-configuration the client and provider actively work together to conceptualise, develop, monitor, change and evaluate the product or service being provided.

A further four case studies illustrate and extend the other broad findings, as follows.

- ✧ *The need—and opportunities—for the VET practitioner to cater for a range of learning styles and preferences:* a case study, ‘Action at the frontline’ of a small private provider in Victoria, William Stubbs & Associates Pty Ltd, a provider specialising in training and assessment of frontline management in local government, manufacturing and service industries, focuses on the way the training is adjusted to suit the individual’s approaches to learning and the unique features of the workplace.
- ✧ *The need—and opportunities—to effectively provide services and support for different learner groups:* a case study, ‘Assisting remote Indigenous learners’, based on the Kimberley College of TAFE in the far north of Western Australia provides examples of the college using its extensive experience to adopt multiple strategies to provide effective training customised for different learner groups within the Indigenous population. Different learner groups catered for include learners in the traditional art area, Indigenous youth at risk and Indigenous people training in the tourism industry.
- ✧ *The need—and opportunities—for VET practitioners to understand the many different ways learning can occur in workplaces:* a case study on the Australian Institute of Public Safety, ‘Improving clients’ safety’, shows the provider tailoring training for individual learners, integrating the individual’s previous learning experiences, life experiences and work experiences into each training program.
- ✧ *The need—and opportunities—to develop partnerships between external teachers and enterprise-based managers and trainers:* a case study on the Central West Community College, ‘Building partnerships with industry’, describes the relationships the college has built with enterprises in both the food processing and meat processing industries in regional New South Wales. The relationships take into account special pressures on industries in regional areas, such as skill shortages, high staff turnover and the need to employ casual labour for peak production periods.

The five case studies demonstrate good practice in meeting industry client and individual requirements in a variety of contexts.

Refinements from the focus groups and mini-conferences

Participants at the four focus groups and two mini-conferences provided many insights and observations that refined the broad, initial findings about what clients and individuals want from vocational education and training. The following points summarise the findings.

- ✧ Some employers are unwilling to pay for customised or personalised training and would prefer to buy ‘off the shelf’, generic versions of training to save money. Some employers are very demanding, wanting the training to be so specific to their enterprise that the trainee would need to be retrained if he or she moved to another employer.
- ✧ Just as there is a view in recent literature that it may not be wise to cater too closely for the learning styles and preferences of individuals (Coffield et al. 2004; Smith & Dalton 2005),

employers often want training delivered in ways that suit the immediate needs of the enterprise, not the needs of the learner.

- ✧ Providers are often willing to provide specially designed services and support for different learner groups but find that inflexible funding models are a barrier to such customisation. It is a challenge to cater for different learner groups when the groups consist of people with disparate backgrounds, skill levels and expectations, which is often the case in vocational education and training.
- ✧ To be able to appreciate and support learning that occurs on the job and in an informal manner, the trainer ideally needs to spend considerable time in the learner's workplace. This is not always possible for a variety of reasons; for example, cost constraints on the trainer and the nature of the workplace.
- ✧ Providers often wish to develop partnerships with enterprise-based managers and trainers, but among the many obstacles are the different educational qualifications and training approaches of the different parties.

Participants at the focus groups and mini-conferences raised many similar qualifiers, provisos and exceptions challenging the broad generalisations that had emerged from the literature review and were included in the discussion paper. The participants brought to the research a detailed knowledge of their own organisations and their own experiences, which were a reminder of the extraordinary diversity of VET people and sites for learning. Their input has been incorporated into the research findings.

Summary

Individual learners come to vocational education and training with different expectations, often based on their previous learning experiences and current situations. Some individuals want vocational education and training to provide learner-centred environments while others have expectations of a teacher-centred approach similar to earlier education experiences. Some learners value learning that occurs in the workplace, while others associate learning with the classroom. Some learners like learning in groups, others prefer to learn in isolation. Some like the online environment and others find it unappealing.

Many industry clients want vocational education and training to provide relevant, timely training that assists both the business and the employees. Some industry clients are more aware than others of what VET providers can deliver, so there is often a need for more communication and understanding between the parties. Some industry clients form partnerships with VET providers where the partners jointly analyse the training needs and collaboratively design the training. Some industry clients are not convinced of the worth of customised training, or want training so customised and enterprise-specific that the learning is not easily transferred to other workplaces.

Responses to the question of what individuals and industry clients want from vocational education and training can be as varied as the number of learners and employers involved. In relation to what customers and clients want from VET, there are certainly both complexities and opportunities. However, it is clear that progressive providers are actively educating customers and clients about services available, forming collaborative partnerships with enterprises, listening to the preferences of individual students and, where possible, moulding their delivery and assessment approaches to suit each situation. Leading providers are setting new benchmarks for responsiveness and flexibility.

What skills and resources are needed by VET practitioners?

Based on the literature review and initial consultations in the sector, the researchers summarised the skills and resources needed by VET practitioners to meet complexities and to take up opportunities from teaching, learning and assessment in vocational education and training. This section of the report summarises the initial findings in relation to the following question: What skills are needed by VET practitioners in the design of learning programs and resources and in the provision of assessment services to meet the needs of different client groups, and how might these be developed most effectively?

This section then summarises refinements to the initial findings arising from the case studies undertaken for this research and also from written and verbal feedback from four focus groups and two mini-conferences.

Initial findings

In relation to the skills needed by VET practitioners in *the design of learning programs and resources*, some critical issues that emerged from the literature review and initial consultations are summarised in the following.

- ✧ Many VET practitioners need enhanced skills in implementing training packages, despite their availability in the sector, in some cases, for six to seven years.
- ✧ VET practitioners need skills to take advantage of the new digital technologies that become available each year.
- ✧ VET practitioners need skills and resources to provide effective support for learning that occurs in the workplace.

Critical issues identified in relation to the *skills needed to provide assessment services* include:

- ✧ VET practitioners determining what ought to be the focus of the assessment process, such as a focus on outcome or process
- ✧ VET practitioners determining how best to provide services for the recognition of prior learning
- ✧ VET practitioners determining whether to grade performance
- ✧ VET practitioners determining how to provide support for assessors.

Critical issues identified in relation to *how might practitioners develop these new skills* are summarised in the following points.

- ✧ VET practitioners will need to use a variety of ways to develop these skills.
- ✧ Work-based learning is a proven, useful approach and can involve coaching and mentoring and participating in networks.

Refinements from the case studies

Five of the 15 case studies provide refinements to the broad generalisations set out above. Examples are as follows.

- ✧ One case study, 'Skills for assisting disengaged youth', describes a group of South Australian TAFE teaching staff acquiring the many different skills needed to assist learners who have become disengaged from educational environments. For instance, staff needed to acquire skills in behaviour management and how to cope with 'compassion fatigue', including the stress involved in working with the learners who may need counselling support for psychological or drug-related problems. Staff acquired these skills in a variety of ways, from structured workshops to networking, to peer group support on the job.
- ✧ A case study, 'Collaborative training in a chocolate factory', describes TAFE Tasmania staff developing new skills to support learning that occurs in the workplace. In this case the enterprise had a number of workplaces, including a chocolate factory, a museum of chocolate for the tourist trade, a retail store and a restaurant. One of the challenges for the TAFE Tasmania practitioners was to help staff within the enterprise learn on the job about each of the different workplaces of this one enterprise. The TAFE Tasmania staff acquired these skills by working collaboratively with the enterprise owner and trainers, so that the training met the needs of the individual worker, while assisting business objectives.
- ✧ A case study, 'Helping students flower', focuses on Marjorie Milner College, which operates across Victoria and Tasmania, and the flexible delivery approaches it uses to assist learners who work in florists. The provider used a team teaching model that allows the trainers to adapt and change the delivery, facilitating discussion, questioning, modelling and reinforcement of learning. The college's staff have acquired the skill of encouraging the individual learners to manage the progress of their own learning.
- ✧ A case study, 'Support for isolated assessors', reports on the work of a Lesley Wemyss who manages a private registered training organisation in Queensland specialising in enterprise-based training and assessment, particularly in mining companies in northern Queensland. As an experienced VET practitioner, Wemyss helps to build the capacity of other practitioners from private, remote registered training organisations in their assessment practices and in their use of professional judgement. The case study shows the need for workplace assessors to be assisted to develop new skills in aspects of assessment, such as validating their assessment decisions and processes.
- ✧ A case study, 'Supporting self-paced workplace training', describes Workplace English Language and Literacy (WELL) trainers from TAFE NSW Hunter Institute on the coast north of Sydney developing an assessment practice in the local area health system. The TAFE assessors have now developed expertise in working in an area health service. Their process has involved mapping units from the relevant training package to the needs of the organisation and establishing an assessment team of a Workplace English Language and Literacy trainer, a vocational trainer from the relevant technical and further education (TAFE) section and an industry-based assessor. The approach included winning the trust of the participants such that they felt comfortable with a self-paced, workplace-based training program.

These case studies enrich and deepen the general findings about the skills and resources needed by VET practitioners. They all provide good-practice examples of practitioners developing and using new skills to meet client demands.

Refinements from the focus groups and mini-conferences

Participants at the four focus groups and two mini-conferences provided many insights and observations that refined the broad, initial findings on the skills and resources needed by VET practitioners. Summary points include the following.

- ✧ Skills required to implement training packages may have been underestimated by some policy-makers in the past. Practitioners find themselves in a variety of different workplaces with a variety of learners, work practices and management attitudes to training. This variety of settings requires the practitioner to make extensive judgements on delivery issues, such as the pace and style and type of delivery methods and assessment strategies.
- ✧ Among practitioners there is some questioning of the value of generic resources, such as assessment tools. Some practitioners rate these resources as invaluable, while other practitioners need time and assistance to customise the resources to suit their contexts. Others make the point that the resources always need interpretation and this interpretation requires skills that are not easily acquired, particularly by practitioners who work in isolation from other trainers; for example, workplace trainers who are full-time employees of an enterprise.
- ✧ There are debates within VET about contentious issues in assessment, such as the issue of graded assessment (for example, Williams & Bateman 2003). There is still much discussion in the sector about the tension between compliance and creativity, as raised by Schofield and McDonald (2004). In our consultations, the discussion of one assessment practice—the recognition of prior learning—raised a swathe of comments about impediments and barriers to implementing this practice. Some practitioners make the point that if the researchers and policy-makers are still contesting such issues, this indicates the challenges for assessors in the field.

Despite these complexities, an overwhelming theme from the focus groups and mini-conferences was that practitioners want to move beyond the impediments and improve the quality of teaching and assessment.

Emerging profile of a new VET practitioner

The research enables the following profile of a new VET practitioner to be proposed. As vocational education and training shifts from being supply-driven to being demand-driven, a new practitioner is emerging to satisfy the increasing expectations of industry clients and individual students. Traditionally, the VET practitioner was supply-driven. This practitioner believed that the best or only learning environment was the classroom, a site for learning far superior to the student's workplace. By contrast, the new VET practitioner is demand-driven and only provides those services required by enterprises and individuals. This progressive practitioner can customise programs to suit enterprises and personalise learning activities to suit the individual.

The new VET practitioner lets go of the old certainties, like pre-set curriculum and didactic instruction, and develops attributes, attitudes, ideas and techniques that meet the needs of clients. The new practitioner looks outwards at market needs and seeks to meet those needs.

To address the idiosyncratic demands of each and every student and enterprise client, the VET practitioner needs a raft of new skills, so many, in fact, that many practitioners need to be able to draw on the specialist skills and knowledge of colleagues and partners. New skills are required by the range of VET practitioners, from those employed by registered training organisations, either part- or full-time, to workplace trainers and assessors employed either by an enterprise or by a registered training organisation. New skills are needed by all VET personnel, from managers to frontline trainers and support staff, in both public and private registered training organisations.

Some features and attributes of the new VET practitioner are as follows:

- ✧ views individual students as lifelong learners on career pathways
- ✧ respects the business risks and pressures of enterprise clients
- ✧ appreciates that enterprises need skills to achieve business outcomes
- ✧ understands links between training, human resource (HR) and workforce development
- ✧ functions effectively within supply chains and skill ecosystems
- ✧ exercises professional judgement in delivery and assessment
- ✧ develops and sustains long-term relationships with clients
- ✧ participates within a team to access colleagues' specialist skills
- ✧ taps into wider networks for information and resources
- ✧ understands the value of accessing and applying industry research
- ✧ contributes to the development of innovative products and services
- ✧ commits to achieving and maintaining the quality of the profession
- ✧ improves the tools and frameworks of professional practice
- ✧ updates technical skills and industry-specific knowledge
- ✧ copes with complexities and uncertainties about industry skill demands.

Notably, these attributes represent a new hybrid mix of educational and business thinking. This mix of frameworks is understandable, given that VET practitioners are being encouraged to work more closely with industry and enterprises. Ideally, the new VET practitioner is a strong educator with an equally strong appreciation of business.

All of these attributes may not reside in one individual, but given the new environment for vocational education and training—demand-driven, client-focused, responsive to industry—all of the above attributes are ideally evident in a work team within one training provider. Moving beyond complexities and opportunities, highly skilled VET practitioners and work teams are developing the necessary skills and knowledge required for them to operate effectively in an industry-aligned sector.

How VET practitioners can be supported to develop the new roles and skills

Given the breadth of this range of new skills required in vocational education and training, practitioners will need to use a variety of different ways to develop these skills. For instance, Waterhouse and Virgona (2004) note that generic skills play a very significant role in the transfer of skills and successful employment in the industry areas they studied. However, they observe that VET sector trainers need new skills, understandings and resources to work with generic skills in ways that will empower their learners. In enterprise workplaces, VET practitioners need to be more flexible, take the initiative and undertake a range of different tasks, particularly as there is a stronger emphasis in workplaces on both information and social skills (Gibb & Curtin 2004). Some of these skills can be developed in formal training programs, but other skills can be developed more effectively by VET practitioners' immersion in various workplaces.

Schofield and McDonald (2004) believe that, to enhance the professional growth of assessors, consideration should be given to 'ways of developing a stronger sense of professional identity' and to 'provide better professional guidance to teachers and assessors at a pedagogical level' as

well as to 'encourage robust national dialogue around alternative pedagogies and assessment practices' (Schofield & McDonald 2004, p.29). Earlier, Stowell (2000, p.124) recommended that opportunities be created for VET practitioners to participate in professional dialogue and undertake moderation activities, including a common understanding of standards, evidence requirements and assessment practices.

In considering professional development for assessment as well as teaching and learning, the Centre for Undertaking Research into Vocational Education and the University of Ballarat (2003) acknowledge the diverse needs of VET practitioners and recommend that a range of products be developed, covering such topic areas as: working with training packages; catering for individual learner differences; learning theory; teaching skills; supporting generic skills development; language and literacy; implementing flexible approaches; work-based learning; and design and modification of resources. They also recommend mechanisms for supporting enhanced teaching and learning practice, including networking, mentoring by designated champions, communities of practice and action learning, as well as formal professional development.

Mitchell, Henry and Young (2001) advocate that work-based learning be used extensively for staff development in vocational education and training, based on a revised and augmented definition of work-based learning that takes into account new thinking about adult learning and learning organisations. Work-based learning can involve coaching, mentoring, networking and participating in communities of practice. One work-based learning strategy that encourages collaboration and sharing between peers is the professional conversation.

How does innovation occur and how can it be transmitted in VET?

This section of the report summarises the initial findings in relation to the following question: What are the critical success factors—individual, organisational and systemic—for VET providers in developing and implementing innovative approaches to teaching, learning and assessment, and how might models about good practice be most effectively transmitted?

Summaries are presented of the refinements to these initial findings arising from the case studies undertaken for this research and also from written and verbal feedback from four focus groups and two mini-conferences.

Initial findings

A number of critical success factors in developing and implementing innovative approaches to teaching, learning and assessment in vocational education and training emerged from the literature review and initial consultations.

- ✧ For individual VET practitioners, critical success factors include adopting new work roles such as learning manager, facilitator, mediator, broker or strategist.
- ✧ For VET organisations, critical success factors include developing an agile and flexible culture which encourages diverse thinking and individual initiative.
- ✧ For the VET system, critical success factors affecting innovation include: developing more teaching and learning resources; facilitating practitioners' development; making changes to policy; and promoting creativity rather than a primary focus on compliance.

Critical barriers to the implementation of innovative approaches identified were:

- ✧ lack of funding
- ✧ lack of clear policy guidelines at systemic level
- ✧ lack of structures and processes within organisations
- ✧ lack of experience of practitioners in innovation.

Models of good practice in innovation might be transmitted by:

- ✧ tapping into networks
- ✧ offering staff incentives for continuous innovation
- ✧ fostering people with dissemination skills.

Refinements from the case studies

Five of the 15 case studies are used to provide refinements to the broad generalisations set out above. The different case studies demonstrate innovation in a variety of contexts. The case studies show that the critical success factors for any one innovation vary from case to case and that the barriers to innovation can be surmounted by effective planning and using multiple strategies. There are elements in each case study that could be transferred to other settings, provided the imitators apply effort similar to that of the originators.

These and other models of good practice can be transmitted using some of the techniques described in the case studies such as: engaging fellow VET practitioners in structured, professional conversations; creating systems and processes for innovation within a registered training organisation; and encouraging practitioners to be creative and flexible in their teaching and assessment.

Set out below are some key points from each case study of innovation.

- ✧ An example of a boutique-sized supplier to registered training organisations is Distance Learning Australia Pty Ltd. This Canberra-based company is led by Christine Jarrett and began developing and offering online VET courses in 2000. Jarrett's small company provides 75 units from VET training packages in the popular fields of business, information technology and assessment and workplace training. She supplies this service via a range of registered training organisations around New South Wales, both in regional areas and in the metropolitan area. Jarrett delivers the programs using a blend of written materials, online activities and email and telephone contact with each student. This boutique provider to training organisations of online training and assessment can be imitated; for instance, by teams within registered training organisations. But registered training organisations wanting to offer a similar service would need to establish similar technical infrastructure and online systems and develop the skills and attributes of the trainers. They would also need to be willing to spend a number of years fine-tuning the systems and building expertise in online training.
- ✧ During 2005 a team of staff within TAFE NSW Western Sydney Institute, who work with students from a variety of backgrounds including youth at risk and people with disabilities, explored and developed new work roles. A critical issue identified by Head Teacher Liz Renshaw and her team was the need to change teaching practice so that learners were placed at the centre of education. For Renshaw, the goals of a learner-centred approach included: engaging learners in the learning process; developing in learners a strong sense of responsibility for learning; and 'assisting learners in vocational and lifelong learning planning so that employment preparation is seen as a stepping stone and not an end in itself'. To achieve these goals Renshaw set out to challenge and support staff to work in different ways and to explore creative options to meeting student needs. Primarily, Renshaw asked her teachers to see themselves as learners.
- ✧ An ongoing staff development initiative that commenced in 2004 at TAFE NSW Northern Sydney Institute involves the design, promotion and conducting of professional conversations among teaching staff. The initiative aims to assist staff who are seeking to change their practice in order to keep up with increasing expectations of industry clients. The professional conversation spaces were developed, according to Margaret Dix, the institute's Manager, Staff Learning and Development, because 'a powerful change needed to happen at the interface between learner and trainer/teacher'. The professional conversation spaces were a deliberate strategy to 'allow teachers the time and space to talk to each other and to share their stories and practice across the institute'.
- ✧ Box Hill Institute of TAFE is a large VET institution in Melbourne's eastern suburbs which delivers around 4.5 million student contact hours each year. A critical issue for the institute is to stimulate and sustain innovative approaches by its staff, in order to meet the institute's

ambitious range of priorities. A key challenge for the institute in achieving its multiple goals is to maintain quality, while continuously improving innovative practice. The institute's organisation-wide approach to innovation is supported by elements that could be imitated in other settings, including long-term strategic planning that prioritises innovative goals, the alignment of internal resources with those goals, and the establishment of processes and structures to support innovation.

- ✧ Mornington Secondary College is a public secondary school on the Mornington Peninsula in Victoria. The school provides VET training in Certificates II and III in Multimedia. Students obtain credit towards their Year 12 certificate and it also contributes to their ENTER (Equivalent National Tertiary Entrance Rank) score. There are approximately 80 students in the program and the school services both their own students as well as ten other schools—both government and private—within the region. The critical issue for most schools conducting VET programs is ensuring that the program reflects workplace realities. In this school, the program is dependent on high-quality software programs that are accepted at the industry level and a teaching team that requires constant professional development and exposure to new software programs and version updates. The program also benefits from the teachers' creation of a 'VET space' within the school conducive to learning in an adult environment.

These five case studies illustrate the capability of VET practitioners to be innovative, no matter what the context.

Refinements from the focus groups and mini-conferences

Participants at the four focus groups and two mini-conferences provided many insights and observations that refined the broad, initial findings on the process of innovation and how examples might be transmitted in vocational education and training. Summary points include the following.

- ✧ Many participants identified the key barrier as the lack of time and the critical success factors as the time and space to reflect and to develop innovative strategies. Providing time for practitioners to be innovative is potentially a sound investment.
- ✧ Many participants looked for collaboration with their peers as the foundation for innovation. The practice of conducting professional conversations and the use of networks and communities of practice were strongly supported. Participants valued funded staff development programs such as Reframing the Future and LearnScope as mechanisms for such collaboration.
- ✧ While participants could easily cite systemic and organisational barriers to innovation, many participants saw the innovation as part of their professional practice and actively sought out staff development activities to support innovation.
- ✧ Among the participants there was widespread support for the concept of innovation in vocational education and training and a deal of goodwill towards those parties modelling innovation. Participants welcomed the situation where 'teaching and learning were back on the agenda and being discussed publicly'.
- ✧ Many participants believed that some practitioners are capable of providing leadership in the transmission of good practice in innovation. Participants also valued systemic units that promote innovation, such as statewide professional development units or industry bodies that encourage innovation in training.

Summary

On the one hand, innovation is a complex topic. As Mitchell et al. (2003) found, innovation can't be forced upon VET practitioners, so skill and wisdom are needed to nurture innovation; innovation can be affected by local contextual factors such as the nature of the teacher's work groups, work leaders and managers, the nature of the workplace, the nature of the enterprise client or the nature of the local community or region; and innovation can occur despite lack of ideal support or pre-conditions or documented market demand.

On the other hand, within registered training organisations, innovation in VET teaching and learning can be fostered by a strategic response by the organisation's senior management to internal or external pressures. It can also be supported by the development of a corporate culture that encourages the development of new ideas. The training organisation's management can also foster innovation by forming external networks and alliances.

Finally, some approaches to innovation are straightforward. For example, providing opportunities for practitioners to be innovative is potentially a low-risk, high-return investment and strategy. Following Scott (1999), practical strategies for disseminating information on good practice in vocational education and training include connecting appropriate researchers with practitioners in the field; ensuring that organisational rewards, incentives and structure support continuous enhancement in innovation; adopting a variety of non-traditional staff development strategies, including staff exchanges; and identifying key people with dissemination and utilisation skills in the workplaces of each participating organisation.

Beyond complexities and opportunities, quality is the critical issue

In preparing a discussion paper in mid-2005 to stimulate public comment on this project, the researchers proposed the two themes that best described the VET sector: complexities and opportunities. Under the banner of these two themes, the researchers identified many different critical issues. However, in undertaking further research, we found that one critical issue emerged of high significance to both governments and practitioners: the issue of quality.

Governments want quality provision and outcomes

As part of this research activity we prepared a paper that provides a comparative commentary and analysis of critical issues in teaching, learning and assessment in vocational education and training in Australia and in further education in Scotland and England. The paper, *Quality: A critical issue in teaching, learning and assessment in vocational education and training—a three-country comparison*, draws on field visits in the United Kingdom in May 2005 for interviews with VET/further education staff. The paper also draws on recent reports published in Scotland, England and Australia. The paper builds on the previous work undertaken by this research project, summarised in the literature review, 'Critical issues' and the discussion paper, 'Complexities and opportunities'.

An analysis of recent policy documents from the three countries suggests that common themes influence the broad policy directions for reforming VET/further education. Issues of skill shortages, ageing populations, older workers, increasing the engagement of young people in vocational studies, the central role of industry and business in VET/further education decision-making, the quality and standards of education and training and the development of new ways of learning are all high on the policy agenda in Australia, Scotland and England.

Overall, the argument of governments is consistent. Continuing economic development and social cohesion rely more than ever on a vibrant, high-quality VET/further education sector, capable of rapidly responding to new skill demands, new labour market conditions, new contexts for learning and the increasing expectations of a diversifying group of clients of the system. One of the outcomes of this broad agreement is the increasing recognition by all governments that improving the quality of practices in teaching, learning and assessment is crucial if the sector is to respond to the new challenges now confronting it. Quality emerges as the common, critical issue.

The policy directions of the three governments are broadly similar in a number of areas in relation to contemporary VET/further education reform. For example, a reading of the most recent government reports including, *Skilling Australia—new directions for vocational education and training* (Department for Education, Science and Training 2005), the English Government report, *Skills: Getting on in business, getting on at work—Part 1*, (Department for Education and Skills 2005) and a number of Scottish Government reports (Scottish Further Education Unit 2005; Scottish Executive 2003, 2005) reveals there is considerable agreement regarding the drivers of change impacting on VET/further education.

These change drivers are outlined in a support document produced as part of this research activity, ‘Critical issues’, and include: changing labour markets, skill shortages and ageing populations; the increasing importance of skills and innovation in economic development; and the central role of industry in driving training policies and delivery. However, strategic responses to these change factors include: ensuring the provision of customised, flexible, responsive products and services; pursuing high-quality training outcomes; and exploiting new technologies in training. These strategic responses emphasise the need for both high-quality processes and outcomes—the major theme that emerges from all of our research.

The paper also highlights the following issues.

- ✧ Industry clients generally want high-quality training.
- ✧ Individual learners want high-quality training.
- ✧ Practitioners want skills to deliver higher-quality services.
- ✧ Innovation in VET aims to deliver high quality.

The paper argues that governments across the three countries agree that a vibrant, high-quality VET/further education sector is needed. One of the outcomes of this broad agreement is that there is a heightened recognition by the governments that improving the *quality of practices* in teaching, learning and assessment is crucial if the sector is to respond to the new challenges now confronting it. Interestingly, the paper identifies similar policy directions adopted by all three governments to stimulate high-quality practices.

The paper explores quality in terms of client wants, practitioner skills and innovation. Given the complex nature of vocational education and training/further education, especially in the context of the demands of clients, it is clear that multiple and comprehensive strategies and initiatives are needed to improve and sustain the quality of provision.

Practitioners want quality provision and outcomes

The paper discussed above found that governments across three countries were focused on improving the quality of VET provision and outcomes. Another of our research tasks—to prepare a paper on the Australian VET networks—showed that Australian VET practitioners are also focused on quality. The purpose of the paper was to describe a selection of VET networks and how they contribute to building and promoting good practice in teaching, learning and assessment. The title of the paper, ‘VET networked for quality’, continues a theme that emerged from the ‘quality’ paper. The latter found that policy-makers in Australia, England and Scotland are focused on ensuring the quality of vocational education and training. The ‘networks’ paper found that practitioners were similarly committed to improving the quality of delivery strategies, assessment processes and learning outcomes.

The theme of the ‘networks’ paper is that to build relationships and enhance practice, where possible, VET practitioners should take advantage of opportunities provided by policy-makers, for instance, by participating in national staff development programs that fund networks. These programs include national initiatives such as Reframing the Future and LearnScope and various staff development programs within the states and territories. However, our research shows that VET practitioners have also developed networks, regardless of whether external funding is available, demonstrating their commitment to improving their own practice and that of their VET colleagues. VET practitioners have similarly formed networks to collaborate with industry, to improve understanding and cooperation between the different parties.

We conducted a scan of the range of networks that currently exist in vocational education and training, based on reports and discussions with VET stakeholders. As there are so many

networks, we selected 20 that have either been in existence for some years, or have featured in VET research reports, or are funded by national staff development programs. Another criterion we used to select networks cited in this paper is their focus on teaching, learning and assessment. In addition, we deliberately selected at least one network from each state and territory, as well as a number of networks that operate nationally.

Types and features of networks in VET

The major findings of our analysis of the types of networks in vocational education and training and their features are presented in the following points.

- ✧ There is considerable value in forming networks in VET, both for the individuals involved and for the organisations. Networks can provide the individual with access to information and knowledge and are sometimes essential to the success of organisations in the contemporary business world.
- ✧ However, networks are complex and often require sophisticated facilitation and management. Many VET networks consist of multiple parties with diverse and challenging goals.
- ✧ Networks in VET are often open to all interested parties, with no barriers to participation, and enable the easy flow of information. Other VET networks are closed, in the sense of having restricted membership, with members expected to make significant contributions to the network's activities and knowledge base. Practitioners need to know how to function effectively in both types of networks.
- ✧ Intermediaries in VET, that is, organisations other than registered training organisations, often perform a valuable function in facilitating networks that consist of many different stakeholder groups.
- ✧ Communities of practice are one form of network and are sometimes intense and short-term. Communities of practice are popular in VET as vehicles for addressing pressing issues, such as a review of a training package or the implementation of equity principles.
- ✧ A range of networks in VET are long-lasting, demonstrating their value to the members and their importance to the sector.
- ✧ Networks are always needed in VET to assist practitioners to improve their practice, to build relationships between the varied stakeholder groups and to enable the sector to remain responsive to changing client needs.

How networks enhance teaching, learning and assessment

The major findings of our analysis of the different ways in which networks enhance teaching, learning and assessment in vocational education and training are presented in the following points.

- ✧ Some networks in VET focus on implementing new training packages. For instance, many networks currently address the implementation of the new TAA04 Training and Assessment Training Package.
- ✧ Some networks address specific issues, such as equity concerns, sustainability issues, employability skills, credit transfer, recognition of prior learning, and language, literacy and numeracy issues.
- ✧ Some networks bind VET stakeholders from the one industry together; for instance, providers and enterprise personnel from the plumbing or engineering or hospitality or finance or arts industries.
- ✧ Some networks focus specifically on assessment, sharing assessment tools and strategies.

- ✧ Some networks focus on teaching and learning issues, enabling VET practitioners to increase their knowledge and skills. A common issue is how to support learning in the workplace.
- ✧ Some networks support collaboration between VET and industry, with the long-term goal of increasing the quality and volume of training.
- ✧ Some networks support collaboration between members of enterprise registered training organisations, enabling these training organisations to implement the national training system more effectively.
- ✧ Some networks focus on improving flexible learning strategies to improve providers' responsiveness to clients.
- ✧ Some networks focus on integrating technology into the delivery of VET, involving both e-business technology and practices and e-learning.
- ✧ Some networks focus on the learning needs of groups of learners such as Indigenous people or people with a disability.
- ✧ Implicitly and sometimes explicitly, all the networks described in this section aim to improve the quality of teaching, learning and assessment in VET.

Networks support quality

One of the themes in the 'networks' paper is that networks support the achievement of quality teaching, learning and assessment in vocational education and training. Networks facilitate the exchange of information, ideas, techniques, approaches and tools between VET practitioners. Networks also provide a mechanism enabling providers to interact with and obtain feedback from their enterprise clients. In a variety of ways, networks enhance the quality of VET provision.

The case studies also show that quality is the main issue for practitioners

A separate paper, *Demonstrating quality: Fifteen case studies of good practice in VET*, reinforces the findings from the 'networks paper'. The case studies report confirms that many practitioners relentlessly pursue quality outcomes for their individual students and business clients and use quality strategies to assist in the achievement of these outcomes.

The case studies cover a wide range of contexts, including VET delivered in the workplace, VET in Schools and VET delivered electronically. They also cover a range of providers from the largest public ones to the small specialist private providers and a range of learner types.

Each of the 15 case studies provides a model of high-quality practice. Each case study identifies a critical issue faced by practitioners, describes the context and challenges, summarises the responses of the practitioners, cites the outcomes of the practitioners' strategies and discusses aspects of the new practice that may be transferable to other settings.

The case studies reinforce many of the earlier findings in the research activity RA3. In particular, the research activity identified the increasing demand for the customisation of training, and the case studies contain detailed examples of providers tailoring training to a variety of industries and workplaces. For example, one case study describes a boutique registered training organisation, William Stubbs & Associates Pty Ltd, a provider in the area of frontline management, providing training and assessment services to clients in local government, manufacturing and the service industries. Its program in frontline management is tailored to the client's organisation and needs, and the delivery methodology relates students' workplace issues to units of competency. Overall, the case studies show providers who are agile and responsive to client needs. For example, TAFE Tasmania uses fast-response teams to customise training delivery for specific enterprises.

Earlier research also identified the need for VET practitioners to adopt new work roles, such as learning manager, facilitator, broker or strategist as a critical success factor in developing innovative approaches. The case studies highlight new work roles developed by VET practitioners, such as the staff at TAFE NSW South Western Sydney Institute who have explored the concept of teachers as learners in developing personalised learning for students. A completely different work role is demonstrated by Christine Jarrett, from Distance Learning Australia, who uses telephone and email to deliver and assess certificate-level training for hundreds of VET students spread around New South Wales from her dining room table in Canberra.

Summary

This research ultimately highlighted a common concern for, and pursuit of, high quality within vocational education and training, by both policy-makers and practitioners. Understandably, the two groups have different definitions of quality and different views about where effort is required to achieve quality. For some stakeholders, quality is concerned with meeting high standards, for others it means achieving excellence, for some it means the same as gaining benefits, and for others it means doing the best one can, under given circumstances. Some VET stakeholders talk about quality inputs and processes and outputs, while others focus on quality outcomes. Some stakeholders focus on managing quality systems and measuring quality indicators, while others focus on creating cultures to stimulate continuous improvement.

However, research for this project shows that VET stakeholders generally accept that to achieve high-quality outcomes requires adequate inputs and multiple strategies: there is no single solution and there is no quick fix.

References

- Blom, K, Clayton, B, Bateman A, Bedggood, M & Hughes, E 2004, *What's in it for me? Recognition of prior learning in enterprise-based registered training organisations*, NCVER, Adelaide, 13–16 July.
- Booth, R & Roy, S 2004, 'Recognising skills: When is this a good idea?', paper presented to 13th National Vocational Education and Training Research Conference, NCVER, Tweed Heads, Australia.
- Boud, D 2003, 'Combining work and learning: The disturbing challenge of practice', keynote address to the International Conference on Experimental-Community-Work-based: Researching Learning Outside the Academy, Glasgow, 27–29 June.
- Callan, V 2004, *Building innovative vocational education and training providers*, NCVER, Adelaide.
- Chappell, C, Hawke, G, Rhodes, C & Solomon, N 2003, *High-level Review of Training Packages: Phase 1 report*, Australian National Training Authority (ANTA), Brisbane.
- Clayton B, Blom, K, Meyers, D & Bateman, A 2003, *Assessing and certifying generic skills: What is happening in vocational education and training?*, NCVER, Adelaide.
- Clayton, B, Roy, S, Booth, R & House R 2004a, *Maximising confidence in assessment decision-making: Current approaches and future strategies*, NCVER, Adelaide.
- Clayton, B, Blom, K, Bateman, A & Carden, P 2004b, *What works where you are? The implementation of training packages in rural Australia*, NCVER, Adelaide.
- Coffield, F, Moseley, D, Hall, E & Ecclestone, K 2004, *Learning styles and pedagogy in post-16 learning: A systematic and critical review*, Learning and Skills Research Centre, Wiltshire.
- Creswell, J 2003, *Research design: Qualitative, quantitative and mixed methods approaches*, Sage Publications, Thousand Oaks.
- Centre Undertaking Research in Vocational Education & University of Ballarat 2003, *Doing it well, doing it better: Final report of the ANTA teaching and learning strategies scoping project*, ANTA, Melbourne.
- Dawe, S & Guthrie, H 2004, 'Overview', in *Vocational education and training and innovation: Research readings*, NCVER, Adelaide.
- Department for Education and Skills 2005, *Skills: Getting on in business, getting on at work—Part 1*, DfES, Norwich.
- Department for Education, Science and Training 2005, *Skilling Australia—new directions for vocational education & training*, AGPS Canberra.
- Department of Employment and Training 2005, *Queensland's proposed responses to the challenges of skills for jobs and growth. Matching the supply of skills to rapidly changing demands: modern>educated>responsive*, viewed 23 December 2005, < <http://www.trainandemploy.qld.gov.au>>.
- Dickie, M, Eccles, C, FitzGerald, I & McDonald, R 2004, *Enhancing the capability of VET professionals project: Final report*, ANTA, Brisbane.
- Down, C 2002, *Qualitative impact of training packages on vocational education and training clients*, ANTA, Melbourne.
- Engestrom, Y 2004, 'New forms of learning in co-configuration work', presented at the London School of Economics, Work, Management and Culture Seminar, 22 January.
- Gibb, J & Curtin, P 2004, *Generic skills in vocational education and training: Research readings*, ed. J Gibb, NCVER, Adelaide.
- Guthrie, H 2004, *The vocational education and training workforce: New roles and ways of working—At a glance*, NCVER, Adelaide.
- Hager, P 2004, 'Metaphors of workplace learning: More process, less product', *Fine Print*, vol.27, no.3, pp.7–10.
- Harris, R, Simons, M & Clayton, B 2005, *Shifting mindsets: The changing work roles of vocational education and training practitioners*, NCVER, Adelaide.

- Leadbeater, C 2004, 'Learning about personalisation: How can we put the learner at the heart of the education system?', Department for Education and Skills, viewed 12 May 2005, <<http://www.standards.dfes.gov.uk/innovation-unit/pdf/Learningaboutpersonalisation.pdf?version=1>>.
- Maxwell, G 2001, *Moderation of assessments in vocational education and training*, Department of Employment and Training Queensland, Brisbane.
- Miliband, D 2004, 'Choice and voice in personalised learning', speech by the Minister of State for School Standards at a DfES Innovation Unit/Demos/OECD conference, *Personalising education: The future of public sector reform*, London, 18 May, viewed 12 May 2005, <<http://www.standards.dfes.gov.uk/innovation-unit/pdf/DavidMilibandPLSpeech.pdf?version=1>>.
- Mitchell, J 2003, *E-business and online learning: Connections and opportunities for vocational education and training*, NCVER, Adelaide.
- 2004, *Building industry training networks*, ANTA, Melbourne.
- Mitchell, J, Clayton, B, Hedberg, J & Paine, N 2003, *Emerging futures: Innovation in teaching and learning in VET*, ANTA, Melbourne.
- Mitchell, J, McKenna, S, Dau, E & Perry, W 2004, *40 ways of shaping our future*, ANTA, Melbourne.
- Mitchell, J, McKenna, S, Perry, W & Bald, C 2005, *New ways of working in VET*, ANTA, Melbourne.
- Mitchell, J, Henry, J & Young, S 2001, *A new model of work-based learning for the VET sector*, ANTA, Melbourne.
- Moynagh, M & Worsley, R 2003, *Learning from the future: Scenarios for post-16 learning*, Learning & Skills Research Centre, Hertford.
- Palmieri, P 2003, *The agile organisation: Case studies of the impact of flexible delivery on human resource practices in TAFE*, NCVER, Adelaide.
- Schofield, K & McDonald, R 2004, *Moving on ... Report of the High-level Review of Training Packages*, ANTA, Melbourne.
- Schofield, K, McDonald, R & Leary, C 2004, *High-level Review of Training Packages: Working paper 3: Training package design*, ANTA, Brisbane, viewed July 2004 <<http://www.anta.gov.au/publication.asp?qsID=630>>.
- Scott, G 1999, *Change matters: Making a difference in education and training*, Allen and Unwin, St Leonards, NSW.
- Scottish Further Education Unit 2005, *Future focus report*, SFEU, Stirling.
- Scottish Executive 2003, *Life through learning—learning through life: The Life Long Learning Strategy for Scotland*, Scottish Executive, Edinburgh.
- 2005, *Employability Framework for Scotland*, Scottish Executive, Edinburgh.
- Smith, L 2004, *Recognition of prior learning: Selected case studies of Australian private providers of training*, NCVER, Adelaide, viewed May 2004, <<http://www.ncver.edu.au/research/proj/nr2030.pdf>>.
- Smith, P & Dalton, J 2005, *Learning styles: Relevance and good practice in VET*, NCVER, Adelaide.
- Stephenson, L, 2001, 'Ensuring a holistic approach to work-based learning: The capability envelope', in *Work-based learning. A new higher education*, eds D Boud and N Solomon, The Society for Research into Higher Education and Open University Press, Suffolk.
- Stowell, R 2000, *Strategic evaluation: Consistency in competency based assessment: Final report*, ANTA, Melbourne.
- Waterhouse, P & Virgona, C 2004, *Two-dimensional work: Workplace literacy in the aged care and call centre industries*, NCVER, Adelaide.
- Williams, M & Bateman, A 2003, *Graded assessment in vocational education and training: An analysis of national practice, drivers and areas for policy development*, NCVER, Adelaide.
- Wood, S 2004, *Fully on-the-job training: Experiences and steps ahead*, NCVER, Adelaide.

Support document details

Additional information relating to this research is available in the support documents listed below.

- ✧ A literature review entitled *Critical issues: A literature review on teaching, learning and assessment in vocational education and training* which examines international and Australian trends in teaching and learning policy and practice
- ✧ A discussion paper entitled *Complexities and opportunities: A discussion paper on critical issues in teaching, learning and assessment in vocational education and training* as the basis for four focus groups and an online forum
- ✧ A commentary on developments in England and Scotland in teaching, learning and assessment entitled *Quality: A critical issue in teaching, learning and assessment in vocational and further education—A three-country comparison*
- ✧ A paper on VET networks entitled *VET networked for quality: A description of a selection of VET networks and how they contribute to building and promoting good practice in teaching, learning and assessment*
- ✧ A set of 15 case studies from Australian VET that illustrate good practice in teaching, learning and assessment entitled *Demonstrating quality: Fifteen case studies of good practice in VET*.

These five support documents are available from NCVER's website at
<<http://www.ncver.edu.au/publications/1710.html>>.



The Consortium Research Program is part of the National Vocational Education and Training Research and Evaluation (NVETRE) Program, coordinated and managed by the National Centre for Vocational Education Research, on behalf of the Australian Government and state and territory governments, with funding provided through the Department of Education, Science and Training.

The consortium, *Supporting vocational education and training providers in building capability for the future*, comprises leading vocational education and training researchers from across Australia. Its program of research aims to investigate the vocational education and training workforce, its capability and professional practice development. Research funding is awarded to organisations via a competitive grants process.

**National Centre for Vocational
Education Research Ltd**

Level 11, 33 King William Street
Adelaide SA 5000

PO Box 8288 Station Arcade
South Australia 5000

Phone +61 8 8230 8400
Fax +61 8 8212 3436
Email ncver@ncver.edu.au

www.ncver.edu.au