The national research and evaluation strategy for vocational education and training

The first year

Chris Robinson and Hugh Guthrie
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The National Research and Evaluation Strategy for Vocational Education and Training in Australia 1997–2000 was developed in the first half of 1997 and released in July 1997. To the best of our knowledge Australia is the only country that has developed and published a research strategy to facilitate its national research and evaluation effort in vocational education and training (VET).

This paper has been prepared to report on progress made under the national VET research and evaluation strategy in its first full year of operation—the 1997–98 financial year ending 30 June 1998.

Extracts from this report formed the opening address to the 7th Annual VET Researchers Conference sponsored by National Centre for Vocational Education Research (NCVER) and the Group for Research in Employment and Training (GREAT) at Charles Sturt University. This conference was held at Charles Sturt University, Wagga Wagga, NSW on 14–17 July 1998.

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and
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National Centre for Vocational Education Research Ltd
The National Centre for Vocational Education Research (NCVER), previously the TAFE National Centre for Research and Development, has carried out a vocational education and training (VET) research program for the past 15 years.

Until very recently however, there was a paucity of VET research in Australia, with the exception of the research carried out in the NCVER program and by a small group of university academics. The lack of VET research in comparison with other education sectors has been documented by commentators such as McDonald et al. (1993), Ramsay (1993) and Butterworth (1994, 1996). Moreover a number of commentators such as Hall (1993), McDonald et al. (1993), Wiltshire (1994), McDonald and Hawke (1996), Seddon (1997) and Selby Smith (1998) have pointed to a lower than optimal level of influence that VET research is thought to have had on the formulation of VET policy and practice in Australia.

The birth of the improved contemporary effort in Australian VET research really began with McDonald et al. (1993) and their proposals for a national VET research and development strategy in the report No small change.

Subsequently the Australian National Training Authority (ANTA) established the ANTA Research Advisory Council (ANTARAC) in 1994 to increase the volume, scope and coverage of VET research in Australia. Today there are at least 20 research centres around the country—in addition to the NCVER—that specialise in, or undertake at least some, VET research. This growth in capacity can be attributed, in large part, to ANTA entering the field through ANTARAC to promote a greater amount of VET research.

Late in 1996, arrangements for the management of VET research in Australia were rationalised by bringing together NCVER and ANTA national VET research efforts under the one umbrella. National VET research arrangements have since been oversighted by the National Research and Evaluation Committee (NREC). NREC is a sub-committee of the NCVER Board and is chaired by the Chair of the NCVER.

A national VET research and evaluation strategy—The national research and evaluation strategy for vocational education and training in Australia: 1997–2000—was developed in the first half of 1997 and released in July 1997 (NCVER 1997).

To the best of our knowledge Australia is the only country that has developed a comprehensive and published national strategy to promote and facilitate its national VET research effort.
The strategy was based on:

- extensive consultations with stakeholders in the VET sector about their priorities and needs from research and evaluation.

- the results of some 11 stocktakes or literature reviews of existing VET research to identify areas where gaps in the Australian VET research effort exist. These stocktakes are listed in the appendix A, and have since been published as a consolidated volume (Robinson & Thomson 1998).

The key elements of the strategy, the progress made in its first year and some future directions are examined in this paper.
2 Key features of the national research and evaluation strategy

The national VET research and evaluation strategy has several key features. They are that it:

- was specially designed to meet the needs of all of the different stakeholders in the VET sector
- includes evaluation as well as research
- was designed around six agreed national priorities for research and evaluation to govern the national research effort for three years, rather than for only one year
- places as much emphasis on getting the message out and dissemination of research findings to stakeholders as it does on doing the research itself

The VET sector stakeholders and their different needs for VET research include:

- **Policymakers and planners** who need quality research and evaluation work to underpin policy formation and planning and to evaluate the level of success of policy and planning decisions.
- **Training authorities** so they can make better decisions about the overall provision of training.
- **Industry, employer and employee bodies** who require research and evaluation results in order to better advise government, individual employers and employees on the spectrum of vocational education’s policies and practices.
- **Employers** so they can make better decisions about what forms of training can improve the effectiveness of their businesses or organisations.
- **Education and training providers**, those in the public and private sectors, in the adult education and community sector, and in universities and schools, who need to make better decisions on what vocational education and training programs to offer and how to improve their teaching and learning practices.
- **Teachers and trainers**, no matter what type of provider they work for, who need better information about good practice and current developments to help them to improve the quality of teaching and learning experiences they design and deliver.
- **Students, apprentices and trainees** who can make better decisions about their own skill formation if they have high-quality information about what training is available and what its outcomes are.
- **Researchers** who need access to current and completed research in order to undertake work which can help to improve the quality of the vocational education and training sector.” (NCVER 1997, p.1).

In the design of the national strategy it was recognised that evaluation work, which focuses of determining the merit of particular policies, programs or VET
activities, was just as important as research itself (which tends to be more about investigations which contribute to our knowledge about VET). McDonald and Hayton (1997) point out that evaluation work has not been given the same prominence as research in the VET sector in Australia.

The six key priority areas for research and evaluation identified in the national VET research and evaluation strategy are:

- economic and social implications of VET
- employment and the workforce
- pathways from school to work
- outcomes of the VET sector
- the quality of provision of VET
- future issues affecting the VET sector

Progress under each of these priority areas is considered below in sections 3 to 8 of this paper. The particular projects undertaken as part of the national VET research and evaluation strategy in 1997–98 (its first year of operation) by the NCVER are listed in appendix B. Other projects undertaken as part of the national VET research and evaluation strategy are listed in appendix C. The projects which are to be undertaken in 1998–99 or beyond by the NCVER are listed in appendix D, or by others in appendix E. A critique of overall progress in the first year of the national strategy is given in section 9.

In addition there were a number of VET research projects that were funded by ANTARAC prior to the development of the national strategy that were being undertaken in 1997–98. These projects complement the work being done under the national VET research and evaluation strategy and are listed in appendix F.

The emphasis on dissemination in the national VET research and evaluation strategy is all about relevance and usefulness of research and evaluation results to all stakeholders of VET in Australia. This issue is examined in section 10 of this paper.

Further discussion about the rationale and nature of the national research and evaluation strategy is given in Robinson (1997).
3 Research on the economic and social implications of VET

This priority is about establishing the nature and extent of the benefits gained from VET for individuals, including different groups of Australians and for Australia's enterprises. It is also about better demonstrating these benefits to the wider community so that there is greater community awareness of the positive economic and social implications of VET for Australia.

Several areas for research under this priority were identified in the development of the national strategy. Each is discussed below.

3.1 Identifying enterprise returns from investment in training

A review of research on enterprise investment in training was commissioned as part of the development of the national VET research and evaluation strategy. The study (Billett & Cooper 1997) found, amongst other things, that most large enterprises invest more heavily in formalised training than do small to medium sized enterprises.

A project on new management practices and enterprise training began during 1997–98. The focus of this work (which is being undertaken by Charles Sturt University) is to examine what impact changing management practices are having on the provision of and demand for enterprise training in Australia. In addition, a 1998–99 project will examine the human resource managerial function within a range of individual enterprises and their contribution to decision making on training options.

A number of projects are also being commissioned in 1998–99 to investigate various aspects of the returns to investment in training that accrue to enterprises, particularly in relation to how to identify and measure these returns.

3.2 Analysing small business investment in VET

The issue of examining the patterns of investment in VET by small businesses was part of the coverage of a literature review—VET and small business. This study (Gibb 1997) was a stocktake of research literature that was undertaken as part of the process of developing the national strategy. Gibb (1997) found that the Australian training system is failing to meet the needs of small businesses and outlined areas for future research to overcome this. In addition, VET and
small business was the subject of the first issue of the Research at a glance series published under the auspices of the strategy.

A project on the relationship between training and small business is being undertaken by the University of Tasmania and commenced in 1997–98. A further project on small enterprise workplace learning and its links to school vocational education was also begun during 1997–98 and is being conducted by a team made up of staff from a consultant (Enterprise Education) and staff from the Centre for Research in Education, Equity and Work at the University of South Australia.

3.3 Identifying returns to individuals from investment in VET

The NCVER began two projects in 1997–98 that examine the benefits to individuals from undertaking VET. These are a national longitudinal study and a South Australian longitudinal study which examine the returns to individuals from investment in VET in terms of improved job prospects, higher income, greater job security and increased job mobility.

In 1998–99 a comprehensive review of research literature on the returns to individuals from investment in training will be commissioned. It will also address outcomes for employers and the community generally. In addition, a study in 1998–99 will investigate the reasons behind an apparent substantial gap in earnings in some industries between male and female VET graduates, but not in others.

3.4 Promoting community awareness of VET

There is a need for future research work to be done that can contribute to a greater understanding by the community at large about the economic and social importance of Australia's vocational and training effort, particularly in terms of the importance of training and advanced levels of skill formation in Australia's future economic prospects. This is particularly in terms of promoting a choice for VET as a first best and not a second best education and training option.

This promotion will need to be a key part of any dissemination strategy (see section 10 of this paper). A decision as to whether or not any further research projects are required to contribute to this will not be taken until the other projects described above (in section 3.1 to 3.3) are completed. However, the review of research outlined in 3.3 above represents a starting point.

3.5 Analysing changing patterns of VET participation by different groups of Australians

A series of literature reviews was commissioned during 1997–98 which examine the relevant Australian VET research literature on the access to, participation in and outcomes from VET of different groups of Australians. The groups include
women, indigenous people, people from rural areas, people with disabilities and people whose first language is not English.

In 1998–99 a study reviewing relevant research literature on prisoners undertaking VET will be commissioned, along with some particular research on people with hearing difficulties. Other relevant work was conducted under the auspices of ANTARAC (see appendix F).

The NCVER will also undertake a major project over the next 12 months which pulls together empirical evidence and the findings of reviews of the research literature about the experiences of different groups of people in VET in Australia. This will culminate in the release of a book on their experiences in VET.

3.6 Evaluating the involvement of the adult and community education sector in VET

The NCVER has reviewed literature on the role being played by adult and community education in VET in recent years (Robinson & Davies 1997).

A project on the delivery of VET programs by adult and community education providers (being done by the Royal Melbourne Institute of Technology, RMIT) commenced in 1997–98.

Further work will be contemplated in the future, pending the outcomes of the above projects.
4 Research on employment and the workforce

The priority is all about how well the VET system is meeting the changing structure of employment and the changing needs of Australia's enterprises. Issues of particular importance include how well VET is responding to the impact of 'globalisation' of the Australian economy, industry and occupational shifts, skill shortages and the changing nature of work such as casualisation, outsourcing and other factors.

The various areas for research that were identified as part of this priority are discussed below.

4.1 Exploring the impact of changes in the structure of the workforce on the provision of VET

Some research was commissioned during 1997–98 into examining the changes in employment in different occupations in the Australian labour market during of the decade 1987 to 1996. Detailed trends in employment by occupation and industry from 1987 to 1996 were identified. This work is feeding into a set of industry training monographs that are being developed to document changes in the economic and labour market context of each major industry grouping in Australia, together with analyses of changes in the provision of training in Australia in different industries.

During 1998–99 the NCVER will undertake a study that specifically examines the occupation shifts that are taking place in New Apprenticeship training.

In 1998–99 the NCVER will also undertake a project to examine the issue of the demand and supply of skills in Australia in the context of looking at the question 'is the stock of VET skills adequate in Australia?' This issue has been raised by ANTA as part of the process of developing new key performance measures to better gauge the performance of Australia’s VET sector.

This work will complement another project to be undertaken in 1998–99 to examine the utility of different available models for projecting labour market demand and supply in terms of their potential application to assist the process of allocating public training resources toward those areas of highest priority or fastest growth in the labour market.

All of this work could contribute to input for a future project which would attempt to identify skill shortages in the Australian labour market.
Two other issues have been identified as critically important for investigation in terms of relevant changes to the structure and nature of work. These are the impact of increased casualisation of the workforce on skill formation in Australia and the effect of 'globalisation' of the Australia economy on our training needs.

A literature review on learning in the workplace was commissioned as part of the development of the national VET research and evaluation strategy. In this review Hager (1997a) found that increasing emphasis on informal training in the workplace poses some problems. He concluded that research points to a combination of formal and informal workplace learning as the way to achieve the best results.

Another stocktake of literature was commissioned during 1997–98 to specifically examine available research literature on the changing nature of work and its implications for training arrangements and processes.

During 1998–99 further work will be commissioned to examine the impact that increased outsourcing, contracting out and use of labour hire companies by enterprises is having on skill formation and the training of people working under such arrangements.

In looking at globalisation, a project was commissioned in 1997–98 to examine the impact of globalisation on VET institutional arrangements and the emerging national training market.

More research will be commissioned during in 1998–99 on the issues of the internationalisation of VET and, in particular, examining the globalisation of the economy and the impact on VET in Australia.

Finally the issue of training markets was the subject of an extensive literature review by Anderson (1997). This study was commissioned by the NCVER as part of the process of developing the national strategy. Anderson (1997) found that there is a lot of commentary on the issue of training markets, but that further analytical research into the costs and benefits of market approaches is required.

An extensive amount of research into training markets in Australia was consolidated by the NCVER during 1997–98 and reported in Robinson and Kenyon (1998), following the NCVER's July 1997 conference on The market for VET.

Further work will be done in 1998–99 on the impact and consequences of market reform in VET. The functions and operations of markets at the micro level will be examined, with particular emphasis on the interaction of the demand for and supply of VET.

4.2 Identifying future work requirements and the implications for VET

The results of research outlined in section 4.1 above will be examined with a view to identifying further work on the issue of future work requirements and the implications for VET.
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As a first step NCVER will hold a major industry training outlook conference late in 1998 that will help to identify future research requirements from the perspective of training needs in different industries. This conference will specifically consider the material from the NCVER's industry training monographs referred to in section 4.1. Some more specific industry-based VET research projects may be undertaken in 1999 as a result.

4.3 Examining enterprise-specific training versus generic training

The research described in sections 3.1 and 3.2 above on examining enterprise training, including that undertaken by small business, will be completed before any further projects in this area will be contemplated.

4.4 Identifying the barriers to small business investment in training

The literature review by Gibb (1997) examined this issue. She found that the main barriers to small business investment in training are cost, location of training away from an enterprise's premises, scheduling problems, quality and relevance of training and the fact that small business places emphasis on recruiting people with the required skills already. Customisation and better marketing of training products were amongst the strategies arising from Australian research that she identified. These findings have been reinforced in the first of the Research at a Glance series.
This priority is about more systematic analyses of the pathways young Australians take in the transition from school to work, and the development of better measures to facilitate the transition. Contemporary developments such as New Apprenticeships, user choice and policies to promote VET in schools are of particular relevance here.

Two reviews of research literature relating to VET and young people’s transition from school to work were commissioned as part of the process of developing the national strategy.

Lundberg (1997) looked at the literature relating to entry-level training. He found that more policy relevant research in this area is needed.

Ryan (1997) examined research on VET in schools in Australia. He found that particular problems exist in merging traditional schooling cultures with those required for effective vocational education.

Various elements for research under this priority are described below.

5.1 Analysing youth participation in education, training and work and developing better pathways

During 1997–98 the NCVER carried out a project examining the participation in and outcomes from apprenticeships, traineeships and other VET programs since 1991 by teenagers (15–19 year olds) in Australia. This study (Ball & Robinson 1998) was part of a broader national account of the employment, education, training, income and social situation of 15–19 year old people in Australia (Dusseldorp Skills Forum 1998).

In addition a project being undertaken jointly by the NCVER and the Australian Council for Educational Research (ACER) began in 1997–98 to examine Australian Youth Survey data and other longitudinal data to analyse the education, training and employment pathways being taken by young people in Australia.

During 1997–98 a project on entry-level training in VET began which examines how young people combine study and work pathways in VET. Another project was commissioned in 1997–1998 to examine access to post-secondary education and training in Australia.
During 1998–99 the NCVER will undertake a similar project looking at the experiences of young adults aged 20–24 in VET in Australia.

In order to investigate the issue of how to develop better pathways, we had to know more about how young people actually make their choices about whether or not to participate in VET.

The NCVER is currently undertaking a study for the Australian Student Traineeship Foundation (ASTF) on how parents influence the education and training choices of young people. During 1998–99 other projects will be commissioned to further explore how different groups of young people and others make their VET choices.

5.2 Analysing the uptake of apprenticeships and traineeships by young people

The work already done or being done by the NCVER (referred to in section 5.1 above) on the participation of young people (i.e. 15–19 year olds and 20–24 year olds) in VET includes looking at patterns of participation by young people in apprenticeships and traineeships.

During 1997–98 a review of research on employer attitudes and perspectives on employing and training young people was undertaken to throw light on what factors might increase the opportunities made available to young people by employers.

The study the NCVER is going to do during 1998–99 on occupational shifts that are taking place in new apprenticeship training (referred to in section 4.1 above) is also relevant here. In addition, a project has been commissioned for 1998–99 to examine the ways in which individuals choose VET programs and providers. This is not only of relevance to entry-level students, but also those older people re-entering and repositioning themselves within the workforce.

More work specifically looking at implications for the further reform of apprenticeship and traineeship arrangements to meet Australia’s needs into the 21st century might be considered once these projects have been completed.

5.3 Identifying good practice in entry-level training

The literature review on entry-level training in Australia by Lundberg (1997) included examination of relevant research literature relating to good practice in entry-level training.

A number of projects were begun in 1997–98 under the national VET research and evaluation strategy aimed at identifying good practice in the delivery of entry-level training and improving delivery as a result. These include the longitudinal studies of the pathways young people take referred to in section 5.1 above, which looks at the outcomes of VET delivered to young people, a project examining the links between schools, TAFE and industry in rural areas and a study on the implementation of VET in Australian schools.
During 1998–99, the NCVER will undertake a major study on the destinations of students from school-industry programs in Australia.

5.4 Examining the access by different groups of young people to VET

This issue will also be taken up in the context of the major study of the experiences in VET of different groups of Australia’s young people that will be undertaken by the NCVER during 1998–99 (that was referred to earlier in section 3.5).

5.5 Evaluating the impact of generic competencies on the training and employability of young people

A review of research has been commissioned to examine the impact of generic competencies in workplace performance. This work will inform any future work on the topic of what impact generic key competencies have on the employability of young people.
6 Research on the outcomes from VET

Research on the skill and qualification outputs of the VET sector is inadequate at present, although our knowledge of the income and employment outcomes from VET has improved in very recent times.

More research is required if we are to better demonstrate the outcomes being achieved from VET, particularly in the areas described below.

6.1 Quantifying the outcomes from VET achieved by different groups of Australians

The literature reviews mentioned in section 3.5 above will include documentation of outcomes from VET of different groups of Australians; including women, indigenous people, people from rural areas, people with disabilities and people whose first language is not English.

With respect to indigenous people, a study on the destinations and outcomes of students in indigenous-controlled VET colleges was commissioned in 1997–98.

As mentioned in section 5, a project was commissioned in 1997–98 to examine the outcomes achieved by people in entry-level VET programs.

A book will be prepared over the next 12 months by the NCVER (as mentioned in section 3.5) about the experiences of different groups of people in VET in Australia. This will include both quantitative and qualitative analyses of the outcomes from VET.

The NCVER will undertake a project in 1998–99 to examine the outcomes achieved by VET students.

6.2 Identifying different outcomes from different modes of VET delivery

No work has been done on this theme to date under the auspices of the national VET research and evaluation strategy. However, a study has been commissioned as part of the 1997–98 program to examine the quality of VET provision through appropriate course structures to reflect emerging patterns of employment.

The NCVER is currently undertaking a project on examining the costs and benefits of different modes of delivery referred to in section 7.2 of this paper.
This work will be completed before the outcomes from different modes of delivery are examined.

6.3 Analysing unsuccessful outcomes in VET

The NCVER began a project in 1997–98 looking at outcomes, including withdrawals and non-completions, of different groups of people from VET. These groups include young people.

Follow-up work on this topic is planned for later in 1998–99 that particularly looks in greater detail at strategies to improve success rates.

6.4 Quantifying the acquisition of skills and qualifications from VET

No work to date has been undertaken under the national VET research and evaluation strategy on this theme. One project which relates to this theme is examining movements from VET to higher education. It was commissioned during 1997–98.

The project on the demand for and supply of VET skills in Australia, which will be commenced by the NCVER during 1997–98 (referred to in section 4.1 above), is also important here.

A student outcomes survey, which will attempt to measure the skill and qualification outputs attained by VET students in Australia, is currently under development. Further research on this topic will be possible in about two years, when the results of this survey are available.

6.5 Evaluating the contribution that competency-based training and assessment has made to VET

A number of other projects evaluating different aspects of competency-based training are being undertaken under the national VET research and evaluation strategy and are described in section 7.3.

During 1997–98, an evaluation of the contribution of competency-based training to VET in Australia was commissioned. It will consider the outcomes of competency-based training.

6.6 Examining the impact of VET outcomes on lifelong learning

Several projects exploring the impact of lifelong learning in VET will be undertaken during 1998–99. This will include a project by NCVER on the outcomes of different approaches to the delivery of VET on lifelong learners.
7 Research into the quality of VET provision

This priority is about a body of research and evaluation studies that can help to improve the quality of VET provision in Australia. This includes research that can help to identify VET provision which better delivers equitable outcomes to all groups of Australians.

Issues for further research that were identified as part of this priority are described below.

7.1 Identifying good practice in different approaches to teaching and learning

Three stocktakes of research relating to this theme were commissioned in 1997 as part of the development of the national VET research and evaluation strategy. The stocktakes were:

- Kearns (1997), who reviewed Australian research literature on flexible delivery in VET. He found that industry has made greater use of flexible delivery methods than training institutes.
- Hager (1997b), who looked at the research literature about quality assurance processes being adopted by Australian training providers.
- Barnett (1997), who examined the research literature on training delivery of public and private VET providers.

The NCVER began a project in 1997–98, which is examining the effects of the development and implementation of quality systems and benchmarking arrangements in terms of the impact on the quality of delivery.

In addition a project to be conducted in 1998–99 will investigate the best way for students to receive support to enter and successfully complete programs offered at VET institutions. This project complements other elements of the strategy concerned with reducing attrition rates and with how individuals choose VET programs and providers. It is also concerned with training provision within enterprises.
7.2 Examining the effects of different modes of VET delivery

During 1997–98 the NCVER began a project looking at comparing different modes of training delivery. The research covered workplace and classroom modes of delivery, as well as the impact of new technologies on learning. Another project will be commissioned in 1998–99 to evaluate web-based delivery.

Also during 1997–98 a project examining the pedagogies used by trainers in the delivery of training in the workplace was commissioned. Another project also began in 1997–1998 on looking at student mentoring as a model for high achievement and low attrition in VET. This complements earlier work in the area funded by ANTARAC.

In 1998–99 the NCVER will undertake a project on examining how quality management processes influence the quality of teaching and learning, particularly in relation to lifelong learning.

7.3 Assessment of the effectiveness of competency-based training (CBT)

A number of projects evaluating aspects of competency-based training (CBT) were commissioned under the national strategy during 1997–1998. These include:

- an evaluation of the effects of CBT on training instructors
- two studies aimed at evaluating different aspects of competency-based assessment procedures to VET in Australia.

These are in addition to the broader evaluation of CBT to VET in Australia that was referred to in section 6.5 above.

In 1998–99 a study of research literature on evaluation/validation studies of common assessment procedures used in VET is to be conducted. In addition, the NCVER will undertake a project to identify strategies to improve CBT in Australia, which will build on the studies described in the present section and in section 6.5.

7.4 Examining different learning styles and pedagogies to improve VET delivery to different groups of Australians

A research project began in 1997–98 which examines what effect a variety of different learning practices have had on the training and outcomes for people in VET with disabilities.

No new research under the auspices of the national VET research and evaluation strategy is being planned on this issue at this stage. Any decision to explore this
theme further will await the results of the literature reviews about different groups of people referred to earlier in section 3.5.

7.5 **Identification of staff development requirements to improve the quality of teaching and learning**

Docking (1997) examined research into the effect of assessor training programs for VET teachers/trainers.

During 1998–99 work will be commissioned on modes of employment of teachers and trainers by VET providers, and the implications for their staff development.

7.6 **Examining the provision of VET by the adult and community education sector**

The projects referred to in section 3.6 above are relevant here. Current work is focussed on examining the delivery of VET by adult and community education providers. Challenges faced by adult and community education in providing VET programs to people are explored.
The final priority of the national VET research and evaluation strategy is about making VET research more influential in setting future directions for development of VET in Australia into the 21\textsuperscript{st} Century.

The key elements under this priority are described below.

When the national VET research and evaluation strategy was being developed, it was felt some research was needed to help Australia’s VET system position itself to meet future challenges.

Three projects were commissioned during 1997–98. The first project, visioning VET, is an exploration of potential future policies and practices for VET in the 21\textsuperscript{st} Century. The second is a project which views Australian VET from beyond its own borders (pictures of VET), and a third examines changing relationships between industries, enterprises, regions/communities and individuals and their influences on VET policies and practices.

Further work in this area will be contemplated once those projects are completed. In particular, some research on identifying new training needs in emerging industries and that arise from new technologies might be undertaken in 1999 and beyond.
9 Critique of progress in the first year of the strategy

A summary of overall progress made under the national VET research and evaluation strategy in its first year of operation during the financial year 1997–98, is shown in table 1.

Table 1: The number of projects undertaken as part of the national VET research and evaluation strategy

<table>
<thead>
<tr>
<th>Priority Area</th>
<th>No. of research stocktake projects</th>
<th>No. of projects commenced in 1997–98</th>
<th>No. of projects commenced or planned for 1998–99</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>NCVER</td>
<td>Other</td>
<td>Done by</td>
</tr>
<tr>
<td>Economic &amp; social implications of VET</td>
<td>2</td>
<td>3</td>
<td>11</td>
</tr>
<tr>
<td>Employment and the Workforce</td>
<td>2</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Pathways from School to Work</td>
<td>2</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>Outcomes of VET</td>
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<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Quality of VET Provision</td>
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<td>2</td>
<td>7</td>
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<tr>
<td>Future Issues affecting VET</td>
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<td>0</td>
<td>3</td>
</tr>
<tr>
<td>More than one priority area/other</td>
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<td>1</td>
<td>1</td>
</tr>
<tr>
<td>TOTAL</td>
<td>11</td>
<td>13</td>
<td>36</td>
</tr>
</tbody>
</table>

1 More projects will be done during 1998–99. This number only reflects those about to be commenced. Some of the 1998–99 projects also have significantly larger budgets than the typical 1997–98 projects.

Nearly 50 research projects were begun in the first year of the national VET research and evaluation strategy.

This is in addition to the 11 stocktakes of Australian research literature that were undertaken in the first half of 1997 as part of the process of developing the strategy itself. Of the projects done in 1997–98, over half were on the economic and social implications of VET and pathways from school to work. In contrast, only four projects were commenced on the outcomes of VET and three on future issues affecting VET in the first year of the operation of the national VET research and evaluation strategy.

The mix of projects is changing for 1998–99. Apart from the work on the economic and social implications of VET (nine projects), the areas where the greatest number of projects will be undertaken are on employment and the workforce (seven projects) and the quality of VET provision (seven projects).
10 Future directions

10.1 Improving the mix and balance of the national VET research effort

A key problem identified in the consultations over the development of the national VET research and evaluation strategy was the paucity of quantitative research which might improve our understanding of how VET contributes to employment and enterprise outcomes, and on the outcomes from VET more generally. Many people feel that far too much VET research relating to policy was based on commentary and personal views, rather than on rigorous analysis. Others felt too much research was focussed on educational issues such as curricula development, with too little emphasis on the implications of VET for the well-being of Australian people and Australia's enterprises.

In the previous section we found that the majority of research projects undertaken in the first year of the national VET research and evaluation strategy were in the areas of the economic and social implications of VET and in pathways from school to work. The imbalance between these and other priorities in the national research strategy are being addressed to some extent by planned activities in 1998–99 and beyond.

However, more emphasis is required on some of the key areas, particularly on the outcomes from VET and examining how well Australia's VET system is meeting the changing needs of businesses and enterprises. More work under the 'employment and the workplace' priority is needed.

The key area for future emphasis in the national strategy relates to the development of much more systematic ways in which to disseminate the results of research to all stakeholders of the VET system.

10.2 Linking research to Australia's new national strategy for VET

The six priorities for the national VET research and evaluation strategy were developed taking account of Australia's overall national strategy for VET 1998–2003. This process occurred during the first half of 1997 when the overall national strategy for VET was only at draft stage.

Since then there has been extensive consultation by ANTA with States, Territories, industry and community groups in relation to the VET national...
strategy. Australia's training ministers have recently endorsed *A bridge to the future: Australia's national strategy for vocational education and training 1998–2003*. The main features of the new national strategy for VET are described in Moran (1998).

The new national VET strategy has five key objectives:

- equipping Australians for the world of work
- enhancing the mobility of the labour market
- achieving equitable outcomes in vocational education and training
- increasing investments in training
- maximising the value of public vocational education and training

In 1998–99 the national VET research and evaluation strategy will be reviewed to identify:

- what research work currently being done can contribute towards achieving the five objectives of Australia’s new national strategy for VET
- what gaps there are and what new research could be undertaken to contribute to achieving the national objectives for VET.

A particularly important area is how research can help to foster and enhance a ‘training culture’ in Australia.

### 10.3 Increasing the emphasis on evaluation

McDonald and Hayton (1997) reviewed the extent to which evaluations of VET have been undertaken in Australia in the 1990s. This review was undertaken as part of the development of the national VET research and evaluation strategy. They found that evaluation work for the improvement of VET in Australia was under-utilised.

This work led to the inclusion of evaluation as well as research in the national VET research and evaluation strategy. Yet the majority of studies undertaken in the first year would be classified as research. An examination of ways to increase the focus on evaluation is currently being conducted. One way of doing this may be to undertake the evaluation of key policies and practices as part of the program. The extensive evaluation work on CBT described earlier is an example of such work. Nevertheless dispassionate evaluation of policy and practice is seen as important by a variety of stakeholders. Increasing evaluation work remains an important future direction.

### 10.4 Disseminating the results of research

The key area for future emphasis in the national VET research and evaluation strategy relates to the development of much more systematic ways in which to disseminate the results of research to all stakeholders of the VET system.

Previous reviews of the vocational education and training (VET) research effort, such as *No small change* by McDonald et al. in 1993 noted the need for development of what has been called a ‘research culture’ in VET, and that a key
first step in achieving this will be the effective dissemination of research. For example:

There is a clear need for fresh ways of disseminating the fruits of vocational education and training research and development so that they become more relevant to, and are seen to be more relevant to, the needs of practitioners and policymakers.

(McDonald et al. 1993)

A nationally-funded project on the impact of VET research on decision making and policy formulation has noted that there is no linear relationship between these various factors. However research may be used by, and have some degree of influence over, the views, practices and policies of VET stakeholders. This report (Selby Smith et al., forthcoming) notes the need for a ‘web of linkages’ between those conducting research and the various groups who might potentially make use of the research they produce.

A great majority of research funds available so far have been spent on ‘doing’ VET research. However, a greatly increased proportion of 1998–99 funds will be spent on disseminating the primary products of research as well as developing and disseminating a variety of derived products. In such cases the outcomes and findings of a range of projects are combined and summarised in order to target the needs of specific stakeholder groups. Derived products and other services are therefore where the majority of dissemination funds will be spent, because it is clear from market research already conducted that primary research products (reports, academic journal articles etc.) are not utilised widely by the sector. While they are a ‘good thing’ (in that they provide a very important information base which underpins decision making) efforts need to be focussed on assuring that research information is introduced into the ‘web of linkages’ in ways which maximise its impact in decision making and the sector’s practices.

There are a variety of stakeholders. Each has various information needs and preferred ways of receiving information. This requires a wide range of products and services to be developed which can put the research into a variety of contexts to which each the various stakeholders can relate. Thus the dissemination approach for the strategy could be said to occupy a range of specific and carefully identified stakeholder ‘markets’ each designed to make a significant and strategic impact in the web of linkages by which the sector obtains information, gathers evidence, communicates ideas and weighs their merits. The dissemination approaches chosen will need to be carefully planned to obtain an appropriate balance between the costs of producing them and the extent to which they are taken up and used by the intended stakeholder groups.

Another key focus for the future will therefore be the support and development of appropriate infrastructure and information systems both within NCVER and outside to ensure that information is taken up and used by the sector strategically.

Thus the dissemination approach has four broad objectives. These are:

- better design of products and services based on stakeholder requirements
- better utilisation of the products and services provided under the auspices of the strategy and for its different stakeholders

Future directions 23
- improved accessibility to research and evaluation information for all stakeholders
- increased visibility of research and evaluation information, with the consequent increase in the extent to which such information is used

Figure 1 outlines the marketing components of our intended approach to dissemination. They involve:

- the primary audiences (or stakeholders) and their information needs. These audiences are fundamentally the same as those outlined earlier in this paper
- the mechanisms through which information is generated, including both the managed national program of research and evaluation work and the NCVER's own research program. Both of these are advised by the strategy and its associated workplan prepared for the National Research and Evaluation Committee (NREC). Research conducted or funded by other players may also feed in and be incorporated within the dissemination framework (and this is why there needs to be a strong measure of support of the NCVER's VOCED database of VET research abstracts by the VET research community to ensure that as much of the research occurring nationally is available to the widest possible audience)
- a set of primary products, arising from the research approaches adopted (usually reports, academic papers or other articles) and a range of derived products and services which involve analysing, targeting, reworking, simplifying and synthesising the primary research products. It may also involve using a variety of different authors and a wide range of media and dissemination processes. These products and services will be tailored to meet the needs of stakeholders. In this way NCVER, in collaboration with researchers and other individuals and groups, is moving to fulfil the brokerage role described by Selby Smith et al. (forthcoming)
- a series of notification and distribution mechanisms so that stakeholders are aware of what is available and when, where and how it can be obtained. These are important underpinning components of the dissemination approach to ensure that information is readily available in appropriate forms and formats. Again, VOCED and other information sources and networks are important sources for disseminating this information
- the on-going evaluation of the products and services produced under the auspices of the national managed research and evaluation program to ensure that there is a genuine dialogue between those providing and those using the information. This will help to ensure that products and services are meeting stakeholder needs and that the dissemination approaches used are appropriate and cost-effective

At present a key project is being conducted to investigate the information needs and networks of the various stakeholders on a national basis. It also aims to determine the most effective and useful ways for people to learn of and be connected with the research effort. This research will underpin the development of our approaches to dissemination. It builds both on the consultations undertaken during the development of the national research and evaluation strategy (NCVER 1997), earlier work conducted by NCVER and the market research undertaken by the Vocational Education and Assessment Centre (Morris & Spark 1997). While focussed on consultations within New South Wales, Morris and Spark's work is proving a valuable adjunct to our own marketing research.
Figure 1: The approach to marketing and disseminating the outcomes of VET research and evaluation

National Research and Evaluation Strategy

Primary audiences with information needs
- Politicians, policy makers and training authorities
- Research community
- ITABs, industry associations and unions
- Business enterprises
- Students, trainees and career advisors
- Overseas agencies
- Vocational education and training organisations
- Teachers and trainers

Distribution mechanisms
- Mail order
- Electronic mail
- World wide web
- Networks
- Mailing lists
- Events
- Access protocols

Notification mechanisms
- Catalogue
- Direct mail
- Subscription
- Networks
- Personal visits
- Press articles
- Press advertisements
- World Wide Web

Evaluation of satisfaction

Communication mechanisms
- Print-based material simple or highly developed
- Internet delivery
- Face-to-face
- Video/audio
- Fax/e-mail delivery

Products and services
- Individual books
- Series
- Periodicals
- Brochures
- Databases
- Web-based products
- Paper & electronic newsletters
- Conferences
- Workshops
- Information brokerage and maintenance of networks
- Consulting services
- Data enquiry services

Information generation
- Core research & evaluation
- Managed research and evaluation program
- Statistical and survey information about VET
- Research project database
- Projects undertaken or funded by other individuals and organisations (universities, ITABs, training providers, ANTA, DEETYA, training authorities etc.

Development of derived products
- Analysing
- Rewriting
- Simplifying
- Synthesising

Source: Guthrie 1998, p.3.
The market research will provide further a basis for the development of utilisation plans for the dissemination of research outcomes from the projects funded under the auspices of the national managed program, as well as the broader question of building and disseminating a body of research evidence related to each of the research priorities and their associated themes.

The market research will also underpin the development of a range of research products and other services for stakeholder groups. These will involve traditional and electronic print media, together with using face to face meetings and briefings as well as a range of other available communication mechanisms, ranging from audiotapes to videoconferencing and other emerging technologies. Considerable attention will be given to improving our web site and the ways in which researchers, policy-makers and practitioners could be connected through issues-based interest groups. Thus the communication processes developed will need to encourage an improved dialogue between the creators and users of research to ensure the outcomes of the research program penetrate the web of linkages in ways which maximise their impact and use. A research 'hotline' was proposed in the national research and evaluation strategy, and ways may need to be sought to turn that concept into a reality.

To do all this effectively infrastructure will need to be developed, including:

- improving capture of past and current VET research through the VOCED research database to ensure all in the sector have the widest range of research information available for use
- databases, networks and other systems (including web-based discussion groups and email links) to assist the research to permeate the web of linkages. These, in turn, will assist stakeholder access to the information they need
- making use of a range of people who can help to add value to the body of research produced and ensure that it is focussed and presented in ways which put the information needs of stakeholders first
References


McDonald, R & Hawke, G 1996, ‘How should we spend our research money?’, *Australian Training Review*, no.20, p.11.


Wiltshire, K 1994, 'The role of research in policy making', in selected and edited papers presented at the National TAFE Senior Executives' conference, National Centre for Vocational Education Research, Adelaide, pp.63–75.
Review of research undertaken in the development of the national strategy

The 11 reviews of research/stocktakes of research literature that were undertaken as part of the development of the national VET research and evaluation strategy are:


These reviews are also reprinted in a consolidated form in Robinson, C & Thomson, P 1998, editors, *Readings in Australian Vocational Education and Training Research*, National Centre for Vocational Education Research, Adelaide.
Appendix B

NCVER research projects commenced in 1997–98

Title

A review of research on adult and community education
South Australian longitudinal study of recent graduates from selected TAFE courses
A study of VET students within the ACER/DEETYA national longitudinal study
VET participation of special groups
Effectiveness of training arrangements for young people
A study of non-completion and withdrawal from training
Outcomes of quality training and benchmarking
An investigation of different modes of training delivery
Training markets for VET (training industry monographs)
Training participation rates and pathways
Participation of 15–19 year olds in, and outcomes from, VET
The market for VET
Survey of parent’s role in entry-level training choices of young people (project with the Australian Student Traineeship Foundation)
Other projects funded under the National Strategy in 1997–1998

<table>
<thead>
<tr>
<th>Title</th>
<th>Researcher/Organisation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Removing the blinkers: Views of Australian VET from beyond its own borders</td>
<td>Rod McDonald, RCVET, University of Technology, Sydney</td>
</tr>
<tr>
<td>Changing relationships among industry, enterprises, regions/communities and individuals and their influence on policy and practice in VET</td>
<td>Stephen Billett, Griffith University</td>
</tr>
<tr>
<td>Student mentoring – a model for high achievement and low attrition in VET programs</td>
<td>Austin Bond, WA Academy of Performing Arts</td>
</tr>
<tr>
<td>Visioning VET - an exploration of potential future policies and practices in VET provision of the 21st Century</td>
<td>Tony Anderson, NSW Dept. Edn &amp; Training</td>
</tr>
<tr>
<td>Motivations and experiences of students moving between TAFE and university sectors</td>
<td>Martha Kinsman, Canberra Inst. Technology</td>
</tr>
<tr>
<td>Jobs change in Australia 1987–96</td>
<td>John Ray, John Ray &amp; Associates</td>
</tr>
<tr>
<td>Alternative VET pathways to indigenous development</td>
<td>Bob Boughton, Federation of Independent Aboriginal Education Providers Ltd</td>
</tr>
<tr>
<td>VET for people from rural/non-metropolitan areas</td>
<td>Sue Kilpatrick, University of Tasmania</td>
</tr>
<tr>
<td>VET for people with disabilities</td>
<td>Elizabeth Kendall, Griffith University</td>
</tr>
<tr>
<td>The changing nature of work and its implications for training arrangements and processes</td>
<td>Robin Sefton, Workplace Learning Initiatives, Victoria</td>
</tr>
<tr>
<td>VET for early school leavers</td>
<td>Marilyn Willis, The Learning Enterprise, South Australia</td>
</tr>
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<td>Title</td>
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<tr>
<td>Impediments to the employment of young people</td>
<td>Mark Wooden, NILS, Flinders University</td>
</tr>
<tr>
<td>VET for indigenous peoples</td>
<td>Darcel Moyle, ATSICC, Tropical North Queensland Institute of TAFE</td>
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<tr>
<td>Impact of generic competencies on workplace performance</td>
<td>Delia Mazzina, RCVET, University of Technology, Sydney</td>
</tr>
<tr>
<td>The relationship between training and small business</td>
<td>Sue Kilpatrick, CRLRA, University of Tasmania</td>
</tr>
<tr>
<td>The outcomes of entry-level VET training programs delivered to young people</td>
<td>Jeff Malley, ACER and Centre for Economics of Education. and Training</td>
</tr>
<tr>
<td>Evaluation of the effects that competency-based approaches have had on the role of instructors</td>
<td>Andy Smith, Charles Sturt University</td>
</tr>
<tr>
<td>Combined study and work pathways in VET: Policy implications and analysis.</td>
<td>Peter Dwyer, UMTC, University of Melbourne</td>
</tr>
<tr>
<td>Delivery of VET programs by adult community education providers</td>
<td>Veronica Volkoff, RMIT</td>
</tr>
<tr>
<td>New Management Practices and Enterprise Training</td>
<td>Andy Smith, Charles Sturt University</td>
</tr>
<tr>
<td>Quality VET provision through appropriate course structures for emerging patterns of employment/ unemployment</td>
<td>Ray Grannall, NSW Dept. Ed &amp; Trg</td>
</tr>
<tr>
<td>VET in small rural school communities</td>
<td>Maureen Chiswell, Country Education Project and Youth Research Centre</td>
</tr>
<tr>
<td>VET for people from Non-English Speaking Backgrounds</td>
<td>Veronica Volkoff, RMIT</td>
</tr>
<tr>
<td>Women and VET</td>
<td>Elaine Butler, Centre for Labour Studies, University of Adelaide</td>
</tr>
<tr>
<td>Evaluation of the effects that CBT and assessment has made to VET in Australia</td>
<td>Stephen Billett, Griffith University</td>
</tr>
<tr>
<td>Evaluation of the contribution of CBT</td>
<td>Dianne Mulcahy, University of Melb</td>
</tr>
<tr>
<td>Small enterprise workplace learning: Links to school vocational education</td>
<td>Frank Wyatt, Enterprise Partnerships, South Australia</td>
</tr>
<tr>
<td>An outcome study of entry level VET on young people with disabilities</td>
<td>PEP Employment Services (Inc.), WA</td>
</tr>
<tr>
<td>VET for indigenous peoples (with particular regard to Aboriginal community-controlled organisations)</td>
<td>Deborah Durnan, Federation of Independent Aboriginal Education Providers, Alice Springs.</td>
</tr>
<tr>
<td>Title</td>
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<td>----------------------------------------------------------------------</td>
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</tr>
<tr>
<td>Building workplace pedagogies: the role and function of the workplace trainer in the small business environment</td>
<td>Roger Harris, CREEW, University of South Australia</td>
</tr>
<tr>
<td>How the emerging national training market is being affected by the forces of globalisation and current VET institutional arrangements.</td>
<td>John Buchanan, ACIRRT, University of Sydney</td>
</tr>
<tr>
<td>Evaluation of the contribution competency-based assessment has made to VET in Australia</td>
<td>Lindsay Cotton, CVAR, University of Melbourne and TAFE, NSW</td>
</tr>
<tr>
<td>Impact and Consequences of Market Reforms in VET</td>
<td>Damon Anderson, CEET, Monash University</td>
</tr>
<tr>
<td>Analysis of the implementation of VET in Australian School Systems</td>
<td>Jeff Malley, ACER, Victoria</td>
</tr>
<tr>
<td>Readings in Australian vocational education and training research</td>
<td>Chris Robinson and Peter Thomson (eds)</td>
</tr>
</tbody>
</table>
Appendix D

NCVER research projects commencing in 1998–99

- Survey of assessment methods currently being used in the VET sector
- Destination survey of students who participated in school industry programs
- Outcomes achieved by VET graduates
- An investigation of how to apply the philosophy of quality management to the process of learning and identify the implications this has for lifelong education
- An evaluation of how current approaches to delivery of VET meet the needs of a VET system that is committed to making lifelong learning a reality.
- Developing strategies to deal with CBT problems in Australia.
- Demand and supply of skills in Australia.
- International comparisons and VET.
- Outcomes from VET in schools.
- Occupational shifts and new apprenticeship training.
- The VET experience of different groups of Australians.
- Development of VET in Australia.
- Industry training outlook studies.
- Participation in the outcomes from VET by young adults aged 20–24 years.
### Appendix E

**Other projects to be funded under the National Strategy in 1998–99**

<table>
<thead>
<tr>
<th>Title</th>
<th>Researcher/Organisation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research at a glance . . .</td>
<td>Mr Kim Bannikoff, Kim Bannikoff &amp; Assoc.</td>
</tr>
<tr>
<td>Assessing in VET</td>
<td>Ms Andrea Bateman, Uni of Ballarat, Victoria</td>
</tr>
<tr>
<td>Income differences between male and female TAFE graduates</td>
<td>Mr Tom Dumbrell, Tom Dumbrell &amp; Associates</td>
</tr>
<tr>
<td>New and emerging technologies and their application in the VET sector for Deaf and hard of hearing students</td>
<td>Ms Lorna Lawford, Northern Melb. Institute of TAFE, Victoria</td>
</tr>
<tr>
<td>How best should students receive support to assist them enter and successfully complete VET?</td>
<td>Ms Lindsay Cotton, Vocational Education &amp; Assessment Centre, TAFE, NSW</td>
</tr>
<tr>
<td>Evaluation of web-based flexible learning</td>
<td>Charlie McKavanagh, Centre For Learning and Work Research, Griffith University</td>
</tr>
<tr>
<td>The human resource management function and the role of the HRD practitioner</td>
<td>Andy Smith, Charles Sturt University</td>
</tr>
<tr>
<td>The implications of outsourcing and the casualisation of the workforce for VET</td>
<td>Assoc Prof Ron Callus, ACIRRT, University of Sydney</td>
</tr>
<tr>
<td>The implications of outsourcing and the casualisation of the workforce for vocational education and training: Analysis of secondary data sources</td>
<td>Prof. Mark Wooden, National Institute of Labour Studies</td>
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<tr>
<td>Enterprise return on a training investment</td>
<td>Richard Blandy, AustralAsia* Economics</td>
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<tr>
<td>Enterprise return on a training investment</td>
<td>Leo Maglen, University of Melbourne</td>
</tr>
<tr>
<td>Enterprise return on a training investment</td>
<td>Rod McDonald, RCVET, University of Technology, Sydney.</td>
</tr>
<tr>
<td>How individuals choose VET programs</td>
<td>Graham Maxwell, University of Queensland</td>
</tr>
<tr>
<td>Title</td>
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<tr>
<td>Lifelong Learning and VET</td>
<td>Peter Kearns, Global Learning Services Pty Ltd</td>
</tr>
<tr>
<td>Outcomes of VET</td>
<td>Tom Dumbrell, Tom Dumbrell &amp; Associates</td>
</tr>
<tr>
<td>Internationalisation of VET</td>
<td>Peter Smith, RIPVET, Gordon Institute of TAFE/Deakin University</td>
</tr>
<tr>
<td>Internationalisation of VET</td>
<td>Barry Hobart, Barry Hobart and Associates</td>
</tr>
<tr>
<td>VET for those in Correctional Institutions</td>
<td>Under tender</td>
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<tr>
<td>Improving the quality of VET provision</td>
<td>Roger Harris, CREEW, University of South Australia</td>
</tr>
<tr>
<td>Models of labour market supply and demand and their use in projecting VET requirements</td>
<td>Contractors yet to be appointed</td>
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<tr>
<td>Readings in vocational education and training research (volume 2)</td>
<td>Chris Robinson and Hugh Guthrie (eds)</td>
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### ANTARAC projects which were current in 1997–98

<table>
<thead>
<tr>
<th>Title</th>
<th>Researcher/Organisation</th>
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<tbody>
<tr>
<td>Developing competent ecotour guides</td>
<td>Betty Weiler, Dept of Hospitality, Leisure &amp; Tourism, RMIT</td>
</tr>
<tr>
<td>The changing nature and organisation of work, &amp; the implications for VET in Australia</td>
<td>Simon Marginson, Centre for Study of Higher Education, The University of Melbourne</td>
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<tr>
<td>Increasing the participation &amp; completion rates of students with psychiatric disabilities in the VET sector</td>
<td>Pat McLean, Learning Skills Unit, The University of Melbourne</td>
</tr>
<tr>
<td>Law, policy and VET</td>
<td>Richard Mitchell, Cent of Employment &amp; Labour Relations, The University of Melbourne</td>
</tr>
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<td>Richard Mitchell,</td>
<td></td>
</tr>
<tr>
<td>Documenting capable organisations &amp; workplaces with implications for VET</td>
<td>Stewart Hase, Aust Capability Network, Southern Cross University</td>
</tr>
<tr>
<td>Towards accessibility of graphical user interfaces &amp; multi-media in computed communications for students of VET courses who are blind or vision-impaired</td>
<td>William Jolley, National Federation of Blind Citizens of Australia</td>
</tr>
<tr>
<td>A comparative analysis of the costs of workplace &amp; TAFE institute-based accredited training &amp; of student satisfaction</td>
<td>Helen Symmonds, Holmesglen Institute of TAFE</td>
</tr>
<tr>
<td>Moving through TAFE: Development of a model of student flow</td>
<td>John Foyster, NTMRC/CEET</td>
</tr>
<tr>
<td>Learning &amp; teaching in initial VET</td>
<td>Judy Byrne, NSW TAFE</td>
</tr>
<tr>
<td>Early school-leavers at risk: VET or unemployment</td>
<td>John McIntyre, Research Centre for VET, University of Technology, Sydney</td>
</tr>
<tr>
<td>Workplace mentoring &amp; guidance: Organising &amp; managing effective practice</td>
<td>Stephen Billett, Centre for Learning &amp; Work Research, Griffith University</td>
</tr>
<tr>
<td>Title</td>
<td>Researcher/Organisation</td>
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<tr>
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<tr>
<td>An economic evaluation of alternative methods of delivering electrical trade &amp; mechanical engineering trade apprenticeship training</td>
<td>Tom Murphy, Charles Sturt University</td>
</tr>
<tr>
<td>Career development through RPL &amp; assessment of competency in community-based workplaces</td>
<td>Jack Keating, Dept of Ind Educ, RMIT</td>
</tr>
<tr>
<td>VET in Western Australian schools</td>
<td>Robin Terry, Community Services, Health &amp; Education ITC</td>
</tr>
<tr>
<td>Teacher employment contracts &amp; educational outcomes</td>
<td>Ron Callus, ACIRRT, University of Sydney</td>
</tr>
<tr>
<td>The role of the child care workplace as a learning environment for the delivery of VET in Certificate III &amp; Diploma level courses: A new mode of training delivery at the child care workplace</td>
<td>Patricia Sebastian-Nickell, Victoria University of Technology</td>
</tr>
<tr>
<td>Analysis of the current training practices &amp; recommendations for future training needs for women in leadership &amp; management</td>
<td>Jennifer Nevard, South Metropolitan College of TAFE</td>
</tr>
<tr>
<td>How supply &amp; demand forces affect the VET market</td>
<td>John Foyster, NTMRC/CEET</td>
</tr>
<tr>
<td>Women in training for transitions: Enhancing VET for women’s business involvement</td>
<td>Norma Gilbert, Queensland University of Technology</td>
</tr>
<tr>
<td>Skills correction and accelerated learning in the workplace</td>
<td>Paul Baxter, TAFE Queensland</td>
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<tr>
<td>Impact of VET research</td>
<td>Chris Selby-Smith, Monash University</td>
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<td>Examination of the theoretical underpinning of assessment</td>
<td>Peter Ling, RMIT</td>
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<td>Needs of special groups</td>
<td>Bob Connell, University of Sydney</td>
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<td>Making a difference? How competency-based training has changed teaching &amp; learning</td>
<td>Erica Smith, Charles Sturt University</td>
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<td>Access and equity in VET</td>
<td>Stephen Lamb, ACER</td>
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<td>Numeracy at work</td>
<td>Helen Joyce, NSW AMES</td>
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<td>Documentation &amp; dissemination of the Child Care Assessment &amp; Bridging Project for Migrants</td>
<td>Paula Nadas, Ethnic Child Care Resource Unit Inc</td>
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<td>Documentation &amp; dissemination of a student trainee project at the Barclay Mowlem Skills Development Centre</td>
<td>Alan Marshall, Barclay Mowlem</td>
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<td>Documenting a pilot traineeship in the contract cleaning industry to facilitate entry-level training &amp; career pathways for cleaners</td>
<td>Steve Dorian, P&amp;O Berkeley Challenge</td>
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<td>Linking organisational change, learning opportunities &amp; quality improvements in the workplace</td>
<td>Simone Volet, Murdoch University</td>
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<td>VET in Australian schools</td>
<td>Richard Teese, The University of Melbourne</td>
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<td>An investigation of on- and off-job sites as learning environments</td>
<td>Roger Harris, Cent for Research in Education, Equity &amp; Work, University of South Australia</td>
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<td>Exploring partnerships &amp; practices in the delivery of VET courses in rural &amp; remote Aboriginal communities</td>
<td>Allan Arnott, Northern Territory University</td>
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<td>Specific &amp; generic numeracies of the workplace</td>
<td>Elizabeth Buckingham, Deakin University</td>
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<td>The economic costs &amp; benefits of the major initial VET schemes to employers, young persons &amp; the government</td>
<td>Thorsten Stromback, Curtin University</td>
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<td>Factors affecting learning in the workplace</td>
<td>Patricia Stewart, Box Hill Institute of TAFE</td>
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<td>Women in small business management in non-traditional industries</td>
<td>Nadeya Maystrenko, South Australian Training Development Group</td>
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<td>Paths to pathways: VET provision for educationally disadvantaged groups</td>
<td>Jenny Angwin, Deakin University</td>
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<td>Appropriateness of VET for Aboriginal &amp; non-Aboriginal offenders in the Victorian corrections system</td>
<td>Virginia Simmons, Kangan Institute of TAFE</td>
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<td>Framework &amp; best practice strategies for transition of people with disabilities from supported employment to independent competitive employment</td>
<td>June Sweet, South East Metropolitan College of TAFE</td>
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<td>Using a head-mounted video camera system &amp; a two-stage de-briefing procedure: A new approach to advanced skills training in industry</td>
<td>Jim McLennan, Swinburne University of Technology</td>
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<td>Study of vendor-based medical training</td>
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Appendix

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<td>Documentation &amp; dissemination of the Telstra/UTS/Deakin University Diploma of Adult Education</td>
<td>Franco Pagliarella, Telstra Australia Ltd</td>
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