

National Board of Employment, Education and Training

**Credit Transfer and the Recognition of
Prior Learning**

October 1994

Australian Government Publishing Service
Canberra

Foreword

As Chair of the National Board's Working Party on Credit Transfer, I am pleased to present the Board's advice on credit transfer and the recognition of prior learning. The report also includes the proceedings of the National Board's third Consultative Forum on Credit Transfer and Skill Recognition held in Melbourne on 25–26 May, 1994.

This is the last report of the Board as part of its three year Ministerial reference on monitoring developments in credit transfer and skill recognition. In July 1991, the then Minister for Employment, Education and Training, the Hon. John Dawkins MP, asked the National Board to

provide a national overview on skill recognition and credit transfer between school, higher education and TAFE sectors, and industry. This overview should comprehend professional and vocational education, skills formation and reskilling, as well as on- and off-the-job training provided by trainers and industry by TAFE, higher education institutions and private providers including industry.

The Board should report on progress annually for a period of three years, paying particular attention to ways in which barriers to credit transfer between education institutions, State training authorities, trade and professional organisations, and business and industry can be overcome.

The National Board has used a Consultative Forum to bring representatives of the various sectors involved in credit transfer to survey current developments and to promote discussion of important issues. Consultative Forums were held in Melbourne in 1992 and April 1993. The focus of the 1993 Forum was credit transfer from TAFE to university

The 1994 Consultative Forum concentrated on the implementation of credit transfer arrangements across the different sectors and the various issues surrounding the recognition of prior learning.

Part A of this report comprises the advice to the Minister of Employment, Education and Training prepared by the National Board's Working Party. The advice surveys the current status of credit transfer and recognition of prior learning arrangements. A number of key issues such as networking, exchange of information and costs have been identified by the Board as requiring attention.

The overall picture is one of increased development across sectors, in particular the vocational education sector. This part concludes with a possible future direction about the interrelationship between general and vocational education for the Board's further work on credit transfer.

Part B is a summary of the Forum's proceedings, in particular the key speeches given by representatives of different sectors and the case studies, which highlight some of the successful examples of credit transfer. The proceedings also contain a synthesis of the views and opinions expressed by Forum participants in the workshop sessions.

As in the previous report, the publication does not attempt to cover the full extent of the current situation in credit transfer and the recognition of prior learning. It aims, instead to provide a general overview of the key issues and major developments. The Board hopes it will facilitate discussion and point to areas which may be targeted for improvement.

Laurie Carmichael, Chair
National Board Working Party on Credit Transfer

October 1994

Contents

Foreword		v
Introduction		ix
Part A:	Advice on Credit Transfer and the Recognition of Prior Learning	1
Part B:	Proceedings of the 1994 Consultative Forum on Credit Transfer and Skill Recognition	19
	Welcome and Opening	33
	Mr Laurie Carmichael, Chair National Board Credit Transfer Working Party	
	Key Speeches	35
	Professor Gus Guthrie, Australian Vice-Chancellors' Committee Credit Transfer Working Party	35
	Dr Gregor Ramsey, National TAFE Chief Executives' Committee	47
	Mr Bob Shaw, Group Training and Development, BHP Steel	61
	Mr Jack Keating, Curriculum Corporation	67
	Case Studies	75
	Mr Michael Brearly, Regency Park College, Adelaide	75
	Associate Professor Ian Dickson, Deakin Australia	79
	Mr Kevin Lock, BHP Steel	85
	Ms Jill Hyland, Illawarra Senior College	91
	Mr Steve Hansen, University of Western Sydney	93
	Closing Remarks	109
	Mr Bob Shaw, BHP Steel	
Appendix 1	Issues Paper Credit Transfer Forum 1994	111
Appendix 2	Credit Transfer Principles: AVCC Guidelines on the Recognition of Prior Learning	121
Appendix 3	Consultative Forum on Credit Transfer and Skill Recognition—List of Workshop Sessions	125
Appendix 4	National Board Publications and Advices	127

Introduction

Ministerial Reference

The National Board of Employment, Education and Training is required by the Minister to provide, over a three year period (1992–1994), a national overview of developments in credit transfer and skill recognition between the school, higher education and TAFE sectors and industry. This is the third and final year of the Board's current reference.

During the course of its three year reference, the Board has monitored progress in credit transfer primarily through the mechanism of consultative forums. The National Board sees the consultative forum as providing a way of bringing together the various key stakeholders in credit transfer to provide an overview of current activities and to consider specific issues of importance.

The third annual report of the Board on credit transfer focuses on the main issues surrounding arrangements for the recognition of prior learning.

Issues From Second Annual Report

The National Board's 1993 advice¹ noted that the development of credit transfer arrangements at the state level was variable resulting in problems with national consistency.

Questions of uniformity and consistency remain in the forefront of issues concerning credit transfer.

A further question that has arisen since the 1993 Consultative Forum is whether existing credit transfer arrangements are effective, that is, the extent to which they are taken up by students, as opposed to the existence of policies on paper. Anecdotal evidence suggests that some credit transfer arrangements are not working because of their ad hoc nature and because they operate on a one-to-one basis rather than being universally applied.

¹ National Board of Employment, Education and Training, *Second Annual Report on Credit Transfer and Related Issues*, AGPS, Canberra, November 1993.

The Board recognises that there is a strong need for an evaluation of credit transfer arrangements to ascertain how well they are working and how they might be improved. More research work and data collection are needed in order to facilitate appropriate and effective systems of recognition.

The Board also believes there is a need for an appropriate mechanism to monitor trends and developments in credit transfer and the recognition of prior learning.

1994 Consultative Forum

In its second report (1993), the National Board noted the importance of promoting a nationally consistent approach for credit transfer and the recognition of prior learning. In particular, the Board saw a need to develop more effective arrangements for the recognition of prior learning. To this end, the Board organised the 1994 Consultative Forum with a focus on the recognition of prior learning.

The 1994 Forum highlighted the need for more information sharing and better communication regarding credit transfer and recognition of prior learning both between and within sectors. Also highlighted was the continuing need for the development of national policies and procedures while allowing for flexibility at the local level.

Part A:
Advice of the National Board on Credit
Transfer and the Recognition of Prior
Learning

Introduction

This advice identifies a number of key issues on the development and expansion of credit transfer and recognition of prior learning arrangements. It also surveys the current situation in a number of sectors with regard to credit transfer and the recognition of prior learning, and proposes a future direction for monitoring changes and developments as they occur.

Key issues

Considerable progress has been made in advancing credit transfer and recognition of prior learning arrangements between some sectors, for example, between TAFE and higher education. Since the Board's last report in late 1993 the level of awareness of, and interest in, this area has increased. However, the expansion of arrangements is being impeded by various factors, many of which were identified at the 1994 Forum (see Part B).

The Board considers that one of the most important points that should be addressed is the improvement of communication and trust between the sectors. Cooperation in the form of partnerships between providers will provide a vital basis for further development of credit transfer and recognition of prior learning. There are encouraging examples of this happening at the local level.

The Board believes that the difficulties associated with implementing the arrangements for credit transfer and the recognition of prior learning, such as the question of costs and resources, should not obscure the potential benefits to students and providers alike. Some of the practical problems of implementation will be overcome when there is an effective interchange of information through appropriate forums and when appropriate research, evaluation and data collection is undertaken.

A number of key issues in enhancing credit transfer and the recognition of prior learning have been identified by the Board as requiring attention.

There is a need to:

1. encourage networking—communication and discussion on developments in credit transfer and the recognition of prior learning needs to be facilitated:
 - between the states;
 - between sectors; and
 - at the local (eg institutional/industrial) level.
2. exchange of information (including data obtained from research projects) to gain a better understanding of credit transfer and the recognition of prior learning;
3. develop national policies and procedures—a unified but flexible approach to credit transfer and the recognition of prior learning arrangements will prevent fragmentation and confusion;
4. address cost issues—concern over resourcing and costs are major difficulties confronting organisations wishing to either implement or expand credit transfer and the recognition of prior learning arrangements;
5. clarify and standardise terminology—as noted in the 1993 advice, this is (and remains) an issue which needs to be addressed. Consistency in the usage of language will promote communication and reduce confusion between sectors, states and institutions;
6. establish a credit transfer/ recognition of prior learning agency—support is increasing for a national agency;
7. obtain greater leadership from the Commonwealth—practitioners perceive a need for a higher profile from the Commonwealth Government;
8. develop pathways and articulation arrangements—the relationship between different sectors will affect the spread of credit transfer and arrangements for the recognition of prior learning; and
9. encourage sectors to converge in their understanding of, and aims for, credit transfer and arrangements for the recognition of prior learning.

Credit Transfer in Practice

Higher Education

The Australian Vice-Chancellors' Committee (AVCC) Working Party on Credit Transfer and Recognition of Prior Learning, with the assistance of the Department of Employment, Education and Training (DEET), has been working since 1992 to establish a national system of credit transfer between universities and TAFE colleges/institutes.

In December 1993, the Australian Vice-Chancellors' Committee published *Credit Transfer Principles and Guidelines on Recognition of Prior Learning* (see Appendix 2). These principles aim to assist universities which have not yet developed credit transfer and recognition of prior learning arrangements, and help universities that have developed such arrangements to carry out periodic reviews of their effectiveness.

1.1 Credit Transfer: TAFE to University

The establishment of credit transfer arrangements for TAFE to University is well advanced. However, some people have expressed the view that a minimum number of places for credit transfer students from TAFE should be guaranteed. Statistical data on admissions with credit to universities are available for 1992 and 1993 (Table 1).

The data indicate that of those students who were admitted on the basis of post-secondary study and/or work experience, the proportion who were granted credit increased from 27% in 1992 to 40% in 1993. Possible reasons for this increase are:

- a general shift in the climate of opinion in universities towards the granting of credit;
- the introduction of AVCC pilots in a number of disciplines;
- local credit transfer schemes, including the Pathways Projects in Victoria; and
- improved statistical reporting.

Another factor which may need to be taken into account is the proportion of students undertaking second bachelor degrees.

Despite the improvement in the granting of credit, the proportion of those who received credit following admission on the basis of informal study/experience remained very low, only 14%. This compares with about one-third who received credit following admission on the basis of prior formal study.

All states and territories now have local credit transfer arrangements between universities and TAFE colleges and institutes. These arrangements are often formalised by a memorandum of understanding between the institutions. The strong local focus on curricula can allow the amount of credit granted to students to be increased beyond the minimum levels set out by the Australian Vice-Chancellors' Committee's guidelines. However, these schemes may sometimes not adequately assist students transferring interstate.

Twelve pilot schemes in particular fields are also being conducted by the Australian Vice-Chancellors' Committee on a national basis. The goal of the pilot schemes is to implement minimum levels of credit in these fields for identified courses within broader and more uniform credit transfer arrangements.

Table 1 1992 and 1993 Statistical Data on Admissions with Credit Transfer

	1992	1993
Total university admissions to undergraduate courses	148 234	150 698
Total students (not direct entrants from Year 12) admitted with post-secondary study and/or experience	53 959	61 251
Those admitted on the basis of formal study	39 420	42 013
Those admitted on the basis of previous informal study or experience	14 539 (9.8%)	19 238 (12.8%)
Percentage of total intake admitted with credit	9.6%	16.4%
Percentage of intake with post-secondary study and/or experience admitted with credit	26.6%	40.4%
Admitted with credit for prior formal study	9 940	13 144
Percentage of those admitted on the basis of formal study who received credit	25.2%	31.3%
Admitted with credit for prior informal study/experience	1 849	2 782
Percentage of those admitted on the basis of informal study who received credit	12.7%	14.5%

Source: data extracted from DEET returns on admission and credit transfer

1.2 Credit Transfer University to TAFE

This is an area which requires further investigation because the extent and nature of the movement of university students/graduates to TAFE is unknown.

There are three possible scenarios for the enrolment of university students or graduates in TAFE courses:

- university graduates enrolling in TAFE courses in the *same* field of study as their university qualification for job specific specialisation;
- university graduates enrolling in TAFE courses in a *completely unrelated* area for either:
 - a) work related or professional reasons (to acquire new skills); or
 - b) personal development or leisure reasons; and
- current or former university students with incomplete qualifications enrolling in TAFE courses.

The final report of Ballarat University College's TAFE Pathways Project contains research statistics using Victorian data which gives the percentage of TAFE commencers who had some higher education experience (see Table 2).

Table 2: Percentage of Victorian TAFE Commencers with Higher Education Experience

Course Type	1990 %N	1990 %C	1991 %N	1991 %C	1992 %N	1992 %C
<i>Assoc Dip</i>	10.3	8.0	12.1	19.2	9.7	7.1
<i>Ad Cert</i>	6.3	7.9	11.0	15.3	10.8	8.2
<i>Certificate</i>	3.8	5.2	5.5	10.1	5.1	7.0
<i>Other</i>	3.8	2.9	5.4	10.0	2.0	7.0

%N attempted but did not complete Higher Education

%C completed Higher Education

(NB The above table does not necessarily reflect movement between TAFE and university within the same field of study)

The figures in Table 2 indicate some movement from university to TAFE with variation according to subject area but the significance of this movement needs further evaluation.

In early to mid-1994 the National TAFE Chief Executives' Committee (NTCC) agreed to the appointment of a project officer to investigate the feasibility of creating university to TAFE credit transfer arrangements. The Committee applied to the Australian National Training Authority (ANTA) for funding for the project officer position. This has been approved and the National TAFE Chief Executives' Committee has agreed that TAFE in Queensland (TAFE TEQ) will manage the project. It is planned that a project officer will attempt to quantify the number of students that may be eligible for credit transfer enrolling in a TAFE course in the same area as their university study.

Data extracted by the Australian Vice-Chancellors' Committee's Credit Transfer Working Party² indicate that 12 700 vocational educational and training students moved to the University sector, and 10 400 university students moved to vocational educational and training. The National TAFE Chief Executives' Committee project should assist in clarifying the situation.

2. Credit Transfer: Schools to TAFE

The existence of credit transfer arrangements between schools and TAFE varies considerably between the different states and territories. Anecdotal evidence suggests that the arrangements which do exist have not been taken up to any great extent by secondary students. However in Victoria, where such arrangements have been place since 1991, there is evidence from the Office of Training and Further Education that students are taking up these options on an increasing basis.

In Australia, there are currently three different types of arrangements:

2.1 Credit Transfer from Schools to TAFE modules

This is a form of advanced standing which is only recognised when a student actually enrolls in a TAFE course. Arrangements for this form of credit transfer exist in New South Wales and Victoria but not in Queensland (where it is considered 'double-dipping') and Western Australia. In Queensland the emphasis is on training curriculum—many students take one or more training modules in Year 11 and/or Year 12. Western Australia is an example where students are allowed to credit a large number of TAFE subjects towards secondary graduation.

² Australian Bureau of Statistics, 1992/93, *Transition from Education to Work*; May 1992–May 1993 (No. 6227.0).

One-way credit transfer in large systems has limitations, for example, individual TAFE colleges are not required to grant credit for particular modules if it is felt that the subject matter has not been adequately studied in secondary school.

2.2 Two-way Credit Transfer

In this arrangement, TAFE modules can also provide credit for Year 12. In South Australia and in the Northern Territory some TAFE courses can be accredited towards the South Australian Certificate of Education and the South Australian Certificate of Education (Northern Territory).

2.3 Dual Recognition

Victoria

In Victoria broader arrangements between schools and TAFE based on whole courses have been instituted. Agreement has been reached on dual recognition of TAFE subjects within the Victorian Certificate of Education. As a result, successful completion of a dual recognition program (comprising TAFE studies and traditional Victorian Certificate of Education studies) provides students with both a Victorian Certificate of Education and a TAFE qualification simultaneously. For each dual recognition program, clusters of TAFE subjects have been accredited as Victorian Certificate of Education studies. These are often referred to as dual recognition units.

The dual recognition units, taken as part of a dual recognition program, can be counted in lieu of a fifth and/or sixth study for the Tertiary Entrance Rank. The a dual recognition units will be recognised within the Tertiary Entrance Rank by awarding an increment of 10% of the average global score generated in the student's 'primary four' Victorian Certificate of Education studies.

Dual recognition programs have been endorsed by the Board of Studies in the Certificate of Basic Electronics, the Certificate in Office and Secretarial Studies and the Certificate in Hospitality Studies. Additional dual recognition programs are being developed in a range of industry areas.

New South Wales

In New South Wales arrangements exist for credit transfer from the Higher School Certificate to TAFE and from TAFE to the Higher School Certificate.

The Joint Secondary Schools TAFE (JSST) courses in New South Wales (which have been in existence since 1985) allow secondary students to complete courses which:

...are viewed favourably by most students, teachers, principals and Departmental staff; dual accreditation with HSC and TAFE with credit towards both types of course, acquisition of work-related knowledge and skills, and experience in an adult learning environment are seen as advantages....Students who successfully complete a JSST course and subsequently enrol in a TAFE course gain advanced standing if that subject or an equivalent subject is included in that course. This means that the student does not have to undertake that subject again.³

In 1993 the New South Wales government released a policy which provided for four pathways for students undertaking post-compulsory education. One of the provisions of the policy is increased emphasis on credit transfer between school and TAFE and provision for the recognition of prior learning.

3. Credit Transfer Data

There is no national data available on the extent of credit transfer arrangements between the school and TAFE sectors. Data that does exist is held by the states and is not easily accessed by the Commonwealth. The Board believes that there is a need to undertake an evaluation of credit transfer arrangements between schools and TAFE.

4. Pathways

The Schools Council is currently undertaking a project, pathways in the post-compulsory years.

³ Dr Jean Russell, *Post-compulsory Education and Training Arrangements in the Australian States and Territories*, National Board of Employment, Education and Training, AGPS, Canberra, December 1993.

The Council has produced a discussion paper which notes that in Australia:

Most school systems and their award bodies have not attempted to develop models of post-compulsory education and training which are based upon defined pathways...our education systems have not yet succeeded in constructing senior secondary pathways which are directly linked to post-school options.⁴

A variety of pathways are required to meet the differing needs of secondary students. In particular, programs which involve school, industry, and training providers need to be developed. The development of pathways will be influenced by a number of factors, including the implementation of the Australian Vocational Certificate Training System (AVCTS) and other accreditation arrangements between schools, TAFE and universities.

Recommendation 1:

That the Commonwealth:

- (a) fund a data collection project on the extent of credit transfer arrangements between schools and TAFE.
- (b) in conjunction with the relevant state authorities, undertake an evaluation of current dual recognition procedures in Victoria and New South Wales to identify major issues and also to gauge how the respective programs are functioning.

Recommendation 2:

The National Board recommends that the development of effective post-school pathways, with multiple entry and exit points, continue to receive support from the Commonwealth, from state governments and education and training providers.

⁴ Schools Council, *The Role of Schools in the Vocational Preparation of Australia's Senior Secondary Students*, National Board of Employment, Education and Training, AGPS, Canberra, April 1994.

Recognition of Prior Learning

The recognition of learning from uncredentialed training, work and/or life experience is assuming a higher profile among education and training providers. The two main issues identified in the 1993 Consultative Forum, assessment processes and costs, remain dominant concerns.

1. Universities

In 1992 the AVCC Working Party commissioned two research reports which have now been published as part of DEET's Higher Education Division's Occasional Paper Series *Recognition of Prior Learning in Australian Universities*, AGPS, Canberra, 1994.⁵ Universities have made it easier to acquire credit for prior study in another university or for study at TAFE. The recognition of informal study or experience is more difficult for the higher education sector, partly for conceptual reasons and partly for cost reasons.

1.1 Costs

The current focus of the universities is clearly on the question of costs and this was reflected in the address to the 1994 Consultative Forum by Professor Gus Guthrie, Chair of the AVCC Working Party on Credit Transfer and Recognition of Prior Learning. The sector has yet to address the following questions:

How can costs be recovered if fees cannot be charged?

What will be the impact on university funding if the number of effective full-time students is reduced through recognition of prior learning arrangements?

What are the likely costs of the staff time, both administrative and academic, involved in the recognition of prior learning process?

Under the Attorney-General's interpretation of the *Higher Education Funding Act (1988)*, universities may not legally charge fees for the assessment of prior learning. As indicated at the 1994 Consultative Forum, these legislative restrictions are limiting the extension of recognition of prior learning arrangements. Unless a mechanism for cost recovery is found, there will be only limited opportunities to expand the recognition of prior learning in the higher education system and, indeed, some contraction may take place.

⁵ John Topley & Graham Clinch, *Recognition by Universities of Education and Training offered by Industry and Private Providers*, John Topley and Associates, 1992.
Ruth Cohen, Rick Flowers & Rod McDonald, Hank Schaafsma, *Learning from Experience Counts: recognition of prior learning in Australian universities*, UTS, 1993.

Options canvassed at the 1994 Forum included:

- specific ongoing funding from the Commonwealth for the assessment of prior learning;
- recovery of assessment costs through the Higher Education Contribution Scheme which would necessitate legislative changes; and the establishment of a fee-charging national credit bank/agency to carry out recognition of prior learning assessment which would be acceptable to universities.

The question of costs, while of particular concern to universities, is also a major issue to other education and training providers.

Recommendation 3:

The National Board recommends a study into the expenditure patterns and structural arrangements for developing and implementing recognition of prior learning arrangements. This study should address the issue of costs and resources for *all* sectors despite the different methodologies used. In particular, attention needs to be paid to:

(a) cost

- what fees can or should be charged;
- how costs/fees can be minimised and recovered;
- alternatives to charging fees (for example, in the Higher Education sector consideration be given to modify the Higher Education Contribution Scheme legislation in order to provide flexibility to charge for recognition of prior learning services); and
- level of anticipated uptake of the recognition of prior learning arrangements and therefore, future cash flows.

(b) infrastructure development

- cost of developing assessment infrastructure
- development of possible models for recognition of prior learning

1.2 Credit Bank/Agency

The National Tertiary Education Union (NTEU) in its Federal Budget submission for 1994–95 supported the establishment of a credit bank and recommended investigation of the costs and operation of the United Kingdom Credit Accumulation and Transfer Scheme (CATS). Operating since 1986, CATS is a national scheme restricted to higher and further education institutions which provides a computerised database of information on credit transfer systems and opportunities.

The National Tertiary Education Union envisages that the main direction of credit transfer will be from TAFE to University but there will also be a need for credit transfer arrangements from industry-based training to university, university to university and university to TAFE credit transfer. The union suggests that state and territory student admission centres should provide the technical support for the operation of a credit transfer agency.

The Board believes that the operation of a credit transfer agency should be cross-sectoral in its approach and not restricted to a single educational sector.

The operation of the British Columbia Educational Credit Bank in Canada is an example which could be investigated. Since 1989 the Bank has allowed the residents of British Columbia to complete an Open College certificate or diploma or an Open University degree by consolidating transferable course credits earned from other accredited educational institutions. The Credit Bank also makes it possible for students to gain credit for 'non-formal learning', such as private study, workshops, industry-based training, or on-the-job experience. Non-formal learning may be credited towards the awards of universities/colleges, or an Open College or Open University degree, or may be submitted for recognition by an employer. However, it should be noted that the British Columbia model operates only within that province.

The UK Credit Accumulation and Transfer Scheme has recently been reviewed by David Robertson⁶. A key recommendation of the report was that education institutions be invited to subscribe to a national credit framework 'based on a structure of levels of attainment, a common credit agency, agreed interim awards and a shared approach to definitions of achievement'.

The Australian Vice-Chancellors' Committee has agreed to approach the Department of Employment, Education and Training for funding of a feasibility study (as proposed by the National Tertiary Education Union) on the possible establishment of a 'national credit transfer agency' (which would incorporate recognition of prior learning).

The feasibility study would consider the following areas in which a 'national credit transfer agency' might assist universities:

- development of a possible national database, systematising information on credit available through the AVCC, state and territory, and individual university credit transfer schemes;
- provision of advice and guidance to individual students on credit available for their prior credentialled or uncredentialled learning;

⁶ David Robertson, *Choosing to Change, Extending Access, Choice and Mobility in Higher Education*, Higher Education Quality Council, UK, 1994.

- examination of ways in which individuals seeking credit on the basis of prior uncredentialed learning (recognition of prior learning) might be assessed, including an estimate of the cost of these assessment methods; and
- development of a structure under which the proposed agency could act as a broker between applicants and universities on credit transfer and recognition of prior learning matters.

Recommendation 4:

The National Board recommends that the:

- (a) Commonwealth Government support a feasibility study by the Australian Vice-Chancellors' Committee Credit Transfer Working Party, with the involvement of the National Tertiary Education Union, into the possible operation of a credit transfer agency for the higher education sector.
- (b) feasibility study be extended into other sectors at the conclusion of this study.

Recommendation 5:

The National Board recommends that a further specific study on fee levels could follow on from the proposed feasibility study into the establishment of a credit bank or agency.

2. Vocational Education and Training Sector

There is increasing interest and activity in the vocational education and training sector in assessment, including recognition of prior learning. Many industries, as they progress through the competency standards and curriculum development phases underpinning the new competency-based arrangements, are increasingly turning their attention to assessment issues. In particular, integrated on and off-the-job training highlights the need for practical assessment systems. The recognition of prior learning is essentially seen as a subset of assessment, as the aims and skills involved are the same, although the recognition of prior learning may involve differing administrative arrangements.

There is a growing view within industry and in parts of the vocational education and training sector that the term recognition of current competence (RCC) is a preferred description of the accumulated experience, skills and knowledge that a person has acquired and that are to be assessed for the purpose of gaining credit towards a qualification.

2.1 Pathways

The development of competency-based assessment in accordance with principles set out under the National Framework for the Recognition of Training (NFROT) is a key feature in the vocational education and training sector. Future developments under the National Framework will see a range of accredited providers issuing qualifications. These qualifications will be linked to other sectors through the National Qualifications Framework which will apply across all sectors from 1 January 1995. The development of new pathways involving these providers will be affected by the impact of credit transfer, competency-based assessment, and recognition of prior learning.

2.2 Networking and Linkages

In the Board's 1993 advice on Credit Transfer, the need for industry networking and for the development of industry linkages to credit transfer and skills recognition was recognised. The Board believes that this area still requires attention and that there should be more focus on the development of such linkages. More case study research is needed, as is the creation of networks, especially at the senior management level.

The Commonwealth Government, through the Vocational Education and Training Division of the Department of Employment, Education and Training (DEET), is promoting the development of assessment infrastructure and the dissemination of assessment information to industry. Current foci are the:

- training of assessors;
- publication of studies and practical guides such as, *The Assessment—Practical Guide*; *The Assessment's Technical Manual* and *Assessment System Design*; and
- development of manuals to assist in training under the National Training Wage arrangements.

A number of proposals from industry for projects to assist in the development of assessment infrastructure have been funded by the Department of Employment, Education and Training.

3. Additional Support for the Development of Recognition of Prior Learning

While various assessment projects have received support in the vocational education and training sector, the Board has identified other cross-sectoral needs in the field of recognition of prior learning that require assistance.

Recommendation 6:

The National Board recommends that the Ministerial Council on Education, Training and Youth Affairs, in conjunction with the Department of Employment Education and Training, examine the means of providing grants:

- (a) to support the production and widespread dissemination of models and case studies on credit transfer arrangements that are already operating successfully between the sectors, including comparisons of curriculum and course structure; and
- (b) for projects on recognition of prior learning. Such projects would include the training of staff, development of assessment processes, cost effectiveness of recognition of prior learning or the continuation of pilot recognition of prior learning projects.

2.3 Other Developments

The development of assessment in the vocational education and training sector is also being assisted by research undertaken by other bodies such as the Assessment Centre for Vocational Education (New South Wales). The Centre, funded by the New South Wales government, was recently established with staff seconded from the University of Technology, Sydney.

The Centre aims to contribute to 'the quality of vocational education and training assessment in New South Wales, and to the formation of national policies on competency-based assessment'. Another research body is the Recognition and Assessment Centre at Broadmeadows TAFE which is funded by the Office of Technical and Further Education in Victoria. The Centre has been operating for approximately three years and is the Victorian state body dealing with recognition of prior learning matters.

Summary—Future Directions

The National Board notes the findings from the study prepared by Simon Marginson⁷ with considerable interest. The Board believes that the relationship between general and vocational education has important repercussions for the area of credit transfer and recognition of prior learning.

Mr Marginson reports on studies of graduates from Victorian universities which indicate that a large number proceed on to vocational courses after they have completed their undergraduate degrees. Some generalist graduates move directly into vocational courses such as computing, accounting or business studies, while others enter employment and then undertake a specific vocational course at a later time.

His work indicates that the purpose for which graduates complete vocational courses is directly related to the improvement of their employment and career prospects. While the movement of generalist graduates to vocational courses within universities is known, there are also indications of movement of graduates from universities to TAFE to undertake vocational courses. Some employers prefer to employ graduates who have completed a generalist course (conferring generic skills) as well as a vocationally specific course. However, the trend of generalist graduates to follow their courses with vocational training also raises the question of whether generalist courses offer appropriate employment-related skills.

The report claims that many academics are conscious of generic skills but tend to focus on academic versions of these skills such as written communication over oral communication and the use of particular types of written communication, for example, essays and tutorial papers. According to the study, these academic generic skills could be improved by adding employment-related generic skills to generalist curricula.

Mr Marginson argues that there is a need to focus on the transfer of generic academic skills to the workplace, that is, increasing flexibility so that these skills can be used in new contexts. A key strategic skill that needs to be developed in particular is 'learning-to-learn' in the workplace. Team-work skills also need to be factored into university courses.

⁷ Simon Marginson, *Arts, Science and Work: work-related skills and the generalist courses in higher education*, Centre for the Study of Higher Education, University of Melbourne, AGPS, Canberra, 1993.

The Board believes that the contribution of generalist courses in higher education to emerging vocational requirements needs to be examined. Such an examination would include the role of these courses as preparatory to, and underpinning, advanced vocational education. The question of generalist education also needs to be examined in relation to TAFE and private providers.

Recommendation 7:

The National Board recommends to the Minister for Employment, Education and Training that the Board be requested to examine the relationship between general education and vocational education in terms of credit transfer and the recognition of prior learning in post-school education and training. This report could be provided by the end of 1995.

**Part B:
Proceedings of the 1994
Consultative Forum on Credit Transfer
and Skill Recognition**

**25–26 May 1994
Melbourne**

Introduction

The 1994 Consultative Forum was held on 25 and 26 May at the Radisson President Hotel in Melbourne. The Forum's main purpose was to focus attention on the current status of, and emerging trends in, credit transfer and the recognition of prior learning. Particular emphasis was given to issues involving the recognition of prior learning.

A total of 202 delegates attended, with participation from the four sectors of higher education, TAFE, schools and industry. To assist the cross-sectoral focus of the Forum there were four key speakers (one from each sector) and support was provided by the Australian Vice-Chancellors' Committee (AVCC) and the National TAFE Chief Executives' Committee (NTCC).

Four case studies and eleven workshop topics were used to examine a range of issues dealing with credit transfer and the recognition of prior learning.

The Forum canvassed a number of general and specific issues, some of which were foreshadowed in the Issues Paper in Appendix 1.

Summary Points

The important points identified by Forum participants are summarised below.

Costs

- Recognition of prior learning is an expensive exercise with limited scope for cutting costs.
- Costs are of mounting concern and funding needs to be addressed.
- For institutions, costs borne by institutions should be shared between students and the taxpayer.

Assessment Issues

- There is a need for the development and implementation of consistent credit transfer and recognition of prior learning policies, and for specified standards for assessment.
- Clarity is needed in the usage of credit transfer and recognition of prior learning terminology.

Quality Assurance

- The risk management approach needs to be broadened as all assessment for the recognition of prior learning can be high risk.
- Learning outcomes or competencies should be clearly defined, as dubious assessments can undermine the credibility of the recognition of prior learning.
- There is a need for consistency of outcomes given similar circumstances.

Curriculum

The recognition of prior learning can only be effective if it is based on learning outcomes which encompass but may also go beyond competency standards. Learning outcomes (or the competencies required) will clarify the purpose for which credit transfer or the recognition of prior learning is undertaken.

Access and Equity

- The empowerment of individuals is important.
- The inclusive aspect of the recognition of prior learning (reflected in, for example, marketing, systems of assessment, flexible delivery) is vital.
- Industrial relations issues, as well as attitudinal issues, are impeding the widespread implementation of the recognition of prior learning.

Partnerships and Pathways

- The development of partnerships across all sectors is essential in seeking solutions to problems such as development costs.
- Partnerships would be assisted by the sharing of information and knowledge of best practice examples.
- Education and training pathways need to be relevant to the individual and have established linkages between sectors.

Data and Research

- More research on the practice, take-up and trends regarding credit transfer and the recognition of prior learning is urgently required.

General Issues

Costs and Resources

The costs involved with the recognition of prior learning and means of cost recovery are significant issues. There are a range of costs to institutions and workplaces. These include:

- design and development costs;
- materials and equipment costs;
- training of staff/accrediting of assessors;
- administrative costs;
- marketing materials and expenses;
- day-to-day running costs; and
- individual costs for applicant.

Although savings can be realised from implementing arrangements for the recognition of prior learning, the extent of these savings is unknown. Resources such as staff time will not have to be allocated to re-teaching subject matter already known by students. However, this is offset by the range of costs identified above. Another unknown factor is the extent to which sectors may be able to reduce costs through sharing resources. For example, a representative from the adult and community education sector mentioned cost reduction through sharing assessment packages.

A consequence of credit transfer and recognition of prior learning may be to increase overall output from the education system and to expand opportunities for identified groups. While existing resources will be more effectively used, there will also be costs associated with this increased throughput.

Given the financial constraints faced by many institutions, the question of cost recovery and cost minimisation is very important. The point was raised at the Forum that the variable costs (for different courses, fields of study) of the recognition of prior learning outweighed the fixed costs and therefore there were few savings to be had through the operation of economies of scale. Cost recovery through the charging of fees is an option frequently mentioned by institutions as the most feasible choice in view of limited resources. There is also the potential for efficiency gains through self-assessment.

The Board's 1993 advice recommended that a proportion of the recognition of prior learning assessment costs be built into institutions' general operating provisions and that a proportion of the costs be borne by the applicant. The higher education sector is concerned that, unless some way is found of recovering costs, then arrangements for the recognition of prior learning within the sector will not be embraced. The TAFE sector is also concerned that the level of fees charged to students can vary across the states and territories and even within states and territories. Some institutions, for example, charge the full fee for a course even when the recognition of prior learning was granted for some of the subjects or modules.

Apart from the costs of implementing credit transfer and recognition of prior learning, there are a variety of other, indirect, costs for schools at a time of decreasing financial resources.

Business also has particular difficulties in regard to credit transfer and the recognition of prior learning that need to be targeted. There is a difference in the capacity between large and small-medium business to absorb the costs relating to the recognition of prior learning. Such costs include on-the-job assessment and the development of appropriate assessment methods.

The Board recommended in its 1993 advice that the Department of Employment, Education and Training (DEET), in association with the National Board and the appropriate committee of the Ministerial Council responsible for employment, education and training undertake a study of cash flows, cost patterns and structural arrangements required for establishing and operating the recognition of prior learning. The Minister for Employment, Education and Training has supported the identification of best practice examples of recognition of prior learning arrangements. A study has been completed on the vocational education and training sector.

Credit Bank or Agency

Since 1993, support has increased for the concept of a national credit transfer bank and the recognition of prior learning agency. The National Tertiary Education Union included, in its 1994 Federal Budget Submission a proposal for a feasibility study to investigate the possible establishment of a credit transfer bank to 'facilitate access and diminish what are currently perceived to be institutional idiosyncrasies in the granting of credit'. The union recommended that the Department of Employment, Education and Training be authorised to conduct the feasibility study. The increased interest in the possibly of establishing such an agency stems from the fact that providers are finding it difficult to cope with the volume and the complexity of the recognition of prior learning enquiries.

An external body with expertise in recognition of prior learning assessment could handle enquiries, advise providers on appropriate levels of credit, and charge fees for service.

Assessment information could be held in a data base and made available when needed by providers. A credit bank would assist in the:

- reduction of costs;
- consistency of assessment outcomes;
- storage of data;
- dissemination of information; and
- raising the awareness of the recognition of prior learning.

Assessment Issues

Assessment issues are of key importance in developing recognition of prior learning arrangements. In particular, the type of methodology used will influence the quality of the outcomes that can be obtained.

In the Forum, discussion on assessment centred chiefly on methodology and quality assurance. Key points that were raised included:

- the need for verification of evidence;
- the importance of benchmarking;
- the need for information sharing;
- the setting of criteria or standards against which assessment can be made; and
- consistency in recording the results of the recognition of prior learning assessment.

Points of possible contention were:

- the number of people needed to undertake assessment—one person, an assessor and a subject expert or a team of people?
- the value of self-assessment—can it work?
- who should be trained as assessors?
- what are the limits to credit?

In general, assessment of the recognition of prior learning needs to be balanced and to use a range of methods and types of evidence (the Deakin Australia and Broadmeadows models are examples of successful models of assessment)⁸. In addition, there is an important distinction between the recognition of prior learning assessment undertaken in the workplace (for reasons related to employment) and the recognition of prior learning assessment undertaken in an institutional setting (for the purpose of proceeding to further study towards a qualification). The implementation of national curriculum, reflecting competency standards, will accelerate credit transfer and the recognition of prior learning arrangements in the vocational education sector.

Quality Assurance

The aim of quality assurance is fair, valid and reliable assessment and useful and consistent *outcomes* given similar inputs. Quality assurance is critical because of the risk factors associated with credit transfer and the recognition of prior learning and because of the potentially large effect of the recognition of prior learning on students, courses, institutions and providers.

Participants at the Forum considered there is a need to:

- establish benchmarks for assessment purposes but provide flexibility at the same time;
- develop the skills of assessors;
- train staff in regard to the recognition of prior learning; and
- seek continuous improvement in standards.

The risk management model as proposed in the Vocational Education, Employment and Training Advisory Committee's 1993 report, *Arrangements for the Recognition of Prior Learning*, was examined and discussed in the workshops on Quality Assurance.

Some delegates considered that the model could be expanded and improved. Several points were raised regarding the model. In particular it:

- needs to look at outcomes not just the process of assessment;
- should have other risk factors included;
- does not explore methods of assessment;
- is unclear as to who determines risk;
- is appropriate for educational institutions but not industry;

⁸ See case study 'Ford Motor Company of Australia Ltd' in *Assessment System Design*, 1994.

- does not necessarily establish competence; and
- should be modified so the context in which assessment is undertaken is taken into account.

Risk management has an important role to play to assist in quality assurance. Forum participants believed that the development of general principles regarding quality assurance were necessary and that agreed standards or benchmarks need to be set.

The development of quality assurance standards could be undertaken by a national credit bank/the recognition of prior learning agency. Other essential components for quality assurance are:

- well-trained facilitators;
- a flexible methodology for recognition of prior learning; and
- ongoing evaluation of the recognition of prior learning processes.

A focus on quality assurance, along with greater research into and evaluation of current practices, will be important in facilitating credit transfer and arrangements for the recognition of prior learning.

Curriculum Design and Delivery of Courses

Credit transfer and arrangements for the recognition of prior learning have important implications for the design and delivery of courses. The Forum considered that this area needed further examination. Several major issues were identified. Among these are:

(i) Modularisation of Courses

In order to increase flexibility of design and delivery (and adaptability of courses to changing economic circumstances), there is strong support for course content to be changed to a modular format. However, there is a danger that the division of curriculum into small modules will fragment learning and assessment. There is a need for a balance between compartmentalising courses and maintaining their integrity and internal cohesion.

(ii) Learning Outcomes

Broadly-based curriculum with defined learning outcomes will assist the process for the recognition of prior learning, especially where competency-based assessment has not been incorporated into the curriculum. These 'learning outcomes' should be able to be consistently interpreted by a wide range of people.

(iii) Key Competencies

These should be integrated into the curriculum (beginning in secondary school). However, some delegates perceived a problem with the definition of the three levels of the Key Competencies. The development of generic competencies received strong support. At the Forum it was noted that university courses often provide a convergence of specific technical skills and generic competencies.

(iv) Focus of Curriculum

A general feeling was also expressed that the primary emphasis of curriculum should be the needs of clients.

(v) Access and Equity

Credit transfer and arrangements for the recognition of prior learning have the capacity to increase access to educational opportunities both to identified equity groups and to client groups generally. However, the costs of the recognition of prior learning (through fees) may dissuade potential users and restrict the number of people who could benefit from the expansion of such arrangements. Information and advice about credit transfer and the recognition of prior learning arrangements must be freely available to maximise the benefit to potential users. Various groups (students, teachers, administrators, community groups, education and training providers and industry) should be consulted in the development of credit transfer and the recognition of prior learning arrangements .

In the 1994 Forum, specific access and equity issues centred around three main areas. Firstly, sufficient access should be ensured for all students to the recognition of prior learning and credit transfer arrangements—these include groups such as people employed by business who are unable to get day release.

Second, specific groups such as women need to be targeted. Equity groups have particular problems in accessing conventionally structured courses. Credit transfer and recognition of prior learning arrangements, if flexibly constituted, offer an opportunity to expand educational opportunities to women, Aboriginal and Torres Strait Islander peoples, people with disabilities and people from remote communities.

Third, special attention needs to be paid to certain groups such as small training providers, small-medium businesses and community-based organisations which do not have the capacity to resource the recognition of prior learning. To make the recognition of prior learning both effective and equitable, it is necessary to take measures which include the full range of education and training providers, not merely larger educational institutions and companies.

Specific Issues

During the course of the Forum a number of specific areas of concern emerged. Some specific issues were:

1. Rate of Change

One of the main themes of the Forum was that the face of credit transfer and the recognition of prior learning in Australia is changing rapidly and that the pace of change has accelerated since the last Forum was held in 1993. Despite a lack of information and of uniform guidelines, the various sectors have implemented a range of schemes. Considerable work is needed to increase communication both within and between the sectors, as well as to facilitate the creation of effective pathways and partnership arrangements. Many people are now looking for a more proactive role from the Commonwealth regarding the future direction of credit transfer and the recognition of prior learning. Particular concerns involve the sharing of information and the development of national policies, guidelines and procedures.

2. Use of Terminology

The problem of consistent terminology was raised. Two particular issues stood out:

2.1 Meaning of ‘Credit Transfer’

The meaning of credit transfer has altered over time. Initially it was understood to be the granting of advanced standing in a course based on the recognition of formal or credentialled learning undertaken at another educational institution. Exemption from undertaking *part* of a course was the aim of gaining advanced standing. Credit transfer is now understood by some people to include the recognition of not only formal prior training but also skills already held or informal experience. In this sense, the use of the term credit transfer overlaps with the concept of the recognition of prior learning.

2.2 Difference Between ‘Recognition of Prior Learning’ and ‘Recognition of Current Competence’.

The term recognition of current competence (RCC) has gained currency in the vocational education and training and industry sectors in New South Wales. There was general agreement in the Forum that recognition of current competence and the recognition of prior learning are the same thing but emphasise different aspects of the process of recognition. The recognition of prior learning can be used as a general umbrella term applying to both recognition of formal or credentialled prior learning and, at least in the industry sector, recognition of current competence. The problem is that the phrase ‘recognition of prior learning’ suggests the past tense and gives no indication that people are currently able to use or apply what they have learnt. The university sector, in particular, indicated that it is primarily interested in what is *learnt* from prior experience. The industry sector’s main concern is what a person can *actually do* as the result of their prior learning and experience.

2.3 Information Sharing

A common feeling among delegates to the Forum related to a lack of knowledge of what was occurring in other sectors, in other regions or states, or nationally. A number of delegates expressed support for a national clearing house of information. Others were concerned at the need to sufficiently publicise the recognition of prior learning and to develop guidelines and procedures.

There were four major options that were identified as possible activities for a central credit transfer agency:

- (i) credit bank—a repository of data regarding credit given for individuals and/or courses;
- (ii) an agency for the recognition of prior learning—this agency could develop national guidelines, policies and procedures and possibly conduct assessments on behalf of institutions;
- (iii) information clearing house—a body which disseminates information about credit transfer and the recognition of prior learning and assists networking in the form of conferences, workshops, newsletters;
- (iv) research—research into and evaluation of credit transfer and recognition of prior learning arrangements including case studies, evaluations and reports.

Some delegates at the Forum favoured the establishment of one or more agencies to manage the above functions.

2.4 Need for Leadership

The Forum generally supported the need for leadership in promoting the recognition of prior learning from not only the Commonwealth Government but also from senior management in educational organisations and in industry. Agreement was needed at the macro or national level on frameworks for the recognition of prior learning which on the one hand, would allow flexibility and take into account the 'cultural differences' between sectors, but on the other, ensured consistency, reliability and quality in assessment outcomes.

The National Framework for the Recognition of Training (NFROT) offers pathways to experienced individuals to gain national qualifications in the vocational education sector through the process of the recognition of prior learning. However, while the Commonwealth has offered significant support for credit transfer and recognition of prior learning, further facilitation and coordination of such arrangements is necessary. As identified by the report, *Assessment Design System*, there is a cluster of priorities underlying the system that need to be examined. Practical aspects of the implementation of credit transfer and arrangements for the recognition of prior learning such as recovery of costs need to be addressed in the short-medium term.

2.5 Funding

The issue of funding to assist the implementation of recognition of prior learning was raised at the Forum. Delegates expressed the view that funds were necessary to help organisations to:

- develop assessment procedures;
- train assessors;
- design new curricula taking credit transfer and recognition of prior learning into account; and
- provide staff training in the recognition of prior learning.

These establishment costs could be covered by special funding. Ongoing costs are, however, another matter. One of the most critical issues is the amount of staff time spent on assessment tasks, especially if assessment processes are undertaken on a regular basis. If external funding was not provided or costs could not be recovered, then the budgetary constraints experienced by many organisations would be a major obstacle to the expansion of arrangements for the recognition of prior learning.

In particular, the training and professional development of staff was raised at the Forum as important areas requiring attention. Training generally, and the involvement of professional associations, will assist the understanding of, and support for, the implementation of credit transfer and recognition of prior learning arrangements in the community. The cost of funding special projects could be offset from future revenue from fees or from identified cost savings.

Welcome and Opening

Mr Laurie Carmichael
Chair, Employment and Skills Formation Council
Chair, National Board Credit Transfer Working Party

On behalf of the National Board of Employment, Education and Training and its Credit Transfer Working Party, I extend a welcome to you to this, the third Consultative Forum.

The first time we had a fairly modest Forum. On this occasion we had planned for a similar number to that of last year, which was about 90. However, we had to close the books with more than 200 registered to attend.

The trend of our consultations reflects a growing understanding of the importance and significance of the issues involved. When the idea was first given emphasis some five years ago, consternation and apprehension and I suppose if one listed the positives and negatives, the positives would have been about ten percent and the list of concerns would have been about ninety percent.

However, the debate has clarified a great deal. Many people have come to understand the issues better and, that as the world of work changes, so does society at large. New requirements have emerged and it has become clearer that we do not seek a reduction of the more socially-oriented aspects of learning but that there is a real convergence to be understood and accommodated.

In preparation for this Forum we have sought to concentrate upon matters relating to the recognition of prior learning. The Forum is structured so that it can be approached from a number of perspectives covering the schools, higher education, TAFE, and business sectors. We have also sought to have an audience and participation in the workshops from those perspectives. On the basis of registration from this Forum, we can say that we have succeeded and that our workshops will, as a consequence, be especially rewarding and productive.

Whilst education now faces the task of assessment for the recognition of prior learning, employers have had to do this for 300 years when hiring their workforce. They have to estimate what people know and can do, apart from any academic qualifications they hold.

Late last year, the Counsellor of the Employment and Skills Formation Council visited Sweden. He reported that there the principal employer organisation rates the assessment and selection of people as the number one issue.

As a background to our Forum the recent White Paper on employment, 'Working Nation', clearly shows that the Commonwealth Government has put education and training right at the top of the national agenda.

From a national perspective, it can be said that the issues surrounding credit transfer are beginning to be faced. Nevertheless there is a lot more to be done if we are to be able to obtain the maximum benefit from the resources and efforts put into education. Asking people to repeat learning that has clearly already been learned is a major question which we need to address now.

The National Board of Employment, Education and Training is looking to you in this Forum to assist in formulating policy that will take the process further down the line. During this discussion we will also need to consider whether or not this process of consultation should continue or in what other form we might continue the process and around what other issues.

Thank you all once again for being here and welcome.

Key Speeches

Professor Gus Guthrie

Australian Vice-Chancellors' Committee Credit Transfer Working Party

Thank you for the invitation to participate in this important Forum on 'Credit Transfer and Skill Recognition'. I would like to bring you up to date with the work of the Australian Vice-Chancellors' Committee and Department of Employment, Education and Training's Working Party on Credit Transfer and Recognition of Prior Learning which I chair. As well as acknowledging the work of my colleagues on the Working Party, I would like to thank Dr Tony Haydon, the full-time Director of the Project, for the significant contribution he has made to the work of the Project.

May I remind you that the brief of the Working Party is two fold. Firstly, to look at credit transfer from TAFE-to-universities and universities-to-universities (this was looked at over a range of disciplines and is still on-going); secondly, to look at credit transfer that recognised other prior learning. It is this second part that I will concentrate on today, but I should point out here that, as well as making specific recommendations to the Australian Vice-Chancellors' Committee, a part of the Working Party's mission is to increase the national awareness of credit transfer at university level.

At this Forum a year ago, I informed you that the Working Party had commissioned research on recognition of prior learning in Australian universities, which had indicated that activity in this area was more widespread than previously believed, though rarely on a university-wide basis.

It had also prepared a set of draft guidelines (which were at that stage under consideration by the universities) in order to assist universities in establishing a policy context for recognition of prior learning on a university-wide basis.

I also reported then that the Working Party had encountered some difficulties in the path of extensive recognition of prior learning development in Australian universities. We have now run into a more serious problem, concerning the recovery by universities of the costs of recognition of prior learning assessment, which I will say more about in a moment.

Firstly, some news on developments in recognition of prior learning in higher education since last year's Forum. There has been considerable interest in Australian universities in this issue, some of it stimulated, we believe, by the publication of the research which we commissioned, under the title *Recognition of Prior Learning by Australian Universities* (published in January of this year by the Department of Employment, Education and Training, in its Higher Education Occasional Papers Series).

I can also report the endorsement and publication, by the Australian Vice-Chancellors' Committee of its *Guidelines on Recognition of Prior Learning* (copies of which have been made available to you in your conference papers).

Secondly, the bad news: universities have indicated to us that there is little likelihood of their maintaining their efforts in the recognition of prior learning, let alone extending them, unless the question of the recovery of the cost of recognition of prior learning assessment is solved.

Under existing Commonwealth Government legislation and conventions universities may not legally charge fees for the assessment of prior learning. This has recently been reaffirmed by advice to the Department of Employment, Education and Training from the Attorney-General's Department. While there is some lingering hope that we may find a loophole in this legislative barrier, we remain unable at present to reassure universities that any extension of their activities in recognition of prior learning will not be at the expense of funding activities in other areas. The assessment of recognition of prior learning currently carried out by Australian universities is done essentially on a 'grace-and-favour' basis by staff, carrying out this work in addition to their other duties. All the indications are that universities will be reluctant to maintain, let alone to extend, these efforts, unless a solution can be found to the issue of cost recovery. I will say more about this problem later in this address.

Let me first turn to what has been happening in the recognition of prior learning in higher education. As stated in the preamble to our Recognition of Prior Learning Guidelines, universities have for a long time taken account of a range of prior learning experiences, including experiences other than those credentialled by university or TAFE, when selecting students for **admission** to their courses.

Table 1 University Admissions^{3/4} Entrants with Prior Formal/Informal Study and/or Experience

	1993	1992	
Universities admitted	150,698	148,234	to undergraduate courses
Of the non-direct entrants	61,251	53,959	were not direct entrants from Year 12
Of these	42,013	39,420	were admitted on the basis of previous formal study
and	19,238	14,539	were admitted on the basis of previous 'informal' study, or experience

Source: DEET Higher Education Statistics, 1991-93

As the figures in Table 1 indicate, large numbers of indirect entrants (that is, those students entering undergraduate university courses **other than directly from Year 12**) have been admitted to universities in recent years. In fact, substantially more than a third of all students admitted in each of 1992 and 1993 were indirect entrants, under this definition. What is probably less well known is that two thirds of those indirect entrants (in 1993 totalling more than 61,000) were admitted **on the basis of prior formal study** (for example in a university or in TAFE, or in a course offered by a professional body). In other words, they were not selected on the basis of mature age or special entry tests administered by the admitting university, but specifically because they had **some evidence of post-secondary study which a university regarded as significant**, as an indicator of likely success in subsequent degree level study.

More importantly, for the purposes of this Forum, a substantial group (slightly less than fifty per cent of those admitted on the basis of prior post-secondary study) were admitted **on the basis of previous 'informal' study, or work experience**. I will return in a moment to what I mean here by 'informal study'.

Purely in terms of undergraduate **admissions** then, just under ten per cent of university entrants in 1992 were selected, **not** on the basis of prior study at Year 12 level, but on the basis of **post-secondary study** (other than at a university or TAFE) or **practical experience**. And, in 1993, this percentage increased further, to almost thirteen per cent of the total intake to undergraduate courses.

We can say, then, that selecting a significant proportion of entrants from a background other than Year 12 is now an established part of university admissions practice. Such students may have done ‘formal’ (university or TAFE) studies, ‘informal’ studies (in courses offered by other providers), or may have had relevant work or other experience since leaving secondary school. A not insignificant number of people get **admitted** to university in this way—19,238 in 1993.

Those people, it may be assumed, have survived the quite intensive competition for admission to university because their background, in post-school study and/or experience, makes them a sound bet for universities.

There is a question therefore that seems logically to follow from the above facts. Should their study, and/or their experience—that is, their **prior learning**—entitle this group of entrants not only to undergraduate admission, but also to some **credit**, in the course to which they are admitted?

Table 2 University Admissions with Credit for Prior Formal/Informal Study and/or Experience

	1993	1992
Total students admitted to undergraduate courses	150,698	148,234
Admitted with credit for prior FORMAL study	13,144	9,940
Admitted with credit for prior INFORMAL study/experience	2,782	1,849

Source: DEET Higher Education Statistics, 1992-93

The figures in Table 2 show that the answer to this question is that, at present, universities take a quite different attitude towards **credit**, as opposed to admission, for entrants chosen for their prior learning.

The 13,000 or so students admitted in 1993 **with credit** for prior study in a university, or in TAFE, represented about a **third** of the 42,013 students who came to us with this background. This is a quite substantial proportion of the total number of entrants admitted in these categories. However, of the smaller group of 19,238 students admitted without university or TAFE credentials—that is, on the basis of so-called ‘informal’ study or experience—only 2,782, which is 14% (about **one seventh**) got any credit.

Universities, then, place a fairly high value on ‘formal’, credentialled study, where this has taken place in relatively familiar institutions (namely, other universities or in TAFE), when considering credit transfer applications. **But**, they clearly rate much lower the likelihood that a student may have learned, through practical experience, or in study outside a university or TAFE, anything equivalent to undergraduate level learning.

Are these students failing to receive credit because their background is being systematically assessed, but found inadequate? Or are the university policies and practices which would enable this form of recognition of prior learning simply ineffective or even non-existent? My Working Party felt the need for a better understanding of what was currently occurring in recognition of prior learning in Australian universities, in order to consider these questions.

While the statistics from the Department of Employment, Education and Training (DEET) gave us some indication of the levels of recognition of prior learning activity in universities (both for admission and for credit), they provided little feel for the scope of such activity at the level of the individual university, faculty or school. It was therefore with the goal of establishing how widespread recognition of prior learning assessment in universities was, that we commissioned two reports, their authors chosen on the basis of competitive tender. These two reports are now published in the single volume DEET report, *Recognition of Prior Learning in Australian Universities*.

Because universities were clearly distinguishing markedly between learning in credentialled courses offered by university or TAFE, and all other forms of post-school learning, we needed to make a similar distinction in our research. We therefore developed the following definition, and commissioned research under the two broad categories shown there:

- **Learning acquired in a 'credentialled' context, other than a university or TAFE**

such as in a course offered by a professional body, enterprise, private educational institution, or by any other provider recognised by a university.

- **Learning acquired in an 'uncredentialled' context**

such as through work experience or through life experience.

One of the categories, as you can see, refers to courses offered by an institution other than an Australian university or TAFE—in other words, courses offered by a professional body, private educational institution, or by any other provider, recognised by a university. The second category is more wide-sweeping, namely learning acquired through work experience or life experience. Overseas qualifications are excluded from the terms of reference of the Working Party.

John Topley and Graham Clinch were commissioned to examine the extent to which universities currently provided recognition for courses offered by non-university or TAFE providers; these were described, for the purposes of their report, as ‘industry-based training’. Table 3, based on their findings, indicates the match—and, in some areas, the mismatch—between the areas in which Topley and Clinch found that universities were giving credit for such courses, and the areas in which providers (such as private colleges, industry-wide training organisations, and individual enterprises) were seeking, but not (at the time of the survey) receiving, such recognition.

Table 3 Recognition by Universities of Industry-Based Training

Area	Granted	Sought
Agriculture	Shaded	
Business Studies/Commerce	Shaded	
Computing	Shaded	
Engineering	Shaded	
Architecture/Building	Shaded	
Technology Management	Shaded	
Justice Administration	Shaded	
Aviation	Shaded	
Teacher Education	Shaded	
Hospitality		Shaded
Industrial Chemistry		Shaded
Retailing		Shaded
Personnel/Industrial Relations	Shaded	
Health and Safety		Shaded
Electronics		Shaded
Music		Shaded
Nursing	Shaded	

Source: Topley and Clinch, ‘Recognition by Universities of Education and Training Offered by Industry and Private Providers’, in Recognition of Prior Learning in Australian Universities, DEET, January, 1994

Topley and Clinch found that a total of twenty two universities were offering some form of recognition for industry-based training; while in itself encouraging, this, of course, also meant that fifteen universities were not. No university reported that it had, at that stage, developed a university-wide policy which both permitted **and encouraged** faculties or schools to consider industry-based training as a normal and natural basis for possible credit in undergraduate courses, alongside policies developed for granting credit for, say, TAFE courses. Policy development, then, had not reached the stage where industry-based training was built into the universities' credit transfer procedures and practices.

You will note that Topley and Clinch identified some areas in which industry was seeking, but not receiving, recognition for its training. In some of those (notably Hospitality) the situation has improved since the Topley and Clinch survey. But note the opportunities, ranging as widely as Retailing and Health and Safety at one end of the spectrum, and Industrial Chemistry and Electronics at the other, for universities to develop courses, or review existing ones, to build on existing industry training. And, in case any of these seem remote from our present undergraduate course provision, I remind you of the enthusiasm and success with which universities have entered in recent years into what were, at the time, new areas of degree level course provision—Marketing, Building, Police Studies, and Media Studies are just a few examples.

Universities, therefore, have demonstrated a capacity to move with the times; now, the times appear to be telling us that areas of middle level training have emerged in industry, on whose foundations universities can build higher level course offerings. But, at the same time, the Topley and Clinch survey of industry providers indicated a clear expectation on the part of these providers that their courses would **articulate** with university degree courses—in other words, that the products of those industry courses should not be expected to repeat material which is being covered in the industry training courses.

The other commissioned research report (also published in *Recognition of Prior Learning in Australian Universities*) was carried out by Ruth Cohen, Rick Flowers, Rod McDonald and Hank Schaafsma, of the University of Technology, Sydney. As part of their report, they produced a useful diagram (see Appendix) which systematises the whole range of possible sources of prior learning of relevance to university entry into two major categories, namely **credit transfer** (at the top of the diagram) and **recognition of prior learning** (at the bottom). Our focus at this Forum is of course on the lower half of that diagram while the AVCC Credit Transfer Project has been working in both areas, including the 'Credit Transfer' category. The Topley and Clinch focussed particularly on the in-house training courses segment, shown on the lower part of the diagram, as part of the category 'Learning From Non-Credentialed Courses'.

The second report covered a wider range, but its particular interest for the AVCC Working Party was in its examination of the other two categories at the bottom of that diagram, namely 'Learning from Experience' and 'Learning from Work Experience', which, taken together, may be described as experiential learning.

Experiential learning, as an area of academic interest, now has a fairly long history in the higher education arena though it is of recent occurrence in Australia. The Council for Adult and Experiential Learning (CAEL), in the United States, will celebrate its twentieth anniversary this year, and there was a major surge of interest in the UK in the 1980's. Professor Rod McDonald and his colleagues drew on the pioneering work of the Council for Adult and Experiential Learning, and on their own survey of Australian universities, to prepare a very valuable report, entitled 'Learning from Experience Counts', now published in *Recognition of Prior Learning in Australian Universities*.

Their survey indicated that over three quarters of those Australian universities were able to respond to a request to identify recognition of prior learning policies and practices, either by pointing to a policy at faculty or school level which permitted or encouraged the assessment of prior learning for admission or credit to the courses, and/or by detailing specific initiatives in the assessment of prior learning, at the level of individual courses, schools or faculties. Also, I remind you that the Topley and Clinch survey indicated that no university reported an **institutional** policy which had built in recognition of industry-based training.

There seemed to us, therefore, to be a considerable policy vacuum in recognition of prior learning in higher education, to which our response was the *Guidelines on Recognition of Prior Learning*, copies of which have been given to you.

On the basis of their survey and examination of the literature (particularly from the United States), the *Learning from Experience Counts* authors were able to produce invaluable suggestions for developing recognition of prior learning. These have had a significant effect on the *Guidelines* which I have just referred to. I want also to commend *Learning from Experience Counts* to you as an excellent starting point for anyone interested in pursuing the question of whether, and, if so, how universities should move towards embracing recognition of prior learning.

First, let me try to eliminate the notion that recognition of prior learning is about giving credit for 'life experience'. It is easy enough of course to patronise recognition of prior learning; how often does one hear sarcastic comments on 'graduation from the School of Hard Knocks'? How easy, too, it is to suggest that recognition of prior learning emulates those degree mills which grant 'degrees for life experience'.

I cannot therefore emphasise too strongly that it is not experience, but **learning from experience**, which should be assessed, and—where appropriate—granted credit. This is what recognition of prior **learning** is about; it is not about rewarding time-serving, let alone about degrees by return mail.

‘Learning from Experience Counts’ suggested the following ways in which this prior learning may be rigorously and systematically assessed in higher education:

- Interviews
- Debate
- Presentation
- Performance Testing
- Examination (written and/or oral)
- Essay
- Examples of work done/performed/designed
- Special projects
- Book review
- Annotated literature review
- Reports/critiques/articles
- Portfolio/audition

I venture to suggest that none of these assessment methods is unfamiliar in the university context; indeed, some combination of these would be used in almost all of our courses, when we set about the familiar task of assessing whether the student has learned **what we have taught**.

The authors of the report express the view that it is possible to use these assessment methods to assess whether some of the very skills, knowledge, attributes, which we are attempting to teach may have been previously learned. We are assessing not experience, but **what has been learned from experience**. For that reason, our Guidelines are careful always to refer to **learning from experience** when suggesting to universities that such learning can be assessed, and where appropriate, can form the basis of credit in degree level courses.

The authors of *Learning from Experience Counts* have produced a very valuable description, in their chapter entitled ‘The RPL Process’ of what is involved in handling a recognition of prior learning application. They identify these six stages:

1. Preliminary information and advice
2. Preparation of an application
3. Assessment and credit decision
4. Appeals
5. Post-assessment guidance
6. Recording recognition of prior learning results

Those of you with an administrative background may well be able to see that there may be even more steps involved; for example, a student has to be formally notified of the result of an application, following on from Stage 3, and before the question of appeals can be considered (shown as Stage 4). The recognition of prior learning process, is, or can be, therefore, a lengthy and labour-intensive one. When we recall, also, that a wide range of assessment methods may need to be used it is obvious that the systematic development of recognition of prior learning in higher education is dependent on skills and systems which may be costly and labour intensive.

Assessment of recognition of prior learning is, therefore, likely to be quite expensive in higher education, particularly since its acceptability will be directly proportional to the rigour with which it is carried out. This is the block on which further development of recognition of prior learning in universities is presently stumbling. I therefore wish to spend the remainder of my time focusing on this issue.

Leaving aside for a moment the cost benefit aspect, I wish to focus first of all on the possible costs incurred by universities in developing a recognition of prior learning assessment process. Taking the 'worst case' scenario in Chapter 6 of the report *Learning from Experience Counts* we can say that examining a single recognition of prior learning application may require as much as thirty seven hours.

Since this involves the time both of academic and of administrative staff, with the relative cost partly determined by the seniority of such staff, the cost is significant. This is confirmed by those universities currently engaged, albeit on a less than university-wide basis, in recognition of prior learning assessment. When we learn that most of those also say that the recognition of prior learning work is currently being carried out on a grace-and-favour basis by staff, some alarm bells ring. Further extension of recognition of prior learning activity on this overload basis may be regarded as unlikely.

The Working Party therefore decided that it was necessary for us to consider several possible ways in which the costs of recognition of prior learning assessment might be covered by universities. The option of continuing to absorb the costs in universities' current operating costs would not be conducive to the extension of this activity; in fact, our information is that some universities, without an adequate cost recovery provision, are unlikely to maintain their current level of activity in recognition of prior learning. A second option, namely accessing additional funds specifically for these purposes from Commonwealth sources, has also been signalled as at least equally unlikely.

Clearly then, we needed to examine the question of levying a recognition of prior learning assessment fee. The authors of *Learning from Experience Counts* had a number of useful suggestions about how the level of such a fee might be set, based on local and overseas experience. However, the current problem is not **how much** to charge, but **whether we can charge at all**. On the advice of the Attorney-General's Department, the Department of Employment, Education and Training has advised us that fees may not be charged by universities for the purpose of recognition of prior learning assessment, except

- (a) 'where a person has not yet applied to a university, but is using RPL to choose between different institutions, or for employment-related purposes'
- (b) 'in all other cases, where the fee is levied by a separate body corporate which is not acting as an agent of an institution'.

These approaches do not commend themselves to universities. One would require them to carry out recognition of prior learning assessment before a student has even applied, let alone been selected for admission, to their courses. The other would involve the use of their commercial arms, which were established for purposes other than to serve as a way of evading current legislation.

The suggestion has been made, but seems to be illegal under current legislation, that assessment costs could be recovered through the HECS system. If allowed, this would have the advantage of allowing students, if they choose to do so, to defer payment beyond graduation.

There remain at least two ways in which this legislative problem may be overcome, though it must be admitted that both are currently at a very early stage of investigation.

One, as at least some of you may be aware, is the proposal originating from the National Tertiary Education Union, for the establishment of a national 'credit transfer bank'. If such a body could carry out recognition of prior learning assessment acceptable to universities, and charge fees for the purpose, it may possibly meet the Attorney-General's requirement for the assessment of recognition of prior learning to be carried out by a body corporate which is not acting directly as an agent of an institution, though that is far from clear at present. I expect that we may be hearing more about the National Tertiary Education Union proposal at this Forum.

The second option, recently presented to us in further advice to the Department of Employment, Education and Training from the Attorney-General, is an approach to the Minister for exemption from the legislative requirements, for the purposes of charging fees specifically for recognition of prior learning assessment.

This is a highly delicate issue, not only from the point of view of the Australian Vice-Chancellors' Committee but also from the point of view of a whole range of other stakeholders, including in particular of course the National Union of Students. It is not possible to say, at least until this proposal has been given further consideration by interested parties, whether the Attorney-General's suggestion will be taken up. Nor, of course, is there any guarantee that the Minister would regard it favourably.

For the moment the matter rests there. Any inspiration that members of this Forum can give my Working Party would be most carefully considered.

Let me conclude by saying that the universities are undoubtedly becoming more sympathetic to credit transfer in general, but need to give greater consideration to that form of credit transfer that falls under the definition of recognition of prior learning. I believe the Working Party's studies have raised the universities' awareness on these matters.

What **is** frustrating **now** is the stumbling block of charging for the necessary assessment of recognition of prior learning. I hope to return to next year's Forum to give you the solution, for I am sure we will find one.

Key Speeches

Dr Gregor Ramsey
National TAFE Chief Executives' Committee

Introduction

Recognition of Prior Learning (RPL) and Credit Transfer

Credit transfer and the recognition of prior learning are processes that are of central importance to the TAFE sector, because people enter TAFE institutions with various combinations of formal and informal learning experiences.

Recognition of learning achieved prior to entry to a TAFE course may involve recognition of:

- a formal course completed elsewhere in the TAFE system;
- a course delivered by a private provider;
- credentialled industry-based training;
- non-credentialled industry-based training;
- learning resulting from work experience;
- learning resulting from life experience;
- a higher education course; and/or
- a qualification gained overseas.

People enter the TAFE system from all other educational sectors. In recent years, very significant advances have been made in the development of credit transfer between the TAFE and other sectors. In New South Wales, for example, credit granted in TAFE programs for studies completed as part of the New South Wales Higher School Certificate has been negotiated between the New South Wales TAFE Commission and school authorities on a state-wide basis and published for the information of school students and their advisers .

Similarly, detailed credit transfer arrangements have been developed with all eleven universities in New South Wales across a wide spectrum of fields of study for the benefit of university entrants holding NSW TAFE Commission qualifications. In addition to these and similar developments in other States, there has also been the development by the Australian Vice-Chancellors' Committee Credit Transfer Project of national generic credit transfer policies for students moving from the TAFE system to universities in particular fields of study.

There are now moves to address the complex question of credit transfer arrangements for the significant number of students with complete or partially completed university qualifications entering the TAFE sector. It is not long ago that even within the TAFE sector effective credit transfer arrangements between individual TAFE courses within one institution were not always in place. This problem was magnified for students moving between States. Similarly, credit transfer for students moving between universities to some extent remains less than straightforward.

Nevertheless the improvements in credit transfer arrangements both within and between the educational sectors in recent years has been impressive. These improvements have been achieved through consideration of the comparability of the relevant curricula. Credit transfer does not depend so much on the assessment of the individual applicant as on the comparability of the curriculum they have completed with the curriculum about to be undertaken. Credit transfer should be a very efficient process, because once a decision has been made about the comparability of curricula, credit can be granted more or less automatically to all eligible applicants.

It is important to distinguish between credit transfer and the recognition of prior learning. It would normally be inefficient to administer recognition of prior learning procedures to categories of students for whom credit transfer arrangements could be developed. Recognition of prior learning tends to be used to refer to recognition for learning achieved informally through work or life experience, such as self study. Unlike credit transfer, recognition of prior learning involves direct assessment of the individual learner, with all the procedures and costs this involves.

In this paper I will address the implications for the TAFE sector of the implementation of recognition of prior learning in its curriculum.

Recognition of Prior Learning: Learning Through Experience

Educationists historically have attached great value to examinations in the context of formal courses as the basis for awarding educational qualifications. There has nevertheless been a growing acceptance of the principle that the attainments recognised in formal educational qualifications may be achieved through a variety of learning experiences, which need not necessarily be confined to formal course work provided by any educational institution.

In fact the educative potential of the workplace and of life experience has been recognised by recent attempts to improve learning in formal courses by incorporating features of such experiences in the courses themselves. These moves have by no means been confined to vocational education. For example, 'cognitive apprenticeship' aims to build into the formal curriculum some of the more effective methods by which people learn at work, and 'situated learning' aims to contextualise learning to make it more meaningful and effective. The experience of living and working can be educative but the individual needs to analyse and reflect on experience in order to learn from it. The recognition of prior learning is not the recognition of prior experience but the assessment of what an individual has learned from that experience. And for the TAFE sector, that assessment has to be made with reference to specific benchmarks, the learning outcomes of its accredited courses.

We should also note that the process by which something is learned can be as important as the outcome itself. To teach a child to tie their shoe-laces by beating them teaches them not only how to tie their shoe-laces, but about power relations and the use of force. I am not sure how 'wrong process' can be taken into account when assessing prior learning .

Recognition of Prior Learning: a Needed Reform

The range of skills possessed by the Australian workforce has not been reflected in the number of formal educational qualifications held. Fewer than half of Australia's workforce have held a recognised vocational qualification. This can be attributed to a large extent to a system which required students to complete a full course which may not have been flexibly delivered or readily accessible to the full range of people in the workforce.

Recognition of prior learning based on experiential and workplace learning is a genuine social reform aimed at providing:

- recognition of the knowledge and skills individuals have acquired, however they have acquired it; and
- a basis for increased pay and the opening of efficient career paths and formal study opportunities.

The concept is not entirely new. *The Tradesmen's Rights Regulation Act* as amended in 1952 has essentially provided for a system of recognition of prior learning to recognise skills of tradespersons not learned through the usual formal training. It especially benefited tens of thousands of post-war immigrants to Australia.

More recently, innovative work in developing an effective model of recognition of prior learning for implementation in TAFE/industry partnerships was carried out in a project linking Ford Australia and Broadmeadows College of TAFE in Victoria. This project has been of enormous value in clarifying recognition of prior learning principles and processes for consideration by industry and the TAFE sector nationally.

National Framework for the Recognition of Training (NFROT) Principles on the Recognition of Prior Learning

All recognition of prior learning applicants in the vocational education and training sector should benefit from the principles underpinning recognition of prior learning in this Ministerial agreement.

The National Framework principles on the recognition of prior learning are:

- **competence:** recognition of prior learning should focus on competencies held, not on how, when, or where the learning occurred;
- **commitment:** training providers must demonstrate their commitment to recognising the prior learning of individuals;
- **access:** recognition of prior learning should be available to all potential applicants;
- **fairness:** recognition of prior learning processes must be fair to all parties involved; and
- **support:** recognition of prior learning processes should involve the provision of adequate support to potential applicants.

I would like to consider each of these principles in turn to explore the problems and issues, as well as the opportunities, to which recognition of prior learning gives rise in the TAFE sector.

Competence

Recognition of Prior Learning and Competency-Based Training (CBT)

Competency standards for a range of industries and enterprises are currently being developed by industry-led Competency Standards Bodies and endorsed by the National Training Board. It may be thought that once competency standards are in place, recognition of prior learning becomes quite straightforward. In some respects that is true, but there are significant issues to be addressed.

The Benchmarks on the Basis of which Recognition of Prior Learning is Granted: Curriculum Learning Outcomes

It is likely that, in many cases, individuals will seek recognition of prior learning, not to gain advanced standing in a course, but in order to gain recognition of the skills they already hold to improve their pay and conditions at work.

An important issue arises here, namely, whether or not TAFE has a role in providing recognition of prior learning directly against a set of competency standards, say on a fee-for-service basis. It is arguable, and this is the policy in New South Wales, that our expertise is in assessing individuals against the learning outcomes specified for our own TAFE courses. These learning outcomes are related to competency standards, and employers may wish to take attainment of learning outcomes into account when determining the pay and conditions of individual workers. Attainment of competencies as specified in the standards might be achieved as a component of the learning outcomes of a specific course, but this requires a close relationship between the relevant curriculum and the designated competency standards.

In some cases the linkages between competencies and curriculum learning outcomes will be complex. In many cases the learning outcomes of a course will go beyond the competencies specified in related competency standards. For example, the provider might enhance the curriculum by incorporating skills in problem-solving or including content on the history of development of the field.

In other cases, learning outcomes of the curriculum might differ from competencies described in the standards because attainment of full workplace competence depends on substantial practice and experience in the workplace which may not be available, say, to unemployed students undertaking a full-time course. The consequence of training those who are not currently employed is often forgotten by those who focus overwhelmingly on learning in the workplace.

For example, in a recent article in *Unicorn* (vol. 19, no. 4, 1993), Dr Ivan Johnstone who managed the national project for the development of a competency-based associate diploma program for science technicians, argued that 'any individual is most unlikely to be able to demonstrate all aspects of a single set of competency statements'. The occupational role of any one individual is dynamic and changing, and the occupational roles of different individuals vary according to the size and scope of their workplaces and the nature of work organisation in each workplace; this in turn affects the extent to which any one individual can demonstrate successful performance in specific elements of competency in a variety of contexts.

The role of competency standards may best be regarded as being to inform curriculum development rather than to prescribe rigid curriculum learning outcomes, especially in more advanced and complex fields of work and study.

The Amount of Recognition of Prior Learning that may be Granted in a Course

The question of how much and how little recognition of prior learning may be granted in a course needs to be addressed.

Is it reasonable for an institution to grant recognition of prior learning for an entire course? It is arguable that the role of providers is to deliver education and training and not simply to provide recognition.

Providers might consider that a credential they award reflects not only the attainment of learning outcomes but also guarantees the nature of the process whereby the outcomes were achieved. They are often justifiably proud of the education and training process they offer the student. To grant a credential in the name of an institution when the holder of the credential has had no experience of the institution apart from its recognition of prior learning procedures does seem a little odd.

For this reason, a provider might prefer to require a candidate to complete some part of the course. This could be the later stages of the course where previous learning is integrated with more advanced learning to achieve the more complex and advanced outcomes of the course, or it could be earlier parts of the course containing theoretical underpinnings of the later stages. About a third of a course does not seem to be unreasonable if the provider's award is to be granted. Of course, full recognition for the award could be given through recognition of prior learning as admission to the next or higher level course.

Nevertheless, it seems to follow from the National Framework principle of ‘competence’ that it is legitimate for an applicant to seek and be granted recognition of prior learning for all the learning outcomes of a course. Candidates, however, must have achieved the holistically stated course aim, and the design of recognition of prior learning assessment procedures for a whole course would have to ensure this.

What is the minimum amount of recognition of prior learning that it is reasonable to grant in a course? For practical purposes, it may be best for the minimum amount granted to normally be a whole module. Where there is a high demand for places in a module, it would be inequitable to exclude a student from a class limited in size by established teacher/student ratios—a student who would attend all classes—in favour of a student granted recognition of prior learning for part of the module who would attend only a few classes. In some cases, it may be possible to grant a student recognition of prior learning for a whole module subject to their completion of a project or assignment, without any requirement to attend classes.

The modularisation of TAFE courses—that is, the design of courses on the basis of relatively small, relatively free-standing units of curriculum—has made the delivery of TAFE curriculum more flexible and has improved access. One of the main advantages of modularisation is that it makes recognition of prior learning easier to implement. Nevertheless in designing courses, curriculum developers have to ensure that learning is coherent and integrated and that the achievement of the higher order skills related to the aim of the course as a whole is not undermined through the fragmentation of the curriculum.

The identification of core and elective modules, their structuring and sequencing, and the identification of coherent specialist streams of modules is an important aspect of course design and needs to be reflected in the rules governing progress through the course. It is important that arbitrary statements of prerequisites not be a barrier to recognition of prior learning in individual modules, but it is also important that the award of a credential represents attainment of the full range of skills the course as a whole aims to achieve.

Recognition of Prior Learning Issues Arising in the Transition to a Competency-based System

In the past, exemptions from subjects in TAFE courses would normally be given in respect of previously completed comparable TAFE studies. With the emphasis in recognition of prior learning on the need to produce evidence for the achievement of competency-based learning outcomes, many students who may have completed related, but not competency-based, studies previously and who in the past would normally have been granted exemptions, might now have to apply for recognition of prior learning.

This would involve them in cost (a fee has to be paid) and time and effort (in accumulating evidence for a portfolio or in preparing for a challenge test).

A criticism of assessment procedures in some courses prior to competency-based training is that they allowed people to be credentialled who may have 'passed' the course on the basis of having performed very well in some parts but inadequately in other parts. An emphasis on 'competencies' ensures that students perform adequately in all parts of a course. It seems unreasonable however to expect all holders of 'pre-competency-based training' qualifications to undergo recognition of prior learning. It would be more equitable to provide guidelines under which such people could be granted exemptions.

Commitment

The commitment of the TAFE sector to the implementation of recognition of prior learning is based on potential benefits both for the individual applicants and for the TAFE system itself. I have already discussed the benefits to applicants, but would like to mention potential benefits to providers in the implementation of recognition of prior learning .

Effectively managed, recognition of prior learning has the potential to enable TAFE's resources to be used more efficiently. It is likely to widen the range of students applying for admission to TAFE programs, improve the basis of their selection into programs (with the potential to increase the quality of students undertaking programs), directly and indirectly improve the quality of assessment procedures, improve further the links between TAFE institutions and industry, and result in students moving through TAFE programs more rapidly and more successfully.

As we implement the recognition of prior learning, we are confronting the inevitable problems and issues that arise in turning a good idea into a practical reality. For example, a significant issue is the impact of recognition of prior learning on class sizes and the basis on which institution managements define efficiency in the use of their resources.

In situations where the demand for enrolment exceeds the number of places available in a class, recognition of prior learning has the advantage of reducing the pressure on the limited places and enabling more people to gain the qualification. On the other hand, where demand is low, the granting of recognition of prior learning may result in very few attending classes. Under existing measures of efficient use of resources, such classes may not be considered 'viable'. In these cases referral to the corresponding class in another location or to open learning opportunities is an option, if these are available.

The implementation of recognition of prior learning is assisted by the availability of a variety of delivery modes, including open learning. It is important, however, to look carefully at the basis on which a choice of a particular delivery mode is made. Where a person, because of work or personal commitments, is unable to attend classes, then the availability of open learning opportunities gives access to education. On the other hand, it is not desirable to force people into open learning on the grounds that classes are no longer available in certain modules as a result of recognition of prior learning. For many people group learning is far more effective than independent study, and indeed group processes are important components of the instructional strategy.

If there is no acceptable alternative to running a class with very low enrolments, then this would add indirectly to the costs of introducing recognition of prior learning. The TAFE sector, as part of its commitment, will actively promote and encourage recognition of prior learning, but it will be necessary for us to re-examine our traditional measures of institutional efficiency and productivity, to take account of the wider productivity benefits of recognition of prior learning expenditure, so that these measures do not become a barrier to the implementation of recognition of prior learning.

Before leaving the question of class size and composition, it is interesting to note one side-effect of recognition of prior learning—the likely loss of this diversity of experience from class groups. Classes are likely to become more homogeneous, consisting of students of similar levels of ability. It is likely to be the students with more experience of life and work who disappear from classes as a result of recognition of prior learning. Such students in the past have drawn on their experience to make valuable contributions to the teaching/learning process in class groups. Of course, the right of these students to recognition of prior learning is paramount, but it is worth noting.

To return to the question of the practicability of recognition of prior learning and its costs, the fees charged for recognition of prior learning need to be set at levels that do not deter students from applying. The fees will not of course recover the full costs involved, which are related to the promotion and provision of information about the recognition of prior learning service, the design of the processes and assessment procedures, the staffing of the process, and the provision of materials, equipment, space and other necessary resources.

Providers have to design and manage the implementation of recognition of prior learning on a cost-efficient basis consistent with maintaining the principles underpinning recognition of prior learning. The process and its costs may vary according to the experience of applicants, the type of course and the industry or occupational group involved.

A central recommendation of the VEETAC report, *Arrangements for the Recognition of Prior Learning in Australia* (January, 1993), was for a risk management approach to the implementation of recognition of prior learning, involving different assessment responses to high, moderate and low risk situations, in order to achieve a balance between assessment and resource efficiency. A low level of risk is associated with applications for recognition of prior learning in less critical components of the course, especially when there are safety nets in place such as the likelihood that deficiencies in knowledge and skill would be identified and remedied during later stages of the course. Higher risk situations requiring more exhaustive assessment would involve, say, core modules (such as Occupational Health and Safety) or critical technical modules for which recognition would be final.

Access

Barriers to Gaining Recognition of Prior Learning

Many applicants will have no previous formal vocational qualifications. It will be especially important that recognition of prior learning procedures are sensitive to the needs of disadvantaged groups. For example, many women develop vocationally valuable skills through work that is unpaid, such as domestic work, or through work that carries low pay and low status in the occupational hierarchy .

Applicants for recognition of prior learning without prior experience of formal vocational education often underestimate the range and depth of skills they possess. Identifying skills possessed, matching them against the learning outcomes of a curriculum and producing supporting evidence is a difficult exercise for any applicant. Considerable information and assistance needs to be available, and this is especially true in the case of disadvantaged applicants.

The benefits that flow to individuals from the recognition of prior learning process include not only new opportunities for advancement in career, improved income and access to further learning opportunities, but also increased confidence and self-esteem.

The recognition of prior learning process may cost the applicant a great deal of anxiety, time and trouble, as well as expense, and has to be designed and managed so that it is a positive developmental experience for those who take part in it. Such an assessment is an important learning experience in itself, with its own outcomes.

Applicants need assistance in identifying their skills so that they apply for all the recognition to which their prior learning would entitle them. Also, the opportunity for self-assessment prior to going through the actual test is important to keeping costs down for individuals applying, and for letting them know clearly what is expected.

Even so, where students identify their own skills, they might be inclined not to apply for all the recognition they could gain, because they want to adapt gradually to an unfamiliar formal education environment. Students need the opportunity to discuss these kinds of concerns with a recognition of prior learning adviser.

It is important that the fees charged for recognition of prior learning not be a barrier. A requirement that students be enrolled in a course, involving the need to pay enrolment fees, prior to applying for recognition of prior learning which may carry its own charges, may create a significant barrier for some students. Full cost-recovery for recognition of prior learning may not be realistic. The basis on which fees are charged should be affordable and perceived as fair by applicants. For example, the fee could be commensurate with the length of time the assessment procedures take or the amount of exemption granted in a course.

The implications of recognition of prior learning have to be taken into account in the planning of course delivery. Students benefit from the availability of flexible delivery options and flexible course timetabling. Without such opportunities, a student might gain recognition of prior learning but might not be able to take advantage of the advanced standing it has provided for a considerable time.

Finally, unsuccessful applicants should have access to appeal procedures, if they believe the recognition of prior learning process did not treat them fairly.

Fairness

The recognition of prior learning process as a whole, and the assessment process in particular, has to be fair and should be perceived as fair by the applicant.

The role of the recognition of prior learning process in the TAFE context is to assist applicants to identify the skills they possess that correspond to curriculum learning outcomes, to provide appropriate evidence in support of their applications, and so to obtain the maximum possible recognition for their knowledge and skills.

It is not an adversarial situation where the assessor is pitted against the applicant. It is especially important that the recognition of prior learning

process is not more demanding or rigorous than the curriculum itself in terms of the level of learning expected of the applicant. A tendency to assess applicants very rigorously may be due to a mistrust of assessment methods combined with a concern to maintain the quality of the credential.

As you know, there are a wide range of assessment methods available for recognition of prior learning. As TAFE staff implement this process more widely, they will develop skill in the use of these methods and confidence in their outcomes. One example of current concerns is in the use of challenge tests.

TAFE staff are used to basing their assessments on a series of assessment events over time in the context of regular classes during which they acquire a sound knowledge of the strengths and weaknesses of individual students. Staff may tend to regard a single challenge test administered to an unfamiliar applicant for recognition of prior learning as providing only a 'snapshot' of that person's ability. In the context of a risk management approach, this may need to be supplemented by other assessment strategies.

There is another aspect of the use of challenge tests. Many applicants will have been away from formal education for some time. Assessment by challenge test might be very daunting for such students. This is a case where cost-efficiency could be in conflict with the central principles of recognition of prior learning. It is important that the assessment method used does not deter a person from seeking recognition of prior learning or re-entering education.

Another example of concern about assessment methods is in the use of portfolios. These require applicants to assemble documentary evidence that they have developed the knowledge and skills corresponding to the learning outcomes of a curriculum. To do this, applicants have to be supplied with information about the learning outcomes and the kind of evidence that will satisfy the assessor. For example, whether evidence relates to the holistic purpose of a module rather than individual learning outcomes needs to be clarified.

In creating portfolios it is especially important that applicants appreciate the difference between providing evidence of learning and merely evidence of experience.

Where the application for recognition of prior learning is to be supported by written material, as in a portfolio, it is important that language and literacy factors not become an unnecessary barrier. The exception would be where the language, literacy and organisational skills required to create a portfolio are themselves skills inherent in the learning outcomes being assessed.

Applicants may need guidance in the preparation of portfolios to ensure that their actual skills are clearly evident. The support provided by advisers to

applicants in preparing portfolios has to strike a balance between seeing, on the one hand, that the recognition of prior learning process is not unfairly burdensome, and on the other, the knowledge and skills of the candidate are accurately assessed rather than the input of the adviser.

Administrative arrangements for the implementation of recognition of prior learning can affect assessment outcomes. For example, assessment may be more consistent or reliable where several institutions use a single assessment centre rather than assessing applicants independently. It may not be sufficiently simple for assessors to be working from the same documented assessment criteria, because these remain subject to individual interpretation. The design of the recognition of prior learning process at the individual institution and system levels has to give particular attention to reliability of assessment.

Another aspect of fairness concerns the effect that the granting of recognition of prior learning towards the completion of one credential may have on credit transfer to a subsequent credential. For example, if people are granted recognition of prior learning for two thirds of the content of a TAFE associate diploma program, would this disadvantage them if they later apply for credit transfer to a related university degree on the basis of the completed associate diploma? It is important that universities continue to recognise the award of a TAFE associate diploma as a criterion for selection and as a basis for credit transfer, and not discriminate against applicants who may have received substantial recognition of prior learning. In NSW, an important factor in the transfer of students from the TAFE system to university tends to be the grading of the applicant's TAFE award. The implementation of recognition of prior learning in NSW will not prevent the grading of the TAFE award and so students should not be disadvantaged.

Support

People who could benefit from recognition of prior learning require information. Firstly they need to know that opportunities exist for the recognition of their skills and the benefits that come with such recognition.

In the TAFE context, information needs to be provided about courses in which the recognition of prior learning is available and about the application process. This information has to be issued to allow people time to prepare their applications.

Opportunities need to be provided for prospective applicants to obtain advice. Group information sessions and access to recognition of prior learning advisers on an individual basis may be part of this process. Preparation for assessment may require meetings between applicants and advisers or assessors about portfolio development. Applicants may be required to participate in structured interviews with assessors.

Advisers and assessors themselves need appropriate training if they are to provide support for applicants. The introduction of recognition of prior learning has staff development implications for a wide range of TAFE staff: student counsellors, course information officers, teachers, assessors, course designers and course materials developers .

Applicants depend on the support not just of individual staff but of a well designed recognition of prior learning system. Individual staff can do little if the system itself has failed. In implementing recognition of prior learning, therefore, it is important that management support it with adequate resources, identify and assign responsibility for key parts of the process, and ensure that it is integrated harmoniously into the activities of colleges.

The main beneficiaries of recognition of prior learning may well be women and disadvantaged groups who have had only limited opportunities in the past to gain access to formal education and training. It is precisely because of the nature of the client group that the provision of adequate support services will be critical to the successful implementation of this much needed reform.

Conclusion

In the end, we must remember what all this effort is for. If we accept that the level of competence of our society will have considerable influence on our Gross National Product, and on our 'Gross National Happiness', then we must first be able to identify what competencies we have in our workforce, so that they may be used to their maximum effect. It is wasteful both for the person concerned and for the training system, to relearn or reteach competencies that are held, albeit on occasion somewhat rusty.

Yet we can go overboard, spending considerable resources when individual self-assessment may be just as effective, particularly when the person concerned has to complete the requirements for a course in which they have been given some standing through recognition of prior learning.

We all have much to learn in the recognition of prior learning arena. This consultative forum is testament to that end, but I am sure it will provide a significant step forward in helping us assess what our 'Gross National Competence' really is.

Key Speeches

Mr Bob Shaw
Manager Group Training and Development
BHP Steel Group

Introduction

It is difficult to generalise in a forum such as this and give a thorough and comprehensive response to 'The Perspective of Business-RPL in the Workplace'.

When considering this or any other matter associated with the National Training Reform Process it is important to remember that there is not any one single business perspective. The requirements of large businesses like mine are likely to be different from the needs of small business. Even between similar businesses there are likely to be considerable differences.

It is seductive to believe that we will be able to find the one single answer, however if we are to find a way through the maze it is likely that flexibility will be our compass.

I will give you the perspective from where I sit in BHP Steel in the hope that there are some transferable notions to the wider debate. I will limit myself to vocational training and education. I would be pleased to field questions about other aspects of the recognition of prior learning or the recognition of current competencies.

Let me begin by saying that the idea of recognising the knowledge, skills and attitudes that a person possesses is and must be central to the operation of any program aimed at the education of adults. Whilst I recognise the logistical problems associated with treating learners as individuals, it is incumbent upon us all to seek out innovative ways of making it happen. This is demanded not only by the inequity of requiring people to relearn things that they already know but also by the need to conserve resources.

The other broad issue to address initially is terminology; ie recognition of prior learning versus recognition of current competencies. The term we prefer to use in our workplace is recognition of current competencies and I will try to show you what we perceive to be the difference between the two terms.

Recognition of Prior Learning (RPL)

The phrase ‘recognition of prior learning’ conveys the suggestion that a person has learned something at some time in the past and is now seeking to have this learning acknowledged or recognised. Whilst this has application in some situations, the phrase does not suggest that the person is currently able to use or apply that learning.

Generally recognition of prior learning is associated with the possession of some kind of credential. The credential in itself does not tell us what the person's existing competencies are, but rather it says that at some time a defined set of learning was undertaken to meet the requirements of the credential.

Recognition of Current Competencies (RCC)

On the other hand the phrase, recognition of current competencies, suggests recognition of the cumulative learning that people have undertaken through;

- both formal and informal means
- on-the-job and off-the-job experiences

and that they can **demonstrate** that they still have these competencies to the level required.

It should be noted that recognition of current competencies includes the notion of recognising prior learning where this is appropriate. We accept the idea that learning or possession of a body of knowledge is a part of competency.

If we accept that industry is the major client of the vocational education and training system, then ‘industry’ requires people who can do the things that the industry needs to have done. These needs are, or will increasingly be, expressed through Industry or Enterprise Competency Standards. For BHP, it makes sense to refer to the recognition of current competencies.

I'd like to give a simple example to illustrate this point.

At Sheet and Coil Western Port, training in our Cold Reduction area allows employees to skill across a range of jobs. If however after training and working in a position there is a gap of eight or more months before the person uses those same skills again, there is a process by which he or she will work with a mentor until the mentor is assured that the employee still has the required level of competencies to operate safely and efficiently in that role. In industry, current competencies are vital to ensure the safety of individuals and consistent quality of product. This is not academic—it is the real thing.

- Competence is the difference between safety and danger and between business success and failure.
- For BHP, it is the recognition of current competencies (RCC) not just acceptance of prior learning.

Application of Competencies

When considering competency it is important to understand that it is more than just being able to do something. It is the bringing together of a number of components. The usual picture that we have when we think about competencies tends to focus on the skills and knowledge aspects. This however is only part of the story.

The notion of competency is a bit like the three legged stool analogy. To be fully competent a person needs to have all three aspects—knowledge, skills and application—if one is missing they keep toppling over.

Assessing competency has two purposes in our workplace. We need to be able to select people and we need to be able to establish the need for training.

Selection relates to recruiting new starters, regrading existing employees, transferring or promoting existing employees.

Establishing training needs means determining a person's current knowledge, skills and application against the requirements of a particular job and providing the most effective training to fill the gap.

Before looking at the applications of competency I would like to say something about skills, knowledge and attitudes referred to earlier.

Knowledge and Skills

It is critical for us to clearly understand the demands of the job and in the case of operators and tradespeople this information is contained in the skill models which we have in place in our various workplaces. The models have been developed in close consultation with incumbents. Assessment procedures are being developed which are equally applicable to new starters or to incumbents. We are looking to the newly established assessment research centre within the New South Wales TAFE to provide assistance with assessment.

Application

Clearly it is of little value to have an employee who has all of the skills and knowledge for a particular position if they are not willing or not able to

actually apply the knowledge and skills in a work situation. Application must be part of the initial competency assessment and of the process for recognising current competencies.

If we are dealing with existing employees, willingness can usually be supported by internal performance history. When dealing with new starters, assessing application might require a demonstration or an assessment tool .

Performance History

In a work situation performance history offers a view of the consistency with which a person demonstrates the application of the skills and knowledge that they have. This information is of considerable assistance when considering individuals for promotion.

Application is difficult to determine in new starters and it is often the reason that requests are made by employers for more information from institutions. However, I believe that there is no substitute for proper assessment in a work context and that the use of some kind of differentiation between individuals based on assessments outside of the work context is at best misleading.

The AVC system with its underpinning of partnership between learners, industry, and educational institutions offers huge promises for the future.

Selection

During the selection process, we need to be able to determine with a reasonable degree of certainty what an applicant brings to the process. Adults seeking employment in our company are unlikely to be able to fit their current competencies completely to our requirements and will almost certainly need to undergo training.

As a general principal we will be looking to recognition of current competencies to minimise the amount of training required by new starters and existing employees.

Training

An early premise of the National Training Reform Agenda was that 70% of the people who would be in the workforce by the year 2000 are already in the workforce. Hence strategies had to be implemented to ensure that these existing employees would provide the competitive edge through a more highly skilled workforce for our industries. Educational institutions, training bodies and industry increasingly focused their attention upon vocational training and education.

Whilst we need to ensure that adequate standards are maintained and that pathways are available for those people who wish to pursue higher learning, it is equally important that we recognise that our workforce is looking to be appropriately trained to perform their tasks and to receive recognition for what they have learned.

Responding to the needs of these workers and therefore to the needs of industry will provide formal levels of achievement where, often, none currently exist.

We must be cautious when establishing assessment requirements and their attendant recognition of current competencies and recognition of prior learning processes that we maintain flexibility and not simply replace one set of rigidities with another.

When industry people talk about training, there is often a misconception among external educational providers that we are only interested in training employees to the narrowest level. We need to remember that industries are endeavouring to compete against world's best practice. If satisfied with minimalist training, then industry would be continuing outdated practices and consequently producing a workforce that at best, is capable of only being **reactive**.

This is no longer appropriate. Rather in this instance we need to clearly define the whole range of knowledge, skills, attitudes and applications involved. We then need to ensure that the employees have these, either through appropriate training or recognition of current competencies. This way we are more likely to have a **proactive** employee with an appropriate level of competencies who will not only run the machine safely and efficiently but who will be continually alert to variations which may require attention. This would minimise breakdowns and ensure improved product quality.

Industry recognises the competing needs that the educational institutions have in servicing a diverse and changing customer base. It is easy to say that industry is the customer of the vocational education system. Such a position denies the needs of a large customer base who are seeking education in areas in which they are not currently employed.

However, it would be equally wrong to establish processes that serve this customer base, at the expense of the flexibility needed to meet industry's requirements. Whilst it is attractive to strive for increasingly generic training and education we must remember that the further we move away from the specific needs of an industry the less effective will be the outcomes. Probably the most practical benefits of recognition of current competencies as it impacts on training are:

- minimised repetition where previously employees would have been sent to unnecessary training;

- the competencies an employee has acquired can be formally recognised and acknowledged;
- the elimination of biases and assumptions about peoples competencies.

Summary

Our definition of competency means having the appropriate knowledge, skills and attitude to ensure that the employee can perform required tasks to the level required in relation to the particular job.

Recognition of current competencies is a way of recognising the collection of knowledge, skills and application that an employee has in relation to the requirements of the job.

Key Speeches

Mr Jack Keating
Curriculum Corporation, Victoria

Introduction

Thank you to the National Board of Employment, Education and Training for asking me to talk. I can't claim to be an expert on credit transfer and I don't represent any state or territory position. Rather I will endeavour to put into a broader framework the type of awards which are available to students at the upper secondary level. I have provided a somewhat more detailed paper, and this presentation is based upon it, albeit in a briefer form.

Background

Let me start by saying two things.

Firstly, the question of credit transfer is premised by the issue of the role of schools in vocational education and training. There is a growing view that there is no helpful difference between general and vocational education. I prefer to state that schools should have a significant role in the initial vocational orientation of young people, beyond the Mayer competencies. I think that there are a number of arguments for this, none the least of which is the fact that the bulk of the 16–18-year cohort is in schools. But my substantive argument is that the rejection of the notion of initial vocational preparation and orientation is related to the extension of a general education until the end of Year 12. This is not justified either historically or empirically.

Secondly, within this context, I want to argue that the notion of credit transfer in its most definitive form, which really constitutes potential advanced standing for some TAFE courses, is essentially limited. I believe that the other forms of articulation which are beginning to emerge are a much better way to go.

The Idea of a Qualification

There is a general view that an award constitutes some form of qualification, that it is a recognition that the student has gained the necessary knowledge and skills. It has been accredited by some authoritative body upon the base of agreed areas of knowledge and skills. Within the professions this gives the right to practice, and within education and training this is the right to proceed to the next level. In France within the school system this is adhered to fairly strictly.

This should not be taken too far, as within the labour market some awards don't necessarily qualify, for example a liberal arts degree, but in the case of the professions and many of the craft awards, they certainly do. In Germany there is a high degree of regulation and the qualification aspects of most awards is very strong.

The idea of qualification relates to the appropriate authority for awards. For example within the National Training Reform Agenda there is an understanding that industry is the appropriate authority for the standards and content for training awards. Historically in Australia, authority for upper high school curriculum was vested in the universities. For example in Victoria it was only in 1978 that the Victorian University Schools Examination Board was replaced by the Victorian Institute of Secondary Education. At the time these were appropriate arrangements, as the Matriculation and Higher Schools Certificate were very much awards which qualified students for higher education. As qualifications they more or less worked.

The Generalisation of the Courses and the Debasement of Qualifications

In recent years we have seen a generalisation of courses not only within school awards—the Year 11 and 12 awards have been generalised—but through the drift of students from explicitly vocational courses, including entry level courses, into the general school award.

Upper secondary curriculum must now broaden its purpose from that of higher education preparation. We have seen the growth of the argument about a broad general education, which includes social, cognitive/intellectual, individual, economic and academic purposes.

This is an ill defined concept. Within the various state level reports—Blackburn, Carrick, *Education 2000*, Gilding etc—there are stronger definitions, and an association with the mainstream school subjects—maths, science and the humanities.

But in its more general form it is assumed to be an extension of the compulsory years. In fact the notion of general education in the upper secondary years is primarily based upon the principle of choice of subjects, with little in the way of curriculum rationale. It is essentially a philosophy of consumerism. Within this practice the patterns of upper secondary curriculum are likely to be subject to influences other than those of the desire for a well-balanced education.

The problem with this argument is that with the increase in retention rates there has been a drift away from the notion of a general education—the growth has been in subjects which begin in Year 11 such as legal studies, psychology, economics, health. At the same time there has been a sustained fall in the humanities and languages and the classics have all but disappeared.

Based on 1994 figures from Victoria and New South Wales, this trend is continuing. At the same time there has been another phenomena—an enormous increase in the number of students who apply for higher education.

What we now have are school courses and awards which must accommodate the traditional purpose of preparation for higher education and a range of other vocational purposes and destinations. This creates an intolerable tension. The belief that it can be accommodated through some free floating notion of a general education is not justified.

Symptomatic of this situation has been the growing hegemony of the tertiary entrance score. This is a feature of all systems, although to a lesser extent in the Australian Capital Territory and Queensland. For most students the score is more important than the certificate or award. The award as a qualification has been debased. The growing influence of the score can be seen by the fact that in many states selection for TAFE diploma level and some other courses is now based on the score.

The elimination of the notion of qualification is I believe a most serious educational and cultural issue. The post-modernists might applaud it as a natural extension of the redefinition of knowledge, but it challenges the very purpose of learning. We now have a situation where the generalisation of the upper secondary years has resulted in a lack of curriculum and vocational definition. Within this situation, the most powerful influence—that of the process of tertiary selection—has come to prevail to the point that the instrument of the process, the score, has replaced the award as the real qualification.

Limitations in the Upper Secondary Curriculum

Leaving aside the amazing ability of a single score to be an appropriate selection device for the broad range of higher education courses—with TAFE's movement into use of the tertiary score there are potential and amazing contradictions in what can and cannot count for a score—it is entirely appropriate that the universities should be able to indicate what they regard as appropriate preparation.

The dilemma for upper secondary education is that these requirements have strongly influenced the form and the extent of the curriculum. All states have subjects which can be included in the tertiary entrance score. Victoria is perhaps the most vivid illustration of this with 42 possible subjects. As demonstrated in the Schools Council discussion paper, *The Role of Schools in the Vocational Preparation of Australia's Senior Secondary Students*, New South Wales still has 92% of students acquiring a tertiary score, despite efforts to provide variety and definition within the Higher School Certificate.

To varying extents, the upper secondary arrangements in Australia have been characterised by two phenomena, namely a lack of definition of general education and a lack of coherence leading to a refusal on the part of awards bodies to accept vocational education and training curricula as appropriate for Years 11 and 12. Formerly, many courses had much stronger vocational definitions. Upon the basis of international comparisons of programs for the same cohort, I believe that neither of these phenomena are justified either historically or empirically. What is needed is more vocational education and training within the school curriculum and more definition and coherence.

Credit Transfer

My essential argument is that credit transfer is an extension of this situation in that it is about locating pieces of the vocational education and training curriculum, mainly in the form of TAFE modules, and allowing the potential for advanced standing if students subsequently enrol in the appropriate course.

Credit transfer does not attempt any broad forms of articulation as first mooted during the development of the Victorian Certificate of Education in Victoria. The arrangements in Victoria are quite specific and linked to what can be found within the current Certificate of Education subjects rather than some notion of broad equivalence of courses.

Although entirely appropriate, the irony for credit transfer is that it could be done without elaborate procedures as it will always be up to the user to decide if credit is to be given. It is interesting to note that in Queensland the Board of Senior Secondary Schools Studies regards credit transfer as double dipping. This may seem a narrow view, but if a TAFE college in Queensland wants to give advanced standing or recognition of prior learning, then the absence of credit transfer arrangements will not prevent this. The converse is also true. It is interesting to note that most students in Queensland take one or more training modules in Year 11 and/or Year 12.

The notion of credit transfer in this particular form is a transfer from the general to the particular course, and is very much tied up with what is general and who decides. In the Victorian case general refers to subjects acceptable for higher education. For example, the University of Melbourne has a list of approved subjects which include accounting, but not art. Universities are entitled to do this, but the point is that what a university stipulates as being appropriate preparation should not be assumed to define a general education.

All of this serves to underline my argument that procedures are premised upon the view that the current range of subjects and courses in Years 11 and 12 are adequate and the notion that forms of vocational definition are antithetic to the principles of a general education.

There is of course another argument against credit transfer in this form. Credit transfer arrangements haven't worked. A recent survey by Box Hill College of TAFE could not find one student who had utilised the arrangements.

I suspect that these arrangements are much too difficult in their current construction and that they lack coherence. If credit transfer arrangements came in the form of a whole course or a substantial part of a course, they might get more recognition.

I should point out that not all systems have used this fairly limited definition of credit transfer. South Australia and the Northern Territory for example have two way procedures, and Western Australia has allowed a very large number of TAFE modules to be taken by students.

Alternative

All Australian upper secondary authorities have been wrestling with a dilemma related to tertiary selection. No authority has been prepared to separate the credential from the process of selection, although the Australian Capital Territory and Queensland have gone some of the way. Furthermore, authorities have moved more in the direction of common arrangements with common certificates and, in the case of Victoria and to a lesser extent South Australia, fairly common arrangements within the certificate. All systems are aware of the problem of separating vocational courses and all are aware of the dangers in simplistic notions like 'Let's adopt the German system'.

What is needed is something which will allow more coherent courses, more appropriate vocational education and training curriculum and courses or programs which can provide definitions other than a score so that potential users of the certificate can identify other factors as appropriate preparation. If we view a tertiary score in a hierarchical or vertical sense, then we need to consider how this can be supplemented with more horizontal forms of differentiation. Broadly defined (industry) courses are one form of horizontal differentiation and this can be complemented with stronger forms of articulation, or connectiveness, with post-school destinations.

The work undertaken by the Curriculum Corporation for a Department of Employment, Education and Training funded report on Vocational Education in Schools Project consistently found that credit transfer arrangements, in their more limited form, have been a disappointment. Broader forms of articulation are needed.

I personally think that the evolution of dual recognition procedures in Victoria, the Joint Secondary Schools TAFE program in New South Wales and the student programs in Western Australia are very much to be welcomed.

For example, the dual recognition arrangements in Victoria in the area of electronics:

- allow for the first time new or extra curricula to be incorporated into the Victorian Certificate of Education;
- are based upon a coherent purposeful program of studies, which is closer to the humanistic ideal upon which upper secondary education in Australia was built; and
- were successful in that students who completed the course received their Victorian Certificate of Education, a tertiary score and a Basic Certificate in Electronics.

It has been interesting to note that the University of Melbourne's Engineering Faculty was keen to enrol some of the students. The university *recognised the qualification* and appreciated the coherence of the course and its broad vocational orientation. In other words, they utilised the horizontal differentiation.

Conclusion

In conclusion, we need to be clear that credit transfer is only one form of articulation. In its basic form it is a limited notion, which requires little compromise from the accreditation authorities.

But the notion of articulation is absolutely pivotal to the Year 12 certificate, the great and traumatic transition point in Australian education and training. Interpreted broadly into notions of dual recognition and coherent vocational programs, it is a most important development.

I would finish with two comments. Firstly, credit transfer should expand quickly. I hope that Victoria will not take four to five years to prepare a dozen or so programs. There needs to a substantial percentage of the cohort engaged in these programs to prevent them from being seen as residual. To do this may well require extra support.

Secondly, for the broader notion of articulation to flower fully in our schools, some of the Year 12 authorities will have to introduce more flexible arrangements. We have found that on the whole it is the schools which are initiating the most successful programs as seen in the interim Australian Vocational Certificate Training System evaluation, the notion of an Australian Traineeship Foundation and the experiences of schools working with industry.

Case Studies

Mr Michael Brearly, Head of Department, Diploma of Business (Hospitality), Regency Park College, Adelaide

The Diploma of Business (Hospitality Management) began in 1989 at Regency TAFE. The course originated because of industry demands arising from the need to provide current and future hospitality employees with access to senior academic qualifications.

During the ensuing period the reputation and profile of the award has steadily grown to be presently recognised as one of the best courses available of its type in Australia. We are now constantly receiving requests from students in other states to take up studies in the Diploma. A further attraction to the learning program is the articulation into the Bachelor of Business (Hospitality and Tourism) at the University of South Australia—the first three years.

In addition to the growing number of applications from around Australia, the course administrators have to contend with a similarly growing number of requests from overseas students for recognition of prior learning in subjects and/or courses undertaken in their own country.

Applications from around Australia are primarily from applicants who are making decisions on where to study, based on the amount of recognition of prior learning they are likely to receive. Overseas students follow a similar pathway, although a number will wait until they are accepted into the course before applying for status or advanced standing in the unit of study.

The process for recognition of prior learning is in line with established requirements and is assessed by a committee consisting of myself, the Curriculum Director, academic staff and industry representatives. The majority of requests come from outside the state and country and are reviewed on the written materials supplied.

Methods of assessing recognition of prior learning include:

- an interview
- a presentation
- skills testing (performance)
- an examination.

Issues and Frustrations Concerning Recognition of Prior Learning and Credit Transfer Processes

Historical Issues

Initially at ground level issues concerned the lack of:

- guidelines with everybody doing their own thing while being heavily encouraged by the TAFE; and
- consistency from one college to another in that recognition of prior learning granted by Regency TAFE may not be granted by Adelaide TAFE.

Current Issues

While the above problems are now reasonably attended to, other issues have arisen. With the move to hospitality, Regency TAFE was asked to recognise units from other TAFEs and universities and, to a limited extent, from secondary schools. The following problems occurred:

- obtaining syllabi from these institutions proved difficult with some courses no longer being conducted because of the expense to the original organisation;
- students too often provided insufficient detail for recognition of prior learning;
- students claimed recognition of prior learning for units but could not substantiate the claims;
- students were requesting recognition of prior learning for courses undertaken years ago which were no longer relevant to the current course;
- subjects achieved at other institutions did not necessarily equate to the Regency course; and
- some skills or units claimed were not yet incorporated in the Regency course.

Assessment of Recognition of Prior Learning

Assessing recognition of prior learning added to the academic teaching load particularly in the light of greater pressure on academics to achieve productivity gains, leading to larger classes and expectations of greater outputs. The time used to process recognition of prior learning claims was also equated with productivity gains in that the awarding of subjects or units to students was considered as part of productivity.

Costs

Future costs for assessing and monitoring recognition of prior learning need further consideration as this process is not federally funded. Consideration needs to be given to the use of the Higher Education Contribution Scheme's process as a source of funding. As yet, likely costs for infrastructure and the commonality of subjects and definitions between states/territories are not available.

Standards

With overseas franchises encouraging greater numbers of students to apply, the credibility of overseas degrees needs to be considered in terms of recognition of prior learning. The question of standards in the recognition of units from private providers also needs further consideration as does the courses sold by the Department of Employment, Education and Training.

Future Developments

At this stage, recognition of prior learning and credit transfer are being driven by larger organisations and government with small business as yet demonstrating little interest.

Modularisation of courses will allow for greater ability to grant recognition of prior learning and credit transfer. This process will be assisted by the expected completion of a national diploma course in mid 1995–96.

Case Studies

**Associate Professor Ian Dickson,
Deakin Australia, Victoria**

Background

Deakin Australia was established on 27 October 1993 as one of the outcomes from the merger of the Geelong based Deakin University and Victoria College. These two higher education institutions merged on 1 January 1992 to form one of the larger universities in the unified system. The merged institution has a student load of 16,774 EFTSU with faculties of Arts, Education, Health and Behavioural Sciences, Science and Technology and Management comprising twenty-five graduate schools. This merger was unique in Victoria in that the two merging institutions were of approximately the same size and the new Deakin University retained elements of both the university and the college of advanced education.

When the executive assessed the strengths of the university it was realised that it was in a unique position to provide ongoing education and training to professionals throughout their career.

Firstly, Deakin is a leader in print-based distance education within Australia. A large proportion of the university's undergraduate and postgraduate programs are supported by high quality distance education materials. The university has also developed sophisticated support systems designed to meet the needs of remote students.

Secondly, two centres designed specifically to meet the needs of both professional organisations and industry were already operating within the university.

The Centre for Management Services, sited on the Geelong campus, was established to develop and deliver education and training programs on behalf of professional associations. These programs are designed, owned and awarded by the professional association under the supervision of the university. These distance education programs are semester-based and supported by high quality print material.

There were 19,250 students enrolled in 1993 through the following professional associations:

- Association of Professional Engineers, Scientists and Managers of Australia (APESMA)
- Australian Lifewriters Association (ALA)
- Australian Society of Certified Practising Accountants (ASCPA)
- Finance Sector Union (FSU)
- Institute of Municipal Management (IMM)
- Royal Institute of Architects (RIA)

The Technology Management Centre was established by the Faculty of Applied Science in Victoria College to develop, deliver and administer university programs in technology management. These undergraduate awards are designed to meet the education and training needs of employees in Victoria's manufacturing industries. The customer-focus programs are highly innovative and employees have access to the program 24 hours a day, 365 days a year anywhere in Australia. The features of the program, which were developed in partnership with industry, are described in detail elsewhere.

The experience and resources of the university, including these two centres, were incorporated into Deakin Australia.

Deakin Australia

Deakin Australia was established by Deakin as a private university enterprise to meet the education and training needs of industry and the professions. Deakin recognised that the traditional university could not provide a customer-focused service that met the needs of its client organisations. Although Deakin Australia draws on the intellectual resources of the university, its management structure centres on the client rather than the university award.

Deakin University is assisting Deakin Australia by developing academic structures that provide Deakin Australia with the academic flexibility needed to meet the varied needs of their clients. Obviously, the university is responsible for all accredited university award programs. Deakin Australia is responsible for the management and delivery of these programs to the client and the development of non-award education and training that provide pathways into accredited university awards.

The non-award program is the client's award and often carries the organisation name; for example 'Nuts and Bolts Management Certificate'. The size of the program is dependent on the client's needs, with a content and delivery strategy that meets the education and training needs of the client. These programs are endorsed by Deakin Australia which is responsible for the academic standards and the development and maintenance of appropriate articulation pathways into Deakin University awards. The program is usually targeted at first-line management of employees aspiring to such positions within their company.

Deakin University is accrediting four awards at the undergraduate level which are equivalent in total to a normal degree. This allows employees to enter and exit the program as their career develops. Thus, the business and their employees drive the acquisition of knowledge rather than the university.

The structure of the Deakin Australia certificate will be accredited by Deakin University as a 'shell award'. The content of the program, which is administered and delivered by Deakin Australia, will be developed by Deakin Australia in partnership with a client, drawing on Deakin University undergraduate materials or appropriate material developed by Deakin Australia. The delivery strategy and the management of the program are also developed in partnership with the client.

The Foundation Studies Certificate provides a very supportive learning environment for employees, many of who are not confident learners. On completion of this award the student can enter an undergraduate degree within the University or, where appropriate, pursue a postgraduate program leading to an MBA.

The structure allows Deakin Australia to work closely with the client providing education and training that meets the core needs of the organisation. The student then enters the mainstream university to progress their individual career aspirations, either at the undergraduate or postgraduate levels.

Deakin Australia is structured to draw on the university's academic resources and delivery experience, to deliver:

the right program;
to the right people;
in the right context;
at the right place; and
at the right time

Opportunities and Potential Problems

The training industry within Australia is large. The Australian Taxation Office estimated that the minimum spent by private sector employers on education and training in the 1990/91 financial year was \$841 million, of which 19% (\$160 million) was spent on course fees. This is in general agreement with an ABS survey carried out in 1989.

These figures are thought to be underestimated as they are derived from companies' stated compliance with the Training Guarantee Act which required organisations with a payroll greater than \$20,000 to contribute 1% of their payroll towards training. On the basis of this data it is estimated that the present training budget would be in excess of three billion dollars, of which \$600 million would be spent on course fees.

Over the last few years, Deakin Australia has observed that companies are becoming more focused in their training strategies. Deregulation of the financial system and exposure to international competition has given rise to a highly turbulent environment within which these organisations operate. Few organisations have escaped restructuring during the recent recession with the resultant flattening of their organisation. Responsibility has been pushed further down into hierarchy, resulting in the professionalisation of sectors of the work force that were relatively unskilled in the past. The role of unions has changed dramatically and enterprise bargaining is far more common. Companies are finding that they need to provide quality training and education for their employees to give them the skills and knowledge to cope with the rapidly changing working environment.

There are many opportunities for tertiary institutions who can respond in a flexible manner to the needs of such organisations. The era of 'cheque book training' has passed. Training must now be in line with corporate objectives and be shown to contribute to increased productivity within the organisation. As a consequence, higher education programs need to be focused on the workplace with specific application of generic knowledge, whilst still maintaining the academic standards required for university accreditation.

Educational institutions that can respond to the needs of their clients while still maintaining the academic integrity of their programs will have a major role to play in the restructuring of Australian industry.

One of the major challenges for both universities and industrial organisations is to come to terms with their differing cultures. Deakin Australia has found that the objectives of the university and industry do not differ greatly, but are expressed in the context of their different perspectives of the world. The development of a productive relationship between the two groups is essential for the continuance of a long-term educational partnership.

This process is like a courting ritual where both sides come to terms with their view of the world and their differing wants and needs. The development of an equal partnership is essential for the long term viability of any cooperative program.

When developing this partnership, it is important to consider how an educational program will be used inside the organisation. Although accredited awards are becoming more important from the point of view of the employee, the employer is often more concerned about the content and the transfer of the skills and knowledge into their workplace and its effect on the bottom line, than whether the program meets the accreditation requirements of the university. Institutions must be more relaxed in their approach to the provision of education and training. Where a particular educational program sought by industry does not meet accreditation requirements, a sensible, articulated pathway into university awards should be provided. Universities can provide quality education and this in itself is valuable regardless of any accreditation label.

Another manifestation of this cultural difference is the differing foci of the university and industry. Educational institutions tend to focus on the 'educational good' where programs are judged on their academic merits. Industry on the other hand judge a program by its effectiveness within the organisation and how it effects productivity and profit. A program which is considered to be first class by an academic institution may be inappropriate for industry as it does not deliver the required changes in the workplace.

The academic curriculum is generally not the problem with such programs. Any university can provide a quality curriculum as this is their area of expertise. Where universities fall down is in their delivery, management and customer service. Traditional universities are not structured to respond to the needs of a demanding client. They are usually structured around discipline-based faculties which deliver and administer Commonwealth funded programs on a semester basis. Deakin University established Deakin Australia as an organisation structured to meet the needs of industry and professional organisations. Deakin Australia aims to provide educational programs for industry and the professions where the context of the education is the client's business, delivered in a flexible manner with customer focused, high quality service. The management structure ensures efficient communication between the two partners.

In other words, Deakin Australia provides an education and training service to its clients where the educational program is the product. Many universities can develop a similar product but it is in the managing and servicing of the product where Deakin Australia sees its competitive advantage.

The future for Deakin Australia is very challenging but the potential rewards are great. The need for ongoing, life-long education for professional employees is essential and will become more important as employees and the employers strive to remain competitive in an increasingly competitive market place. Universities and TAFE colleges must come out of their institutions and develop quality customer-focussed education to meet their clients needs.

If Deakin Australia can continue to meet these needs it will be a major and contributing part of Deakin University at the turn of the century.

References:

- Dickson, I E (1991) 'Bachelor of Applied Science (Technology Management): A partnership between higher education and industry', *J Ed. Lib. Infor. Sci.* 32.
- Beeson, G W, Stokes, D M & Symmonds, H C (1992) 'An innovative higher education course to meet industry's needs', *Higher Education Research & Development* 11 (1) 21–39.
- Beeson, G W, Dickson, I E & Stokes, D M (1992) 'Partnerships in education: the technology management experience' in National Board of Employment, Education and Training: *Current Practices in Credit Transfer and Related Issues*, Occasional Papers, AGPS, Canberra.
- Beeson, G W, Stokes, D M & Symmonds, H C (1991/92) 'A cooperative approach to providing relevant higher education to the workplace' *International Journal of Innovative Higher Education*, 8 (182).
- Stokes, D M, Dickson, I E, Beeson, G W, Braddy, J, Jamieson, J, Mackay, LK & Phelan, K (1992). 'Getting recognition from higher education: the development of award courses in technology management delivered with the assistance of computer managed learning' in National Board of Employment, Education and Training: *Current Practices in Credit Transfer and Related Issues*, Occasional Papers, AGPS, Canberra.
- Symmonds, H C (1993) *Interim Report of the Evaluation of the Bachelor of Applied Science (Technology Management): First Student Cohort*. Deakin University, Melbourne.
- Beeson, G W & Symmonds, H C (1993) 'Application of a critical factors model to an innovation in higher education', *International Journal of Innovative Higher Education*, November.
- Beeson, G W, Stokes, D M & Symmonds, H C (1993) *Flexible Delivery to the Workplace of a Bachelor of Applied Science Course: An evaluation*. Report funded under the Evaluations and Investigations Program, Department of Employment, Education and Training, AGPS, Canberra.
- Symmonds, H C, Jernudd, D G & Rodgers, J C (1993) 'RPL in higher education', *The RCC Network Newsletter*, Sydney, March.
- Australian Taxation Office (1992) *Training Guarantee Compliance Results 1990/91*, Canberra.
- Employer training Expenditure Australia* ABS Catalogue No. 63530.

Case Studies

Mr Kevin Lock, Training Manager BHP Steel, Slab and Plate Products Division, Wollongong

I am sure I am preaching to the converted when I say that we have never had a climate which is more conducive to the creation of change in our approach to education and training. Training and education enjoy a much higher status today than ever before.

Brief Company Overview

BHP Steel, Slab and Plate Products Division (SPPD), the largest of BHP's steel plants, produces the bulk of Australia's flat steel products at the Port Kembla Steelworks. The flat steel use includes ship building, fabricated pipe, vehicle building and cans. We also have a tremendous export market for our slabs.

The steelworks, which began operations in 1928, is located 80 kilometres south of Sydney on a 800 hectare site and has over 7,000 employees. It is the largest single site industrial employer in Australia. The plant is well located to take advantage of nearby black coal deposits, a developed port, a growing market for products as well as a good rail and road network.

We are most fortunate to have a well established in-house training and development department with facilities to cater for a wide variety of training needs. BHP also has an excellent relationship with all of the institutions and is well represented on their peak advisory groups.

Steel Industry Restructuring

Restructuring was the word on everyone's lips as we entered the 1990s and as we drive towards the 21st century we will be closely examining the results of restructuring. I must say steel began the restructuring process, in both strategic direction and organisation structure, through the necessity for survival in the early 1980s.

We have, as a result, strengthened all aspects of our business and are outperforming almost all other steel companies in the world. So much so, that BHP has had the confidence to undertake a massive capital investment program in technology at SPPD since the mid 1980s. The main thrust of the program centred on quality and the requirements of the people to run the technology.

Vocational Training

BHP Steel has a long tradition of providing formal and informal vocational training for its employees. We have been very supportive of the training agenda as it seeks to extend formal entry into employment.

Unlike countries such as Germany and Japan, Australia does not have a training culture other than the time-honoured apprenticeship system. We have tended to view education as the domain of schools and universities and training the domain of TAFE and to a lesser extent the workplace. Education, training and work, in the same way as knowledge, skills and application, must no longer be seen to be separate and unrelated—they must be integrated and mutually reinforcing for the success of the vocational education and training reform agenda.

To this end, BHP decided to develop two pilots of the Australian Vocational Certificate (AVC) at the Whyalla Long Products Plant and Port Kembla SPPD plant. Although different in structure and application, they are similar in that both recognise current competencies as being integral to the projects and both seek to collaborate with employers, employees and education organisations in the respective regions.

Partnerships

The missing link with our education and training system of today is that the final road testing of the product is done by the customer rather than the supplier. Assessment is usually completed during the process, with little or no check in place at the end of the developmental process and no structured system to ensure maintenance of and ultimately, improvement of skills.

We, in our industry, spend many millions of dollars on formal and informal training. The major difference, of course, is that up to now training conducted by industry has rarely been assessed as to the actual outcomes and, therefore, lacks status. A great deal of training and education is repeated because of a lack of recognition of the skills acquired or a lack of flexibility in our education systems.

For example, our apprentice and operator courses repeat the training in many skills areas. The skills are developed to the required standard in the workplace, but under the cloak of educational consistency, students must

attend classes and relearn much of the same material. The main reasons seem to be:

- an inability within the education system to provide the flexibility to grant recognition of competencies already gained on the job; and
- a perceived threat to the teaching profession as industry takes a more proactive role in training.

Both of these issues are being addressed by our industry on a state and national level. The development of partnerships between education and training providers and industry is vital. The partnership between BHP, the NSW Education Department and TAFE in the implementation of the Australian Vocational Certificate pilots is a good example of this.

Case Studies

Jill Hyland, Deputy Principal, Illawarra Senior College, Illawarra Region, New South Wales

The Illawarra Senior College was established at Port Kembla, NSW in 1992 to 'provide education and training to students of all ages in a mature learning environment'. The objectives of the Australian Vocational Certificate pilot are to assist in the development of more flexible and accredited pathways between schools, TAFE and other higher education institutions. To do this the college curriculum will provide:

- increased options and courses for full and part-time students;
- recognition of prior learning;
- access to a range of bridging courses;
- entry level training opportunities to Australian Standards Framework levels 1–2;
- a point of re-entry to education and training for young people and adults who left school without credentials;
- combinations of school, TAFE, recognised industry specific training, and/or university credentials, which will equip students with general education and Higher School Certificate qualifications, generic vocational competencies and elements of entry level training;
- specific vocational skills in a curriculum framework which emphasises foundation knowledge and skills, transferable to a range of workplace situations; and
- strong networks between school, industry and the community, which will give students relevant and work based training experience.

Achievements during the development phase of the project include:

1. the identification, jointly with industry partners, of entry level general skills—these skills are regarded by local employer representatives as important for entry into the workforce and endorsed by teachers who believe the entry level general skills can be developed and assessed within the framework of preliminary and Higher School Certificate syllabus documents that could be developed, performed and assessed in a structured work placement;
2. the refinement and listing of these skills, as a result of two consultative processes, in the Illawarra Region General Competency Log Book;

3. the development of a process for embedding the development, assessment and reporting of these general competencies into the core curriculum—this is currently being negotiated with teaching staff;
4. the trialling of the log book for students by local employers from a range of organisations in structured work placement during July 1994;
5. the enrolling of re-entry students and attempts to determine prior learning, initially for formal courses completed at other institutions; and
6. the training of more than half of the college staff in competency-based training and adult learning theory and practice by TAFE Plus, New South Wales.

Working closely with industry and commerce partners, the college education and training team will, during the implementation phase, address the need to:

1. gain industry and employer recognition for those students who complete the Log Book trial ie those who develop and perform general competencies on-the-job (in the structured work placement) and off-the-job (in the college setting); discussions on the possibility of credit transfer options with the Illawarra Institute of Technology will commence in July;
2. recognise the demands on employers made by structured work placements that are significantly different to those associated with a traditional work experience program and the implications of this as the number of students involved in courses requiring structured work placements increases;
3. provide training for enrolment staff to ensure that recognition of prior learning occurs for re-entry students enrolling at the college, within the current guidelines in the ACE Manual, Board of Studies New South Wales.
4. ensure that students are fully informed of, and use, existing credit transfer provisions for general education and vocational education courses completed in post-compulsory education;
5. maintain quality assurance of competency assessment on-the-job across a range of workplaces and off-the-job across all Key Learning Areas within the college; and
6. build teaching staff confidence and skills in competency-based assessment and reporting.

Case Studies

**Mr Steve Hansen, Chair, Department of Manufacturing & Quality,
Bachelor of Technology Management Degree,
University of Western Sydney, Macarthur, New South Wales**

1. The University of Western Sydney

The University of Western Sydney is a federated network of three members—Hawkesbury, Nepean and Macarthur. Each university member is largely autonomous and is responsible for the development and conduct of courses and the admission of students. This paper presents the arrangements as implemented in the Faculty of Business and Technology at the Macarthur member of the university federation.

This faculty is located at Campbelltown, New South Wales, and conducts a variety of undergraduate and post-graduate degrees. These include degrees in accounting, business, economics, tourism, management, computing, science, design technology and technology management. The faculty is quite unique as it is an integrated and multi-disciplinary faculty of academics. In particular a new range of degree, associate diploma and diploma courses integrating management and technology have been developed.

With these new courses, responding to a multi-skilling initiative from both government and industry, new subjects, teaching methods, assessments and career pathways have had to be developed. Methods of articulation or credit transfer from existing courses of study became part of the curriculum design. Methods of articulation from these courses into further study, including traditional courses, had to be examined. Principles and policies regarding credit transfer had also to conform to faculty policy for consistency across the various disciplines in the faculty, and also recently to conform to the Australian Vice-Chancellors' Committee paper '*Credit Transfer Principles*' of December 1993.

2. Credit Transfer in General

2.1 TAFE

The University of Western Sydney Macarthur has a policy of credit transfer and articulation between TAFE and the university. The details of the extent of academic credit granted are published in both the publication '*Credit Transfer from TAFE to Higher Education*', available at TAFE colleges and also in the university's calendar. The credit transfer arrangements set out in these publications apply only if the relevant TAFE course has been completed. Partially completed courses are considered on an individual basis. In addition there is a time limit of ten years for this articulation. A previous award outside this time limit is also considered on an individual basis.

For those courses conducted in the Faculty of Business and Technology, the general policy is for a full year's credit transfer from a relevant associate diploma qualification and proportionally less credit for advanced certificate and certificate qualifications. These credit transfers are listed in the tables at the end of this paper

2.2 Overseas Institutions

Over the last few years, the Faculty of Business and Technology has been actively promoting its courses overseas in Indonesia, Malaysia and Singapore. In a similar manner to the TAFE credit transfer policy, various credit transfer arrangements have been drawn up for a number of educational institutions in these countries. Again the credit transfer is from a block exemption of one year, to various subject exemptions according to the level of qualification.

2.3 Course Entry

In the Faculty of Business and Technology, entry to courses by non-Higher School Certificate (HSC) students is determined by a ranking system using the following:

- (i) selection on HSC Aggregate within the last 5 years;
- (ii) completion of at least two-thirds of a degree, diploma or associate diploma from a recognised Australian institution with a pass average or better in conjunction with relevant work experience; or
- (iii) university selection tests.

Although prior learning is not used to gain exemptions or credit transfer, it certainly can assist in gaining entrance to courses.

3. Bachelor of Technology Management Degrees, Case Study of Curriculum Development

3.1 Rationale

Traditionally in the Australian manufacturing industry, management has come from either business-orientated personnel with no formal technological background or from technological or engineering personnel with no formal management background. There is a pressing current (and future) need for manufacturing management to possess both management and technological skills and conversely, for those in technical areas to possess management skills.

In response to the above, the Faculty of Business and Technology, University of Western Sydney, has developed a three year degree integrating management with technology. This course is offered with a particular specialisation in either biotechnology, instrumentation and control, or in manufacturing. The biotechnology specialisation was first offered in 1991, the instrumentation and control in 1992, and the manufacturing specialisation in 1993.

3.2 Aims and Objectives

This course is aimed at bringing awareness to graduates of the inter-relationship of technology and management to successful manufacturing, as recommended by various studies. Part of this process is to produce a multi-skilled graduate with a sound understanding of management combined with a selected specialised branch of technology.

This course is designed to provide as much hands-on skills as is possible without running a commercial firm. In addition, by integrating a number of different technological and management disciplines into a single laboratory complex, it is anticipated that graduates will develop a 'feel' for the related activities and ideas they will encounter in the manufacturing industry.

Although having a significant technological content, this course is not intended to be an alternative to the established four-year engineering degrees. It is seen as a means of increasing the skills of the traditionally non-engineering sections of the manufacturing industry.

3.3 Course Structure: Teaching and Learning Strategies

This course builds on a foundation of science and business subjects, many of which form the core of existing Bachelor of Science and Bachelor of Business courses. This pool of units is augmented by additional marketing, management and manufacturing technology subjects. There are substantial science and commerce streams linked by mathematics and computing units and a communications stream.

The teaching/learning strategies designed for this course require that some of the level one along most of the second and third year units be taught in a production laboratory/management centre. Use of this innovative resource provides a realistic setting, resembling as much as possible the operation of a manufacturing firm with banking, marketing, management, accounting, product development, testing and production, united in one facility.

Extensive use is made of computer simulation and packages throughout this course. In particular, subjects have been designed to extract the 'principles' from the 'algorithms'. Computer simulation is used to give an understanding of the working of the relevant applied mathematics.

Communications skills are an essential component of a number of subjects at all levels. In particular, the subject on Research and Communication for Technology Management, introduces the student to a range of communication skills including verbal, persuasive, team and interpersonal skills.

3.4 Articulation from TAFE

A number of associate diploma courses from TAFE provide a most suitable technical level and expertise in the technical content of much of these courses. This is particularly pertinent in first level subjects of these degrees. The technical content of the second and third level subjects requires additional mathematics not normally found in TAFE. In designing these degrees, it was felt that every opportunity for TAFE articulation should be given. In particular it was felt that these degrees should act as a bridging course to provide future management level personnel who may well come from a technical background with the necessary management skills.

The combination of an associate diploma in a relevant technical area plus the Technology Management degree is expected to be an attractive combination to prospective employers.

In addition, although these degrees are at present full time study programs, there has been a high demand from personnel with a technical–trade background for a part-time study mode, enabling them to articulate from the technical background to the management to fit their current or immediate job prospects. A number of the associate diploma courses from TAFE were selected as suitable for a one year's credit block exemption. Students are given exemption in most of the first level subjects (apart from a few subjects in the Management areas, and some of the second level technical subjects).

Most of the technical subjects in the Technology Management degree consisted of new concepts not found in existing degree courses, with a particular mathematics orientation directed at observed and simulated performance rather than a theoretical derivation. This made it easier to give block exceptions with groups of TAFE subjects taken together covering a number of the new degree subjects. On a subject by subject exemption basis, it is still difficult to give exemptions since much material is spread over different subjects.

3.5 Articulation to Other Qualifications

In designing these courses, it was also recognised that some form of articulation to other degrees such as pure management or pure engineering could be desirable. This form of articulation has been difficult to program because of the unique subject contents of the courses. This makes a subject by subject exemption impossible. Some subjects, because of their new perspective, cover technical aspects in much greater scope with a minimal of mathematical skills while others include 'alien' concepts, such as a marketing perspective in a technical design subject.

Although some avenues for articulation are open into masters programs (such as MBAs and Master of Engineering in related disciplines), a set of post-graduate courses has been planned to take graduates into both specialised management and/or technical areas.

4. Diploma of Technology Management

A steering committee composed of personnel from ICI, ANSTOW, Caltex and university staff designed a diploma course in technology management. These courses are run on a part-time mode in subject-module form. Entry and credit transfer is determined by work experience and/or performance competencies gained primarily from work experience with the participating companies. By 1995 it is anticipated that a distance mode for this diploma will be run.

5. Is Credit Transfer Successful?

Later this year a full survey of articulated students from associate and certificate level qualifications will be completed. The preliminary findings from the accountancy degrees are as expected. The associate diploma students are performing very well, in most cases better than Higher School Certificate entry students. However, certificate students are performing poorly.

There are quite a number of students in the technology management degrees who have taken the articulation route into these degrees. Although the surveying of their performance has not been completed, the preliminary results seem to indicate that nearly all associate diploma and most certificate students are performing very well. Their main difficulties lie in the mathematics areas, while their strengths in study habits and general maturity produce excellent results in the personal communication, group work and presentation skills areas.

Another benefit, although not substantiated yet, is that the mixture of older articulated students with the younger Higher School Certificate students produces better performance from both. An analysis of tutorial groupings later this year should verify this.

Certainly from anecdotal evidence, the work experience of many of the articulated and category B students has resulted in positive and beneficial outlooks to work habits and future career pathways for final year students. In some practical laboratory classes the prior learning experiences of some students has been shared amongst the others to improve overall performance.

6. Some Problems

6.1 Credit Transfer and Accreditation with Professional Bodies

The Technology Management degrees are applying for accreditation with the Institution of Engineers Australia. One of the problems arising here is that this body requires articulation into engineering degrees. The credit transfer of individual subjects is hard to assess since non-conventional subjects have been included in the degree. These have no subject to subject equivalent. A possible solution could be block credit transfer into Masters of Engineering programs.

6.2 Satisfying University Competencies

With credit transfer from TAFE courses, it is hard to assess in some cases, the actual depth or competency of certain skills, such as word processing or verbal communications. The University of Western Sydney (as most universities) has certain mandatory competencies that a student must have attained for graduation. By collecting these competencies into dedicated subjects this requirement can be visually met. However, in integrated, multi-skilled subjects, these competencies are met as part of the subject content and suitable assessment procedures are undertaken to assess the quality and level of competence.

In granting credit transfer from outside institutions, it is taken usually on good faith that a corresponding quality has been attained and that required competencies have indeed been achieved.

TAFE Articulation Credit Transfer

Bachelor of Commerce (Accounting)

Students who have successfully completed:

<i>Course:</i>	
Column 1	- 8635 Associate Diploma of Business (Accounting)
2	- 8767 Associate Diploma of Business (Management)
3	- 8542 Accounting (full-time) Certificate - 8543 Accounting Certificate
4	- 8544 Commerce Certificate - 8637 Advanced Certificate in Commerce - 8547 Banking and Finance Certificate - 8636 Advanced Certificate in Banking and Finance - 8572 Advanced Certificate in Real Estate
5	- 8768 Associate Diploma of Business (Business) - 8722 Advanced Certificate in Management - 8625 Advanced Certificate in Personnel Management - 8628 Advanced Certificate in Training and Development
6	- 3500 Advanced Certificate in Marketing Management

may be granted exemptions from the following subjects:

SUBJECT	1	2	3	4	5	6
D1724G Introductory Accounting A	0.125		0.125	0.125		
D1725G Introductory Accounting B	0.125		0.125			
D1719G Computing 1.1	0.125	0.125	0.125	0.125		
D1712G Business Management 1.1	0.125	0.125	0.125	0.125	0.125	
D1723G The Australian Legal System	0.125		0.125	0.125		
D1737G Statistics 1.1	0.375	0.375			0.375	0.375
3 electives unspecified						
Total	1.000	0.750	0.625	0.500	0.500	0.375

TAFE Articulation Credit Transfer

Bachelor of Commerce (Economics and Finance)

Students who have successfully completed:

Course:

- Column 1** - 8635 Associate Diploma of Business (Accounting)
2 - 8767 Associate Diploma of Business (Management)
3 - 8542 Accounting Certificate (full-time)
 - 8543 Accounting Certificate
4 - 8544 Commerce Certificate
 - 8637 Advanced Certificate in Commerce
 - 8547 Banking and Finance Certificate
 - 8636 Advanced Certificate in Banking and Finance
 - 8572 Advanced Certificate in Real Estate
5 - 8768 Associate Diploma of Business (Business)
 - 8722 Advanced Certificate in Management
 - 8625 Advanced Certificate in Personnel Management
 - 8628 Advanced Certificate in Training Development
6 - 3500 Advanced Certificate in Marketing Management

may be granted exemptions from the following subjects:

SUBJECT	1	2	3	4	5	6
D1724G Introductory Accounting A	0.125		0.125	0.125		
D1725G Introductory Accounting B	0.125		0.125			
D1719G Computing 1.1	0.125	0.125	0.125	0.125		
D1712G Business Management 1.1	0.125	0.125	0.125	0.125	0.125	
D1723G The Australian Legal System	0.125	0.125	0.125	0.125		
D1737G Statistics 1.1	0.375	0.375			0.375	0.375
3 electives unspecified						
Total	1.000	0.750	0.625	0.500	0.500	0.375

TAFE Articulation Credit Transfer

Bachelor of Commerce (Management)

Students who have successfully completed:

Course:

- Column 1** - 8767 Associate Diploma of Business (Management)
2 - 8635 Associate Diploma of Business (Accounting)
3 - 8625 Advanced Certificate in Personnel Management
 - 8628 Advanced Certificate in Training and Development
4 - 8722 Advanced Certificate in Management
5 - 8542 Accounting Certificate (full-time)
 - 8543 Accounting Certificate
6 - 3500 Advanced Certificate in Marketing Management
7 - 8768 Associate Diploma of Business (Business)
8 - 8544 Commerce Certificate
 - 8637 Advanced Certificate in Commerce
 - 8547 Banking and Finance Certificate
 - 8636 Advanced Certificate in Banking and Finance
 - 8572 Advanced Certificate in Real Estate

may be granted exemptions form the following subjects:

SUBJECT	1	2	3	4	5	6	7	8
D1724G Introductory Accounting A		0.125			0.125			0.125
D1725G Introductory Accounting B		0.125			0.125			
D1719G Computing 1.1	0.125	0.125			0.125			0.125
D1712G Business Management 1.1	0.125	0.125	0.125	0.125	0.125		0.125	0.125
D1737G Statistics 1.1	0.125							
D1713G Business Law for Management	0.125	0.125		0.125	0.125	0.125		
D2808G Principles of Marketing			0.125					
D2786G Organisational Behaviour			0.125					
D3731G Human Resource Management	0.375	0.375	0.375	0.375		0.375	0.375	
3 electives unspecified								
Total	1.000	1.000	0.750	0.625	0.625	0.500	0.500	0.375

TAFE Articulation Credit Transfer

Bachelor of Commerce (Tourism Management)

Students who have successfully completed:

<i>Course:</i>	
Column 1	- 8635 Associate Diploma of Business (Accounting)
2	- 8767 Associate Diploma of Business (Management)
3	- 8625 Advanced Certificate in Personnel Management - 8628 Advanced Certificate in Training and Development
4	- 8542 Accounting Certificate (full-time) - 8543 Accounting Certificate
5	- 8768 Associate Diploma of Business (Business) - 8722 Advanced Certificate in Management
6	- 8544 Commerce Certificate - 8637 Advanced Certificate in Commerce - 8547 Banking and Finance Certificate - 8636 Advanced Certificate in Banking and Finance - 8572 Advanced Certificate in Real Estate
7	- 3500 Advanced Certificate in Marketing Management

may be granted exemptions from the following:

SUBJECT	1	2	3	4	5	6	7
D1724G Introductory Accounting A	0.125			0.125		0.125	
D1725G Introductory Accounting B	0.125			0.125			
D1719G Computing 1.1	0.125	0.125		0.125		0.125	
D1712G Business Management 1.1	0.125	0.125	0.125	0.125	0.125	0.125	
D1737G Statistics 1.1		0.125					
D2808G Principles of Marketing		0.125					0.125
D2786G Organisational Behaviour			0.125				
D3731G Human Resource Management	0.250	0.250	0.250		0.250		0.250
2 electives unspecified							
Total	0.750	0.750	0.500	0.500	0.375	0.375	0.375

TAFE Articulation Credit Transfer

Bachelor of Business (Computing and Information Management)

Students who have successfully completed:

Course:

- Column 1** - 2402 Associate Diploma of Business (Commercial Data Processing)
2 - 8635 Associate Diploma of Business (Accounting)
3 - 2403 Associate Diploma of Business (Microcomputer Systems)
4 - 8767 Associate Diploma of Business (Management)
5 - 2406 Advanced Certificate in Computer Data Processing
 - 2422 Advanced Certificate in Computer Programming
6 - 8542 Accounting Certificate (full-time)
 - 8543 Accounting Certificate
7 - 8544 Commerce Certificate
 - 8637 Advanced Certificate in Commerce
 - 8547 Banking and Finance Certificate
 - 8636 Advanced Certificate in Banking and Finance
 - 8572 Advanced Certificate in Real Estate
8 - 8768 Associate Diploma of Business (Business)
 - 8722 Advanced Certificate in Management
 - 8625 Advanced Certificate in Personnel Management
 - 8628 Advanced Certificate in Training and Development
9 - 3500 Advanced Certificate in Marketing Management

may be granted exemptions from the following subjects:

SUBJECT	1	2	3	4	5	6	7	8	9
D1719G Computing 1.1	0.125	0.125	0.125	0.125	0.125	0.125	0.125		
D1718G Computing 1.2	0.125		0.125		0.125				
D1712G Business Management 1.1									
D1724G Introductory Accounting A	0.125	0.125	0.125	0.125	0.125	0.125	0.125		
D1725G Introductory Accounting B		0.125				0.125	0.125	0.125	
D1723G The Australian Legal System		0.125				0.125			
D1737G Statistics 1.1		0.125							
D2748G Commercial Programming 1						0.125	0.125		
D2734G Commercial Programming 2		0.125		0.125					
D2770G Systems Analysis & Design 1	0.125			0.125					
D2783G Systems Analysis & Design 2	0.125								
D2752G Fourth Generation Tools									
D3682G Office Information Systems	0.125		0.125		0.125				
3 electives unspecified	0.125		0.125						
	0.125		0.125						
		0.375		0.375				0.375	0.375
Total	1.000	1.000	0.750	0.750	0.625	0.625	0.500	0.500	0.375

TAFE Articulation Credit Transfer

Bachelor of Technology Management (Biotechnology)

Students who have successfully completed:

Course:

- Column 1**
- 6337 Associate Diploma of Applied Science (Biological techniques)
 - 2** - 6339 Advanced Certificate in Biomedical Techniques
 - 3** - 6120 Associate Diploma of Applied Science (Chemical Technology)
 - 4** - 6121 Advanced Certificate in Chemical Technology

may be granted exemptions from the following subjects:

Subject	1	2	3	4
Chemistry 1.1			0.125	0.125
Chemistry 1.2			0.125	0.125
Biology 1.2	0.125	0.125	0.125	
Computing 1.1	0.125	0.125		0.125
Biochemistry 2.1	0.125	0.125		
Microbiology 2.1	0.125		0.125	
+ 1 elective unspecified	0.125		0.125	
Total	0.625	0.375	0.625	0.375

TAFE Articulation Credit Transfer

Bachelor of Technology Management (Instrumentation & Control)

Students who have successfully completed:

Course:

- Column 1** - Diploma in Quality Management: Australian Quality Control
- 2** i) - Associate Diploma in Electrical Engineering
ii) - Associate Diploma in Control Engineering

may be granted exemptions from the following subjects:

SUBJECT	1	2
Computing 1.1	0.125	0.125
Mathematics 1.3		0.125
Statistics 1.1		0.125
Electronic Circuits & Devices		0.125
Electronic Systems		0.125
Microprocessor Hardware		0.125
Physics 1.1		0.125
Introductory Control Systems		0.125
D1712G Business Management 1.1	0.125	
D3812G Manufacturing Management	0.125	
D2771G Introductory Research Methods	0.125	
D3731G Human Resource Management	0.125	
D1805G Quality Systems & Improvement Strategies	0.125	
D1737G Statistics 1.1	0.125	
D2794G Techniques & Principles of Quality Management	0.125	
Total	1.000	1.000

TAFE Articulation Credit Transfer

Bachelor of Technology Management (Manufacturing)

Students who have successfully completed:

Course:

- Column 1** - 7711 Associate Diploma of Computer Integrated Manufacturing
2 - Diploma in Quality Management: Australian Quality Council
3 - 7705 Associate Diploma of Industrial Engineering
4 - 7703 Associate Diploma of Mechanical Engineering

may be granted exemptions from the following subjects:

Subject	1	2	3	4
D1719G Computing 1.1	0.125	0.125	0.125	0.125
D1731G Mathematics 1.3	0.125		0.125	0.125
D1802G Engineering Drawing and Design	0.125			0.125
D3685G Computer Controlled Machines	0.125			
D2811G Workshop and Materials Technology	0.125			
D3801G Computer Integrated Manufacture	0.125			
D2805G Manufacturing Facility Design			0.125	
2 electives unspecified	0.250		0.250	
1 elective unspecified				0.125
D1712G Business Management 1.1		0.125		
D3812G Manufacturing Management		0.125		
D2771G Introductory Research Methods		0.125		
D3731G Human Resource Management		0.125		
D1805G Quality Systems & Improvement Strategies		0.125		
D1737G Statistics 1.1		0.125		
D2794G Techniques & Principles of Quality Management		0.125		
Total	1.000	1.000	0.625	0.500

* The total of 0.625 can be increased to 1.000 if all electives listed below have been completed.

TAFE Subject	UWS Subject	SLF
7705EB Applied Statistics	D1737G Statistics 1.1	0.125
7705EB Design for Interchangeability	D1802G Engineering Drawing A and Design	0.125
7703K CAD		
7705EF Computer Aided Manufacture	D3685 Computer Controlled Machines	0.125
Total		0.375

Faculty of Business and Technology—TAFE Articulation Credit Transfer

Bachelor of Science

Students who have successfully completed:

Column 1

- 6337 Associate Diploma of Applied Science (Biological Techniques)
- 6338 associate Diploma of Applied Science (Pathology Techniques)
- 1A** - 6339 Advanced Certificate in Biomedical Techniques
- 2** - 6121 Advanced Certificate in Chemical Technology
- 3** - 6120 Associate Diploma of Applied Science (Chemical Technology)
- 4** - 2837 Computer Service Technology Certificate
 - 2841 Advanced Certificate in Computer technology
 - 2832 Electrical Engineering Certificate
 - 2842 Advanced Certificate in Electronics and Computing
- 5** - 2840 Associate Diploma of Engineering (Electrical Engineering)
- 5A** - 2829 Electronics Engineering Certificate
- 6** - 2402 Associate Diploma of Business (Commercial Data Processing)
- 7** - 2406 Advanced Certificate in Computer Data Processing
- 8** - 2403 Associate Diploma of Business (Microcomputer Systems)

may be granted exemptions from the following subjects:

Subject	1	1A	2	3	4	5	5A	6	7	8
D1715G Chemistry 1.1			0.125	0.125						
D1716G Chemistry 1.2			0.125	0.125						
D1710G Biology 1.1	0.125	0.125								
D1711G Biology 1.2										
D1719G Computing 1.1	0.125	0.125	0.125	0.125	0.125	0.125	0.125	0.125	0.125	0.125
D1718G Computing 1.2								0.125	0.125	0.125
D2728G Biochemistry 2.1	0.125	0.125								
D2766G Microbiology 2.1	0.125	0.125								
D2726G Analytical Chemistry 2				0.125						
D2740G Electronic Circuits & Devices					0.125	0.125	0.125			
D3691G Process Chemistry				0.125						
D2745G Electronic Systems						0.125	0.125			
D2748G Commercial Programming 1								0.125	0.125	
D2770G Systems Analysis & Design 1								0.125	0.125	0.125
D2734G Commercial Programming 2								0.125		
D2783G Systems Analysis & Design 2								0.125		
+ 1 elective unspecified								0.125	0.125	
+ 2 electives unspecified		0.250		0.250		0.250				0.250
Total	0.500	0.750	0.375	0.875	0.250	0.625	0.375	0.875	0.625	0.625

Closing Remarks

Mr Bob Shaw, Manager, Group Training and Development, BHP Steel, BHP Steel Group

What I'd like to do with an eye to the time is to go over the main points discussed in the last day and a half. I will also give you some of the thoughts that I have gleaned out of listening throughout this period. I have tried to break this up into areas that are perhaps are a little different now than they were 12 months ago and then to have a look at possible future directions.

Firstly in the area of developments. Despite the growing understanding of where we are up to in credit transfer and recognition of prior learning, there is a strong feeling that we have a long way to go. Industry faces the difficulty of actually recruiting people in the light of the information that is provided. . There is still a relatively low level of recognition of informal learning by universities, and questions still arise about the issue of the costs of recognition of prior learning. It is recognised that there must be savings flowing from recognition of prior learning, with the real challenge being to mix the savings to create the dollars to pay for the recognition of prior learning. A continuing issue is the question of recognition of prior learning versus recognition of current competencies, or the learning from experience.

In the presentation by Gregor Ramsey we heard about the difficulty of gearing institutions to individuals and the logistics of managing that sort of process, with TAFE having a preference for credit transfer, as opposed to individual recognition of prior learning. I think there is another issue that has come through very strongly too, that of lifelong learning, particularly in the information from Deakin. The question of lifelong learning certainly relates to the comments from Laurie Carmichael about being able to manage internal labour markets within enterprises. We are still hearing about the barriers and perhaps a lack of flexibility within universities when it comes to meshing together processes that are basically different. Both the University of Western Sydney and Deakin raised some of those issues.

There is also the question about whether courses are designed to enhance recognition of prior learning or to make it more difficult. Deakin gave examples of how courses can be structured to enhance recognition of prior learning and the University of Western Sydney outlined the difficulties of putting together strongly integrated modules.

From the schools session this morning and from Deakin, we heard about meeting the learners' needs in a workplace context, an issue that has been attracting more attention in the last 12 months. I noted with interest the comment from the University of Western Sydney about the difficulties of granting recognition of prior learning because the outputs from TAFE were not in competency-based terms. As an industry person I had a little chuckle.

When discussing future directions, I note the comments by Laurie Carmichael on the tremendous opportunity the White Paper has given us to take this whole question of a national agenda for vocational education and training to the top of the government's agenda. The challenge in all of this is to make sure that it continues beyond this period of high unemployment, because we need consistency and confidence for some time. There is also the question of ambiguity and the lack of certainty in the environments we work in. In industry, this is certainly a very strong factor in the competencies of managers.

I think we saw some examples of best practice today as described by Deakin, by Ford, and the Illawarra exercise. We heard mention of ICI and a number of other examples where excellent programs have been put together with a fairly specific focus. I believe we have to learn how we can actually benefit from these examples of best practice and apply them on a wider basis and in different environments.

The Forum emphasised the importance of flexible delivery. From Deakin and the University of Western Sydney we heard about the concept of an in-house university factory. Similar concepts are being adopted in Regency College in South Australia. In the future, I think we'll need to see more of these approaches

The importance of partnerships came through strongly. We need to learn to work more closely together, both as employers and as educators. We need to learn each other's languages. Educators need to learn to speak industry speak, and industry people need to learn education speak. Perhaps then issues that aren't really issues will disappear.

There is a need for special training or preparation for all the people involved in this area, including teachers, trainers, lecturers, students and learners. Perhaps this could be achieved through information sharing or some kind of formal learning, but not only do we need to understand the language, we need to understand the practices. In the future, we are going to need strong changes in bureaucratic policies.

We heard this morning comments about rapid change and certainly rapid change is occurring. The critical issue is not to procrastinate but to clearly understand where we are heading. Once we know that, we can proceed with a sense of urgency.

Issues Paper Credit Transfer Forum 1994

Purpose

The purpose of this paper is to highlight issues that need to be addressed in the National Board's Forum on Credit Transfer in 1994. In July 1991, the National Board received a reference from the then Minister for Employment, Education and Training, the Hon. John Dawkins MP, asking it to provide a national overview for three years on skill recognition and credit transfer between the school, higher education and TAFE sectors and industry. 1994 will see the production of the third and final annual report for this reference.

In its 1993 advice to the Minister on credit transfer, the National Board noted the need for a greater focus on the role of the recognition of prior learning in credit transfer. The Board recommended that the other components of credit transfer arrangements, such as the recognition of informal prior learning, be developed.

General Issues

Recognition of Prior Learning

The importance of the recognition of prior learning (RPL) was recognised in the National Framework for the Recognition of Training (NFROT) signed by the Ministers of Vocational Education, Employment and Training in July 1992. The National Framework agreement defined recognition of prior learning as 'the acknowledgment of knowledge and skills held as a result of formal training, work experience and/or life experience'.

Questions that need to be examined at this Forum in relation to the recognition of prior learning include methods of assessment, curriculum design and course structures, and the overall impact of recognition of prior learning on education and training systems in Australia. Other major aspects are the costs involved, who bears the cost (a question which has equity and access implications), and resourcing requirements.

It should be noted that the concept of recognition of prior learning in this Forum includes both informal learning (eg as gained through life experience) and formal learning (ie that gained through the completion of a formal course) and applies not only to entry-level training but also to the further training and retraining of the workforce.

Credit Transfer

The issue of whether existing credit transfer arrangements are effective requires examination, as does the extent to which such arrangements are used. Anecdotal evidence suggests that *some* credit transfer arrangements are not working because of their *ad hoc* nature and because they are on a 'one-to-one' basis rather than being universally applied. Arrangements for credit transfer between school and vocational education and training also require further development.

Common Themes

Assessment

The implementation of recognition of prior learning will involve the use of different methods of assessment viz:

- assessment in the workplace
- practical exercises and project assignments
- oral assessments
- written assessments.

However, the methodology of assessment will also be influenced by the circumstances under which it is sought and the purpose for which it is sought. The Vocational Education, Employment and Training Advisory Committee's (VEETAC) 1993 paper *Arrangements for the Recognition of Prior Learning* noted 'the reality of multiple purposes for RPL'. Three different applications were described by the report:

- appropriate placement of an individual in an accredited course or recognised training program
- the right to practise in a regulated occupation
- the certification of competency for employment-related purposes.

There is also a further application of recognition of prior learning and that is the ability of a person to proceed to further education. The operation of the recognition of prior learning therefore, has to be seen in the perspective of its different applications which will influence assessment methods. The type of assessment suitable also depends on:

- the amount of credit to be given (from minimal to full recognition);
- the nature of the material for which exemption is sought (some material is of more direct importance than other material); and
- the degree of rigour required in the assessment resource constraints.

In terms of recognition of prior learning, there are demands from those who are:

- in the workplace without formal recognition of their skills;
- in the workplace receiving training delivered on-the-job;
- in the workplace receiving training delivered solely off-the-job;
- receiving training in formal training institutions;
- receiving both on- and off-the-job training;
- outside the workforce and formal training institutions; and
- in the process of a career change.

Credibility of Assessment

The credibility of assessment processes is important. Assessment processes need to be transparent and rigorous as well as understood and widely accepted. Various issues which have to be clarified are, for example, the amount and type of evidence which is collected in order to evaluate an individual's level of competence or knowledge in a particular area.

Quality Assurance

Quality assurance is related to the need to ensure that useful, appropriate and consistent outcomes for recognition of prior learning (such as meeting industry requirements) and credit transfer are met.

A risk management model, *Arrangements for the Recognition of Prior Learning* VEETAC 1993, has been developed which suggests that the level of risk increases as the amount of recognition of skills and competencies sought increases. As the level of recognition sought rises, the model indicates that the degree of rigour required in the assessment process must also rise to ensure quality is maintained. The effect of this greater rigour in the assessment process leads to a higher level of overall costs.

The setting of quality assurance standards may be necessary to assist the establishment and maintenance of quality assurance (see *Ten Standards for Quality Assurance in Assessing Learning for Credit* in information kit).

Resourcing and Costs

Recognition of prior learning programs have a number of associated costs such as:

- design and development and materials and equipment costs;
- training of staff/accrediting of assessors;
- administrative costs including accommodation marketing materials and expenses; and
- day-to-day running costs.

Resource implications and costs are major difficulties confronting organisations wishing to implement recognition of prior learning arrangements. The level of these costs, particularly ongoing running costs, may impose operational constraints on certain organisations which require them to consider appropriate methods of cost recovery and minimisation.

The Board's 1993 advice recommended that a proportion of recognition of prior learning assessment costs be built into institutions' general operating provisions and that a proportion of the costs be borne by the applicant.

Operational Arrangements

The future development of recognition of prior learning arrangements will be affected not only by resourcing (eg the recruitment or training of assessors; the charging of fees) and costs (eg how much should be charged, when and by whom?) but also by issues of policy and practical administration (eg when should assessment take place, who should assess, how much credit should be granted?). In addition, there are other questions such as industrial relations which may have a major impact on the introduction of some recognition of prior learning arrangements.

Access and Equity

Recognition of prior learning arrangements may provide significant access to educational opportunities. This is of particular importance to identified equity groups. On the other hand, the costs of recognition of prior learning may dissuade potential users and restrict the number of people who could benefit. The level and degree of costs need to be examined for their equity impact. The provision of adequate, freely available information and advice to people is also an important factor in ensuring access to recognition of prior learning and credit transfer arrangements.

National Recognition of Prior Learning Agency or Credit Bank

Costs may be reduced by economies of scale, for example, in the university sector. One way of addressing the problem of who will undertake recognition of prior learning assessments and what costs can/should be recovered would be to establish a recognition of prior learning agency although support for a national body appears limited. A more attractive option might be to establish state-based recognition of prior learning bodies which, in time, could provide the service on a full cost-recovery basis. Thomson (*Assessing Prior Achievement: Methods for recognising learning gained through experience* DEET, 1992) concluded that the relationship between national bodies and the states/territories requires urgent clarification.

Recognition of Prior Learning Assessors

A major requirement in regard to the recognition of prior learning is the need to provide sufficient numbers of properly trained assessors. Procedures are also necessary for the validation or certification of the competency of such people. As noted in the National Board 1993 Forum's proceedings, 'registered assessors could enable fast-tracking and cost-RPL assessment'. Last year the National Training Board endorsed assessor competency standards (across-industry). There are already training programs available to assist people to achieve these nationally endorsed standards.

Partnership Arrangements and Sectoral Linkages

A major issue that needs to be examined is the nature of the relationship between different sectors (eg between industry and TAFE) in regard to assessment processes, recognition of prior learning and credit transfer arrangements. The question of how much verification and assessment is required between sectors and the issue of trust between different assessors has important cross-sectoral implications.

There is a need for better arrangements to be created before the various sectors can be integrated into an efficient and effective system. Partnerships and linkages between sectors need to be facilitated wherever possible.

Impact of Recognition of Prior Learning on Curriculum Design, Courses and Institutions

Recognition of prior learning and credit transfer arrangements have significant implications for curriculum design, course attendance and course length in institutions as well as for a number of other functions such as the relative importance of theory and practice and staffing allocation and development.

There are several different issues to be considered including flexibility and responsiveness in curriculum design in order to meet not only changing economic and industrial needs but also the needs of individuals and communities.

Reporting and Data Requirements

An important area of concern is the lack of adequate and reliable data on credit transfer (in terms of educational pathways) and recognition of prior learning. Without some data as to the extent and functioning of credit transfer and recognition of prior learning, it is difficult to evaluate their current status in Australia. One proposal would be to undertake a mapping exercise on a sampling or case study basis to obtain data. A total picture in terms of figures seems unobtainable at this point in time.

Recent Developments

Higher Education

In the higher education sector, recent developments have included the development, endorsement and publication by the Australian Vice-Chancellors' Committee (AVCC) of *Guidelines on Recognition of Prior Learning* (included in information kit) to provide a policy context for universities developing or reviewing recognition of prior learning policies and procedures. In addition, the Vice-Chancellors' Committee and the Department of Employment, Education and Training commissioned two research reports (now published as *Recognition of Prior Learning in Australian Universities*) on recognition of industry-based training by universities and also on recognition of experiential (ie informal) learning (photocopies of the executive summaries of the two reports are also included in the information kit).

Advice has also been sought on two occasions from the Attorney-General's Department on the legality of universities charging students for recognition of prior learning assessments given the constraints of the Higher Education Funding Act. Attachment A provides a brief outline of the legislative difficulties faced by universities.

As in other sectors, a major challenge confronting this sector is the development of expertise among its staff in methods of recognition of prior learning assessment—whether the expertise is developed on an individual basis or on a state/territory basis.

Vocational Education and Training Sector

There is increasing interest and activity in assessment in the vocational education and training sector. Many industries, as they progress through the competency standards and curriculum development phases underpinning the new competency-based arrangements, are now turning their attention more closely to assessment issues. In particular, integrated on- and off-the-job training highlights the need for practical assessment systems. A central issue appears to be the question of confidence by one sector in the assessment decisions made by another. Recognition of prior learning is seen essentially as a part of assessment. The aims and skills involved are basically the same, although recognition of prior learning may involve additional administrative arrangements.

The move to a competency-based vocational education and training system requires industry to take a larger role in assessment. In April 1993 a National Assessment Research Forum on competency-based assessment was held in Sydney and a workshop was conducted the following month. The report of the forum noted that 'assessment of competency-based training is widely perceived as being both critical to the overall effectiveness of CBT and (as) highly contentious.'

A subsequent report on issues related to the development of assessment systems within industry has been written by Spectrum Research (Leigh Toop). The report, *Assessment System Design*, includes ten case studies of assessment and highlighted the differences in approach adopted by various organisations with regard to conducting assessment. It was used as the source document for the assessment workshop held in April to assist industry in developing a greater understanding of the challenges of creating an assessment framework in Australia. Along with *Assessment^{3/4} a technical manual* (University of Technology, Sydney) and *Assessment^{3/4} a practical guide* (David Rumsey and Associates), *Assessment System Design* will be launched by the Minister for Schools, Vocational Education and Training, the Hon. Ross Free, in Sydney on 16 June 1994.

Schools

Upper secondary school education in Australia has evolved from a curriculum primarily oriented towards tertiary studies, towards one which provides for the majority of students aged 16–18 years. This move has resulted in competing demands upon the curriculum, the dominance of the tertiary entrance score and the lessening of importance of the school certificates as qualifications. The lessening of these qualifications has serious consequences for the content and outcomes of education and training courses.

Credit transfer arrangements between school and TAFE and training awards are a result of a restricted upper secondary curriculum and the view that a choice of academic and quasi-academic subjects constitutes a general education. It appears from some research that credit transfer arrangements which take the form of advanced standing for TAFE modules are not working. Arrangements in some states recognise the need for the expansion of the curriculum into vocational education and training and have the capacity to deliver a more coherent and flexible program of studies.

Adult Education

The Adult and Community Education (ACE) sector plays a significant role in providing pathways for adults into both further formal education and the workforce. It is a significant provider of adult education and other types of preparatory and bridging programs, and is well adapted to responding to the needs of educationally disadvantaged groups.

Accordingly, there is a strong interest in recognition of prior learning. At present there are a number of small-scale pilot programs aimed at developing recognition of prior learning methodologies. For example, the Women's Bureau of the Western Australian Department of Training is funding the development of a Handbook called *Life Experience Counts* and the Adult Community and Further Education Board in Victoria is funding development of a recognition of prior learning process to link with the Certificate of General Education for Adults. Adult educators are interested in recognition of prior learning, both as a means whereby adults can obtain recognition from educational institutions and enterprises for what they know and can do, and as a process for initiating, motivating, and guiding further learning—its catalytic effect.

A national policy on Adult and Community Education was also endorsed last year (*National Policy, Adult Community Education*, Ministerial Council on Education, Employment, Training and Youth Affairs, 1993). The policy has six major goals: realising the potential of adult and community education; access and equity; opportunities and outcomes; learning pathways; quality; and partnerships. The goal of providing learning pathways envisages that firstly, there will be clear pathways to and from adult and community education and, secondly, that there will be increased recognition by other sectors of the educational outcomes of adult and community education. Strategies to facilitate the introduction of these pathways include the development and use of recognition of prior learning mechanisms and articulation arrangements between adult and community education providers and other education sectors and industry sectors.

Attachment A

Recognition of Prior Learning Assessment in Higher Education: Legislative Problems in Recovery of Costs

The cost of assessing a student's prior learning, for the purpose of entry to or credit in a higher education course could be recovered in one or more of the following ways:

- provision of additional funds for this purpose by the Commonwealth Government;
- absorption of the costs in existing funding to universities; and
- charging the student a fee, either up-front or using the deferred payment provisions of the Higher Education Contribution Scheme.

The first two options appear to be impractical, from the point of view of the Commonwealth Government and/or the universities, especially if recognition of prior learning activity is to be considerably extended in the university sector.

The Attorney-General's Department has advised that the fee option would be illegal, under existing legislation, except:

- 'where a person has not yet applied to a university, but is using RPL to choose between different institutions, or for employment-related purposes'.
- 'where the fee is levied by a separate body corporate, which is not acting as an agent of an institution'.

From a university perspective, these approaches are unappealing, the first because it would require universities to carry out recognition of prior learning assessment before a student has even applied for admission, and the second because it would require universities to make use of their commercial arms, which were established for other purposes.

There currently appear to be two potential solutions to the current impasse on the charging of fees for RPL assessment in universities.

1. An approach to the Minister, seeking exemption from the legislative requirements, specifically for the purpose of charging fees for recognition of prior learning assessment (this possibility has not been formally considered by the Australian Vice-Chancellors' Committee, and is unlikely to appeal to other stakeholders, including the National Union of Students).

2. The establishment of a free-standing corporate body, not acting directly as an agent of any university, which could carry out the recognition of prior learning assessment and charge a fee (one such possibility is the establishment of a National 'credit transfer bank', as recently suggested to the Commonwealth Government by the National Tertiary Education Union).

Credit Transfer Principles: AVCC Guidelines on the Recognition of Prior Learning

(December 1993, Canberra)

The Australian Vice-Chancellors' Committee (AVCC) has accepted responsibility for the improvement of national consistency in the treatment of applications by students entering undergraduate university courses and applying for credit for previous study and/or experience.

Through this Credit Transfer Project, jointly funded by the Australian Vice-Chancellors' Committee and the Department of Employment, Education and Training, the AVCC has developed pilot schemes in a number of fields of study, implementing recommended minimum levels of credit for students with identified prior study, whether at an Australian university or at associate diploma level in TAFE.

As an adjunct to the pilot schemes, the Vice-Chancellors' Committee has also set out to develop a policy context, both for the purposes of credit transfer (defined as recognition of prior study in an Australian university or TAFE) and for the recognition of prior learning. Recognition of prior learning has been identified for the Project's purposes as encompassing both some kinds of *credentialled* prior learning (for example in a course offered by a private provider, professional body, or enterprise) and also *uncredentialled* prior learning (for example learning from work experience and/or life experience).

In order to assist universities reviewing policies and procedures in credit transfer and recognition of prior learning, the Committee has developed a set of credit transfer principles and a related set of guidelines on recognition of prior learning. The credit transfer principles and the guidelines on recognition of prior learning have been endorsed by the Australian Vice-Chancellors' Committee and are now published for general distribution.

Credit Transfer Principles

The Australian Vice-Chancellors' Committee has endorsed the seven credit transfer principles set out below.

1. Institutions should publish (and review annually) in their handbooks and in information made available through state/territory admissions centres, information on the credit which will be granted in courses (other than higher degrees) on the basis of identified post-secondary studies in an Australian university or TAFE. The information should include an indication of the credit which will be granted for partly-completed studies, as well as completed courses. The prior studies which would normally be included are from the level of advanced certificate to undergraduate degree.
2. Published credit transfer information should indicate to prospective students that eligibility for credit does not guarantee them a place in the course in which that credit would be available.
3. Students should be advised of the credit offered at the time at which they accept a place in a course, rather than being required to make subsequent credit application.
4. Students should be able to expect that credit granted will be at the highest level consistent with their chances of success in the course, and should be at least at the level recommended for national implementation in specified fields of study.
5. Wherever possible, credit should be granted in the form of block credit (for whole stages or years of a course) or specified credit (identifying specific subject(s) which the student is not required to undertake), and should enable the recipient of the credit to shorten the time taken to complete the course. Unspecified credit (in the form of course credit points, or other similar measure) may be used where block or specified credit is inappropriate.
6. Where pre-requisite knowledge is required or other restrictions apply to the granting of credit, the institution should publish advice to prospective students on ways in which requirements can be met.
7. There should be an effective means of appeal established within each institution against credit transfer decisions. The information published about the appeals system should include these principles.

Guidelines on the Recognition of Prior Learning for Credit

Preamble

The Australian Vice-Chancellors' Committee (AVCC) recognises that, when selecting students for admission from study backgrounds other than Year 12, it is general practice for universities to take account of a range of prior learning experiences, including experiences other than those credentialled by a university or TAFE. The Committee believes that this form of recognition should be extended to recognition of appropriate prior learning in the granting of credit in university courses.

Recognition for credit of prior 'informal' learning (RPL) by some or all universities, may improve access and equity for Australian students. Properly developed recognition of prior learning assessment policies and procedures also allow for an educationally appropriate alternative and/or supplement to established forms of credit transfer, based on the recognition for credit of learning credentialled by a university or TAFE.

The Australian Vice-Chancellors' Committee has therefore endorsed this set of guidelines for universities developing, or reviewing, policies and procedures for the recognition for credit of prior 'informal' learning. (These guidelines should be read in association with the Australian Vice-Chancellors' Committee Credit Transfer Principles, which relate to the recognition for credit transfer purposes of learning in an Australian university or TAFE college. The guidelines do not include recognition of overseas qualifications).

Guidelines

1. Universities should develop and publish policies (and where possible details of amounts of credit available) on the recognition for credit of prior 'informal' learning (RPL); that is knowledge skills, attitudes and/or attributes which have been acquired through learning experiences, other than in a course offered by an Australian university or technical and further education. Recognition of prior learning for credit may be of two broad kinds:
 - learning acquired in a 'credentialled' context, other than a university or TAFE, such as in a course offered by a professional body, enterprise, private educational institution, or by any other provider recognised by a university; and
 - learning acquired in an 'uncredentialled' context, such as through work experience, or through life experience.

2. Published information should indicate that eligibility for credit based on recognition of prior learning assessment does not guarantee an applicant a place in the course in which such credit may be available.
3. Applicants for recognition of prior learning should be advised of the forms and sources of prior learning, which a university is prepared to take into account in assessing entitlement to credit in a university course. As a guide, universities should indicate their willingness, or otherwise to take account of:
 - courses provided by professional bodies enterprises, private educational institutions and/or other providers recognised by a university; and/or
 - learning from work or other forms of practical experience; and/or
 - learning from life experience.
4. The procedures adopted to assess a particular course or range of experiences as the basis for credit in a university course, should ensure that the prior learning assessed is comparable in content and standard with the university course in which credit is sought. The standards applied in assessing recognition of prior learning should not be greater than those required to pass the relevant component of the university course.
5. Procedures developed by a university for the recognition of RPL should ensure that:
 - for recognition of courses provided by a body other than a university or TAFE, the academic staff carrying out the assessment have a detailed knowledge of the university, course(s) in which credit is sought; and
 - for recognition of work and/or life experience, the academic staff carrying out the assessment have, in addition to detailed knowledge of the relevant university course(s), personal expertise in or access to advice on recognition of prior learning assessment methods.
6. Recognition of prior learning assessment procedures should be completed and the results recorded before the beginning of the semester in which credit is sought.
7. Universities which give credit for learning from work and/or life experience and which carry out recognition of prior learning assessment of this learning for individual applicants, should indicate whether, and in what form, the costs of recognition of prior learning assessment will be recovered from applicants.

Appendix 3

Consultative Forum on Credit Transfer and Skill Recognition—List of Workshop Sessions Thursday 26 May 1994

No	Session	Facilitator	Recorder <u>am</u>	Recorder <u>pm</u>
1	Methods of Assessment	Mr Ian Charleson Deakin University	Mr Paul Gregory NT University, Institute of TAFE	Ms Trixi Van Leeuwen Canberra Institute of Technology
2	Credibility of Assessment Processes	Mr Ian Dickson Deakin University	Ms Carol McKenny DEET	Mr Paul Gregory NT University, Institute of TAFE
3	Curriculum Design	Mr Stephen Hansen University of Western Sydney	Ms Trixi Van Leeuwen Canberra Institute of Technology	Mr Malcolm Salier Department of Education and the Arts, Tasmania
4	Pathways and Linkages	Dr Vivian Eysers Australian Curriculum, Assessment and Certification Authorities	Mr Rod Manns DEET	Mr Don Spedding DEET
5	Partnership Arrangements	Mr Allan Patterson Mowbray College, Victoria	Mr Don Spedding DEET	Ms Annelly Aeuckens NBEET
6	Quality Assurance	Ms Chloe Dyson Ms Melinda O'Connor Broadmeadows College of TAFE, Essendon Campus	Ms Lindsay Cotton NSW TAFE Commission	Ms Robin Booth NSW TAFE Commission
7	Equity and Access Considerations	Ms Mary Jones Swinburne University Ms Joan Martin Triplay Pty Ltd	Ms Anne Davies Federation of Teacher Unions, Victoria	Ms Anne Baly NBEET
8	Resourcing and Costs	Ms Yvette Devlin DEET	Ms Annelly Aeuckens NBEET	Ms Lindsay Cotton NSW TAFE Commission
9	Operational and Practical Considerations	Dr Tony Haydon AVCC	Ms Robin Booth NSW TAFE Commission	Ms Anne Davies Federation of Teacher Unions, Victoria
10	Fitness for Purpose	Mr Robert Bluer NBEET	Mr Bruce Kirk NBEET	Mr Rod Manns DEET
11	Impact of RPL on Courses and Institutions	Ms Ruth Cohen University of Technology, Sydney	Ms Anne Baly NBEET	Ms Carol McKenny DEET

The National Board of Employment, Education and Training wishes to thank all the facilitators and recorders for their contribution to the workshop sessions.

Appendix 4

National Board Publications and Advices

Advice on Commonwealth General Recurrent Funding Arrangements: The Future of Resource Agreements	November 1988
Workshop on Skills in Australian Industry (20–22 November 1988, Report of Proceedings)	December 1988
Higher Education Council First Report to the National Board of Employment, Education and Training on the Operation of Section 14 of the <i>Higher Education Funding Act 1988</i> and the Higher Education Contribution Scheme	February 1989
A Review of the Commonwealth Postgraduate Awards Scheme	April 1989
Industry Training in Australia—The Need for Change: Interim Report on Consultations by the Employment and Skills Formation Council, Attachments D and F (revised)	May 1989 November 1989
Report to the Minister for Employment, Education and Training on a Reference on Extension of University Status to Three Queensland Institutions: Advice from the Higher Education Council through the National Board of Employment, Education and Training	May 1989
Report to the Minister for Employment, Education and Training of the Schools Council on Strengthening the Disadvantaged Schools Program: Advice on Strategies for Increasing School Retention in Disadvantaged Communities through the National Board of Employment, Education and Training	May 1989
Report to the Minister for Employment, Education and Training of the Employment and Skills Formation Council on Proposed Commonwealth Employment Service (CES) Advisory Arrangements through the National Board of Employment, Education and Training	May 1989
Report to the Minister for Employment, Education and Training of the Higher Education Council on Funding for the 1989–1991 Triennium through the National Board of Employment, Education and Training	May 1989

Schools Council Report to the Minister for Employment, Education and Training on National Goals for Schooling: Report on Consultations on Australian Education Council (AEC) Draft Statement through the National Board of Employment, Education and Training	May 1989
Schools Council Response to Australian Education Council (AEC) Draft Statement on National Goals for Schooling through the National Board of Employment, Education and Training	May 1989
Award Restructuring: Implications for Skill Formation and Training	June 1989
Review of Australian Graduate Studies and Higher Degrees: Initial Report by the Higher Education Council	July 1989
A Fair Chance for All: National and Institutional Planning for Equity in Higher Education (released jointly with the Department of Employment, Education and Training)	August 1989
Course Length and Nomenclature: A Discussion Paper	August 1989
Credit Transfer: A Discussion Paper	August 1989
Guidelines on Women and Award Restructuring	August 1989
New Face of TAFE: Workshop on Industry–TAFE Collaboration (9–10 October 1989, Report of Proceedings)	October 1989
Second Report of the Higher Education Council to the National Board of Employment, Education and Training on the Operation of Section 14 of the <i>Higher Education Funding Act 1988</i> and the Higher Education Contribution Scheme	October 1989
Career Progression for Outstanding Australian Researchers: Advice of the National Board of Employment, Education and Training in Response to the Minister's Reference on Career Structures for Researchers	November 1989
National Board of Employment, Education and Training Annual Report 1988–89	November 1989
On Public Funding of Research: A Report by the Australian Research Council through the National Board of Employment, Education and Training	November 1989

Public Responses to the Issues on Teacher Quality: A Report Prepared by the Schools Council	January 1990
Report of the Higher Education Council on Higher Education Planning for 1992 through the National Board of Employment, Education and Training	November 1989
Seminar on Teacher Quality and Career Development (10–11 July 1989, Report of Proceedings)	November 1989
Teacher Quality: An Issues Paper Prepared by the Schools Council	November 1989
The Recognition of Vocational Training and Learning (Commissioned Report No. 1)	February 1990
Getting It Right: Schools Serving Disadvantaged Communities (Commissioned Report No. 2)	February 1990
Advices of the Higher Education Council and the Australian Research Council July 1988–December 1989	March 1990
Advices of the Schools Council July 1988–December 1989	March 1990
Seminar on Credit Transfer, Course Length and Nomenclature and Postgraduate Studies: Summary of Proceedings	March 1990
Commonwealth Employment Service (CES) Advisory Committee Arrangements at State/Local Level: Advice of the National Board of Employment, Education and Training and its Employment and Skills Formation Council	May 1990
Country Areas Program: Report of the National Board of Employment, Education and Training	May 1990
Funding Principles, 1990–1992 Triennium: Advice of the National Board of Employment, Education and Training and its Higher Education Council on the Allocation of Funds to Higher Education Institutions	May 1990
Higher Education Council Third Report to the National Board of Employment, Education and Training on the Operation of Section 14 of the <i>Higher Education Funding Act 1988</i> and the Higher Education Contribution Scheme	May 1990

Overseas Mission on Management Training, Education and Development: Report of the National Board of Employment, Education and Training and its Employment and Skills Formation Council	May 1990
Report of the External Review of the Waite Agricultural Research Institute, University of Adelaide (Commissioned Report No. 3)	May 1990
Response to Discussion Paper <i>Commonwealth Funding Arrangements for Government and Non-Government Schools after 1992</i> : Advice of the National Board of Employment, Education and Training and its Schools Council	May 1990
Towards an Active Labour Market Policy: Advice of the National Board of Employment, Education and Training and its Employment and Skills Formation Council	May 1990
The Transfer of Operating Grant Funds to Competitive Schemes after 1991: Advice of the National Board of Employment, Education and Training and its Australian Research and Higher Education Councils	May 1990
Open Learning: Policy and Practice (Commissioned Report No. 4)	June 1990
Advices of the Employment and Skills Formation Council July 1988–June 1990	September 1990
Equity in Higher Education: Advice of the National Board of Employment, Education and Training and its Higher Education Council	September 1990
Higher Education Courses and Graduate Studies: Report of the National Board of Employment, Education and Training and its Higher Education Council	September 1990
Interim Report on the Benchmark Study of Management Development in Australian Private Enterprises (Commissioned Report No. 5)	September 1990
TAFE Resource Agreements for 1989 and their Role in Supporting Commonwealth Priorities: Advice of the National Board of Employment, Education and Training and its Employment and Skills Formation Council	September 1990
Commonwealth Priorities for TAFE Resource Agreements in 1991: Advice of the National Board of Employment, Education and Training and its Employment and Skills Formation Council	September 1990

Strategies to Improve the Quality of Trainer Training: Advice of the National Board of Employment, Education and Training and its Employment and Skills Formation Council	September 1990
Training for Small Business: Advice of the National Board of Employment, Education and Training and its Employment and Skills Formation Council	September 1990
Teacher Education in Australia: A Report to the Australian Education Council by an AEC Working Party (Commissioned Report No. 6)	September 1990
National Board of Employment, Education and Training Annual Report 1989–90	October 1990
Industry Training Advisory Bodies: Report of the National Board of Employment, Education and Training and its Employment and Skills Formation Council	October 1990
Higher Education Council Fourth Report to the National Board of Employment, Education and Training on the Operation of Section 14 of the <i>Higher Education Funding Act 1988</i> and the Higher Education Contribution Scheme	November 1990
Australia's Teachers—An Agenda for the Next Decade: A Paper prepared by the Schools Council for the National Board of Employment, Education and Training	December 1990
Careers Advisory Services in Higher Education Institutions: Report of the National Board of Employment, Education and Training and the Department of Employment, Education and Training	December 1990
Higher Education: The Challenges Ahead	December 1990
Higher Education Planning for the 1991–93 Funding Triennium: Report of the National Board of Employment, Education and Training and its Higher Education Council	December 1990
Library Provision in Higher Education Institutions (Commissioned Report No. 7)	December 1990
The Shape of Teacher Education—Some Proposals: Report of the National Board of Employment, Education and Training	December 1990
Strategies for Credit Transfer: Report of the National Board of Employment, Education and Training	December 1990

Funding Principles, 1991–93 Triennium: Advice of the Higher Education Council on the Allocation of Funds to	February 1991
A Clever Country? Australian Education and Training in Perspective, Conference Proceedings	February 1991
Strengthening Careers Education in Schools	March 1991
The Future of Discipline Assessments: Report of the National Board of Employment, Education and Training and its Higher Education Council	April 1991
Higher Education Council Fifth Report to the National Board of Employment, Education and Training on the Operation of Section 14 of the <i>Higher Education Funding Act 1988</i> and the Higher Education Contribution Scheme	April 1991
Response to the <i>Review of the Institute of Advanced Studies, Australian National University</i> : Report of the National Board of Employment, Education and Training	April 1991
Student Images of Teaching: Factors Affecting Recruitment (Commissioned Report No. 8)	May 1991
Proposal to Build a Gravitational Wave Observatory in Australia: Report of the National Board of Employment, Education and Training and its Australian Research Council	May 1991
The Australian Mission on Management Skills Volume 1: Report	June 1991
Toward a National Education and Training Strategy for Rural Australians: Report of the National Board of Employment, Education and Training	June 1991
The Qualifications of Academic Staff: A Sample Study	July 1991
Developing Australia's Skills: TAFE in the 1990s (Discussion Paper)	August 1991
Resource Agreements for Schools: Report of the National Board of Employment, Education and Training and its Schools Council	August 1991
Compulsory Years of Schooling Project: The Early Years of Schooling, A Discussion Paper	September 1991
Over Enrolments and Overcrowding in Higher Education Institutions: Report of the National Board of Employment, Education and Training and its Higher Education Council	September 1991

Postgraduate Course Fee Guidelines: Report of the National Board of Employment, Education and Training and its Higher Education Council	September 1991
National Board of Employment, Education and Training Annual Report 1990–91	October 1991
Agenda Papers: Issues arising from <i>Australia's Schools: An Agenda for the Next Decade</i>	October 1991
Social Infrastructure and Social Justice: Resources in Australia's Disadvantaged Schools (Commissioned Report No. 9)	October 1991
Assistance for Disadvantaged Jobseekers: Report of the National Board of Employment, Education and Training	November 1991
Management Training Provision in Australia: An Issues Paper arising from the Workshop for Management Training Providers, Sydney, 26–27 May 1991, Organised by the Employment and Skills Formation Council of the National Board of Employment, Education and Training	November 1991
Postgraduate Awards for Bond University Students: Advice of the National Board of Employment, Education and Training and its Australian Research Council	November 1991
TAFE Resource Agreements for 1990 and Their Role in Supporting Commonwealth Priorities: Advice of the National Board of Employment, Education and Training and its Employment and Skills Formation Council	November 1991
A National Professional Body for Teachers: A Discussion Paper	November 1991
Progress and Prospects in Improved Skills Recognition (Commissioned Report No. 10)	December 1991
Education, Training and Employment Programs, Australia, 1970–2001: Funding and Participation (Commissioned Report No. 11)	January 1992
A Snapshot of the Early Years of Schooling: Compulsory Years of Schooling Project Paper No. 2	January 1992
Curriculum Initiatives (Commissioned Report No. 12)	February 1992
The Quality of Higher Education: Discussion Papers	February 1992
Productive Interaction (Commissioned Report No. 13)	February 1992

Advice on Fee-Paying Postgraduate Courses: Report of the National Board of Employment, Education and Training and its Higher Education Council	March 1992
Careers Education and Careers Advisory Services Forum: Proceedings and Outcomes	March 1992
The Australian Vocational Certificate Training System	March 1992
Higher Education Council Sixth Report to the National Board of Employment, Education and Training on the Operation of Section 14 of the <i>Higher Education Funding Act 1988</i> and the Higher Education Contribution Scheme	March 1992
A National Training Framework for Careers Coordinators: A Proposal (Commissioned Report No. 14)	April 1992
Advice on Funds Allocated to Higher Education Institutions: Report of the National Board of Employment, Education and Training and its Higher Education Council	April 1992
Advice on the Small Grants Scheme: Report of the National Board of Employment, Education and Training and its Australian Research Council	May 1992
Assessment of the Impact of the Higher Education Contribution Scheme on the Potentially Disadvantaged (Commissioned Report No. 15)	May 1992
A Stitch in Time: Strengthening the First Years of School (Commissioned Report No. 16)	May 1992
Employment, Education and Training Opportunities for Prisoners and Ex-Prisoners (Commissioned Report No. 17)	June 1992
Issues arising from <i>Australia's Teachers: An Agenda for the Next Decade</i> —Assuring the Quality of Teachers' Work: Report of the National Board of Employment, Education and Training and its Schools Council	June 1992
Response to Discussion Paper, <i>Review of the Commonwealth Capital Grants Program for Non-government Schools</i> : Advice of the National Board of Employment, Education and Training and its Schools Council	June 1992

Review of the Special Research Centres Program and the Key Centres of Teaching and Research Program: Advice of the National Board of Employment, Education and Training and its Australian Research Council	June 1992
Aboriginal and Torres Strait Islander Education in the Early Years	July 1992
Disadvantaged Jobseekers: Casual, Part-time and Temporary Work (Commissioned Report No. 18)	July 1992
The Quality of Higher Education: Draft Advice	July 1992
The Australian Vocational Certificate Training System	July 1992
Developing Flexible Strategies in the Early Years of Schooling: Purposes and Possibilities	August 1992
Minimum Fees for Postgraduate Courses: Advice of the National Board of Employment, Education and Training and its Higher Education Council	August 1992
Research Infrastructure: Report of the Joint ARC–HEC–DEET Working Party, Advice of the National Board of Employment, Education and Training and its Australian Research Council	August 1992
Towards 2005: A Prospectus for Research and Research Training in the Australian Earth Sciences	August 1992
Commercialisation of Research: Advice of the National Board of Employment, Education and Training and its Australian Research Council	September 1992
Educational Research in Australia	September 1992
Planning for the 1993–95 Triennium: Preliminary Advice of the National Board and its Higher Education Council	September 1992
Current Practices in Credit Transfer and Related Issues: Occasional Papers	October 1992
Expanding the Research Base in Private Industry and Improving Interaction in Research across Sectors—Developments since 1988: Advice of the National Board of Employment, Education and Training and its Australian Research Council	October 1992
Future Directions	October 1992

Higher Education: Achieving Quality	October 1992
Response to the <i>Report of the Discipline Review of Computing Studies and Information Sciences Education</i> : Report of the National Board of Employment, Education and Training and its Higher Education Council	October 1992
Support for Postgraduate Research Awards in the 1993–95 Triennium: Interim Advice of the National Board of Employment, Education and Training and its Australian Research Council	October 1992
Changing Patterns of Teaching and Learning: The Use and Potential of Distance Education Materials and Methods in Australian Higher Education (Commissioned Report No. 19)	November 1992
Internationalisation of Research and Research Training in Higher Education: Advice of the National Board of Employment, Education and Training and its Australian Research Council	November 1992
National Board of Employment, Education and Training Annual Report 1991–92	November 1992
Fitting the Need: Post-compulsory Education and Training:	November 1992
Response to the Report of the Taskforce on a Broadbanded Equity Program: Advice of the National Board of Employment, Education and Training and its Schools Council	November 1992
Agenda Papers: Issues arising from <i>Australia's Teachers: An Agenda for the Next Decade</i> , Volume 2	December 1992
Change and Growth—TAFE to 2001: Advice of the National Board of Employment, Education and Training and its Employment and Skills Formation Council	December 1992
Distance Education in Australia: Advice of the National Board of Employment, Education and Training and its Higher Education Council	December 1992
Industry Training Advisory Bodies: Advice of the National Board of Employment, Education and Training and its Employment and Skills Formation Council	December 1992

The Middle Years of Schooling (Years 6–10): A Discussion Paper	December 1992
Research Infrastructure in Higher Education: Advice of the National Board of Employment, Education and Training	December 1992
Response by the Australian Research Council to <i>Report No. 2, British and European History 1983–1987</i>	December 1992
Response by the Australian Research Council to <i>Report No. 3, Australian History 1981–1985</i>	December 1992
Response by the Australian Research Council to <i>Report No. 4, Igneous and Metamorphic Petrology and Geochemistry 1986–1990</i>	December 1992
Response by the Australian Research Council to <i>Report No. 5, Genetics and Evolution 1986–1990</i>	December 1992
Employment, Education and Training Opportunities for Prisoners and Ex-Prisoners: Advice of the National Board of Employment, Education and Training	December 1992
Skills Sought by Employers of Graduates (Commissioned Report No. 20)	December 1992
Research Performance Indicators Survey (Commissioned Report No. 21)	January 1993
In the Middle: Schooling for Young Adolescents	February 1993
Australian Research Council Comments on Discipline Research Strategies: <i>Educational Research in Australia</i>	April 1993
Australian Research Council Comments on Discipline Research Strategies: <i>Towards 2005: A Prospectus for Research and Research Training in the Australian Earth Sciences</i>	April 1993
Equity Outcomes: A Report to the Schools Council's Task Force on a Broadbanded Equity Program for Schools	April 1993
Issues in Science and Technology Education: A Survey of Factors which Lead to Underachievement (Commissioned Report No. 22)	April 1993
What Do They Know?: The Understanding of Science and Technology by Children in Their Last Year of Primary School in Australia (Commissioned Report No. 23)	April 1993

Adult English Language and Literacy Provision by the Community Based Education Sector: Advice of the National Board of Employment, Education and Training and its Australian Language and Literacy Council	May 1993
Advice on the Small Grants Scheme: Report of the National Board of Employment, Education and Training and its Australian Research Council	May 1993
Assessment for Australian Vocational Certificates: Supplementary Advice of the National Board of Employment, Education and Training and its Employment and Skills Formation Council	May 1993
Competency Based Approaches to University Selection and Credit Transfer: Advice of the National Board of Employment, Education and Training and its Higher Education Council	May 1993
Funding Principles for the 1993–95 Triennium and Advice on Funds Allocated to Higher Education Institutions: Advice of the National Board of Employment, Education and Training and its Higher Education Council	May 1993
Higher Education Council Seventh Report to the National Board of Employment, Education and Training on the Operation of Section 14 of the <i>Higher Education Funding Act 1988</i> and the Higher Education Contribution Scheme	May 1993
Implementation of the Recommendations of the External Review of the Waite Agricultural Research Institute, University of Adelaide: Advice of the National Board of Employment, Education and Training and its Australian Research Council	May 1993
Postgraduate Support and Student Mobility: Advice of the National Board of Employment, Education and Training and its Australian Research Council	May 1993
Response by the Australian Research Council to <i>Report No. 6, Ecology 1986–1990</i>	May 1993
Response by the Australian Research Council to <i>Report No. 7, Condensed Matter Physics 1986–1990</i>	May 1993
Response by the Australian Research Council to <i>Report No. 9, Mathematical Sciences 1987–1991</i>	May 1993

Planning and Funding Principles for the 1994–96 Triennium: Preliminary Advice of the National Board of Employment, Education and Training and its Higher Education Council	August 1993
Australian Research Council Comments on Discipline Research Strategies: <i>Physics: A Vision for the Future</i>	August 1993
Higher Education Research Infrastructure: Report of the National Board of Employment, Education and Training	August 1993
Five to Fifteen: Reviewing the ‘Compulsory’ Years of Schooling	September 1993
Response by the Australian Research Council to <i>Report No. 1, Economics 1986–1990</i>	September 1993
Response by the Australian Research Council to <i>Report No. 8, Materials and Chemical Engineering 1987–1991</i>	September 1993
Response by the Australian Research Council to <i>Report No. 10, Organic Chemistry 1987–1991</i>	September 1993
Response by the Australian Research Council to <i>Report No. 11, Fluid Mechanics 1986–1990</i>	September 1993
Assessment of Competency Quality Related to a Standard Level: Advice of the National Board of Employment, Education and Training and its Employment and Skills Formation Council	September 1993
Australian Research Council Comments on Discipline Research Strategies: <i>Chemistry: A Vision for Australia</i>	September 1993
High Energy Physics in Australia: Advice of the National Board of Employment, Education and Training and its Australian Research Council	September 1993
Raising the Standard: Middle Level Skills in the Australian Workforce	November 1993
National Board of Employment, Education and Training Annual Report 1992–93	November 1993
Credit Transfer and Related Issues: Second Annual Report of the National Board of Employment, Education and Training	November 1993
Consultative Forum on Credit Transfer and Skill Recognition: Proceedings	November 1993

The Effects of Resource Concentration on Research Performance. (Commissioned Report No. 25)	November 1993
Crossing Innovation Boundaries: The Formation and Maintenance of Research Links Between Industry and Universities In Australia—Volume 1 (Commissioned Report No. 26)	November 1993
Crossing Innovation Boundaries: The Formation and Maintenance of Research Links Between Industry and Universities In Australia—Volume 2	November 1993
Crossing Innovation Boundaries: The Formation and Maintenance of Research Links Between Industry and Universities In Australia —Executive Summary	November 1993
Incorporating English Language and Literacy Competencies into Industry Standards: Report of the National Board of Employment, Education and Training and its Australian Language and Literacy Council	November 1993
Australian Vocational Certificate Training for Aboriginal and Torres Strait Islander People: Advice of the National Board of Employment, Education and Training and its Employment and Skills Formation Council	November 1993
Workplace Learning in the Professional Development of Teachers (Commissioned Report No. 24)	January 1994
Science and Technology Education: Foundation for the Future	February 1994
Response by the Australian Research Council to <i>Report No. 12, Molecular Biology 1987–1991</i>	February 1994
The Strategic Role of Academic Research	February 1994
The Collaborative Activities of the Institute of Advanced Studies, The Australian National University: First Annual Report of the National Board of Employment, Education and Training and its Australian Research Council	February 1994
Review of the National Board of Employment, Education and Training	February 1994
Education and Training for 16–18 year olds: Some reflections from Europe	March 1994

The Role of Schools in the Vocational Preparation of Australia's Senior Secondary Students	April 1994
Quantitative Indicators of Australian Academic Research (Commissioned Report 27)	April 1994
Higher Education Council Eighth Report to the National Board of Employment, Education and Training on the Operation of Section 14 of the Higher Education Funding Act 1988 and the Higher Education Contribution Scheme	April 1994
Response by the Australian Research Council to Report No. 13—Electronics and Communication	April 1994
Advice on Funds Allocated to Higher Education Institutions. Advice of the National Board of Employment, Education and Training and its Higher Education Council.	May 1994
Post-compulsory Education and Training Arrangements in the Australian States and Territories.	June 1994
<i>Chemistry: A Vision for Australia</i> —Comments on Discipline Research Strategies	June 1994
Provision of Post-compulsory Education and Training in Non-Metropolitan Australia.	June 1994
Response by the Hon Simon Crean, MP to The Report on the Review of the National Board of Employment, Education and Training	June 1994
Response by the Australian Research Council to Report No. 14—Psychology 1986–1990	July 1994
The Shape of Things to Come: Small Business Employment and Skills: Advice of the National Board of Employment, Education and Training and its Employment and Skills Formation Council	August 1994
Developing Lifelong Learners through Undergraduate Education (Commissioned Report No. 28)	August 1994
Guidelines for Disability Services in Higher Education (Commissioned Report No. 29)	August 1994
Resource Implications of the Introduction of Good Strategies in Higher Education for Disadvantaged Students (Commissioned Report No. 30)	August 1994
Developing Indicators of Infrastructure Needs in Secondary Schools (Commissioned Report No. 31)	August 1994

The Enabling Characteristics of Undergraduate Education: Advice of the National Board of Employment, Education and Training and its Higher Education Council	August 1994
Women in the Teaching Profession (Commissioned Report No. 32)	September 1994
Making the Future Work: Advice of the National Board of Employment, Education and Training and its Employment and Skills Formation Council	September 1994
National Board of Employment, Education and Training Annual Report 1993-94	October 1994
