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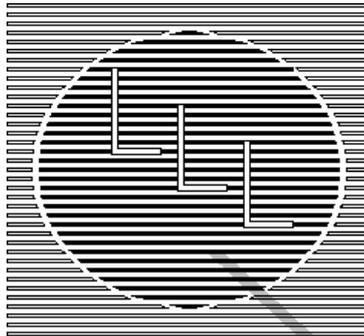
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ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

DIRECTION DE L'ÉDUCATION

DIRECTORATE FOR EDUCATION

The Role of National Qualifications Systems in Promoting Lifelong Learning

Background Report for Australia

April 2003

Australia's qualifications system and lifelong learning

A Country Background Report

prepared for the OECD project

'The role of national qualifications systems

in promoting lifelong learning'

April 2003

Disclaimer

This country background report reflects the situation in Australia in 2002. There have been significant enhancements to the Australian Qualifications Framework and Australia's quality assurance framework since then, and developments continue. See the following locations for the most up-to-date website references.

- The Australian Qualifications Framework
  http://www.aqf.edu.au

- Higher Education Quality Assurance
  http://www.dest.gov.au/highered/quality/default.htm

- Vocational Education and Training Quality Assurance
  http://www.anta.gov.au/vetWhat.asp
  http://aei.dest.gov.au/AEI/GovernmentActivities/QAAustralianEducationAndTrainingSystem/VocationalEducationAndTraining/default.htm

- Schools Quality Assurance
  http://www.dest.gov.au/schools/adelaide/index.htm
  http://aei.dest.gov.au/AEI/GovernmentActivities/QAAustralianEducationAndTrainingSystem/Schools/Default.htm

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Preface

This country background report on Australia was written for the OECD project, 'The role of national qualifications systems in promoting lifelong learning'. The first Section describes the national qualifications system in Australia. Within this, Part 1 provides an overview of the structure of education and training in Australia. School education, vocational education and training, higher education, and adult and community education are discussed in some detail. For each sector, a description of key features is offered and a short discussion of issues relating to educational qualifications in that sector. Part 2 contains a description of the Australian Qualifications Framework. It focuses on features of the framework of particular relevance to lifelong learning and to the needs of adult learners. Part 3 describes some of the non-accredited learning — formal and informal — that takes place outside the current qualifications framework, but is important to lifelong learning. Part 4 provides some conclusions.

The second Section uses available statistical data, reviews and evaluations to identify any evidence of the impact of Australia's qualifications system upon lifelong learning.

The third Section examines some of the pressures and initiatives affecting the qualifications system, paying particular attention to the factors that have influenced changes and innovations within system.

The conclusion draws together the findings of the previous sections.

I. Australia's qualifications system

1. The Organisation of Education and Training in Australia

1. Australia's education and training system is a multi-tiered structure combining school education, vocational education and training, adult and community education, and higher education. Figure 1 describes Australia's formal education and training system. It shows the typical range of qualifications available in each sector, the main providers, and the main pathways between the sectors.[1]

Figure 1. Model of Australia's education and training system including pathways between sectors.

Higher education

Post graduate degrees
Graduate certificates and diplomas
Undergraduate (Bachelor) degrees
Advanced diplomas/ Diplomas

Mostly public universities

Vocational Education & Training

Advanced diplomas
Diplomas
Certificates including apprenticeships/traineeships

Public and private registered training organisations including TAFE institutes

Adult & Community Education

Upper secondary certificates
VET certificates & diplomas
Non award courses.

Variety of providers

Upper secondary school Years 11 & 12

Upper secondary certificates & VET certificates

Lower secondary school Years 7/8-10

End of compulsory schooling in most states and territories
Lower secondary qualifications in some states and territories only

Public and private schools

Primary school

Years P/K – 6/7

Public and private schools

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[1] Accreditation arrangements differ between the higher education sector, the VET (vocational education and training) sector, and the school sector. More detailed information on the sectoral basis of qualifications arrangements is provided in the section on the AQF (Australian Qualifications Framework), para. 43 on.

2.   Accreditation, funding and administration of education and training occur at state and federal levels, but vary depending on the sector. Following are details provided under the description of each sector.

School sector

The organisation of secondary education

3.   In Australia, it is the Ministers of Education in the States and Territories who have constitutional responsibility for school education. This includes primary and secondary schooling, student enrolment policies, curriculum, course accreditation and certification procedures, and methods of student assessment. The qualifications arrangements within which school education is delivered are under State jurisdiction. There are mechanisms through which national co-ordination of school education across State and Territory jurisdictions is achieved. These mechanisms centre on the agreements achieved through the Ministerial Council for Education, Employment and Youth Affairs (MCEETYA), which involves all relevant State, Territory and Commonwealth Ministers.

Issues in connection with upper secondary qualifications

4. Most Australian students complete a school qualification at Year 12. This qualification has a triple purpose: as a foundation for lifelong learning, a guide to employers for immediate labour market entry, and a means of selection for tertiary education. It has traditionally been based primarily upon graded assessment of performance in traditional subject disciplines and the score obtained is important for students applying for entry into university from school. There has been concern that this has had an undue influence on the school curriculum and is a disincentive for those students wishing to follow a vocational pathway. In response, the agencies responsible for senior secondary certificates in each State and Territory have implemented strategies to integrate vocational education and training (VET) in these certificates.   These Australasian Curriculum, Assessment and Certification Authorities (ACACA) agencies were instrumental in the development of the *National Agreement of VET in Schools* (1998) which led to better integration of VET in senior secondary certificates.

5. Because students are increasingly staying in the school system until Year 12, the senior secondary population has become more diverse and, in an attempt to meet a wide range of needs, senior school students are now able to undertake VET subjects and qualifications (AQF Certificate I to IV) at school. This may provide incentives for potential early school leavers to complete Year 12. However it is also important that students choosing these subjects are not penalised if they want to follow a more academic pathway. This has led to a debate over recognition of such courses because the competency based assessment used in VET may not be graded. The issue of establishing a form of assessment that is also acceptable for university admission policy has received considerable attention in recent years. Some States and Territories have developed and implemented methodologies for awarding both scores (which may be optional) and units of competency for VET programs so that the student is able to have the score included in a single index, such as the University Admissions Index (UAI), awarded for university selection purposes.

6.   Related to the issue of recognition of vocational learning within the school awards is the complex question of *recognition of prior learning (RPL)*. In some States and Territories (for example, South Australia), steps are being taken to allow learning acquired in non-school settings to be assessed and reflected in the senior school certificate, thus contributing to overall graduation requirements. Reflecting the increasing interest by jurisdictions in RPL as an instrument to redress inequity and encourage lifelong learning, a set of national principles

and operational guidelines for RPL, inclusive of the schools sector, was under development in 2002 as part of the AQF.

7.   The limited capacity of the traditional mainstream senior secondary certificate to serve the needs of all students recently has led to major reforms in several States and Territories. For example, it has led to Victoria to introduce an alternative certificate. The Victorian Certificate of Applied Learning (VCAL) has a strong focus on vocational learning, basic skills and the promotion of self-esteem and confidence in learning. Another strategy has been to reform the existing certificate. For example, the key broad policy commitment of the New South Wales Government in vocational education and training is the *Ready for Work* Plan. The plan represents a comprehensive approach to giving young people a head start in employment by providing them with workplace experience and useful job skills while still at school. It includes a series of initiatives to strengthen the partnerships between schools and industry and pave the way for higher levels of support for students in structured workplace learning.

8.   Other measures are being implemented to ensure that the senior school qualification opens the way to further learning rather than closing off options. Innovations include the incorporation of RPL, the recognition of work based learning, internal progression routes within certificates (including into traineeships and apprenticeships), credit transfer arrangements and more open frameworks that allow a range of learning outcomes to be recognised within the certificates. While qualifications are viewed as attesting to a completed (and satisfactory) experience of education, their role as progression routes into further learning is equally critical. This makes the issues of equity and quality central to ongoing policy work on the qualifications framework in schools.

Vocational education and training (VET)

The organisation of post-school vocational education and training

9. VET in Australia is a very diverse system comprising Technical and Further Education institutes and colleges (TAFEs), private training establishments, and local or regional community providers. All providers of VET qualifications must be registered by government as Registered Training Organisations (RTOs). VET enrols an estimated 1.7 million individuals, and delivers a wide range of programs of a vocational or preparatory or general nature, including both accredited courses (AQF), national Training Package qualification programs (AQF) and non-accredited/non-award studies.

10. As with schools, constitutional responsibility for VET provision rests with Ministers of Education in the States and Territories. The majority of VET funding comes from the States and Territories, but the Commonwealth contributes about one-third of total public funding to implement national priorities in the training effort. While VET comprises a set of eight separate State-based systems, national co-ordination has been developed through the Australian National Training Authority or ANTA (created in 1992) and the Ministerial Council representing the States, Territories and Commonwealth which governs the work of this body (ANTA MINCO).

11. Of the various formal levels of education and training in Australia, VET has undergone the greatest change in recent decades. The changes have often been inspired by the policy drive to raise the quality, relevance and accessibility of vocational learning, with the qualifications system being the central policy instrument. Some historical background on the development of VET is therefore worth presenting.

Australia's qualifications system and lifelong learning   3

Historical background

12. The origins of the VET system in Australia lie in the senior technical schools and institutes of technology that were established, in the main, in the first half of the twentieth-century. These were administered by State Education Departments, with the exception of the more advanced institutions, which were governed by State government appointed councils. State jurisdiction meant that technical training evolved essentially along *regional* lines, with little reference to national standards.

13. The major reforms to the organisation of vocational education and training in Australia since the mid-1970s have been designed to reduce the monopoly of the public training providers and introduce a more open training market, develop a more demand and industry led VET system, and provide a national framework to achieve consistency in quality and the common recognition of VET awards. Part of the reform effort has been to expose the established providers of VET to market competition by the registration of private providers. The reforms have involved an overall shift from provider-driven training to industry-driven training, with competency outcomes for agreed levels of workplace performance specified by national industry advisory bodies. Arguably the most innovative reform, and the one most relevant to this report, has been the establishment of a recognition system based upon the achievement of nationally endorsed units of competency that can be assessed, by qualified assessors, outside any formal learning program. This system gives equal status, within the recognition regime, to formal, informal and non-formal VET learning.

The regulatory framework for delivery of VET

14. The VET system has shifted from one in which each *individual* jurisdiction accredited qualifications according to national industry competency standards (which still resulted in considerable variations in interpretation), to a process of collaborative national development and endorsement of Training Packages (see below), with corresponding amendments planned to state legislation to remove barriers to mutual recognition. The jurisdictions retain the capacity to accredit AQF courses and qualifications outside the scope of Training Packages.

15. Key elements of the regulatory framework known as the National Training Framework[2] within which VET is delivered today comprise:

- registration and auditing of Training Organisations

- nationally developed and industry-endorsed Training Packages involving competency-based assessment and Australian Qualifications Framework (AQF) outcomes.

16. The combination of these elements of accreditation, assessment and certification is intended to reflect the wide range of contexts in which vocational learning occurs, to enable individuals to be credited with learning in whatever context this does occur (including through recognition of prior learning), and to make further learning continuously accessible. It is an approach which stresses flexibility within a framework of national quality (ensuring the greatest mobility to learners).

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[2] The Framework is an agreement between the Commonwealth and State and Territory Governments. It guides the States and Territories in their regulation of the VET system.

Registration of Training Organisations

17. In a very diverse system, the integrity of VET qualifications depends heavily on the registration of training providers. Registration is conditional on compliance with the national principles, standards and protocols of the Australian Quality Training Framework (AQTF).

18. The AQTF is a set of nationally agreed standards to ensure quality of vocational education and training services throughout Australia. States and Territories apply the AQTF when:

- Registering organisations to deliver training, assess competency and issue AQF qualification

- Auditing Registered Training Organisations (RTOs) to ensure they meet the requirements of the AQTF

- Applying mutual recognition of qualifications and statements of attainment

- Accrediting courses.

19. The AQTF ensures that all RTOs and the qualifications they issue are recognised throughout Australia. This includes two sets of standards, one for RTOs and another for State/Territory registration and accreditation bodies.

20. The core standards relate to:

- Adherence to relevant laws

- Commitment to access and equity

- Demonstrated focus on quality

- Agreement to external monitoring and audit

- Sound financial and enrolment records management systems

- Ethical marketing and advertising.

21. Standards for the delivery of training products and services in turn require the RTO to:

- have resources needed to meet requirements of training packages and accredited courses

- identify learning needs of diverse types of clients and to provide for them

- provide support services for clients

- conduct assessments and issue qualifications and statements of attainment.

Training Packages

22. Equally important for the integrity of VET qualifications is the set of assessable competencies in the nationally developed and endorsed Training Packages. Developed under the auspices of the National Training Quality Council (NTQC) and endorsed by the NTQC for national application, these provide the 'basic building blocks' to be used by Registered

Training Organisations to deliver training and assessment. They contain industry competency standards, a set of national qualifications, and assessment guidelines.   In many industries, learning and assessment resources, termed Support Materials, have been developed for Training Package qualifications. Training Packages are typically industry-based (for instance, Retail, Hospitality and Business Services) and incorporate a number of qualifications that consist of different combinations of units of competence.   These units derive from occupational and work-based standards as developed in a collaborative way by various industry bodies in each of the States and Territories. They are broadly defined through core elements, and generally allow for variable workplaces and contexts. Assessment against competency standards is evidence-based, and the units contain evidence guides. Qualifications are based upon combinations of units of competency, and usually allow some flexibility in the selection and combination of units. Although the award of a qualification is determined by assessed competency as specified in the relevant Training Package rather than by successful completion of a course at an educational institution, in practice most learning is institution based. However, Training Packages generally specify that assessment can occur in simulated and/or actual workplaces. Training Packages have been instrumental in taking VET qualifications into industry sectors with little or no previous history of formalised training.

The Australian Qualifications Framework (AQF)

23. VET awards are organised in accordance with the AQF. This has been progressively implemented across Australia since the mid-1990s. The details of this framework are set out in Section 2.

Issues in relation to vocational qualifications

24. Quality is an important issue in implementing a system of national awards in a federal system. The introduction of a competitive training market in VET has led to a greater diversity of providers obtaining registration and hence to the potential for uneven quality.   The development towards a deregulated system, occurring at the same time as the introduction of the AQF, has required progressive strengthening of quality assurance mechanisms in the VET sector. The national quality assurance framework (firstly the Australian Recognition Framework, and later the strengthened Australian Quality Training Framework) provided the means to quality assure, and provide for, a truly national VET system.

25. The implementation of a national system of awards has boosted the *employment* value of nationally recognised vocational programs and facilitated progress through different levels of the VET system.

26. An important outcome for many VET graduates is that they are able to gain advanced standing in university programs. In 2001, 7% of students commencing a university course at Bachelor level or below were admitted on the basis of prior TAFE study, up from 3.9% in 1993 (DEST, *Varieties of Learning*, para 22). (These findings have, however, been challenged by researchers who regard the increase as a statistical artefact which disappears if 1994 rather than 1993 is selected as the base year). Among commencers 2% received some exemptions as a result of their TAFE studies. Among those gaining credit, substantial proportions were granted exemptions amounting to 25% or 33% of their higher education course (ie up to one year's study in a three year course).

27. The likelihood of VET graduates going on to university is closely related to the level of their VET qualification: for example 37% of holders of VET Advanced Diplomas proceed to university compared to 21% of those with a Diploma. A related issue is the question of credit towards VET qualifications for university graduates moving into the VET sector.

28. Historically, the VET sector offered an alternative for young people who left school early or who failed in their bid to enter university. However, in the past the lack of recognition of vocational awards beyond the VET sector itself meant that VET qualifications could rarely re-open the route to university and then to careers in the professions. This segmentation has lessened over time and the implementation of credit transfer facilities and dual sector delivery (sequential or concurrent programs delivered and/or developed across sectors) offer potential for much greater cross-sector mobility in the future.

Higher education

Organisation of higher education in Australia

29. Higher education in Australia is primarily provided by its thirty-nine universities. Australian universities are generally established under State and Territory enabling legislation and are autonomous self-accrediting institutions.[3] Publicly funded higher education institutions receive their funding under the Commonwealth Government's Higher Education Funding Act and are accountable to the Commonwealth for the efficiency, effectiveness and quality of their expenditure of public funding. They are also accountable for all operations to their establishing jurisdictions through their governing University Councils. In addition to universities, a growing number of TAFE Colleges and private providers offer higher education courses in different fields. Private non-university higher education institutions are not self-accrediting and, together with private and public VET providers who deliver higher education courses, need to have these courses accredited by higher education authorities. In each State and Territory, there is an authority responsible for accrediting higher education courses offered by these providers e.g., the Office of Higher Education, Queensland.

30. As self-accrediting bodies, universities accredit their own qualifications and are responsible for quality assurance including delivery arrangements. However, while setting their own standards, the courses they teach are in certain fields subject to professional registration from external bodies (e.g., the Australian Medical Council). Examples of fields are medicine, engineering, accountancy, and social work. Regulation extends from content, practicum, and assessment to articulation arrangements and progression from qualification to employment within the profession. Bringing Australia into line with international practice, MCEETYA recently established an independent auditing body, the Australian Universities Quality Agency (AUQA). AUQA's role includes conducting audits of university processes, including quality assurance processes, over a five yearly cycle. The AUQA audits commenced in 2002.

31. The collaborative development of the 'National Protocols for Higher Education Approval Processes', agreed by State and Territory Ministers, will ensure consistent standards in such matters as the approval of new universities, the operation of overseas higher education providers in Australia and the accreditation of courses to be offered by non-university providers. Four States (Tasmania, Victoria, New South Wales and Queensland) have already

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[3] This includes the Australian Catholic University (NSW 1990) and Bond University (Qld 1987). Institutions of Technology and Teachers' Colleges that were formed into Colleges of Advanced Education in the mid-1960s were integrated into the university system in 1988. In addition to these institutions Australia has three other self-accrediting institutions which do not have the title of university: the Melbourne College of Divinity, the Bachelor Institute of Indigenous Tertiary Education and the Australian Maritime College. Two non-self-accrediting institutions, Marcus Oldham College and Avondale College also receive public funds. Enrolments in non-university higher education institutions tend to be relatively small.

made changes to their legislation to bring their accreditation processes into line with the National Protocols. The other four States and Territories (ACT, South Australia, Western Australia and Northern Territory) have amendments underway and these legislative changes, which give effect to the National Protocols, are expected to be implemented in 2003. The Commonwealth Government gives protection to the title 'university' under the Commonwealth's Corporations Law, as the title cannot be used in a company name without the Minister's permission.

Issues in relation to higher education qualifications

32. Where school-leavers are concerned, universities in Australia generally base their selection processes on students' aggregated results in the senior secondary certificate. These are converted to a tertiary entrance score which serves as mechanism for ranking student applications, especially in high-demand courses. The senior secondary certificate is the most common basis of admission to university. In 2001, 'satisfactory completion of final year of secondary education at school' accounted directly for 45% of all non-overseas admissions to Bachelor's courses. A further 23% were admitted on the basis of completed or incomplete university studies to which many would have gained admission on the basis of school results.

33. However, a growing number of people admitted to Australian universities gain entrance through other routes. In 2001, 31% of non-overseas students commencing a Bachelor's degree were admitted on the basis of mature age or special entry provisions, studies in the VET sector, examination or assessment by the university; employment experience, professional qualifications or completion of Open Learning Studies, and 'other basis'.[4] In terms of age, 41% of non-overseas students commencing a Bachelor's degree were aged twenty or over. The diversity of this group underlines the important role played by the Australian universities in lifelong learning. Over 40% of all students in Australian higher education are studying either part-time or in external mode, forms of study which are particularly suited to adults and which are a long-established feature of university education in Australia.

34. While this signals a degree of accessibility not found in some other OECD countries, it does not necessarily mean greater equity. Higher aggregate individual participation need not be based on more equal access amongst disadvantaged groups. In Australia, some defined equity groups have very low access. For example, only 1.2% of domestic students were from an Indigenous background, although Indigenous people constitute around 2.7% of the 15-64 year old population. Students from the lowest socio-economic status quartile of residential locations contribute only about 15% of total enrolments – a proportion unchanged over the past decade (though absolute numbers have risen over this period in line with the overall increase in student numbers). Regional differences in participation are also marked; these often intersect with Indigenous status and/or low socio-economic background.

35. Within Australia, the vertical link between schools and universities, i.e. the proportion of students admitted directly or indirectly on the basis of their senior secondary results, is tighter in the case of some institutions than others, and conversely some institutions aim at wider and

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[4] Open Learning Australia provides an alternative pathway to university qualifications through distance education courses offered by a number of universities. Initially established by the Federal government, it is now operated as a private company owned by participating Australian universities. It has no entry requirements and no quotas on places. Students pay a fee for service which is comparable to the contribution payable by other university students under the Higher Education Contribution Scheme.

more diverse intakes. Thus the extent of seamlessness between non-university settings, such as VET or the adult and community education sector, and university varies.

Adult and community education

Organisation of adult and community education (ACE) in Australia

36. The adult and community education sector in Australia comprises approximately 1,000 providers. These are extremely diverse in nature. They range from very small organisations, serving a local area, to quite large and bureaucratically sophisticated organisations serving whole regions, and include providers from other sectors as well as specialist ACE providers. Across the States and Territories, there is also considerable diversity in organisation. In some States, adult and community education constitutes a distinctive sector (though still quite diverse), while in others it is part of the vocational training system. It is estimated that between 1.1 and 1.3 million people undertake courses in this sector. This has been calculated as representing some 25 to 30 million hours of adult learning (NCVER, 2001, p. 5), or approximately 44 hours per person per year — a relatively low level of intensity compared to the 200 hours undertaken on average by VET students.

37. Adult and community education organisations offer both vocational and general courses, and both formally accredited and non-accredited courses. Research studies have shown that students in adult and community education enrol in VET and non-VET (general or preparatory courses) in about equal proportions. But about two-thirds of those on the VET side are enrolled in non-accredited courses (by comparison, around a fifth of students in VET providers are taking non-award courses).

38. The growth of adult and community education in Australia owes much to the informal settings in which courses may be offered. A typical example is the 'neighbourhood house' converted to a suite of classrooms, with a kitchen and play areas for children. Adults who come to classes in these settings are not under the kinds of academic pressures faced by senior secondary students or by those in university lecture-theatres or the classrooms of VET institutions. For in all these contexts, learning is linked to assessment and, in the case of schools and universities, to graded assessment. Short courses without assessment and with fellow students who are not competing for grades create a supportive and non-threatening environment. This suits many learners who have left school early or who have been unsuccessful in other institutional settings and who may lack confidence both in learning and in interpersonal skills. Overall, however, data suggest that ACE participants are likely to be better educated than their non-participating counterparts. While the ACE sector has undeniable potential to reach out to second chance learners (those who left school early; Indigenous learners; adult migrants, etc), such learners do not form the bulk of its clientele.

Issues in relation to qualifications in adult and community education

39. Adult and community education is the sector in which qualifications have the least sway. For example, in Victoria over 70% of all students enrol in non-award courses. On the one hand, this makes the sector very open and accessible. It is not part of a graded, vertical structure in which certified prior achievement is as important as the qualification to which a course leads and the potential for further upward mobility which this in turn creates. On the other hand, the lack of credentials may be a limitation on the value of learning in that employers and educational institutions have no reliable guide to the learning that has occurred in terms either of competencies or of relative achievement (grades).

40. The extent to which this matters depends on the motives and aspirations of the learner and the availability of pathways (eg recognition of prior learning or situations where a

preparatory ACE course has been developed specifically to allow entry to eg a particular VET course). If a course is undertaken for personal enrichment the question of whether the kinds of knowledge and skills contained in it have been accredited by an academic or professional authority may be viewed as no more relevant than the absence of a formal instrument certifying that the accredited knowledge and skills have been mastered.

41. Those qualifications that are issued by adult and community education providers include both those accredited under the AQF (see Section 2) and those accredited by the State training authority or accreditation board as local awards. An important issue concerns the recognition of the latter by institutions in other sectors.

Funding Issues

42. Policy and funding regimes vary significantly across sectors and these will inevitably affect client behaviours and the interfaces between qualifications. Recent work has explored the role of separate funding and costing regimes in maintaining distinctions and inhibiting interfaces across sectors and between qualifications and a range of strategies are being explored to promote greater seamlessness (DEST, *Varieties of Learning*, 2002; Chapman et al, 2000). A summary of roles and responsibilities in each sector, including public funding arrangements, is provided in Table 1.

Table 1.   Roles and responsibilities in the Australian education system

Sector	Policy	Government funding	Administration & delivery
Schools			
government	Shared	Mainly States/Territories (85–90%)	States/Territories
non-government	Shared	Mainly Commonwealth (65–70%)	Non-government school authorities
Vocational education and training	Shared	Mainly States/Territories	Mainly States/Territories
Higher education	Shared	Commonwealth	Autonomous universities (within agreed policy framework)

Source: *Higher Education at the Crossroads: Ministerial Discussion Paper*, DEST, April 2002.

2.   The Australian Qualifications Framework (AQF)

Introduction

43.   Lifelong learning has been defined as 'all learning activity undertaken throughout life, with the aim of improving knowledge, skills and competencies within a personal, civil, social or employment-related perspective' (OECD, Coles, 2002). This 'cradle to grave' definition is broad and inclusive, with lifelong learning going well beyond formal credentials to embrace active citizenship, personal fulfillment and social inclusiveness, as well as basic skills learning and the cultivation of lifelong learning skills.

44. In Australia, as in other OECD member countries, lifelong learning is being pursued as a national policy goal.   The council of education ministers — the Ministerial Council for Education, Employment, Training and Youth Affairs (MCEETYA) — recently declared that 'Australia's future depends on each citizen having the necessary knowledge, understanding, skills and values for a productive and rewarding life in an educated and just society' (MCEETYA, 1999). This declaration followed an earlier commitment to the development of a national framework of qualifications that would 'encourage individuals to progress through education and training by improving access to qualifications, clearly defining avenues for achievement, and *generally contributing to lifelong learning*'.

45. Promoting lifelong learning, though, has presented particular challenges for Australia's qualifications system. As a federation, Australia has eight separate States and Territories. Constitutionally, responsibility for education resides with the States, and while the Commonwealth has acquired considerable influence through its funding responsibilities, the States retain all regulatory responsibilities that are underpinned by legislation. This includes the accreditation of qualifications. As outlined above, Australia's qualifications system developed against the background of a system of education and training delivery characterised historically by strong sectoral differentiation, with clear distinctions between vocational education (associated with TAFE) and general education (schools, universities). In addition there are differences in accreditation legislation between jurisdictions.

46. The qualifications system has also needed to modernise its structures and internal relationships in the face of demands of massively changed labour markets and expectations about individuals' needs, rights and obligations to maintain and develop relevant skills across their working and civil lives. Linked to this has been a need to respond to major changes in patterns of usage: rapid growth in school completion rates, increased take-up of vocational education and training and major expansion in levels of participation in higher education. Based on this growth in participation in education and training among young people there has developed an increasing expectation that individuals as they become adults will develop a relationship of continuing engagement with education and training that extends throughout working lives and beyond.

47. Against this background of a system divided along sectoral and State lines and characterised by growing demand for education and training, the AQF was introduced by MCEETYA as a comprehensive national policy to guide developments in nationally recognised qualifications in post-compulsory education and training. The implementation of the AQF has sent a clear policy message about achieving a balance between sectoral integrity and seamless learning, and provides an agreed basis upon which to negotiate across sectors.

48. The AQF has encouraged greater flexibility of delivery of qualifications across sectors, in particular with schools delivering VET-accredited qualifications to add diversity to the curriculum and provide recognised employment outcomes to school leavers. That is, although the different sectors retain accountability for the 'standards' and quality assurance of their respective qualifications — broadly speaking, the schools sector for senior school certificates, the VET sector for the VET certificates and diplomas, the universities for degrees — it is possible to deliver qualifications in any sector, subject to the relevant requirements set down by the accrediting sector. This breaks down unnecessary sectoral boundaries with respect to *access* to a particular education and training program, while retaining clear lines of sectoral accountability for the 'standards'.

49. The pages below outline the historical development of the AQF, its content, objectives and operation, AQF pathways, and issues of standards and articulation.

Development of the AQF

50. The orientation and genesis of the AQF can be found in work undertaken in the early 1990s by a MCEETYA Taskforce on a National Qualifications Framework. This combined a working group on Recognition of Training which had been dealing with a nationally consistent system of credentials for vocational education and training, and a cross-sectoral working group focused on an overall national system of credentials with particular reference to ensuring an effective interface between the vocational education and training sector, schools and higher education sectors.

51. It arose primarily to reflect reforms in the VET sector in preceding years and to maximise the training sector's continuing relationship and links with higher education, industry and schools. It drew on a long-established tradition of significant inter-sectoral cooperation.

52. Significant changes in national VET qualification frameworks in the early 1990s, under the direction of the Australian National Training Authority (ANTA), provided the stimulus for the development of the national cross-sectoral qualifications framework. The introduction of new entry-level qualifications — Certificates I and II — called for a review of alignments and relativities, with a particularly strong focus on maximising articulation between qualifications. The AQF reflected the greater emphasis on the diversity of learning pathways in spanning *all* major post-compulsory qualifications from school-level senior secondary certificates through to doctoral awards. It provided a national framework for learning pathways across all three sectors.

53. The AQF was introduced in 1995 on a transitional basis with full implementation from 2000 onward. It recognises that the schools sector, vocational education and training sector and higher education sector each have different industry and institutional linkages, and connects these in a single coherent Framework incorporating the national qualifications titles and their respective guidelines.

The Framework

54. The Australian Qualifications Framework developed in the context of a growing recognition of the value of lifelong learning, together with the need to accommodate a range of areas where interfaces between sectors had begun to emerge as pressing — such as the higher profile accorded vocational learning in school, and the demand for an improved recognition of learning across the VET and higher education sectors. It reflected a key objective of Federal, State and Territory Ministers to support continuous learning across the

interfaces between sectors: 'schools—VET', 'VET—Higher Education', and 'schools—VET—Higher Education'. It also emerged following, and in conjunction with, a considerable amount of national, State and Territory, and institutional level work on cross sectoral articulation and RPL.

55.   Key objectives of the AQF were to:

- bring together the qualifications issued by schools, VET and higher education sectors into a single comprehensive system of titles and standards

- support flexible education and training pathways between sectors and lifelong learning

- encourage parity of esteem between academic and vocational qualifications

- offer flexibility to suit the diversity of purposes of education and training and provide for the differences in the constitution of the sectors; encourage cross-sectoral partnerships

- underpin national policies, in particular on quality assurance and articulation and credit transfer (AQF Implementation Handbook, 2002,2).

56.   The Framework, shown in table form below (Table 2), comprises twelve national qualifications in schools, vocational education and training (TAFEs and private providers) and the higher education sector (mainly universities) (see below). The AQF Implementation Handbook (2002) provides authoritative guidelines for each qualification: these are included in a modified version at Appendix 1.

57.   The AQF is a robust, national framework based on formal agreement among the Australian Government, the States, and Territories. The AQF qualifications titles and descriptors are inscribed in a substantial body of State and Territory legislation protecting the quality of education and training within and across sectors and jurisdictions. While there is no overarching national legislation, the AQF framework and supporting systems drive consensus and consistency across the country.

58.   Operational functions associated with the AQF, such as accreditation of qualifications, assessment, issuance and quality assurance arrangements, are the responsibility of the individual jurisdictions through legislated authorities or, in the VET sector, shared between individual jurisdictions and ANTA. The national body with responsibility for the policy functions of the AQF is an *advisory* body to MCEETYA and is also governed by consensus. The AQF Advisory Board has a MCEETYA charter to promote, monitor and maintain the Framework. Membership of the Board reflects the sectoral structure of the AQF, comprising representation from the three main sectors – the Australian Vice-Chancellors Committee (AVCC); the Australian National Training Authority (ANTA) and two schools bodies, the Australasian Curriculum Assessment and Certification Authorities (ACACA) and the body comprising the schools CEOs in individual jurisdictions. In addition the adult and community education (ACE) sector is part of the membership, together with industry parties and the Commonwealth government.

Table 2. The Australian Qualifications Framework

Schools	Vocational Education and Training	Higher Education
		Doctorate
		Masters Degree
		Graduate Diploma
		Graduate Certificate
		Bachelor degree
	Advanced Diploma	Advanced Diploma
	Diploma	Diploma
Senior Secondary	Certificate IV	
Certificate of Education	Certificate III	
	Certificate II	
	Certificate I	

Source: Table 1, *Australian Qualifications Framework Implementation Handbook*, http://www.aqf.edu.au/pdf/handbook.pdf

59.   Responsibilities of the Board include a review function to ensure that the AQF continues to accommodate all the requirements for national recognition of learning and for flexible learning pathways. To date, this monitoring and review function has included:

- revision of the guidelines of the VET accredited qualifications to reflect the introduction of national accreditation processes through Training Packages (1998)

- benchmarking exercise on policy and practice in recognition of prior learning (RPL) as a pathway to a qualification, across all sectors (1996) and (work-in-progress) a set of national guidelines for RPL(2002)

- a status report on the dual sector diploma and advanced diploma qualifications (1998)

- a set of statements on quality assurance mechanisms operating in each sector (2000)

- revision of the guidelines for the bachelor, masters and doctoral degrees (2001)

- a new set of national guidelines for cross-sector linkages (2001)

- revisions to the AQF registers of bodies authorised by governments to accredit courses, recognise providers and issue qualifications (1999; in-progress 2002)

- an initial review (1997) of inclusion of an associate degree in the AQF and a current second review in-progress (2002)

- working parties for the review of the guidelines for graduate certificates and diplomas, and further consideration of the Diploma and Advanced Diploma as qualifications issued in more than one sector, but authorised differently by each sector – sometimes described as the 'dual sector' structural principle in-progress (2000-2002).

60.   AQFAB work is increasingly being informed by ongoing exchange with the international community, where more and more countries are adopting qualifications frameworks, at various stages of development and evaluation. It is evident that there is a common core of key issues as well as a common overall objective of supporting lifelong learning.

AQF Pathways

61.   The Australian Qualifications Framework encourages qualifications to operate as a national *system*, allowing for maximum flexibility in careers planning and continuous learning.

62.   Such flexibility is achieved through credit transfers or through recognition of prior learning.[5] Qualification linkages are fundamental to the operation of an effective Framework and 'provide a mechanism for creating a more open, accessible and relevant post-compulsory education system and a vehicle for implementing lifelong learning' (AQF, 2002).

63. Scope and coverage of the Framework are under continuing improvement and this area represents one of the most important fields of activity for the AQF Advisory Board. Of particular importance today is the range of issues which impact more or less directly on lifelong learning opportunities in Australia. These include contestation in the area of senior secondary certification and in the sub-degree area.

64.   The Framework serves to define relationships between key post-compulsory qualifications, articulating and emphasizing learning and qualifications pathways. Some tensions are necessarily involved in this process given that the system of articulation aims at optimizing access and participation while at the same time defining and maintaining standards and providing systematic quality assurance.

Senior Secondary School Certificates

65.   Current debates and developments concerning upper secondary certification illustrate such themes. The Senior Secondary certificates serve two primary functions and those

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[5]   'We distinguish RPL from credit transfer as follows:

- RPL assesses the *individual's* learning to determine the extent to which that individual has achieved the required learning outcomes, competency outcomes, or standards for entry to, and/or partial or total completion of, a qualification.

- credit transfer assesses *the initial course or subject* that the individual is using to claim access to, or the award of credit in, the destination course to determine the extent to which it is equivalent to the required learning outcomes, competency outcomes, or standards in a qualification. This need not confine credit transfer to credentialed courses within the AQF framework. The key distinguishing characteristic is that it is the *course* or *subject* that is assessed for equivalence, not the student.'

Leesa Wheelahan, Peter Miller, Di Newton, Thinking about RPL: A framework for discussion, NCVER: 11th National VET Training Research Conference, 9-12 July, 2002, p 4

functions have not always been mutually reinforcing. In Australia, the Certificates work in the first instance as a credential which documents completion of the school secondary syllabus, and attainment of the skills and knowledge base which might be considered consistent with that achievement. The qualification also serves as a base entry point for further education and training. In the case of higher education, the scale of a student's achievement, in the form of a single index such as the University Admission Index, governs that entry, especially into high demand courses or areas of study.

66.   In recent years, States and Territories have developed various statistical methodologies for the single index to take into account achievement in VET programs.   This type of development allows students wider career options and provides flexibility in that students may choose either a VET sector pathway or a university pathway into further education once they complete their secondary studies. For instance, nine new Curriculum Frameworks in New South Wales (derived from Training Packages and based on competencies), allow students the option to take an examination to enable the course to be counted towards their universities admission score.   These subjects allow students to receive credit towards their school credential, the Higher School Certificate, as well as a VET qualification. In addition, other VET courses are available as options in a variety of industry areas and provide students with credit towards their school credential as well as a VET qualification (although these are not included in the universities admission score).

67. Schools are changing the way they develop and deliver education in other areas. In 1999, Commonwealth, State and Territory Education Ministers agreed to the National Goals for Schooling for the 21st Century. In the context of the overall development of young Australians, these Goals highlight the importance of vocational education for all students in terms of:

- Supporting the development of employment related skills and an understanding of the work environment, career options and pathways

- Participation in programs of vocational learning

- Participation in programs that foster and develop enterprise skills

- Ensuring all students are able to complete Year 12 or its vocational equivalent.

68. To progress reforms to school education in line with the National Goals, all Education Ministers have endorsed a new Framework for vocational education in schools for implementation from 2001. The Framework embraces the need for better transition pathways for all young people and signals a broadening of the agenda for vocational education.

69. The total number of students participating in VET courses in 2001 was 169,809, indicating that 41% of all senior secondary students were undertaking vocational education within their senior secondary certificate, an increase from approximately 16% of senior secondary students in 1996.

70. This achievement is closely related to the establishment of the AQF. Without it, the schools sector would have been less likely to have access to VET qualifications as a way of broadening accommodation of diverse interests within a mainly academic curriculum. This has begun a process of developing further alternatives, possibly towards an additional schools qualification or towards modification of a lower level VET certificate in the direction of core or generic competencies. The AQF Advisory Board is about to review the guidelines for the

Senior Secondary Certificate in the expectation that the outcomes descriptors will be considerably broadened in the direction of general vocational characteristics.

71. Consultation between the school and the VET sectors has occurred over a period and the AQF, in which the distinctive missions of the sectors are clearly identified as underpinning the standards of the qualifications, has provided a stable and transparent basis for negotiation of the required hybridisation. Issues are being tackled within a common frame of reference and can be taken to MCEETYA rather than remaining isolated within individual jurisdictions. For example, MCEETYA has recently endorsed a set of Principles and Guidelines for Improving Outcomes for Vocational Education and Training in Schools (2002-2004). These Principles will inform the extension of the AQF Guidelines on Cross-Sector Linkages to include the schools-VET interface and VET in Schools-university interface.

72. The recognition of the greater diversity of school experience and clientele is also reflected in some of the recent developments in upper secondary certification in Australian States. Victoria, for example, has piloted a new and alternative Year 12 certificate (Victorian Certificate of Applied Learning - VCAL) and there has been an ongoing debate about the issue of equivalence within the context of a target for Year 12 or equivalent qualifications. The VCAL is oriented towards applied learning and the workplace and has core areas of literacy and numeracy. It also has levels, or progression routes, thus acknowledging differences in cognitive development. It is thus a more deliberate attempt to build exchange value through its linkages with employment, as well as intrinsic value through core areas of study and its progression levels. Effectively the certificate aims at seamlessness, transparency, coverage, and the building of value in qualifications at the State levels. It will be important to evaluate the elements of the VCAL in terms of improved learning outcomes for students.

73. The *Ready for Work Plan* in New South Wales increases the role of industry recognised vocational subjects as part of the reformed and enhanced Higher Schools Certificate, provides work placements for students and develops a charter to forge strong cooperation between schools and industry, among other activities. Western Australia plans to implement a system of flexible unit based subject structures that allow for the customisation of subjects at the school level and for students to progressively undertake more complex learning.

Qualifications across sectoral boundaries

74. A major challenge for the system is responding to demands for qualifications that cut across sectoral boundaries. The AQF guidelines for each qualification indicate the sector responsible for setting the standards for the qualification. This is a very important aspect of the transparency of the AQF: it is necessary that there are clear lines of accountability back to the sectors, in the absence of a central qualifications authority.

Diplomas and Advanced Diplomas

75. The Diploma and Advanced Diploma are currently issued in more than one sector (VET and Higher Education) but authorised differently by each sector to recognise the different types of learning reflected in the educational responsibilities of each sector. The Australian Vice Chancellors' Committee (AVCC) has recently made a submission to the Higher Education Review that these qualifications be moved to single offering and accreditation in the VET sector.

Associate Degrees

76.   Associate degrees are not currently included in the AQF. The award has been offered by some self-accrediting universities for a limited range of courses. There is currently a recommendation to the AQF Advisory Board that the Associate Degree be included in the Australian Qualifications Framework as a Higher Education qualification, acknowledging that the VET sector may also wish to offer the Associate Degree (either within Training Packages or by other means) through a higher education accreditation process.

Graduate Diplomas/Graduate Certificates

77.   Under the AQF, the Graduate Certificate and Graduate Diploma qualifications are presently higher education qualifications. However, the VET sector has indicated a strong interest in accrediting these as VET qualifications, including in training packages, and several States currently accredit Graduate Certificates through both their VET and Higher Education accreditation authorities.

78. The AQF Advisory Board is conducting debate as to whether these should also become dual sector qualifications in the AQF and revisiting the overall issue of dual sector or parallel accreditation of qualifications with identical titles.

79. The AVCC maintains its position that Graduate Certificate and Graduate Diploma qualifications should remain single sector higher education accredited awards. However, it is supportive of the VET sector developing and accrediting its own separately-titled awards within the vocational education system.

Standards and Articulation

80.   National competency based standards apply to VET qualifications only and aim to describe occupational and professional competences in broad senses, rather than competencies in a specific given job role at a particular location. They have been developed by industry and enterprise and are very much outcomes based.

81.   Qualifications developed using such standards are based upon the AQF descriptors. The application of VET competency standards translated into a standards reference for some aspects of delivery provided by other sectors can be a positive.   In schools for example the Senior Secondary Certificates may incorporate VET competency standards as a necessary aspect of program organisation, compliance and accreditation at the senior certificate level; this means exposure to competency based assessment and certain ancillary features of such arrangements such as recognition of prior learning where this may be appropriate.

82.   For senior secondary certificates there is a trend in several States and Territories towards standards references systems of assessment. For example, at the heart of the reforms in New South Wales is the proposition that there should be tighter and more explicit relationship between the Higher School Certificate (HSC) curricula and the HSC examinations, with student results indicating the standards (knowledge, skills and understandings) they have achieved. The previous practice of reporting students' results only in terms of the performances of the other students taking the same course ('cohort-referencing') was replaced by a system of 'standards-referencing' that would show how students had performed in relation to a hierarchy of described levels of achievement and give 'meaning to marks'. This approach has had implications for all stages in the development and marking of examinations and for the reporting and use of the HSC results. When translated into the curriculum this

approach to learning and accreditation presents certain challenges for students and staff in schools – in some circumstances, for example, it is argued that students welcome performance measurement which is outcomes and competency based rather than referenced to comparative achievement. Many students would prefer to master a task rather than rate themselves against their peers. It has also been argued that standards implied in VET assessment actually set a useful (if challenging) bar for some learners who have been accustomed to automatic promotion through school regardless of performance (Davies and Walstab, 2002). In this sense the introduction of externally referenced and clearly understood standards counters complacency. However, there can be difficulties in agreeing on 'standards' in cross-sectoral contexts, given the competency based/course based differences. It is especially an issue when articulation is being ventured, such as in cases of schools and VET, or VET and higher education. As well, 'standards relativities' between the occupational qualifications themselves have been difficult at times. For example, school certificates *incorporate* VET Certificates I-III as one element only in a broader package of offerings.

83.   Attempts were made in the early 1990s to develop a common currency through 'Key Competencies'. These had limited success – although there is now renewed interest in the development of generic employability skills and attributes. A recent study (Business Council of Australia and the Australian Chamber of Commerce and Industry, 2002) confirmed that business and industry now require a broader range of skills than the earlier Key Competencies. In this study, an analysis of the survey and case study findings informed the development of an 'Employability Skills Framework' for a range of generic skills and personal attributes. It is envisaged that the project outcomes will assist understanding and the future application of a set of employability skills in all education and training sectors. In addition, there is some interest in the development of certificates based upon generic competencies. Pitman (2002) has proposed the assessment of generic skills in the senior secondary certificate in Queensland.[6]

84.   In the end standards are empirically driven and current debates reflect particular practical pressures on standards and qualifications. Thus standards for the senior school certificates have become more flexible, and for these reasons assessment based scores have needed to be derived. Hence the tensions, and the evolution of both VET in Schools in all States, VCAL in Victoria, flexible and inclusive award structures in Tasmania and South Australia, flexible and progressive subject structures in Western Australia, incorporation of experiential learning within a flexible structure in Queensland, and recent reforms in New South Wales.

85.   There has been some debate about the adequacy of the descriptors for VET qualifications and the processes for allocating qualifications levels. There has also has been debate about higher education standards – both as a product of the expansion of the sector from its very small base in the early 1980s, and because of the growth of full-fee courses. The Commonwealth requires quality procedures and audits within universities, and the Australian Quality Assurance Framework for university education sets out the roles of the Commonwealth, the States and Territories, the universities, and the Australian Universities Quality Agency as well as the AQF.

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[6] See Kosky, 2002.

3.   Outside the framework

86.   The OECD has classified learning as 'formal' 'non-formal', and 'informal'. *Formal learning,* achieved through organised programs delivered through schools, TAFEs, universities and other recognised providers, is recognised through a qualification or part of a qualification. In Australia, courses which conform to the AQF would be included under the heading of formal learning. *Non-formal learning* is achieved through an organised program or instruction, but is not recognised through a qualification. *Informal learning* is achieved outside organised provision. These three classifications are used commonly in other international activities, including those supported by the European Union.

87.   First are instances where 'formal' learning is not directly recognised by the Framework. Some courses of instruction, for example, result in a 'qualification' which falls outside the AQF. These courses may be related to professional organisations or associations. In many cases their recognition is highly managed and regulated, and the qualification relates overtly to credentials achieved within the AQF – entry to undertake study for certificates of membership of certain professional associations, for example, is confined to individuals already holding appropriate and recognised qualifications in that field. Other qualifications certifying formal learning not recognised by the Framework include some English language certificates, some foundation and preparatory certificates, executive certificates, and the Victorian ACE Certificate of General Education. Vendor qualifications, such as the IT qualifications (Cisco, Microsoft) and hospitality qualifications (McDonalds) also are having an impact. In many cases the international qualifications have been translated into national VET qualifications and in some States they have been incorporated into the senior secondary awards.

88.   Professional bodies' certification determines who can join such bodies and with what status. They do not however determine who can legitimately exercise a profession. It is registration boards (which are quite distinct from professional bodies and are set up mainly under State/Territory legislation) that determine, in the case of professions that are regulated by law, what qualifications are required for lawfully practising in a regulated profession.

89.   On a less formalised level are the 'certificates' and qualifications which provide an overlay of authority and legitimacy to new, alternative or less well recognised areas of activity — the non-mainstream areas of human relations in particular. These are more contested domains and the place of these 'qualifications' may vary. Here are found the 'life coaching' courses and so on. Some may be systematic and sustained in their presentation – others may represent a 'study' component of a weekend or workshop only.

90.   Bearing those categories in mind, a range of learning experiences and outcomes not covered by the Qualifications Framework should be included in a documentation of Australia's qualifications system. These include:

- Non-award courses mainly for international students such as foundation and bridging courses,

- English language courses;

- Non-award 'general interest' courses;

- Youth program awards;

- Industry certificates (except as incorporated under AQF titles);

- Professional association awards,

- International awards; or

- Vendor certificates

91. The AQF Advisory Board is also called on to manage the relationship of particular qualifications to the framework overall, and has been tasked by MCEETYA with a review of the AQF in 2003.

Schools, Universities and VET institutions

92.   Although their core business deals with formal learning, schools, universities and VET institutions are places where some students might undertake a course of instruction not attended by a 'qualification' recognised by the AQF. These might include short courses, continuing education courses or other lecture series. There is provision in the AQF for recognition of some of these types of programs in the form of a Statement of Attainment.

Community-based Adult and Community education (ACE) providers

93.   Community-based ACE providers are major suppliers of non-award learning. Further detail on the sector is provided in Part 1 (4, Adult and Community Education).

Community organisations

94.   In response to changing structural requirements it is increasingly the case that community organisations are training their volunteer staff and elected office-bearers in financial management and other skills such as community liaison, media management and interpersonal relations. Elected boards of management for school councils, kindergarten boards, Landcare groups and community childcare providers for example undertake training in financial management and other areas which assist them in the execution of their increasingly complex administrative roles and responsibilities.

Voluntary Sector

95.   To this should be added the learning outcomes of the individuals engaged in the voluntary sector, who rely on a mix of non-formal and informal learning to develop the capacities required to discharge their commitments.

Workplaces

96. Workplaces represent a major site of both non-formal and informal learning. Non-formal learning may be found in the delivery of structured programs of learning which are not directly recognised through the AQF – such as induction programs for new recruits, graduate trainee programs, workshops in skills development and so on. In many cases however course components compare with those of recognised qualifications both in presentation and learning outcomes. They are of significance in documenting the 'value-adding' of a worker and providing assurance that training has taken place up to a requisite level and are of particular significance in signposting career pathways within an organisation.

97.   In 2001, 37% of 15-64 year olds (or 4,760,000 individuals) took at least one work-related training course in the twelve months prior to the Survey of Education, Training and IT (ABS, 6278.0, 2001). Training was more likely to be taken by 25-54 year olds (young and middle-aged workers) who might be described as the already qualified (ABS, 6278.0, 2001 and Sandra Roussel, REB Report 7/2000). This was especially the case in the public sector (ABS, 6278.0, 2001).

98.   In the case of workplace provision, informal learning can be defined as an outcome of a range of activities undertaken at the site of work:

- being shown how to do the job

- watching others work

- asking questions of co-workers

- teaching oneself.

99.   In 2001 it was estimated that 69% of Australia's workforce (the labour force plus marginally attached), had undertaken this form of on-the-job training in the previous 12 months - around 7,120,000 people. Again, this training was more extensively reported by the already highly trained (according to ABS, 6278.0, 1997).

Recognition of overseas qualifications

100. AEI-NOOSR, formerly known as the National Office of Overseas Skills Recognition, seeks to help the overseas trained to work and study in Australia by providing information, advice and assistance in relation to the recognition of overseas qualifications and skills, and to encourage improved international arrangements for the recognition of qualifications and skills. Its principal functions include providing information and advice relating to the recognition of tertiary qualifications and professional recognition pathways and facilitating the promotion of fair, equitable and transparent assessment of qualifications.

4.   The AQF and lifelong learning

101. Lifelong learning places particular pressures and demands on national qualifications systems. As a concept lifelong learning is fundamentally individualist and learner-centred in its focus. It recognises the individual as the primary unit of agency, activity and consumption and implies great diversity and individuality in learning patterns. The role of frameworks in this context is not to direct individuals into set and circumscribed pathways but rather to optimise participation by extending recognition, clarifying linkages, extending opportunities and eliminating as far as possible barriers to access.

102. It is not possible to expect a national qualifications framework to recognise all achievement, but there is a need for clear links and pathways towards qualifications for those who need and aspire to them. As others have argued, a qualifications system that promotes lifelong learning must be able to sustain the ability of learners to gain access to useful achievement sets in a variety of contexts, and be able to add, change and update these achievement sets over time within a consistent framework of easily understandable and universally recognisable design specifications.

103. The AQF provides a broad frame aimed at achieving these goals. In the context of high levels of sector differentiation which characterise Australian education and training, the importance of the AQF as a sector-inclusive structure covering the breadth of nationally recognised qualifications (unlike most other national frameworks which have only partial coverage) is acknowledged in a wide range of associated national policy. The role of the AQF

is, on the one hand, to make transparent the characteristics of each qualification and their associated quality assurance regimes, and, on the other hand, to support flexible learning pathways across these sectoral boundaries. These roles are necessarily held in some tension, though the AQF increasingly provides a mechanism for negotiation towards greater cross-sectoral mobility and more diverse access to qualifications.

104. Some jurisdictions have recently established their own authorities to manage their accreditation functions, eg the Victorian and the Tasmanian Qualifications Authorities. One reason for these initiatives has been the need for a body that can monitor and respond to the qualifications needs of their broader community in addition to AQF requirements. They are also a recognition of the trend towards more flexible qualifications frameworks, and the need to allow qualifications to be modified or customised at the regional or meso level.

II. Impact of Australia's qualifications system on lifelong learning

5. The Australian Qualifications Framework and lifelong learning

105.   A major feature of Australia's qualifications system is the AQF. As discussed in the previous Section, the Framework was introduced in January 1995 with a transition period of five years and full implementation from 2000 onwards. It was introduced to provide a comprehensive, consistent framework for all qualifications offered on a national basis in post-compulsory education and training. The framework aims to encourage lifelong learning. It attempts to do so by providing individuals with better scope to progress through the levels of education and training by improving access to qualifications, by more clearly defining avenues for achievement and by promoting national and international recognition of qualifications offered in Australia. The AQF makes a specific commitment to flexible, transparent and systematic learning pathways and to the removal of boundaries between educational sectors.

106.   Lifelong learning implies a dynamic view of education and training, building strong linkages between learning at different stages of life and in a wide range of settings and partnerships rather than just looking at various forms of education and training provision in isolation from each other. The departures from existing views of education and learning are substantial. They involve recognition of a wide range of learning modes, strengthening the motivation to learn (wide range of learning opportunities, opportunity to combine classroom learning with learning in work settings etc), and providing a wide variety of pathways not constrained by rigid notions of formal education and training.

107.   Many of the goals of the AQF support such an alternative view of education and learning needed to promote lifelong learning. These goals include:

- bringing together the qualifications issued by the schools, VET and higher education sectors into a single comprehensive system of titles and standards

- supporting flexible education and training pathways between sectors and lifelong learning

- encouraging parity of esteem between academic and vocational qualifications

- offering flexibility to suit the diversity of purposes of education and training and provide for the differences in the constitution of the sectors

- encouraging cross-sectoral partnerships

- underpinning national policies, in particular on quality assurance and articulation and credit transfer.

108.   Achieving these goals requires changes or mechanisms that can help translate qualification arrangements into improved lifelong learning outcomes. The main mechanisms introduced with the AQF to help support these goals and promote lifelong learning include the following:

- VET in Schools, which allows schools across the country to offer industry based units of learning that can contribute to both the Senior Certificate of Education and Certificate I - IV qualifications;

- Making explicit the connections between general vocational education courses and lifelong learning. For example, in New South Wales Higher School Certificate courses must include details on the place of the course in the continuum of learning and its relationship to post-school opportunities in education, training and employment.

- Articulation and credit transfer arrangements between schools and Registered Training Organisations (RTOs) and between RTOs and universities involving efficient articulation of programs and maximum credit transfer; and

- Recognition of Prior Learning, by which credits are granted towards qualifications through assessment of an individual's knowledge and skills gained through education, training, work and life experience.

109. The impact of these features on lifelong learning is not easy to measure directly. However, it is possible to get some sense of the impact of the changes through an examination of data on the linkages between qualifications and the pathways from qualifications, the levels of participation in education and training, employers' use of qualifications, and the social and financial returns to qualifications for individuals. The next four sections present available evidence on each of these issues. In the final section there is consideration of the question of whether or not the changes associated with the introduction of the AQF have helped promote lifelong learning.

6. Qualifications and participation

110. There is a good deal of evidence to show that participation in education and training has expanded substantially in Australia over the past decade or so. Table 3 shows that the number of Australians with post-school qualifications increased between 1993 and 2001, from 39.1 per cent to 47.2 per cent.

111. The growth has occurred across all age groups, though at variable rates. The proportion of 15-24 year-olds with a post-school qualification increased by 3.8 percentage points between 1993 and 2001. The increase for 35-44 year-olds was 6.8 points and for the oldest age group — 55-64 year-olds — the increase was 9.1 points.

Table 3. Proportions of Australians with a post-school qualification: 15-64 year-olds

	1993	1995	1997	1999	2001
15-24	20.8	22.3	21.7	22.7	24.6
25-34	47.2	48.5	48.8	52.9	58.9
35-44	48.8	49.8	49.6	53.0	55.5
45-54	43.7	45.7	44.1	48.5	52.1
55-64	33.2	37.3	34.3	37.9	42.3
Total	39.1	41.0	40.4	43.7	47.2

Source: ABS *Transition from education to work.* Cat. No. 6227.0

112. The growth in the population holding post-school qualifications is partly a result of an increase in the numbers participating in formal education and training. At the time of the annual national survey of education and work activity undertaken by the Australian Bureau of Statistics, 15.6 per cent of Australians aged 15-64 were undertaking study leading to a

qualification in 1993. This percentage grew to 16.4 per cent in 1995, and then to 17.1 per cent in 2001.

113.   Annual rates of participation in education and training in Australia are comparatively high, on international standards. The rate of participation in part-time study among adults (24-65 year-olds) is among the highest in OECD countries, while the rates of participation in continuing education and training are above OECD averages (OECD, 2001).   In 2001, according to the survey of education and training experience, over 1.7 million people were engaged in post-school study (ABS, 2001). Participation in work-related training courses was also high, underlining the importance given to improving work-related skills. At the time of the survey (April to August 2001) there were an estimated 12,870,600 people aged 15 to 64 years in the population. An overview of the education and training status of this age group showed that:

- 42 per cent had completed school education to Year 12 level;

- 17 per cent had a highest educational attainment of Bachelor degree or higher;

- 4.7 per cent were studying towards a Bachelor Degree and a further 1.7 per cent towards graduate and postgraduate higher education awards;

- 8.6 per cent were enrolled in VET courses leading to Diploma, Advanced Diploma or Certificate (I-IV) qualifications.

- 25 per cent intended to enrol to study for a qualification in the next three years;

- 37 per cent had completed at least one work-related training course in the 12 months prior to the survey; and

- 20 per cent of people not at school wanted to, but did not, undertake some study or more study in the 12 months prior to the survey (ABS, 2001).

114.   Changes in the patterns of participation have varied by education sector and it is important to examine some of the key trends.

Participation in school

115.   Over the past three decades, there has been substantial change in the numbers of young people remaining at school to the final year and being awarded a senior school certificate. Until the early 1980s, apparent school retention had grown slowly with more than 60 per cent of secondary school students leaving school without gaining a Senior School Certificate (Sweet, 1983). By the end of the 1980s, however, this had dramatically changed with the vast majority continuing through to Year 12.

116.   As Figure 2 shows, retention to the final year of secondary schooling in Australia grew sharply during the 1980s rising from approximately 36 per cent in 1983 to 77 per cent in 1992. The massive increase over this period was driven largely by labour market factors, including rising rates of youth unemployment and the long-term loss of full-time teenage jobs due to structural changes in industry and the Australian economy. Other factors were also influential, however.   These included increased Commonwealth Government financial assistance for young people of low-income families in study and the abolition of unemployment benefits for 16 and 17 year-olds. Also important were changes in school programs and assessments. Both contributing and responding to the rising participation rates, major changes were made by different States and Territories to curriculum and examinations. In most States and Territories, this led either to the provision of multiple credentials at the end of secondary education or more commonly to differentiation of streams within a single credential. In Victoria, for example, several certificates were replaced by a single certificate offering a comprehensive set of study options (the Victorian Certificate of Education).

117.   Between 1991 and 2001 Australian students completed school in marginally stronger proportions, but slightly down on the peak of 1992. The rates are much larger than they were in the early 1980s, as is clear from Figure 2. In 2001, the apparent retention rate suggests a Year 12 participation rate of almost three in four. This has occurred in an environment where closer links have been developed between secondary education and VET, and where there has been a four-fold increase in the number of students studying VET while still at school. The VET in Schools program was introduced in most States and Territories during the 1990s and aims to provide school students with the opportunity to gain vocational qualifications without forgoing the opportunity to complete school and, if desired, access higher education (see paras. 65-70).

118.   Today, about three in four of all young people who begin secondary education reach the final year (Year 12) and the great majority of these are awarded a senior certificate.

119.   The overall rise in school completion rates across States and Territories, together with higher levels of involvement in further and higher education, make for a population better prepared for the demands of changing labour market environments and lifelong learning challenges.

Figure 2.   Retention rate to Year 12, Australia, 1967-2001
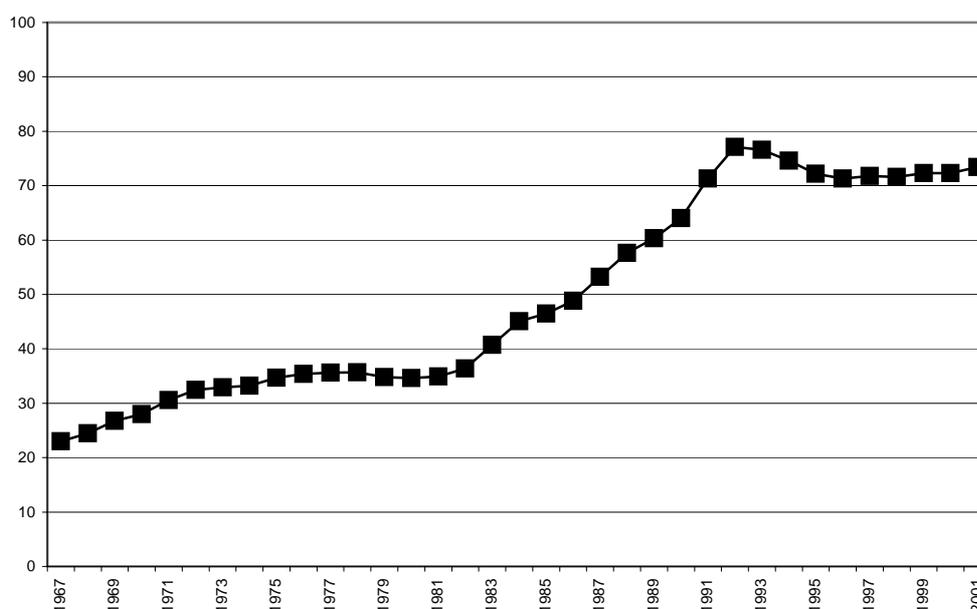
Source: ABS *Schools Australia*. Cat. 4221.0.

120.   Year 12 completion provides a strong foundation for continuing study. Much research in Australia has documented the relationship between school attainment and the likelihood of post-school study (Lamb, Long & Malley, 1998; Lamb & McKenzie, 2001; Lamb, 2001). It could be argued that rising completion rates are paving the way for a stronger take-up of adult learning in future years, especially given the attention now being paid in schools to the development of pathways awareness and lifelong learning behaviours (such as, for example, Commonwealth-funded Pathways Projects and Victoria's Managed Individual Pathways Organisation).

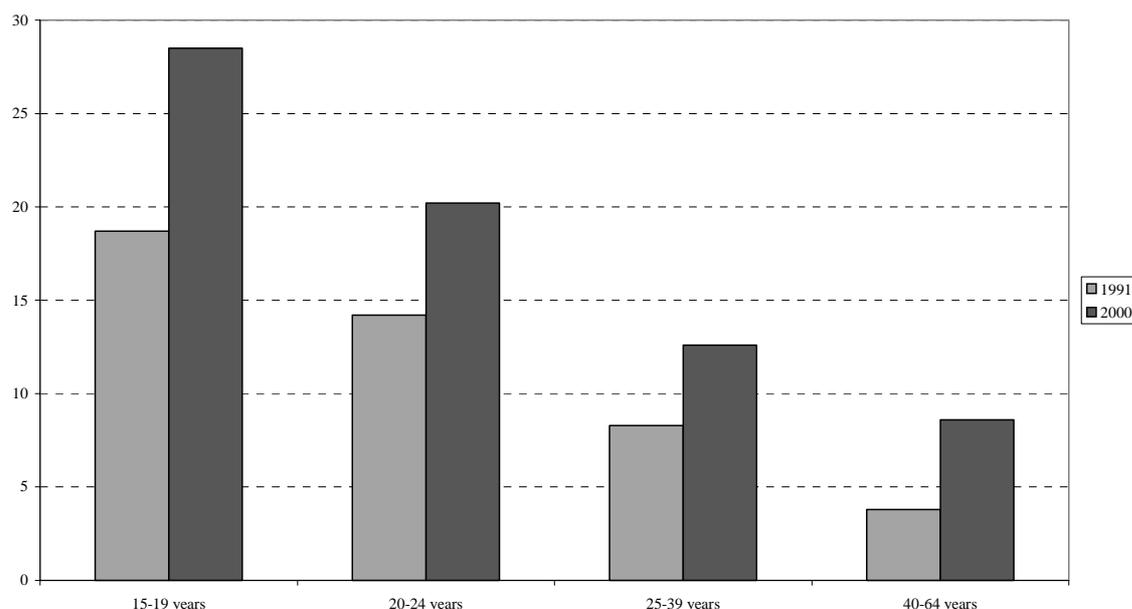## Participation in vocational education and training

121.   Participation in vocational education and training (VET) in Australia has also increased considerably (see Figure 3). In 2000, 28.5 per cent of Australia's 15-19 year olds undertook some kind of vocational training, compared with 18.7 per cent in 1991. The role of training as a platform for subsequent learning and training is critical for this age group. Initial engagement is important in promoting dispositions towards further study and a receptiveness to learning in the sector is enhanced by early access and exposure.

122.   But adult learners were also significantly represented in the increase in VET learning over the decade. The proportion of Australian adults in the 40-64 age group undertaking VET, for example, more than doubled between 1991 and 2000 — from 3.8 per cent to 8.6 per cent.

123.   Figure 3 illustrates, however, the current 'front end' quality which still dominates much of Australia's training profiles. VET participation is dominated by the young, with over 28 per cent of those in the 15-19 age group and over 20 per cent of those in the 20-24 year old age group reporting participation in VET in 2000. By comparison only 12 per cent of those aged 25 to 39 reported participation in VET, as did less than 10 per cent of older workers.

Figure 3.   Participation in VET in the post-compulsory years, 1991 and 2000

Participation in VET of Australia's Population aged 15-64 years, 1991 and 2000

Source: NCVER, *Vocational Education and Training in Australia, 1991 to 2000.* Note that 15-19 VET figure for 2000 includes school-based VET)

Participation in higher education

124.   In relation to higher education, the opening up of the system to more Australians is a process that is well underway (see Figure 4). The number of students enrolled in Australia's higher education institutions has more than doubled over the past twenty years. In 1984, 357,373 students were enrolled in higher education courses; at the March 2002 census the number of Australian students was 649,500, with the total of Australia and international students being 795,000. There are implications here not only for the short term — appropriate staffing and resourcing of institutions to meet this expanded demand — but over the longer term, in the likelihood of future demand for further learning and training opportunities, given the propensity of the qualified to undertake further education and training over the course of their working lives.

125.   In the past decade numbers have increased strongly for all age groups: overall numbers increased by around 30 per cent. While all cohorts saw an increase in participation, those in the age group 20-25 showed strongest increases — over 50 per cent — while adults in the 30+ age group are reported as showing slightly lower rates of growth of around 25 per cent overall.

Figure 4.   Commencing Students by Age, Higher Education 1991 and 2000

Higher Education Commencing Students by Age Group, 1991 and 2000
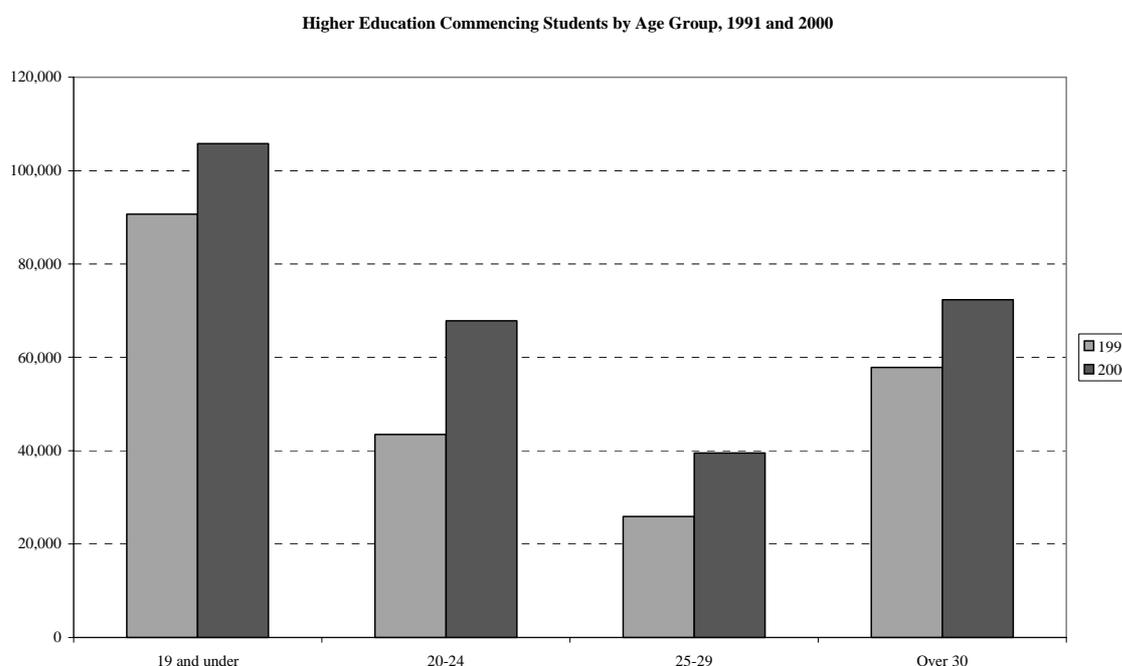
Source: DEST, *Higher Education Students Time Series Tables*, Table 10

Participation in adult and community education

126.   Diversity in provision, funding and organisation across States and Territories has made the collection of accurate data on participation in adult and community education (ACE) a difficult task. There is no national standard for the reporting of ACE activity, except for the components of ACE that receive public funds as part of VET. It is therefore not possible to measure precisely the extent to which changes in participation have occurred, although the estimates that have appeared in various sources provide a guide.

127.   Comparisons of estimates suggest that over the past decade the overall numbers of people participating in ACE have grown strongly. Participation has increased by roughly 40 to 45 per cent, expanding from an estimated level of 750,000 in 1991 to about 1.3 million in 2000 (NCVER, 2000).

128.   Only a minority of participants in ACE undertake courses leading to a qualification recognised under the Australian Qualifications Framework. In 2000, of the 477,800 ACE students recorded in the national VET data collection, approximately 16 per cent were undertaking courses leading to a nationally recognised qualification.

129.   Surveys of the participants in ACE have shown that many are employed and hold post-school qualifications. This would suggest that many participants in ACE represent the advantaged in terms of education and employment.   Yet the ACE sector is also more open and accessible. It is not part of a graded, vertical structure in which certified prior achievement is as important as the qualification to which a course leads. The large numbers of Australians

participating in non-award courses in ACE reveal the importance of this sector to encouraging and promoting lifelong learning.

Participation of those with low educational attainment

130.   Despite the strong progress in the numbers of Australians participating in education and training over the last decade, many still do not hold post-school qualifications. According to the 2000 survey of transition from education to work, about one-third of the current adult working-age population (15-64) in Australia does not have post-school qualifications and left school prior to Year 12 (ABS, 2001). A further one-fifth had completed Year 12, but had not completed any qualifications after leaving school. Combined, the figures show that about one-half of the population had not obtained any post-school education and training qualifications.

131.   Table 4 presents the rates of educational attainment for 15 to 64 year-olds in Australia in May 2000. The rates vary considerably by age group. Almost half of those in the 55-64 age group did not have post-school qualifications, were not in study in 2000 and had left school without completing Year 12. The percentages fall with each age group, consistent with increases in recent decades in school retention rates. The lowest rate was recorded among 15-24 year-olds (18.4 per cent).

132.   Older Australians of working age are less likely to hold post-school qualifications. Approximately 39 per cent of 55-64 year-olds held post-school qualifications. In comparison, 25-34 year olds and 35-44 year olds were the age groups most likely to hold qualifications. Bachelor degrees were the most common qualifications for 25-34 year olds (17.6 per cent) while skilled vocational qualifications followed closely (13.5 per cent of all those with post-school qualifications). Rates of post-school qualifications were lowest among the youngest age group — 15-24 year olds — but this group had the highest rate of those in study in 2000.

Table 4.   Persons aged 15–64, by educational attainment & age group, May 2000 (%)

Educational attainment	Age group					
	15-24	25-34	35-44	45-54	55-64	Total
Without post-school qualifications	**69.9**	**46.0**	**48.0**	**51.1**	**61.4**	**53.7**
Did not complete Year 12	24.7	26.8	34.2	38.3	49.0	33.8
Not in study in 2000	18.4	25.4	32.7	37.3	48.6	31.8
In study in 2000	6.3	1.3	1.4	1.0	0.4	2.0
Completed Year 12	45.1	19.2	13.7	12.7	12.2	19.8
Not in study in 2000	18.0	16.1	12.6	12.2	11.9	14.2
In study in 2000	27.1	3.0	1.2	0.5	0.2	5.7
With post-school qualifications	**30.1**	**54.0**	**52.0**	**48.9**	**38.6**	**46.3**
Basic vocational	8.7	9.2	9.6	8.9	6.4	8.7
Skilled vocational	7.1	13.5	13.7	12.7	13.1	12.3
Associate diploma	2.3	4.0	3.7	3.2	2.1	3.2
Undergraduate diploma	3.2	5.2	6.0	6.8	5.9	5.5
Bachelor degree	8.3	17.6	13.0	11.2	7.6	12.2
Postgraduate diploma	0.4	2.4	2.9	3.2	1.7	2.3
Higher degree	0.1	2.1	3.2	2.8	1.8	2.1
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
N= ('000)	2001.2	2851.2	2895.3	2542.0	1679.2	11969.0

Source: ABS 2001 *Transition from education to work Cat. No. 6227.0*

133.   Low educational attainment is most prevalent amongst the oldest groups in the population.   Improvements both in school completion rates and in participation in further education and training by school completers has seen a rise in educational attainment for younger Australians.

134.   Patterns of participation in work-based or on-the-job training reveal a similar story. Employers provide training for their employees in order to improve their productivity. There is an extensive literature which suggests that there are positive effects from participation in training for the wages and productivity of employees (Groot, 1996) and for the productivity of firms (Stricker, 1996). An analysis of the ABS Survey of Education and Training found that employees with higher levels of educational attainment had a higher incidence of formal work-based training (Lamb, Long & Malley, 1998). Twice as many employees with degrees, diplomas and associate diplomas received at least some formal training as employees who had left school without completing Year 12 and had completed no further qualification. In the same study, an analysis of 15 to 25 year-olds using longitudinal data from the Australian Youth Survey found that over the early years of possible labour market participation, respondents who had received a degree or diploma had more than twice the incidence of receipt of formal training (85.5 per cent and 85.3 per cent, respectively) compared with respondents who left school without completing Year 12 and who completed no further educational qualifications (44 per cent).

135.   Participation in informal training is similar to that for formal training — higher educational attainment is associated with a greater incidence of informal training of all types (Lamb, Long & Malley, 1998).

136.   These results are consistent with results reported internationally. They are usually summarised in the literature by noting that training and formal education are complements rather than supplements — work-based training is not provided to compensate for initially low levels of formal educational attainment. Instead, training tends to get added to education and training, increasing the gaps between those who initially have low stocks of education and training and those who initially have more.

137.   A major concern associated with low educational attainment is its impact on participation in lifelong learning. Studies in Australia, like those conducted in other countries, consistently show that initial educational attainment has a strong relationship with later participation in education and training. A recent analysis of factors influencing participation in further education and training, using ABS data from household surveys of education and training, reported that educational attainment exerted a strong influence on whether an individual participated in further education and training (Roussel, 2000). The study found that irrespective of the type of study or training (formal education, formal training, any education or training) there was a higher probability of participation for those with higher levels of prior educational attainment. Participation in study leading to a qualification was 27 per cent for those whose highest educational attainment was Year 10 compared to 60 per cent for those who held a postgraduate qualification.

Reasons for non-participation

138.   The barriers to educational participation among those who do not hold post-school qualifications and do not participate in study involve more than simply lack of access to education and training opportunities, or lack of employer support. A major barrier to participation in education and training among people with lower level skills is negative attitudes towards learning based on previous experiences. A survey undertaken by ANTA under its *National Marketing Strategy for Skills and Lifelong Learning* found that about 22 per cent of Australians appear to face strong attitudinal barriers to learning (ANTA, 2000). They have usually not undertaken any study or training for some time and have often achieved the level of learning they need for their current job or see no role for any further learning. Some in this group do not see education and training as relevant to themselves. Others do not see a need

for study or learning. Most lack confidence in their own learning abilities and therefore do not participate. Among the non-participants, many are early school leavers and formed negative views of formal study and learning through their initial experiences of school or further study.

139.   The extent to which adult Australians are not interested in further education is linked to educational attainment. The ABS *Survey of Education and Training Experience* asked people why they had not participated in education or training over the previous twelve months (ABS, 1997). The reason 'too much work' and 'lack of time' was cited by 27 per cent of respondents. However 41 per cent said it was not relevant/no need and 8 per cent reported lack of interest/motivation. Lack of relevance and lack of interest was expressed more strongly by those with lower levels of educational attainment.

140.   A major review of the factors inhibiting individual investment in education and training reported that time, cost and the lack of need for higher skills or qualifications were prominent among the reasons individuals give for not undertaking study (Borthwick, Roussel & Briant, 2002). This work also pointed to the lack of post-school qualifications and increased age as barriers to participation.

141.   The growth in participation in education and training, particularly the increases in the numbers of young people completing school and entering further education and training, may see reductions in the future in the numbers of Australians who hold negative attitudes towards lifelong learning.

7.   Qualifications, linkages and pathways

142.   To promote lifelong learning, barriers to participation must be removed or minimised in order for individuals to be encouraged to take part. The maintenance of strong boundaries or divisions between the different sectors of education and training has acted as one of the main barriers in the past. The separation of activity in schools, higher education, VET, and adult and community education has been maintained by systems of sector-specific qualifications, single points of entry, narrow selection requirements and pre-requisites, State differences in qualifications, and uneven application of the principles of recognition of prior learning. These factors have worked in the past to impede increased participation and the goal of lifelong learning for all. Traditionally individuals have tended to begin and end their education within defined segments of education systems. Today, however, movement between sectors is prompted by career mobility, industry re-structuring, evolving performance demands in employment, quality of life issues and the goals of lifelong learning (Teese, 1997). It requires a more seamless education and training system where there are multiple points of entry to each sector that allow individuals to build on learning and adapt to changing circumstances.

143.   In Australia, institutions are now more active than in the past in creating bridges into sectors once external to them. Confronted with declining rates of increase in the 1990s (measured by apparent retention) and academic programs less relevant for some groups of students, secondary schools have responded by introducing or expanding vocational studies within senior school certificate programs. Universities have become more open to VET students and inter-sector provision of qualifications has become more common. This section looks at patterns of movement of students between sectors to identify the linkages and the key pathways between qualifications and sectors. It examines the progress made in the development of a more seamless system of education and training in Australia.

Schools and tertiary education

144.   Transition from school to tertiary education involves three main pathways: (1) apprenticeship, traineeship or other work-related training after Year 11 or Year 12, (2) general and bridging vocational courses in TAFE institutes and community providers, and (3) higher

education courses. The movement along these pathways is not necessarily direct or immediate on completion of school, but can occur over time, can be disrupted and can involve transfer across types of study or training.

145. Entry to higher education and the general and bridging VET courses — whether direct or delayed — occurs generally by three transfer mechanisms: *articulation* (when students have completed a required level of schooling), *credit transfer* (when they have completed part of the TAFE course itself or equivalent study), and *recognition of prior learning* (when achievement in the workplace or other learning context is accepted as completing part of a course).

146. Articulation is the main mechanism governing school student enrolments in higher education and VET courses. Credit transfer is a relatively new mechanism for school-leavers, based on the introduction of VET qualifications into school organisations and on recognised equivalence of some senior school certificate studies. Credit transfer between study in the secondary school and the VET sector provides an important means by which the senior school curriculum can be closely linked to post-school VET and work options. For example, in New South Wales students can gain credit from virtually all HSC courses into over 650 courses in the VET sector. Course clusters of HSC courses to give maximum credit within the relevant VET course have been defined, with some courses leading to 75% credit in Certificate II (VET) qualifications. An extensive website detailing credit transfer arrangements is maintained, assisting students in the selection of their HSC courses so as to maximise credit in VET courses. Credit transfer in VET courses for both general education and VET courses studied at the HSC can increase the relevance and attractiveness of both VET courses and the HSC courses. The availability of accredited vocational options for secondary students has grown significantly through the VET in Schools program.

147. Numbers of students following each of the main pathways have increased. Table 5 presents a comparison of a cohort of school leavers from the mid-1980s with a cohort from the mid-1990s. The rates are based on participation to age 19 and therefore may exceed 100 per cent since some students participate in more than one activity.

148. Participation in post-school education and training in Australia increased substantially over the period. A much larger proportion of young people in the mid-1990s entered some form of education and training after leaving school than did so a decade earlier. This growth resulted from several major trends. First, there was an expansion in the numbers of places made available to young people. For example, across the 1980s the number of places offered by universities increased markedly. Second, there was a substantial increase in the numbers of young people completing Year 12. More and more young Australians completed school and qualified for entry to universities and other forms of further education. This led to increased demand for places. Third, the continuing downturn in labour market opportunities for young people increased reliance on VET and on higher education at the completion of school.

Table 5. Participation in post-school education and training to age 19

	Mid-1980s	Mid-1990s
Apprenticeship or traineeship	15.3	15.8
TAFE course	16.4	26.9
Higher education	20.7	32.7
No further education or training	50.4	30.4

Source: Results derived from longitudinal survey data and reported in Lamb, Long & Malley (1999) *Access and equity in vocational education and training.*

149. Despite the high level of overall growth, expansion did not occur evenly across the different types of education and training provision. Table 5 shows that while participation in higher education and TAFE increased by over 10 percentage points, the participation in

apprenticeships and traineeships increased only marginally. However, recent figures show that the numbers taking up apprenticeships and traineeships on leaving school have increased markedly as the economy has strengthened and enhancements to training organisations (such as, for example, New Apprenticeships) have had an impact.

150. The uneven expansion in education and training participation is also evident in recent figures comparing the initial education and training destinations of school leavers. Table 6 presents participation in different forms of education and training for school leavers in the year following school. It compares participation rates for four different years from 1985 to 2000. The figures show a doubling of the rates of entry to higher education in the 15 years to 2000. Rates of initial participation in VET also increased, but more slowly.

151. The majority of school leavers now transfer from school to some form of post-school education and training. The large change in the numbers engaging in post-school education and training is important to increasing the patterns of lifelong learning because young people who take part in the early years are more likely to continue to participate throughout their working lives.

Table 6. Participation of school leavers in education and training in the year after leaving school: Australia

School leavers	1985	1990	1994	2000
In education and training	**42.0**	**50.5**	**52.1**	**60.0**
Higher education	15.9	23.6	24.9	29.6
VET	26.1	26.9	27.2	30.4
TAFE	*22.5*	*21.5*	*24.1*	*25.3*
Other	*3.6*	*5.4*	*3.1*	*5.1*
Not attending	**58.1**	**49.5**	**47.9**	**40.0**
Employed	41.8	36.2	26.1	27.0
Unemployed	12.1	9.4	16.3	7.9
Not in labour force	4.2	3.9	5.5	5.0

Source: ABS (1985, 1990, 1994, 2000) *Transition for Education to work*, Cat. No. 6227.0.

VET and universities

152. Students commencing undergraduate programs in Australia are admitted via a range of mechanisms. The most common basis for admission is completion of the final year of secondary education at school. In 2001 satisfactory completion of the final year of secondary education at school was the basis of admission for 41 per cent of commencing undergraduate students. Thirteen per cent of admissions were based on incomplete higher education courses, 11 per cent on completed higher education courses and 5 per cent based on examination or assessment by the individual university or institution.

153. Despite the importance of those entering directly from school, it is this category which has declined the most in importance over the past 10 years. Table 7 shows that between 1991 and 2001 the numbers of students admitted directly from school declined from about 51 per cent to 41 per cent. The category that has grown most over the time is those entering based on study in TAFE (either a complete or incomplete TAFE award course). The numbers

transferring to university study from TAFE, or at least those admitted based on their previous TAFE study, more than doubled in the ten years from 1991 to 2001. In 2001, 7 per cent of commencers had gained their highest previous qualification in TAFE or had undertaken study towards a qualification in TAFE.

Table 7. Basis for admission for all students commencing a course at Bachelor level or below: 1991 to 2001

Basis for admission	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Completed higher education course	10.2	10.2	9.7	10.1	10.7	10.4	10.4	9.8	10.4	10.4	11.0
Incomplete higher education course	12.0	11.4	11.6	12.1	12.8	12.8	13.5	14.3	14.6	14.6	13.4
Complete or incomplete TAFE award course	3.3	3.4	3.9	5.5	6.5	6.1	7.3	7.2	7.6	6.9	7.0
Final year certificate at school	50.7	46.8	48.1	48.0	45.0	45.8	45.2	42.4	42.6	42.4	41.0
Obtained school certificate at TAFE or similar	2.3	4.1	1.1	1.4	3.1	1.2	1.4	0.7	0.7	0.7	1.1
Mature age special entry provisions	6.8	7.2	5.9	5.2	6.1	5.7	4.9	5.0	4.6	4.6	3.9
Special entry provisions other than mature age	3.0	3.8	3.1	3.4	3.3	4.1	3.4	3.0	3.3	2.5	2.8
Examination or assessment by institution	2.1	2.4	2.7	2.8	3.1	4.2	4.8	5.6	5.3	5.1	5.3
Employment experience	0.7	0.8	1.1	1.3	1.1	2.1	2.1	2.0	1.2	1.3	1.5
Professional qualification	1.8	1.7	1.9	1.9	2.0	1.7	1.7	1.9	1.2	1.3	1.3
Completion of Open Learning Studies	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.1
Other basis	7.2	8.2	11.0	8.2	6.2	5.9	5.4	7.9	8.4	10.1	11.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: DEST, 2002 *Higher Education Statistics*

154. Credit transfer offered by universities to TAFE students has also expanded in recent years. About 29 per cent of all degree courses in Australian universities are subject to these arrangements (Teese, 2001). The main fields to benefit are engineering, applied science and technology; and business studies. General science and arts courses are not as well supported, nor is education. Within the same fields of study, institutions differ as to whether they extend credit, and for the same TAFE award there are also differences in the extent of credit available between institutions.

155. As growth in credit arrangements has occurred so too has support and development of seamlessness between TAFE and higher education.

156. It is important to note that the transfer of students is not one way. There has also been an increase in the numbers of students undertaking VET study after completing a university degree. Driven in part by students wanting to improve specific vocational skills, the numbers of VET students with a university degree or postgraduate diploma increased from 3.4 per cent (43,700) of all VET students in 1995 to 4.8 per cent (83,900) in 2001.

157. It is also important to note that mobility of students is only one aspect of the relations between VET and universities. National surveys have revealed growing collaboration involving jointly developed courses (including with government and industry), shared use of facilities, and joint research and consultancy projects. These build on the strategic resource advantages of each sector. As a recent paper on seamlessness between the sectors has noted, 'encouraging collaboration, while preserving these relative advantages, will promote efficiencies and also competitiveness in the national context as well as enhancing the environment for exchange of students' (Teese, 1997).

VET and adult and community education

158.   Adult and community education comprises a range of basic, preparatory and vocational programs as well as personal development courses. Depending on the State or Territory, these are delivered by TAFE institutes, Councils of Adult Education, and a large range of community providers. The ACE sector provides multiple avenues for individuals to gain basic skills, return to study, and prepare for employment or tertiary education. Within this sector, specific vocational training is a growing activity. In 2000, of those who were registered with the national VET data collection (477,800), roughly half were enrolled in vocational programs. This range of courses represents one of the most important elements of seamlessness in the education and training system because in general it relates to the needs of clients with the fewest individual resources (including language skills and educational qualifications), in the least favourable circumstances to access training, and in employment or family situations where lack of vocational training can represent a severe impediment to participation.

159.   A survey of participants in adult and community courses in three States conducted by the Australian Bureau of Statistics has documented perceived training and other benefits and provides evidence of paths established by the sector into award-level training (ACFEB 1995). Some of the training outcomes relate to key competencies — organisational, communication, inter-personal, and computing skills — while others relate to basic literacy and numeracy. For women, the competencies in which improvement was most frequently reported were language/communication (21 per cent), managing information (20 per cent), inter-personal skills (19 per cent), and decision-making/analytical skills (19 per cent). For men, improvement in language and communication skills was more frequently reported (28 per cent), while otherwise their perceived benefits were similar (ACFEB 1995: 42). These measures relate to improvement for all participants. But much higher gains were reported by particular sub-groups, notably the unemployed.

160.   Transition to an award program (school, VET, university) was generally low amongst the sample and varied according to the nature of the course in which individuals were enrolled in 1992. It needs to be kept in mind that entry to an award course was only a minority expectation, so low rates of actual transition can be misleading.

161.   The group most likely to commence studying towards a qualification — including a school certificate — were those enrolled in access courses (24 per cent). Every fifth student in a vocational course went on to award study, while the transfer rates for those in basic literacy/ESL and general adult education were 13 per cent and 12 per cent respectively (ACFEB 1995: 50).

162.   While links between ACE and vocational training are increasing — through delivery of VET in community settings and transition to TAFE institutes — vocational outcomes are only part of the many personal and family benefits which make courses in this sector so highly valued. Clients do report improvements in key competencies, and the role of basic literacy and numeracy courses is clearly both vocational and personal; while transition to VET is not a major expectation amongst clients, a minority do take this path, particularly from access courses.

8.   Qualifications and outcomes

163.   The outcomes of study and qualifications for individuals can be varied and include cultural, social, personal and family benefits. However, most evaluations of the benefits focus on economic rewards such as employment outcomes, promotion, and earnings. Research in Australia has identified the value of formal education in increasing employment opportunities, wages, and earnings (e.g. Miller & Volker, 1987). The economic benefits, though, do not hold necessarily for every type of qualification. The aim of this section is to present some of the evidence on the returns to different qualifications. It is important to look at whether or not people who obtain apprenticeship qualifications, other VET awards, school certificates and higher education degrees gain any sort of labour market advantage in terms of income, the jobs they obtain, and avoiding the risk of unemployment. In terms of lifelong learning it is also important to consider whether qualifications are linked to the likelihood of further study.

Employment

164.   Information from the annual national surveys of transition from education to work consistently shows that in Australia unemployment rates are much higher for those without post-school qualifications than for those with qualifications. In 2001, the unemployment rate for persons without post-school qualifications was nearly double that for persons with qualifications — 8.6 per cent and 4.4 per cent respectively (Table 8). This result was consistent with previous years. The unemployment rate varies by type of qualification. The unemployment rates for those who attain a higher education qualification or a skilled vocational qualification are lower than those who do not hold a post-school qualification. Early school leavers who do not obtain post-school qualifications have the highest rate of unemployment (9.5 per cent).

Table 8. Labour force status and educational attainment: 15-64 year-olds, 2001

Qualification attained	Unemployment rate
Post school qualification	**4.4**
Higher degree	3.2
Postgraduate diploma	2.7
Bachelor degree	3.0
Undergraduate diploma	4.9
Associate diploma	5.2
Skilled vocational qualification	4.1
Basic vocational qualification	7.2
Without post-school qualification	**8.6**
Year 12 certificate	7.2
Early school leaver (below Year 12)	9.5

Source: ABS (2001) Education and work. Cat. No. 6227.0.

165.   Research using appropriate measures to examine the independent effects of qualifications suggests that the risk of unemployment is substantially lower for those who obtain post-school education and training qualifications. Ryan (2002) in a study of the effects for individuals of different qualifications found that full-time employment outcomes achieved by those who complete a qualification are significantly better than for those without post-school qualifications. Not only are qualifications linked to better employment outcomes, they also help smooth the transition to work for those leaving study. Similar studies using longitudinal

data show that the benefits of post-school qualifications are also evident when looking at the groups of people who are unemployed for extended periods of time (12 months or more). Those who obtain skilled vocational qualifications or who obtain university awards are less often unemployed for lengthy periods than those who do not hold post-school qualifications or leave school without completing a Year 12 certificate (Lamb, Long & Malley, 1999).

Earnings

166.   In Australia, there are earnings benefits associated with qualifications. The recent national survey of education and training experience showed that average weekly earnings increased as the level of highest educational attainment increased (ABS, 2001). Average weekly earnings for wage or salary earners working full-time in their main job was $1,383 for those with a Postgraduate degree, $1,124 for those whose highest educational attainment was Graduate diploma or Graduate certificate, and $1,107 for those with a Bachelor degree. This compares with $794 for those with skilled vocational qualifications (AQF Certificate III or IV) and $599 for those with basic vocational qualifications (AQF Certificate I or II). Average weekly earnings for those without post-school qualifications were $709 for those with a Year 12 certificate and $676 for those who left at the end of Year 10.

167.   Studies using properly adjusted assessments of earnings advantages show that individuals who complete post-school qualifications generally receive higher wages than similar individuals who do not complete post-school qualifications (Ryan, 2002; Lamb, Long & Malley, 1999; Borland et al. 2000). Full-time employed graduates receive a substantial wage premium over non-graduates, on average of the order of 65 per cent; that is controlling for age, experience and other characteristics usually included in such analysis, an employed graduate receives on average about 65 per cent more than an employed person without a degree (Borland et al. 2000). Earnings gains are also achieved by those with VET qualifications. Compared to those without post-school qualifications, individuals with VET qualifications gain an increase in earnings of about 10 per cent (Ryan, 2002). The wages of people with VET qualifications vary with the type of the qualification – individuals with associate diplomas are paid significantly more than those with skilled or basic vocational qualifications. The difference is also of the order of about 10 per cent (Ryan, 2002).

168.   Ryan (2002) has also reported that in Australia study not leading to a qualification has little effect on wages. Non-award courses in VET (courses of up to one semester) were found not to have an effect on earnings and participation involving non-completion also appeared to have little effect on wages.

Occupations

169.   One reason for the differences in earnings is the type of work people are engaged in. While earnings gaps remain, there is a fall in wage differences when the effect of type of work is controlled for, and type of work is itself a significant predictor of weekly earnings. It suggests that the earnings advantages of qualifications are based in part on the type of work Australians have access to, thanks to their qualifications. It means that completion of post-school qualifications effectively provides a triple benefit to individuals. It increases the chances that they will find full-time work, it influences the type of work they obtain, and then for those working full-time, it increases their earnings.

170.   Table 9 presents the occupational profiles of 24-year-old males in the mid-1990s, by qualification. For males who did not participate in any formal education or training beyond secondary school, the main types of jobs were as salespersons (25 per cent), machine operators and related workers (19 per cent), and as labourers (17 per cent). TAFE participants, on the other hand, were far more often employed in the skilled trades areas and in managerial, professional and para-professional jobs. For those from higher education, the professional occupations dominated.

Table 9. Type of job at age 24, by qualification: males (per cent)

	All	VET	Higher education	Apprentice-ship	No further education or training
Managers and administrators	5.3	6.1	3.1	3.1	8.7
Professionals	20.4	15.4	48.1	2.6	5.6
Para-professionals	9.4	10.4	12.8	7.5	6.1
Tradespersons	22.8	26.4	3.4	67.0	10.2
Clerks	7.2	8.2	7.2	1.3	9.2
Salespersons	14.7	15.0	13.8	4.0	24.5
Machine operators and related workers	7.6	6.1	1.2	5.3	18.9
Labourers and related workers	12.6	12.5	10.0	9.2	16.8

Source: Lamb, Long & Malley (1999).

Further study

171.   An important issue in terms of lifelong learning is the extent to which Australians undertake further study across their working and family lives and the extent to which completion of qualifications leads to further study. According to national survey data, the evidence suggests that many individuals do build on their initial post-school qualifications with further qualifications (Ryan, 2002). Data from 1997 showed that about 10 to 15 years after the completion of their first qualification about 20 per cent of VET graduates had completed further qualifications. This proportion was about half the proportion of male and female university graduates who complete further qualifications. The rate was lower than for those who hold a Year 12 certificate without any post-school qualification, but higher than for those who left school prior to Year 12.

Outcomes from work-based training

172.   It is widely believed that there are benefits to labour productivity from participation in employer-based training. Most of this training does not lead to a qualification and is usually referred to as non-formal learning. The recent survey of education and training experience in Australia found that about 8 per cent of wage and salary earners claimed that they had undertaken a training course in the previous 12 months that had helped them gain a promotion. About 89 per cent considered that the skills they gained from the training course were transferable and could be used in a similar job with another employer (ABS, 2001).

173.   There is an extensive literature that suggests that there are positive, and in some cases large, wage effects resulting from participation in work-based training. Such wage effects correspond to even larger returns on investment (by the employee), because the employer bears the majority (if not all) of the cost of training. Estimation of wage effects from participation in firm-based training in Australia suggests only modest effects on earnings of

participation in firm-based training (Lamb, Long & Malley, 1999). However, since participation in work-based training is linked to educational attainment or level of qualifications held, it suggests another benefit linked to the possession of post-school qualifications.

9.   Qualifications and work

174.   Several changes in the qualifications system over the last decade in Australia have aimed at improving the match between qualifications and the skills needs of employers. For example, the introduction of national training packages to meet current and emerging skill requirements is a development aimed at ensuring that vocational qualifications are industry-based, and assessment relies more on skills and knowledge acquired under workplace conditions. Another example is the inclusion of generic skills and competencies in the frameworks underpinning the senior secondary certificate in most States and Territories. Research evidence on the impact of these changes on lifelong learning is limited, though there is some information available on employers' use of different types of qualifications in recruitment processes and in meeting their skill needs.

175.   Much of the work on employer demand for qualifications has been based upon employer accounts of the types of skills and qualities that they want in recruits. A number of studies on the qualities of recruits preferred by employers have been undertaken (for example, ACCI, 2002; McLeish, 2002; BCA, 1992; BCA, 2002). In a study of what employers think are the types of aptitudes and skills required in work, small, medium and large enterprises identified a mix of technical and personal skills (such as self management, enterprise, initiative and a commitment to lifelong learning) as being relevant to the employability and ongoing employment of individuals (McLeish, 2002). However, within these studies there is little information on employer views of qualifications as identifiers of appropriate skills.

176.   There have been few recent reports that actually examine the use of qualifications by employers within recruitment and promotion processes. One exception has been Wooden and Harding's (1997) extensive study of staff selection criteria and recruitment, which lists education after attitude, skills, experience, and appearance as selection criteria. Education is prominent only for skilled white collar workers. Wooden and Harding's study did find that qualifications play a more critical role at initial selection stages, though this was also more pronounced in employment of white-collar workers.

177.   Australian studies of employers' use of qualifications provide only limited information for evaluating the role of qualifications in promoting lifelong learning. More information is available on employer views on the quality of recruits and of the value of qualifications as identifiers of appropriate skills.

178.   National surveys of employers of vocational education and training graduates conducted in 1995, 1997, 1999 and 2001 provide information on employer views on VET and their levels of satisfaction with the skills of VET graduates (NCVER, 2001). Since 1995 the number of businesses employing recent VET graduates has steadily increased. In 1995 the number was estimated to be 63,000 rising to approximately 104,000 in 1997, some 117,000 in 1999, and up further in 2001 to 126,500 businesses with recent VET graduate employees (NCVER, 2001). On the whole, employer views on VET were more positive than in the past and have remained stable over the past two surveys. The proportion of employers who viewed the VET system as providing graduates with skills appropriate to employers' needs increased by about 13 percentage points between 1995 and 1999 (to 70 percent).

179.   Employers' overall satisfaction with the quality of VET graduates (and by implication with VET qualifications) has remained stable since 1997, with around four out of five being satisfied. Compared with 1995, a larger proportion of employers in 2001 agreed or strongly agreed that the VET system is providing graduates with skills appropriate to their needs, while

the proportion who agreed, or strongly agreed, that training pays for itself through increased productivity has remained stable (NCVER, 2001).

180.   Although the majority of employers agreed that VET graduates possess the skills appropriate to employers' needs, there were also some less positive views related to VET qualifications. In 2001, about three in four employers with recent VET graduates (76 per cent) agreed with the view that it is difficult to tell what a person can actually do from their educational qualifications (NCVER, 2001). This was larger than two years earlier when only 68 per cent of employers held this view. It suggests that many employers do not view qualifications as a reliable source of information on whether candidates for jobs have appropriate skills. It is consistent with employer views that there should be more work experience or work placements as part of vocational training (84 per cent in 2001) and with the finding that at least three quarters of those employers with recent VET graduates of employers agreed that the VET system needs to provide more practical job skills (77% in 2001).

Employee views

181.   An alternative way of examining the question of demand for education and training qualifications is to consider the views of graduates. Long (1999) examined the 1993 ABS survey of education and training experience to identify employees' subjective views on the qualifications that they needed to obtain their job.

182.   According to Long, 41.9% of employees indicated that they needed their highest qualification to obtain the job. This was highest for females with associate diplomas (69.4%) and lowest for males with basic vocational qualifications (20,2%). This represented the 47.8% of employees with post school qualifications.   It is likely that there is a combination of screening and threshold selection, although this varies across qualifications. As Long points out, those workers in jobs for which they did not need their highest level of qualification receive lower wages than those workers with equivalent qualifications who needed those qualifications to obtain the job. This suggests a screening effect. Long concluded that there was, in the early 1990s, a substantial qualifications – employment mismatch in the Australian labour market, and this seemed to be higher than in other countries.

183.   Another possible way of measuring demand for education and training qualifications within the VET sector is the intention of people to complete or not complete a qualification. Data from the 1997 Survey of Education and Training Experience show that over 90 per cent of all students in Australia intended to complete the study they were undertaking, the rate being as high as 99 per cent for those doing skilled vocational qualifications to 95.9 per cent for those doing basic vocational qualifications (ABS, 1997). Similarly, Davies et al (2001) recently surveyed VET students' (full & part-time) intention to complete. The vast majority (over 96%) indicated that they did intend to complete and most indicated that this was for employment and promotion related reasons. Subjectively, therefore, VET qualifications are important in the labour market.

Table 10. Highest educational attainment, by view of qualification as needed to obtain current employment

Highest educational attainment[7]	Percentage viewing highest attainment as required for job
Higher degree	39.7
Postgraduate Diploma	41.0
Bachelor degree	53.9
Undergrad diploma	65.4
Associate diploma	34.3
Skilled vocational qualification	38.0
Basic vocational qualification	29.0
Other	21.9

Source: Long (1998) *The Match Between Educational Qualifications and Jobs.*

184.   The importance of qualifications in the labour market was also highlighted in a national longitudinal study of young people receiving Youth Allowance (YA) conducted between 1999 and 2001 (FACS, 2001). The study found that among jobseekers lack of qualifications was reported as one of the main barriers to finding work. Those on YA who were in study or work in 1999 and became unemployed in 2000 identified a range of barriers to finding work. Lack of jobs was an important factor, though not the main reason cited as a barrier to finding work. While 53 per cent of the recently unemployed saw the lack of jobs as a barrier for getting a job, lack of qualifications (61 per cent) was more often reported as a barrier.

185.   Similarly, most students receiving YA believed that completing their study would improve their work readiness. Post-school students on YA undertaking full-time study towards a VET or higher education qualification in 2000 viewed the study they were undertaking as likely to lead to jobs. Three-quarters of all students agreed with the view that their current study would help them get a job. Fewer felt that it would get them the job they wanted when they completed their studies, though over half felt that it was very likely to do so.

186.   Moreover, those who completed their study and obtained an award more often did find work. Of those in study in 1999 who completed their study 67 per cent had obtained full-time work in 2000. Approximately 14 per cent were unemployed. The rates of employment were much higher than for those who did not complete their study. Only 51 per cent of those who did not complete their study or training found full-time work in 2000, while 27 per cent were unemployed.

187.   The survey also found that those who were jobseekers in 1999 were more likely to be in work in 2001 if they had undertaken training leading to a qualification in the intervening period.

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[7] The data and nomenclature precede the introduction of the AQF in 1995.

10.   Impact of the AQF on lifelong learning

188.   A major development in the Australian qualifications system has been the introduction of the AQF.   The AQF has facilitated a number of other developments including the implementation of VET in Schools programs in upper secondary education, the growth of credit transfer between post-school VET and higher education, the growth of dual sector delivery (sometimes referred to as dual sector awards)[8] linking post-school VET and higher education, and the enhancement of the role of Recognition of Prior Learning.   To what extent have these developments had an impact on lifelong learning?

189.   Addressing this question definitively is a difficult undertaking for several reasons. Firstly, the changes associated with the introduction of the AQF have only happened recently. The AQF was introduced in 1995 with full implementation taking place in 2000.   It is still too early to identify clear and direct effects on participation in learning, as the effects of external and structural changes on individuals' behaviour can take some time to manifest themselves. This is particularly the case with older groups in the population who have had little involvement in study and training for a number of years.   The effects of many of the changes introduced with the AQF may well only begin to display an impact on patterns of participation in education and training over the next few years.

190.   Secondly, it is very difficult to separate out the effects of changes in the qualifications system on lifelong learning from other factors that shape demand for qualifications.   As reported in a background OECD paper for the qualifications project, context effects have to be taken into account. The condition of the labour market with its demands regarding volume and structure of work translates into job opportunities and the necessity of acquiring further qualifications. Innovation and new technologies require skill development. Institutional regulations also account for demand for qualifications, e.g. the prerequisite to undertake vocational training in order to be entitled to unemployment benefits. The degree of compression of the wage structure and the general rate of labour turnover influence the possible returns of training to employers. Together with basic cultural values they influence expected cost and benefits (OECD, 2002).

191.   Participation in education and training in Australia increased substantially during the 1980s and 1990s thanks largely to changing economic circumstances (such as recession), globalisation, unemployment, and labour market changes (such as the long-term reduction in full-time teenage job opportunities) as well as government policy (such as changes to income support arrangements as well as employment and education and training programs) and education and training reform.   It is difficult to separate out the impact of changes in the qualifications system on participation levels from the effects of these other contextual factors. The scope for empirical analysis of the features of the AQF regarded as independent, causal factors exercising impact on lifelong learning is therefore limited.

192.   Related to the influence of contextual factors is the quality and breadth of available data.   There are few surveys that collect information systematically on individuals' motivations, perceptions, behaviours and attitudes towards study and learning that can be used to assess changes linked to reforms associated with the AQF.   The different surveys on education, training and work experience conducted by the Australian Bureau of Statistics provide valuable

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[8] The term 'dual sector awards' is a contested one.   It is often used to refer to the capacity to access qualifications accredited in different sectors but delivered as a comprehensive program by arrangement between the sectors, a practice which is encouraged by the existence of a stable and well-defined Qualifications Framework,.   The other usage describes the particular situation of the Diploma and Advanced Diploma qualifications in the AQF which have the same titles in both sectors, based on a set of common descriptors although accredited through sector-differentiated processes.

information on broad features of participation and intentions. However, these surveys are cross-sectional and categories, questions and classifications can change over time, making some comparisons difficult. Furthermore, they do not contain information on contextual factors that need to be controlled for. Administrative data available through the national VET and higher education collections provide a valuable source for comparisons of numbers of enrolments and analysis of particular features of the AQF (such as credit transfers, basis for admission etc.). However, multiple enrolments and changes in classifications and category groupings can make over-time comparisons problematic. There are few longitudinal surveys that would permit before and after comparisons of dispositions, behaviours and activities linked to changes in the AQF.

193.   Despite these limitations, important changes have been introduced with the AQF that have major potential to increase demand for qualifications and promote lifelong learning. The changes in articulation and credit transfer arrangements between VET providers and universities, for example, may well increase the numbers who transfer. Evidence suggests that this may already be occurring (see Table 7 above), though increases were evident prior to the introduction of the AQF and the changes may have consolidated the pattern (Long & Burke, 2002). Recognition of prior learning (RPL) provides flexibility of access to study for qualifications. Large numbers of students currently benefit from RPL in Australia. According to the 1997 survey of education and training experience approximately 25 per cent of Australian students gained placement or partial credit for previous study undertaken or relevant experience and skills acquired (ABS, 1998). The largest rates were recorded for students in university (43 per cent), followed by VET (35 per cent). It is not possible yet to assess the extent to which RPL has been affected by the AQF.

194.   The implementation of nationally accredited vocational training as part of VET in Schools programs represents a change of far-reaching importance in relation to qualifications and lifelong learning. The number of Australian schools providing some type of program has grown. In 1999, almost 90 per cent of Australian schools offering Years 11 and 12 (and almost 129,000 students) were participating (Kilpatrick & Allen, 2001). It is not possible to identify if the growth in student participation represents an increase in the overall levels of participation in senior school qualifications, though it does represent an increase in the numbers participating in awards concurrently from two sectors (under which students may gain a VET Certificate I-III and an SSCE as part of their schooling by virtue of the school becoming a Registered Training Organisation).

195.   Awards undertaken concurrently from two sectors (also known as 'dual sector awards' – see Footnote 8) and cross-sector delivery have grown in recent years (Kilpatrick & Allen, 2001). The growth in dual sector titles (mainly the Graduate Certificate, and to a lesser extent the Graduate Diploma, both of which are delivered in both the VET and the higher education sectors) has occurred outside the AQF. However, it has implications for the structure of the AQF which are now being addressed in response to the move to include these titles in Training Packages. While increasing collaboration between schools, VET and universities has occurred during the 1990s, data on changes in participation linked directly to these developments is not currently available.

196.   In conclusion, while it may not be possible to ascertain directly the impact of changes in the AQF on patterns of participation, the opportunities for study have become more diverse. Schools, VET colleges, and universities have introduced more flexible means of delivery in recent years that enable students to undertake studies in conjunction with other commitments. External programs and Open Learning, for example, have become more widely available. Several VET providers now offer degrees and some universities offer vocational courses in multi-campus environments. Greater articulation between sectors recognises the value of skills already obtained and in some instances senior secondary students can complete schooling having also obtained a VET certificate. These changes linked to the AQF have laid the foundation for the promotion of lifelong learning.

III. The Australian qualifications system: pressures and initiatives

11. The economic context

197. Changes in the Australian qualifications system during the 1990s need to be seen against the background of major economic, social and educational trends over this period (and in the preceding decade). Key economic developments are outlined below.

Continuing change in industry and occupational structures

198. Over the decade, the place of manufacturing industry in the Australian economy continued its long-term decline (since the mid-1960s), as measured by share of GDP and distribution of employment. Agriculture also fell, while mining remained static, representing only 1% of total employment. By 1998, nearly 80% of real GDP was contributed by the services sector and just over 80% of all employment was supplied by this sector (Meredith and Dyster 1999: 329). The expanding role of the services sector has had a major impact on the demand for qualifications, including in such areas as tourism and hospitality, and banking and finance.

Labour market changes

199. The 1990s saw a continuation of the trend to growth in part-time employment and decline in full-time work. Part-time employment grew rapidly over the decade (up 61%), while the number of people in full-time work grew very slowly (up by about 6% for the whole decade). It has been concluded that 'the 1990s were the decade of the part-time job' (Borland, Gregory and Sheehan 2001: 10). The value of part-time work has been much debated internationally, with supporters seeing it as a means of reducing unemployment and critics blaming it for contributing to income inequality and economic insecurity. In any case, the trend has put qualification systems under pressure as people seek higher credentials to improve access to higher levels of the labour market and full-time work. In this respect, the transformation of the teenage labour market is particularly significant. By the middle of the 1990s, the number of full-time jobs for boys had fallen by half over the level twenty years earlier, and by two-thirds for girls (Ministerial Review 2000: 49). The steep decline in the teenage labour market has had a major long-term bearing on the demand for school qualifications and access to tertiary education, while at the same time raising entry-levels to skilled on-the-job training (notably apprenticeships) (Teese and Polesel 2003: ch. 1).

Globalisation

200. Changes in industry and occupational structures and in labour markets during the 1990s have been influenced in major ways through the increasing integration of Australia in the world economy since the mid-1980s. Financial deregulation, the internationalisation of banks and other financial institutions, and increased capital inflows have impacted heavily on industry and employment growth, e.g., through preferred sectors of foreign investment, such as tourism and property development. Australia's international trading links have changed, both regionally and in terms of products and services, and are now also increasingly reflective of the global strategies of large transnational corporations, including some based in Australia itself (Fagan and Webber 1999: 54-80). The impact of globalisation on qualification systems can be traced through the shifting balance in the relative importance of different industry sectors, the occupational patterns connected with these, the organisational and human

resource strategies of businesses, and the demand for education and training arising from these changes.

Unemployment

201.   Levels of unemployment were high for much of the decade, which began with a recession leading to 10% of the workforce out of work and looking for work between 1991 and 1993 (Meredith and Dyster 1999: 302, 316-7). While these high levels fell throughout the decade—reaching 8% in the middle and later years—the experience of unemployment forms a major part of the background to qualifications change during the nineties. Unemployment was much higher amongst young people—in 1999 approximately double the aggregate level—and in certain regions (lower socio-economic status, rural) (Victorian Labour Market Report 1999). Patterns of persistent youth and regional unemployment have been a major concern to policy-makers, who have looked to qualifications reform for more effective labour market adjustment (as, for example, with the creation of the Victorian Qualifications Authority and the Tasmanian Qualifications Authority in 2000 and 2002).

12.   Demand for lifelong learning

202.   Economic change in Australia during the nineties fuelled demand for lifelong learning as evident on a range of indicators (discussed below). Part of this trend can be seen in demand for completed secondary schooling, as this creates the basis for continuing formal study at higher levels (whether academic or vocational) as well as increasing the probability that individuals will undertake further study.

School completion patterns

203.   By the early 1990s, the proportion of young people completing secondary school had reached historically high levels (nationally about 77%) (ABS 1997). With the end of the 1990-91 recession, retention began to decline and then to level off at around 73% for the rest of the decade (ABS 2001). This high level of school completion has placed school qualifications under pressure, with multiple competing demands on its effectiveness for employment transition and university preparation. At the same time, however, the rate of school completion has remained very uneven on a regional basis. In some regional communities, early leaving amongst boys, for example, was as high as 46% at the end of the decade (Ministerial Review). Persistent high drop-out rates have also placed the school qualifications system under pressure for change.

Demand for higher education

204.   High levels of school retention have tended to translate into demand for higher education. This pattern is particularly clear during the 1980s—a decade of steeply rising retention—when the number of university students aged 19 or less grew by 54% (DEST 1998). The 1990s saw more modest growth—around only 10%—with school retention having peaked at the start of the decade and university enrolments having reached a very much larger base. However, from the perspective of lifelong learning, what is striking is the high rates of increase in numbers of older students in Australian universities in the period up to the late 1990s. For the 20-24 year-old group, numbers grew by 51% in the period 1990-97; for 25-29 year-olds, by 50%, and for students aged 30 or over, by 44% (DEST 1998).

Demand for vocational education and training

205.   Indicators of growth in the VET sector also confirm that the 1990s were years of expansion, with the search for qualifications affecting many age-groups and different sub-populations. Between 1991 and 2000, the number of young people in VET grew by 50%,

while the number of individuals aged 40 or over almost trebled (NCVER 2001). Growth was particularly strong amongst women, whose numbers nearly doubled over the decade. Two general indicators in VET point to the fact that lifelong learning was becoming more widely accepted by Australians as a way of managing economic and social change—an increase in overall participation levels from 8.4% to 13.2%, and an increase in total numbers from below 1 million to around 1.75 million in 2000 (NCVER 2001).

206.   While aggregate demand for lifelong learning grew strongly during the nineties, there are signs of more differentiated and continuous demand emerging within this pattern. Not only were more individuals seeking learning opportunities, but the same individuals more frequently added to previous learning experiences or re-oriented to other programs in search of more specific benefits. The indicators of more differentiated or more continuous demand include the proportions of undergraduates entering postgraduate programs, the proportions discontinuing an undergraduate degree and transferring (or attempting to transfer) to another course in higher education or VET, the numbers completing a degree and subsequently entering VET, changing preferences in favour of combined or double degrees, and the circulation of adult learners from completed courses to new courses in the community education sector.

Impact of the demand for lifelong learning

207.   Both higher aggregate demand for lifelong learning and more continuous or more differentiated demand during the 1990s affected the function of some credentials, the policies and strategies of educational providers, and the level and quality of student outcomes. Impacts under these three headings are briefly discussed below.

Impact on credentials

208.   The high levels of school retention reached in the late 1980s and maintained (after some decline) over the next decade occurred against a background of labour market change and industry restructuring which weakened the employment value of the senior certificate. Many school graduates obtained jobs for which they would have been regarded as over-qualified in earlier years (Teese and Polesel 2003: ch. 10). The trend for increasing proportions of undergraduates to enter graduate programs, e.g., in science fields could be seen as another manifestation of inflationary pressure on credentials. Higher participation reduces the employment-discriminating value (or selection role) of credentials and stimulates demand for access to higher qualifications giving a competitive advantage. However, it is important to note that this trend also reflects upward shifts in required skill levels and competencies associated with industry, occupational and technological change.

Impact on provider policies and strategies

209.   The growing demand for lifelong learning has affected providers in three major ways. They have come under increasing pressure to differentiate course offerings in response to differentiated (or more selective) demand, e.g., by creating awards delivered through both sectors, double degrees, and courses in new cross-disciplinary or more specialised fields. They have also come under more pressure to improve instructional quality, delivery options, and support services. Finally, providers have had to explore new and better linkages with employment, e.g., through substantial industry practicums, customising of programs to specific industry sectors, and contracts with management consulting firms to target courses better and secure preferential access for their graduates to management or professional careers.

Impacts on student outcomes

210.   Increased demand for lifelong learning leads to higher levels of participation, but may also be associated with a widening range of student learning and transition outcomes. An example of such a tendency can be found in upper secondary school. With about three in four young people completing school, marked gaps in achievement can be found, as for example between different socio-economic status groups, boys and girls, rural and city students, and Indigenous and certain immigrant groups. Increasingly the big question facing school graduates in Australia is not whether they have a senior certificate as such, but what is the level of their achievement within the certificate—as measured by Tertiary Entrance Rank—and in what areas of the curriculum. The transactional value of the certificate can be shown to be considerably less for weaker learners than for more successful students, as measured by transition outcomes. Other gaps in student learning or transition which risk reducing the value of qualifications (if not failure to acquire them in the first place) include discontinuation from university studies. Low achievers from school have about double the risk of dropping out as compared to students in the highest bands of school achievement (DEST 1997: 7).

13.   Initiatives in the Australian qualifications system

211.   The changes in the economic and social context described earlier and the increasing demand for lifelong learning form the background to a set of important developments in the qualification system of Australia during the 1990s. These developments include:

(1) the implementation of the Australian Qualifications Framework (AQF)

(2) the implementation of VET in Schools programs in upper secondary education

(3) the introduction of school-based apprenticeships in upper secondary education

(4) the growth of credit transfer between post-school VET and higher education

(5) the growth of awards delivered through both sectors (sometimes known as dual sector awards; see footnote 8) linking post-school VET and higher education

(6) delivery of degrees in the VET sector

Each of these qualifications initiatives will be considered below. Following a brief description, the major drivers behind each initiative are discussed.

The implementation of the AQF

212.   Qualifications under the Australian Qualifications Framework range from the Senior Secondary Certificate of Educations (SSCE) and basic VET to higher degree work in universities. Characteristics of learning outcomes or competencies are described in field-free or generic terms for each award level. The awards, and the relationship between them, are nationally recognised. Except for the two diploma qualifications, which are accredited in both VET and HE, each qualification is accredited in only one sector. However, delivery of qualifications may occur across sectors, subject to the quality assurance regimes set by the accrediting sector. For example, schools deliver Certificate II and Certificate III level courses in VET (and in rare cases Certificate IV) as well as the SSCE; there is also a small but growing trend for selected students to undertake university subjects at school. Registered Training Organisations (including TAFE institutes) deliver SSCEs as well as VET qualifications, and recent moves allow for TAFE delivery of degrees (hitherto extremely rare). Universities offer courses at sub-degree level (including Certificate IV courses) in addition to degrees, and adult and community providers run courses that range from Certificate I to Diplomas (as well as many non-award courses).

213. The main drivers behind the development of the AQF include:

- The opportunity for clarification in VET qualification levels arising from competency standard development at the national level (replacing divergent State-based standards)

- the need for portability of qualifications across jurisdictions to support workforce mobility and micro-economic reform

- the need for seamless cross-sector mobility to support the accumulation of human capital, micro-economic reform, and individual mobility.

- the need for quality assurance arising from growing diversity of providers of post-secondary education. The AQF publishes registers of accredited providers (self-accrediting and others) and sets parameters for the learning outcomes for each award which form the basis of course accreditation.

- The growing internationalisation of education and training, leading to a need for an internationally recognised framework in the context of mutual recognition of qualifications across national boundaries and the provision of information for prospective overseas students.

Vocational education and training in schools

214. The implementation of nationally accredited vocational modules in senior certificate programs across Australia represents a change of far-reaching importance in the qualifications sanctioning completion of secondary school. Until the mid-1970s (and generally somewhat later), the senior certificate was a university entrance exam, even while operating in other ways (such as for employment in administrative and clerical jobs or for entry to technical institutes or teachers' colleges). During a first phase of reform, the curriculum was widened to include wholly-school based programs which were not recognised by universities. In some jurisdictions, these courses were sanctioned by alternative credentials to mark the end of secondary education as a phase in its own right. In a second phase of reform—roughly the 1990s—effective transition, including preparation for employment, became the dominant theme. This led to the introduction of industry-endorsed VET modules within mainstream senior certificates. Elements included AQF award courses (generally at Certificate II level) — nested in different ways within the senior school program—and structured workplace training. Participation in VET in Schools programs has risen dramatically since the mid-1990s, with an estimate 1 in 4 of all upper secondary students enrolled in a program (at various year-levels, mainly Year 11).

215. The major drivers behind the implementation of VET in Schools programs include:

- the need to strengthen the links between the senior certificate and employment

- student demand for vocational skills and training prior to leaving school

- the need to improve student engagement in learning by offering stronger economic incentives, available to all students

- student demand for flexible options and choice in school programs

- employer concerns that schools meet industry-standards of VET (rather than offering non-accredited courses)

- the need to reduce early leaving where based on low achievement or lack of interest in schoolwork

- policy concerns about low transfer rates from school to post-school VET and the need for greater articulation between these sectors.

School-based apprenticeships

216.   Prior to 1998 students seeking employment-based training were required to leave school to begin an indenture agreement, involving full-time work with day or block release for instruction at a VET institute. This traditional arrangement was suited to an age when most young people left school at 14 or 15 and when boys in particular could plan on skilled training in manufacturing or construction industries. However, the shrinking full-time labour market and the increasing concentration of jobs in the services sector have changed the context as has the tendency for many young people to work part-time during their final years at school. More flexible arrangements have now been introduced which enable variable combinations of work and study. This means that the senior certificate is now, for some students, employment-based, involving substantial periods of work and on-the-job training, and strengthening the employment value of the credential as a dual award (VET and academic).

217.   The major drivers behind the implementation of school-based apprenticeships have been:

- student demand for flexible options, including combinations of work and study

- the need to strengthen links between the senior certificate and employment

- the potential to expand structured workplace training through part-time work

- the potential to reduce early leaving where based on demand for work by flexible work-study combinations.

Credit transfer between post-school VET and higher education

218.   Prior to the 1990s, student movement between VET and higher education was hampered by lack of recognition of VET courses as a basis for advanced standing in university courses. In certain areas, such as accounting, there were demonstrable overlaps between Associate Diploma studies in VET and foundation studies at university. During the 1990s, there was a growing appreciation of the need to enable VET graduates to build on (rather than duplicate) their training and for universities to avoid costly duplication of effort. In July 1997, the Australian Vice-Chancellors' Committee agreed to expand credit transfer facilities, with four in five universities participating in a national approach, covering eleven fields of study (*The Australian*, 23/7/97). Currently about 34% of all VET students admitted to universities receive some exemption in view of their VET studies (Long and Burke 2002: 6).

219.   The main drivers behind the implementation of credit transfer arrangements between VET and higher education have been:

- student demand for professional registration, requiring progression from Diploma to degree

- recognition of duplication and waste of resources due to course overlaps

- recognition of equity issues in the non-recognition of VET awards for the purpose of giving advanced standing

- the need to harmonise improvised and sometimes inconsistent credit transfer arrangements and to rest decisions about exemption on qualifications, not individual circumstances.

Dual sector activity linking VET and higher education

220. One important consequence of the credit transfer initiatives taken during the 1990s was the development of integrated dual sector delivery. These involve a structured progression from middle-level training to degree programs in which VET studies substitute for foundation studies either in the same university (where this institution is cross-sectoral) or across collaborating VET institutions and universities. Such awards were pioneered in the mid-1980s through an initiative funded by the-then Commonwealth Tertiary Education Commission (CTEC) which linked an Associate Diploma in Technology (Computing) at Holmesglen and Peninsula Colleges of TAFE to the Bachelor of Technology at the former Chisholm Institute of Technology (Teese 1998: 11). They are based on a variety of different models. Some involve articulation from one or two years of middle-level training (the 'foundation year' model). Others involve a progression through different awards which are integrated in a single sequence (Certificate IV, Diploma, Degree), and from which students can exit at any award point. In this sense they can therefore be regarded as dual or double awards (see footnote 8).

221. The major drivers behind the development of dual sector delivery have been:

- recognition by universities of the quality of VET Diploma students

- recognition by universities of the pedagogical advantages of establishing foundation years in VET institutes

- student demand for flexible pathways in tertiary education and for a vocational emphasis which does not exclude subsequent university studies

- the strategic perceptions of certain universities in seeking to attract enrolments through distinctive 'products'

- recognition of resource economies and more strategic emphasis through universities shedding part of their foundation studies load to VET.

Delivery of degrees in the VET sector

222. Increasing collaboration between universities and VET institutions was a growing trend during the 1990s, attested not only by increasing provision of credit transfer, but by various resource-sharing initiatives and by joint delivery arrangements. VET delivery of degrees has evolved from, and represents an extension of credit transfer. For example, in August 1998 an agreement was signed by Charles Sturt University and Holmesglen TAFE in Victoria under which Holmesglen's viticulture students gained credit for admission to Charles Sturt's bachelor of business studies program (*The Australian*, 19/8/98). In effect, Holmesglen became the provider of elements of first-year business studies at Sturt (foundation year model). But, by extension, a TAFE institute might deliver the whole of a degree program rather than simply the first or second years. By arrangement with a sponsoring university—a statutory requirement, where such degrees have been authorised, as in Victoria—TAFE institutes are able to progressively extend their work to delivering the whole of a Bachelor's course.

223. The major drivers behind this very recent initiative are similar to those behind credit transfer arrangements and dual-sector delivery, i.e.

- recognition of the need to provide more strongly focused vocational programs in higher education

- a policy concern to reduce attrition in higher education through provision of more vocationally oriented degree options

- recognition of learning dynamics in which early engagement in vocational studies stimulates interest in theoretical work and more research-based studies

- a policy concern that the demand for vocational skills and training *after completing a degree* (evident in post-degree enrolments in VET) could be more effectively managed by integrated delivery of applied and theoretical studies during a single degree program

- recognition of employer interest in a more applied and practical emphasis in university studies.

Quality assurance arrangements

224.   Recent years have seen quality assurance initiatives in both higher education and VET. In higher education, the development of a quality assurance framework has affected both self-accrediting and non-self accrediting providers of higher education. This has involved the endorsement by MCEETYA of National Protocols for Higher Education Approval Processes and their recognition in legislation by State and Territory governments. In addition, the newly established Australian Universities Quality Agency will audit the activities of Australian universities and State and Territory accreditation authorities on a five-year rolling cycle. In VET, the National Training Framework (comprising the Australian Quality Training Framework and Training Packages) helps ensure that the VET system provides quality, industry-relevant training and that its products and services are mutually recognised by all registered training providers across State and Territory borders.

14.   Major constraints upon reforms and innovations

225.   While important progress has been made towards an integrated and seamless system of qualifications in Australia, constraints have been experienced in the direction and pace of reform. These constraints can be grouped under four main headings—legal-constitutional, institutional, economic, and cultural. These will be discussed briefly below.

Legal-constitutional

226.   Australia's federal system of government and the constitutional division of responsibilities can have a complicating effect on reform efforts owing to the complexity of processes involved in developing or implementing change proposals and divergent political views on the need for change or the directions it should take. Nevertheless it would have to be said that the six main initiatives described in preceding sections of this paper have enjoyed wide support across jurisdictions and between State and Commonwealth governments to the extent that these initiatives rested on collaboration at these levels.

Institutional

227.   Tertiary institutions, both universities and VET institutions, enjoy considerable autonomy within broad frameworks of funding and accountability. National initiatives on qualifications reform tend to be viewed from the sector and situational perspective of individual institutions. There may be divergent views even within one sector regarding the merits of particular proposals. For example, not all universities agreed in 1997 to support national credit transfer proposals developed by the Australian Vice-Chancellors' Committee. A contemporary study of credit transfer arrangements in Victoria showed that these varied widely and were sometimes inconsistent, reflecting a lack of co-ordination and the tendency for institutions to judge matters on a situational basis (Teese 1997).

Economic

228.   Resource issues have slowed change in a number of areas of qualifications reform. For example, school principals point to significant additional costs of delivering VET in Schools programs, associated with equipment outlays, tuition costs (where tuition may be out-sourced to TAFE institutes), and professional development. At another level, the implementation of credit transfer arrangements and dual-sector awards in tertiary education may involve significant development costs, as one study of initiatives revealed in the late 1990s, and also administrative complexities in managing funding from different sources.

Cultural

229.   Arguably the biggest constraint on qualifications reform in Australia has been cultural. This can be seen at a number of levels. For example, many secondary school teachers have misgivings about the legitimacy of vocational programs. Some see them as 'short changing' students through a too-narrow focus on employment. Others see schools primarily in terms of academic preparation. They cite the views of parents, who are often conservative in matters of curriculum and see school as leading to university. An academic culture which elevates abstract and theoretical studies to the top of the curriculum hierarchy is reinforced by the system of tertiary selection used throughout much of Australia. Students are judged by their tertiary entrance rank (TER), which in turn rests on the relative severity of the subjects they take and on examination performance in these subjects (Teese 2000). Within such a culture, it may prove difficult to implement vocational programs, and where these are accepted, they may be used as a relegation stream for weaker learners, taught by staff who feel less respected and valued.

230.   A second, and not unrelated example of the cultural constraints on qualifications reform concerns credit transfer arrangements, including within cross-sector institutions themselves. University staff do not necessarily view students coming from VET as having a suitable preparation for degree courses or as having the ability to manage academic subjects. They are aware that such students probably missed out on a university place when they completed school, owing to their marks, and academics are conscious, too, that VET students have not experienced the same socialisation and adjustment to university as more successful young people coming straight from school. VET, as a sector, is seen as vocational, not concerned with theoretical knowledge and research. Without suggesting that these views are widespread, they are known from case-studies to be a significant impediment at the institutional level to developing or applying procedures for student movement up the qualifications ladder (Teese, Davies, Polesel, O'Brien 1999).

15.   Major debates on the qualifications system or its key elements

231.   The Australian Qualifications Framework is the fruit of ongoing national debate over access to learning opportunities, the recognition of learning, and the social uses and benefits of learning. While there is wide acceptance of the framework itself, key elements within it are a continuing source of debate. Paragraphs 232-234 set out concerns about the current functioning of the system in its widest sense: the interaction of qualifications issues with questions of equity, parity of esteem between the sectors, the relationship between generic and vocational learning, transition issues, etc. This is followed by a section which focuses more narrowly on current issues under review in the AQF.

General issues

VET in Schools

232.   While the implementation of vocational programs in senior certificates during the 1990s has been a major change and of great importance, it has stimulated debates about the fundamental purpose of upper secondary education and highlighted very significant divisions of opinion and values. The context of mass secondary education should be kept in mind. In a way, VET has been the vehicle through which the democratisation of upper secondary education in Australia has been pursued. But this is far from implying a unanimity of purpose or perspective on the part of the policy-makers and educators driving the vehicle. Amongst the elements of debate about vocational programs are:

(a)   a concern that such programs narrow secondary education in scope and purpose to the detriment, especially, of working-class children, and that they represent an unacceptable form of streaming

(b)   a concern that the ways in which VET in Schools has been incorporated within senior certificates has distorted the purpose of VET by coupling it to graded assessment (even where optional) or by stressing theoretical over practical elements

(c)   a concern that the vocational transformation of the senior certificate has not gone far enough in view of continuing high rates of early leaving amongst some communities and that alternative credentials are needed which do not place VET within a compulsory shell of academic subjects.

Credit transfer in tertiary education and cross-sector programs

233.   The considerable progress made in facilitating cross-sector movement in tertiary education, at least in terms of evolving a framework of protocols, has also involved wide national debate about the respective purposes and roles of VET and higher education. Key elements of this debate include:

(a)   a concern that credit transfer arrangements risk distorting the vocational purpose of post-school VET courses by making them preparatory to degree programs

(b)   a concern that VET institutions should build up strong short-cycle programs, such as found in several European countries, which exploit pedagogical advantages and industry links and which create significant diversity within the wider field of tertiary education (while not excluding transition to university).

Accreditation in adult and community education

234.   The community sector enrols very large numbers of adults and represents a major strength of education and training in Australia, particularly with respect to lifelong learning. Perhaps because of its very breadth of purpose and its social inclusiveness it, too, is the subject of important national debates over qualifications. Key lines of debate include:

(a)   a concern about the true extent of inclusiveness of the sector and therefore of equity of access to the qualifications it awards—are more disadvantaged groups adequately represented in the sector and amongst its graduates?

(b)   a concern about effectiveness—accepting that there is a variety of economic and cultural purposes and that different groups of users have different motivations, is the sector effective for those individuals seeking employment or further study benefits? Are they receiving qualifications which are valued in the market place and by educational institutions?

(c)   a concern about accreditation within the sector—should more learning occur within the award framework, conferring the advantages of certification, or would this distort the work of

the sector through selection, assessment and grading procedures, and a teaching focus on preparation for higher levels of study? (Teese, Davies, Polesel, O'Brien 1999).

Current issues under review in the AQF

235. The following issues are currently under review:

(i)   Impact of changes at the sectoral interface

236.   Qualifications are predominantly accredited in one sector, the exception being the two non-graduate diploma qualifications (diploma and advanced diploma).   The diploma and advanced diploma have a history of overlap in VET and higher education, but are now very largely VET. In a decentralised regulatory environment, transparency and accountability for standards is easier to maintain if each qualification has its own sectoral 'label'. However, this may unduly inhibit development towards a more integrated overall education and training system supporting seamless pathways.   Debate on this issue involves a broader debate on Australia's sectoral structures.

(ii)   Changing needs within sectors

237.   Recognition of achievement in the schools sector, in particular, is required to become far more diverse than may be accommodated under the current single senior secondary certificate of education.   The national framework has facilitated delivery of VET qualifications, as a part of or additional to the school certificate.   Issues such as the different assessment regimes in the sectors, for example with respect to grading of results, are the subject of current negotiations, with a view to improving credit transfer across sectors while retaining the integrity of the qualification's profile.

238.   Some consideration is also being given at jurisdictional level to the need for an additional schools qualification, with its own distinctive outcomes and learning pathways. Whether this will translate into a new national qualification, or whether this need can be accommodated within the existing SSCE is foreshadowed as a focus of national debate.

239.   In the VET sector, there is an interest from some industries in higher-level competencies being achieved through competency-based training and assessment, as an alternative pathway to the universities. The point of debate here is whether new higher-level VET qualifications are required, or whether the titles of existing higher education qualifications may be utilised where the qualifications outcomes are largely comparable and, if so, whether this may require some merging of accreditation and quality assurance regimes.

240. In the higher education sector, some interest in a sub-degree qualification explicitly articulated with a Bachelor degree, to allow more scope for changing direction in learning pathways, has raised issues of potential duplication with diploma qualifications and confusion over pathways choices.

IV. Conclusions

Dimensions of the Australian Qualifications system

241.   The Australian qualifications system has developed within a federalist structure that locates constitutional responsibility for education and training in the States and Territories. A national system, therefore, had been formed through agreements between the States and Territories, frequently brokered by the Commonwealth Government. The key element of the national system is the Australian Qualifications Framework, which unlike some other national qualifications frameworks and authorities does not have a statutory base. The AQF sets the characteristics of the learning outcomes or competencies required by each of the twelve national qualifications. Higher education qualifications remain provider based although subject to the Australian quality assurance framework, and upper secondary qualifications are under the control of State and Territory based statutory authorities. In the VET sector, VET qualifications are implemented nationally through a National Training Framework. Ministerial agreement underpins adherence to the AQF.

242.   While AQF does not have direct accreditation or quality assurance capacity, its relatively loose framework does bring advantages. Qualifications can more readily be incorporated within its descriptor based umbrella. Governments and industry have supported the AQF so that the vast majority of qualifications issued in Australia carry the AQF endorsement. Furthermore, the flexible nature of the AQF has freed it of the need to undertake the detailed adjustments of and fine comparisons or mappings between qualifications that are required for more tightly constructed frameworks. Of course, this leads to the obvious question of whether the framework is too loose to strongly promote the articulation between qualifications, especially across the sectors. It is more likely, however, that sectoral barriers in the form of the different currencies between VET and general education (competency and syllabus based, respectively) and the high degree of autonomy of the university sector are greater obstacles. This is suggested by the fact that student traffic between university and TAFE courses in Australia's cross sectoral providers (university and TAFE) is double the rate outside of these providers (Golding and Vallence, 2000). The AQF Advisory Board has developed Guidelines which support cross-sector qualification linkages. These may be based on articulation and credit transfer but also extend to newer models of integrated cross-sector linkages. The latter include integrated dual sector sequential awards and integrated dual sector concurrent programs. The guidelines also include guides to credit levels (eg 50% credit for an Advanced Diploma and 33% credit for a Diploma when linked to a three year Bachelor's degree); however, it is recognised that actual credit levels may be greater or less depending on the particular award offered.

243.   The objectives of the AQF have been outlined in Section 2 of this report. As a relatively open framework, however, it should not be seen as representing the full dimensions of Australian qualifications systems. All of the six States have undertaken a major review, and in most cases several reviews of their upper secondary certificate over the past two decades.[9] These reports indicate a movement from the objective of increased participation in secondary education to that of broader participation in post school and continuing education and training. That is, the most recent of these reports (Kirby, 2000; Pitman, 2002; Department of Education,

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[9] These reviews include: **New South Wales**: Carrick, 1989; Swan-McKinnon, 1984; McGaw, 1997; **Victoria**: Blackburn, 1985; Lee Dow, 1997; Kirby 2000; **Western Australia**: McGaw, 1984; Curriculum Council 2001; **Queensland**: Education 2000, 1986; Wiltshire, 1994; Pitman, 2002 **South Australia**: Gilding, 1988; **Tasmania**: Department of Education 2002.

2002; Curriculum Council, 2002) have incorporated the objective of better pathways from secondary education into employment and tertiary education and training. To this extent these reports and the subsequent innovations and reforms in upper secondary qualifications have given greater substance to the more general OECD principles of lifelong learning and a more seamless qualifications system. These reforms will be reflected in an AQF Advisory Board review of the AQF guidelines for the SSCE scheduled for 2003. This review will include an examination of state-level initiatives such as the Victorian VCAL for their potential for national recognition under the AQF.

244. The level of formal qualifications held by the Australian adult population is not high by OECD standards. As shown in Table 3 the percentage of the adult population aged 25-64 with upper secondary education is below the OECD mean, but the percentage with tertiary attainment, especially at the university level, is above the OECD mean. To an extent the low levels of secondary education are due to high levels of immigration in the post World War II period. It is also due, however, to low levels of secondary education participation until the latter part of the 1980s. On the other hand Australia has high levels of entry into tertiary education, and the third highest level of private investment in tertiary education amongst OECD countries. In terms of formal education (VET and higher education) Australia has world-best levels of participation by adults aged 30 and over. If participation in non-formal education and training is included, however, Australia ranks only mid-way among the 19 OECD countries for which data are available (see Table 11 below showing participation in all forms of continuing education and training for 25-64 year olds) for selected countries.

Table 11.   Levels of educational attainment, tertiary type A (university) graduate rates, and adult continuing education, selected OECD countries (percentages).

Country	25-64 year olds with upper secondary education, 2001	25-64 year olds: tertiary attainment 2001	Tertiary graduation rates – type A	% of 25-64 year olds in continuing education & training – various dates
Australia	59	29	36.3	36 (1995-96)
France	64	22	24.6	-
Germany	83	23	19.3	42 (2000)
Ireland	58	36	33.2	22 (95-96)
Japan	83	34	30.9	-
Korea	68	24	-	-
New Zealand	76	29	-	46 (1995-96)
Sweden	81	32	28.1	54 (1994-95)
UK	63	26	37.5	45 (1995-96)
USA	88	37	33.2	51 (2001)
OECD/country mean	64	23	29.9	-

Source: OECD, 2002, tables A1.2, A2.3, A2.1, C4.1

Impact

245.   It is difficult to locate clear evidence of the qualifications system upon lifelong learning in Australia. To an extent the 'system' needs to be seen as consisting of a number of sectoral components, each with its set of objectives and competing demands.

246.   The upper secondary certificates have been required to balance the competing demands of preparation and selection for tertiary education with objectives of increased levels of participation and successful learning. Vickers (1995) found that diversified course and qualifications offerings in upper secondary education in some States in the early 1980s led to higher levels of participation.   Yet all States and Territories moved towards common frameworks into the 1990s in order to establish parity of esteem within upper secondary qualifications.   More recently, however, the reforms have been designed to broaden and introduce greater flexibility into the upper secondary certificates. In Victoria, a new separate certificate (VCAL) has been introduced. These reforms have been designed to strengthen VET in Schools (e.g. Lee Dow, 1997), work based learning (e.g. Pitman, 2002), and allow greater flexibility in the location, pace and relationships of learning. Although it is too early to identify the impact of these reforms, there is evidence that VET in Schools programs can increase students' motivation and improve their learning outcomes (Polesel, Teese & O'Brien, 2001).

247.   In the VET sector, the development and implementation of Training Packages and the introduction of the Australian Quality Training Framework can be regarded as a relatively radical set of reforms, by international standards. Apart from the objectives of establishing a nationally recognised set of occupational qualifications, incorporating common generic units of competency, where appropriate, they were built upon the principle that knowledge and competence should be recognised irrespective of the means and location of the learning. Furthermore, they have been built upon holistic forms of assessment that allow for flexible forms of evidence based recognition of learning. The major tension with VET qualifications has been that between flexibility and consistent quality standards.   Some reports have indicated a lack of quality assurance (e.g. Schofield, 2000), and for this reasons most States and Territories have introduced more demanding audit requirements.   Although there has been criticism of the Training Packages, an independent evaluation (Down, 2002) provided positive results. This together with the increased individual demand for VET suggests that the flexible nature of VET qualifications and their assessments has increased demand for learning. Recognition of learning, against VET qualifications, outside formal courses – that is of informal and non-formal learning – should be greater than is currently the case, given the considerable opportunities that are offered through the training package approach. It is likely, however, that it will take some time for these opportunities to be realised, especially in the context of difficulties within funding and other institutional arrangements.

248.   Higher education qualifications remain institutionally based, and although a large number of double degrees, and a smaller number of dual or cross sectoral awards have been introduced, there has been no systemic reform in the sense of the emergence of new qualifications.   However, the quality assurance framework and in particular the National Protocols have set the operational protocols for recognition of non-self accrediting higher education providers and accreditation of new universities and of off-shore universities seeking to deliver courses on-shore in Australia.

249.   As indicated in Section 2, most Adult and Community Education courses in Australia are non-accredited and few lead to the award of a qualification. Practitioners have been reluctant to introduce award based qualifications for cost reasons, and because the formal assessment requirements might act as deterrents to learners who lack confidence and have had poor experiences of formal learning. Nevertheless, as the sector has grown some States have introduced new qualifications that are designed to provide re-entry routes into education

pathways or progression routes. One recent example is the Certificate of Tertiary Education introduced in Victoria in 1999. Its pilots indicated a high level of articulation into subsequent levels of education and training.

250.   At the more general or cross sectoral levels it is difficult if not impossible to measure the contribution towards lifelong learning of qualifications system reform, especially that of the AQF and the reforms associated with it, notably Recognition of Prior Learning and credit transfer. (While RPL and credit transfer pre-date the AQF, they have been re-negotiated through the AQF Advisory Board because the VET reforms changed the basis for negotiation and it was necessary to ensure that this did not lead to a new set of sectoral barriers). On the other hand, Australia has been one of the pioneer countries in cross sectoral articulation of qualifications. The direct outcomes of these reforms in the form of direct cross sectoral traffic, credit realised and recognition given have been disappointing, given the investments that have been made. This, however, has been a relatively common international experience, and the early introduction of these reforms (from the mid 1980s) and the robust discourses across the education and training sectors that they contributed to, almost certainly have fuelled major reforms in secondary and VET qualifications and qualifications systems. These reforms have been in the form of greater flexibility, relevance and accessibility of courses and assessment, and stronger and more open education and training pathways, which in turn have contributed to higher levels of participation in post elementary learning in Australia.

Pressures, demands, tensions and innovations

251.   The major pressures upon the Australian qualifications system have been detailed in Section 3. They emerged through major labour market changes, especially in the youth and female labour markets, and increased individual demand for tertiary education and training. They also emerged through increased employer and employee demand for more relevant vocational training, and more portable and better articulated VET qualifications. Continued changes in the labour market, and the increased length of the transition period from compulsory schooling to full time employment (OECD, 2000) have increased pressures for better articulation between qualifications and a more seamless national qualifications system.

252.   More recently governments (e.g. Commonwealth of Australia, 2001) and industry have given attention to the concept of the 'knowledge economy' and 'innovation'. Together with changes in the labour market, these developments have nourished the agenda of lifelong learning, and the objectives of higher levels of participation in both initial and continuing education and training. Some State governments (Queensland and Victoria) have adopted targets for the levels of qualifications to be achieved by their populations, and most have given attention to the uneven patterns of qualification levels across different regions and social groups.

253.   Governments and the education sector authorities are also aware of other impacts of globalisation upon qualifications. As pointed out by the OECD (2001) the concept of the knowledge economy extends the *location* of knowledge beyond the individual to both organisations and networks. At the secondary level, for example, some authorities have incorporated vendor qualifications (CISCO, McDonald's – hospitality certificates) into senior secondary and VET qualifications. Within the VET sector global changes in industry and work have fuelled debates about the nature of competence, and the need for individuals to develop greater generic competencies. One State education and training minister, for example, has mooted the possibility of developing qualifications based upon generic skills (Kosky, 2002).

254.   At the sectoral level increased levels of participation have led to different types of pressures. As levels of participation in upper secondary education have increased, the range of learner needs have expanded. Within the common frameworks authorities have responded by increasing the range of subjects and introducing VET courses. The diversified demands,

however, have exacerbated the tensions between the objectives of broader levels of participation and the demands for tertiary education preparation and selection. Most State authorities have begun to introduce types of university bridging courses that allow advanced students to undertake university degree level subjects concurrently with their upper secondary certificate subjects, although numbers involved are still small.

255.   This major tension in the Australian qualifications system is played out through different innovations at the senior secondary level across the eight State and Territory sub-systems. Two (Queensland and the Australian Capital Territory) have abolished external examinations and use a set of generic skills tests to moderate the school based assessments which provide the rankings used for selection for university entrance. Two (Tasmania and South Australia) have adopted very open certificates that allow a broad range and types of courses to be incorporated into the awards, including RPL in the case of South Australia. Two (New South Wales and Western Australia) have used different types of subject tiering, similar to approaches used in Scotland and New Zealand. One (Victoria) has now introduced another qualification.

256.   At the post school level, the major challenges have been to develop qualifications that meet the needs of the full range of learners. This includes school age and post school age re-entry learners who for various reasons do not find the senior secondary certificates to be a suitable option. The Victorian VCAL is partially a response to this need, but this demand has led to tensions between the industry and individual needs of VET qualifications, especially at the lower levels (Certificates I and II). The incorporation of more generic competencies within these awards is one response to these demands.

257.   At the other end of the spectrum there are pressures from some Registered Training Providers in the VET sector to provide degree level qualifications, to meet unmet demand for higher education from domestic students and to broaden their recruitment among overseas students. The issue of associate and applied degrees has been discussed in Section 3, and it is unlikely that Australia will adopt the English approach of introducing foundation degrees into TAFE colleges in the near future. Two States (Victoria and Western Australia) have signalled the possibility of introducing degrees for specialist fields (such as IT) into TAFE institutes. TAFE SA has delivered degrees in music and business management for a decade, but has done so as a non self-accrediting higher education provider in partnership with local universities and through franchising degrees from overseas universities. This is consistent with the AQF, under which the Bachelor degree qualification is a higher education award but, as for many other qualifications in the Framework, may be delivered in another sector subject to meeting higher education accreditation and quality assurance requirements, and to State/Territory legislation.

Policy instruments

258.   As a policy instrument to promote lifelong learning, the AQF can be regarded as a relatively subtle tool, when compared to other national qualifications frameworks that are underpinned by statutory endorsement and large and dedicated authorities. The AQF is a reflection of the realities of education and training with the Australian federation. Its viability rests with the compliance of State and provider based accreditation authorities.and the support of the Ministers in each jurisdiction. Since its inception in 1995 it has both provided a valuable framework upon which to build improved cross sectoral articulation agreements and mechanisms, and been used by the State VET systems to implement more robust audit and quality assurance arrangements for VET awards. As indicated in Section 1 (para. 58), the AQF is overseen by a largely sector-based advisory board to the ministerial council (MCEETYA), individual members of which have the governmental authority and capacity to establish and implement the agreements upon which the AQF is based.

259.   The AQF is the major cross sectoral instrument for pursing lifelong learning objectives through the Australian qualifications system. Within sectors at the national level there are three bodies that can promote a more integrated and coherent approach to sectoral level qualifications: They are: Australian (Australia and New Zealand) Curriculum, Assessment and Certification Authorities (ACACA) – consisting of the State and Territory boards of study (plus the New Zealand Qualifications Authority); the Australian National Training Authority (ANTA); and the Australian Vice Chancellors Committee (AVCC). All three bodies are represented on the AQF Advisory Board with the task of promoting seamless education and training pathways.

260.   While there has been some mooting of a national upper secondary certificate, or a more detailed national framework for upper secondary certificate within ACACA, this is unlikely in the near future. The body has supported some degree of consistency in VET in Schools courses, and has developed mechanisms for the alignment of assessment scores and tertiary entrance ranks across States and Territories. The AQF and MCEETYA, however, have proven to be more important instruments in the pursuit of broader social and economic objectives through the senior secondary certificates over the past decade.

261.   The Australian National Training Authority (ANTA) has provided a robust instrument for the national integration of VET qualifications. It is backed by a ministerial council and has led to a thoroughly national system of VET qualifications. It also has provided the major driver for the AQF. The Australian Vice-Chancellors' Committee has been involved in dialogue on credit transfer and RPL arrangements, and in conjunction with ANTA and as part of the AQF Advisory Board has progressed these arrangements across the higher education and VET sectors.

262.   At the State levels, the boards of studies retain considerable autonomy in their design and management of the senior secondary certificates. This is due to both their statutory status, and to the strength of their constituencies that are independent from government in the form of universities and schools, especially elite and private schools. It is for this reason that there has been such a strong propensity for State governments to implement independent reviews of the senior secondary certificates, rather than attempt to directly intervene in them. In some cases (e.g. Queensland) the State governments have initiated a number of reviews and developments that are designed to address the question of how the qualifications system can better serve the learning needs of their populations. In others (e.g. Victoria – see Kirby, 2000) State governments have established qualifications authorities in order to develop the capacity for broader assessments of global and local social and economic change and the subsequent impact upon qualifications systems. They have felt the need for a more localised capacity for holistic management and integration of the qualifications system. In the Victorian case, the Qualifications Authority has looked towards localised, or meso level adaptation of qualifications, as well as a State based qualifications framework or matrix.

263.   The Australian experience built upon a federalist and sectoral structure, therefore, indicates the need for a broad based framework combined with a capacity for broad assessments of global changes and needs of learners, plus the capacity for more localised flexibility and adaptability of qualifications. The natural tension between flexibility and quality needs ongoing monitoring and evaluation. The national framework (AQF) has been bolstered in recent years through its use as a platform for inter sectoral dialogue. At the secondary level, however, State governments see a single national framework as unduly limiting, and have developed a wide variety of innovations to resolve the major tension in the Australian qualifications system at this level: that between the historical role of the senior secondary certificate as a selection instrument and the demand for lifelong learning for the whole population.

264.   The most recent raft of State based reports and reviews (Department of Education (Tasmania), 2002; Pitman, 2002; Curriculum Council, 2002; Kirby, 2000) have a qualitative

difference to earlier reports (e.g. McGaw, 1997, Lee Dow, 1997) in that they extend into the post school transition of students and acknowledge the dynamic nature of social and economic life and the needs for ongoing innovation and adaptation within qualifications system to support the objective of lifelong learning for all. To this extent a new federalist consensus may be emerging within the Australian qualifications system. The mid-1990s witnessed a strong movement towards national frameworks in ANTA and the national training framework, school curriculum and outcomes frameworks in the form of national curriculum area statements and profiles, and the AQF. Into this next decade, these frameworks, all of which contribute towards the national qualifications system[10], are increasingly being supplemented with state based capacities to provide holistic overviews of the qualifications needs of their populations and the means to adapt and customise these qualifications to these needs.

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[10] The senior secondary certificate in most states and territories use the eight national curriculum area statements as an organisational framework for their subjects or studies (e.g. see Curriculum Council, 2002).

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Appendix: Description of qualifications

Learning Outcomes, Linkages and Pathways

The AQF provides clear guidelines relating to expected qualification outcomes in terms of learning outcomes and relationships and links with other qualifications. In this sense the relationships and pathways between qualifications are highlighted.

The Twelve AQF Qualifications and Characteristics

1. Senior Secondary Certificate of Education

The Senior Secondary Certificate of Education (SSCE) prepares candidates to enter:

- University;
- TAFE institutions and other formal training programs;
- the workplace; and
- other life roles.

The Senior Secondary Certificate may be gained:
- .most commonly through two years full time study following completion of Year 10, but may also be gained by older candidates through recognition of prior learning in combination with an accredited course, and on a part-time basis; and
- .in conjunction with a TAFE or other workplace program and may incorporate units leading to the relevant AQF Certificate I-IV qualification.

The Senior Secondary Certificate is referred to by local titles at a State and Territory level as follows:

NSW	Higher Schools Certificate (HSC)
VIC	Victorian Certificate of Education (VCE)
QLD	Senior Certificate
SA	South Australian Certificate of Education (SACE)
WA	WA Certificate of Education
TAS	Tasmanian Certificate of Education (TCE)
NT	Northern Territory Certificate of Education
ACT	ACT Year 12 Certificate

These Senior Certificates of Education may incorporate VET units that meet national industry requirements. Such units can contribute towards all three pathways; university entrance, credit towards Certificates I-IV in formal training programs, and employment at a particular level of industry competence.

At the State/Territory level requirements for senior Secondary School Certificates are set by Statutory Boards, which are responsible for the accreditation and development of courses of study assessment and issue of qualifications.

At the State/Territory level requirements for Senior Secondary School Certificates are set by Statutory Boards, which are responsible for the accreditation and development of courses of study, assessment and issue of qualifications.

2. Certificates I-IV Levels

Certificates I - IV prepare candidates for both employment and further education and training. Certificates recognise basic vocational skills and knowledge and Certificates III and IV largely replace the outdated category of trade certificates. Table A reports some of the features of the different certificates.

Table A: Features of AQF Certificates I-IV

Certificate 1	Certificate II	Certificate III	Certificate IV
The competencies enable an individual with this qualification to:	*The competencies enable an individual with this qualification to:*	*The competencies enable an individual with this qualification to:*	*The competencies enable an individual with this qualification to:*
Demonstrate knowledge by recall in a narrow range of areas	Demonstrate basic *operational knowledge* in a *moderate range* of areas	Demonstrate some *relevant theoretical knowledge*	Demonstrate some understanding of a *broad knowledge base* incorporating *some theoretical concepts.*
Demonstrate some basic practical skills such as use of relevant tools	Apply a defined range of skills	Apply a range of well developed skills	
	Apply known solutions to a limited range of predictable problems	Apply known solutions to a variety of predictable problems	Apply solutions to a defined range of unpredictable problems
Perform a sequence of routine tasks given clear demands	Perform a range of tasks where choice between a limited range of options is required	Perform processes that require a range of well developed skills where some discretion and judgment is required	Identify and apply skill and knowledge areas to a wide variety of contexts with depth in some areas
Receive and pass on messages/information	Assess and record information from a variety of sources	Interpret available information using discretion and judgment	Identify, analyse and evaluate information from a variety of sources
	Take limited responsibility for own output in work and learning	Take responsibility for own outputs in work and learning	Take responsibility for own output in relation to specified quality standards
		Take limited responsibility for the outputs of others	Take limited responsibility for the quantity and quality of the output of others

Source: AQF Implementation Handbook, 2002, Tables 6 and 7

The different Certificates:

- recognise skills and knowledge that meet nationally endorsed industry/enterprise competency standards as agreed for those qualifications by the relevant industry, enterprise, community or professional group;
- include preparatory access and participation skills and knowledge such as:

    - literacy and numeracy;
    - communication skills;
    - working in teams;
    - workplace technology; and
    - industry specific competencies, of increasing complexity and personal accountability at each level of the Certificate qualification; and

- may be gained through a wide range of pathways, including:
    - New Apprenticeships (including traineeships);
    - work-based and/or school/institution-based training; and
    - recognition of prior learning (which may include training programs or an accumulation of short courses).

Certificate qualifications are based on nationally endorsed competency standards.

3.   Diploma and Advanced Diploma

Diplomas and Advanced Diplomas prepare candidates for self-directed application of skills and knowledge based on fundamental principles and/or complex techniques. These qualifications recognise capacity for initiative and judgment across a broad range of technical and/or management functions. The Advanced Diploma is a more specialised qualification and signifies skill and knowledge of a greater complexity and a higher level of personal accountability than is required at a Diploma level.

Diplomas and Advanced Diplomas may be gained through a wide range of pathways varying according to which education and training sector issues the qualification.

Pathways include:
- work-based and/or institution-based training; and
- recognition of prior learning (which may include training programs or an accumulation of short courses).

Time taken varies according to the particular pathways and industry involved, with full time study at a university or vocational education and training institution typically involving the equivalent of two years for the Diploma and up to three years for the Advanced Diploma. When issued in the vocational education and training sector, Diplomas and Advanced Diplomas recognise skills and knowledge meeting national competency standards (or competencies consistent with these levels where the national industry competency standards are not applicable).

In the VET sector these qualifications are based on nationally endorsed competency standards (where they exist) or on standards developed by industry, enterprise, community or professional groups.

In the higher education sector, objectives and academic requirements are set by participating universities.

4.   Bachelor Degree

The Bachelor Degree is awarded at a university or otherwise accredited institution. It provides initial preparation for professional careers and postgraduate study. Graduates of a Bachelor Degree possess a range of academic and vocational attributes such as:

- an understanding of a systematic and coherent body of knowledge and its underlying principles and concepts;
- communication and problem solving skills;
- the ability to undertake research, analyse information and apply knowledge and techniques learnt within an academic or professional context;
- skills for self-directed and lifelong learning; and
- interpersonal and teamwork skills appropriate to employment and/or further study.

There is a range of *pathways* to the Bachelor Degree, including completion of a Senior Secondary Certificate of Education, bridging or foundation programs and a Diploma or Advanced Diploma qualification which may involve articulation and credit transfer arrangements.

There are a variety of Bachelor degree programs, including:

- the three year degree;
- the three or four year (or longer) professional degree;
- combined or double degree programs;
- graduate entry degrees; and
- the Bachelor Honours degree which may be taken as an additional year following the three year degree or is awarded on the basis of meritorious achievement in degrees of four or more years.

Characteristics of *learning outcomes* at this level include:

- the acquisition of a systematic and coherent body of knowledge, the underlying principles and concepts, and the associated communication and problem-solving skills;
- development of the academic skills and attributes necessary to undertake research, comprehend and evaluate new information, concepts and evidence from a range of sources;
- development of the ability to review, consolidate, extend and apply the knowledge and techniques learnt, including in a professional context;
- a foundation for self-directed and lifelong learning; and
- interpersonal and teamwork skills appropriate to employment and/or further study.

A course leading to this qualification also usually involves major studies in which a significant literature is available. Course content is taken to a significant depth and progressively developed to a high level which provides a basis for postgraduate study and professional careers.'

A graduate of a Bachelor Degree is eligible to apply for entry to a relevant Graduate Certificate, Graduate Diploma and a Masters degree by coursework program. A graduate from a Bachelor Honours degree may also be eligible for entry to a Doctoral degree program, providing that the candidate has demonstrated potential to undertake work at this level. In some circumstances, a period of professional experience may be required for admission to these postgraduate programs.

Objectives and academic requirements of these courses are set by universities having regard to requirements of relevant professional bodies and employer groups.

5.   Graduate Certificate and Graduate Diploma

Graduate Certificates and Graduate Diplomas are generally designed for specific vocational purposes, either the broadening of skills and knowledge already gained in an undergraduate program, or vocational skills   and knowledge in a new professional area. They typically follow a Bachelor Degree or Advanced Diploma and may also be accessed in part by recognition of prior learning.

 Although the duration of programs may vary, the typical requirement is six months of full time study for the Graduate Certificate and twelve months of full time study for the Graduate Diploma.

Graduate Certificate and Graduate Diploma Graduates may enter employment or further education and training as their career path requires.

Objectives and academic requirements of these courses are set by universities having regard to requirements of relevant professional bodies and employer groups. Universities are empowered by government to accredit their own courses and issue qualifications.

6.   Masters Degree

The Masters Degree provides a mastery or high-order overview of a relevant field of   study or area of professional practice.

Graduates of a Masters Degree possess a range of academic and vocational attributes such as:

- advanced knowledge of a specialist body of theoretical and applied topics;
- high order skills in analysis, critical evaluation and/or professional application through the planning and execution of project work or a piece of scholarship or research;

- creativity and flexibility in the application of knowledge and skills to new situations; and

- the ability to solve complex problems and think rigorously and independently.

There is a range of pathways to the Masters Degree, with entry based on evidence of a capacity to undertake higher degree studies in the proposed field.
Typical programs and entry pathways are:

- the coursework Masters Degree program, comprised of coursework, project work and research in varying combinations with entry from a Bachelor degree, a Bachelor Honours degree or a Graduate Diploma;

- the research Masters Degree program, comprised of at least two-thirds research with a substantial, often externally assessed thesis outcome and with entry from a Bachelor Honours degree or Masters preliminary year, a research-based Graduate Diploma or equivalent research experience; and

- the professional Masters Degree program, which may involve a work-based project, with entry from a relevant qualification and professional experience or extensive relevant professional experience.

Because of the range of entry pathways and methodologies the duration of Masters Degree programs varies. However, most Masters Degrees require the equivalent of two years of study post the three year Bachelor degree or one year of study post the Bachelor Honours degree or four year (or longer) Bachelor Degree.

Characteristics of *learning outcomes* at this level include the mastery or overview of the relevant field of study or area of professional practice and the emphasis may range from the acquisition or enhancement of specific professional or vocational skills and knowledge, usually undertaken in a combination of coursework and research, through to the acquisition of in-depth understanding in a specific area of knowledge which is usually undertaken through research.

A graduate of a Master's Degree program is able to:

- provide appropriate evidence of advanced knowledge about a specialist body of theoretical and applied topics;
- demonstrate a high order of skill in analysis, critical evaluation and/or professional application through the planning and execution of project work or a piece of scholarship or research; and
- demonstrate creativity and flexibility in the application of knowledge and skills to new situations, to solve complex problems and to think rigorously and independently.'

Entry to the Masters Degree is based on evidence of a capacity to undertake higher degree studies in the proposed field. There is a wide range of entry pathways, varying according to the program methodology and the discipline involved. Predominantly research-based programs normally have a research pre-requisite whereas predominantly coursework-based programs may be accessed more broadly.

The typical coursework Masters degree program might comprise coursework, project work and research in varying combinations, and may be entered from a Bachelor Degree, a Bachelor Honours Degree or a Graduate Diploma. Coursework Masters degrees are often structured in a three to four semester nested arrangement with the Graduate Certificate (one semester) Graduate Diploma (a further semester) and Masters Degree (a further two semesters).

Objectives and academic requirements of these courses are set by universities having regard to requirements of relevant professional bodies and employer groups. Universities are empowered by government to accredit their own courses and issue qualifications.

7. Doctoral Degree

The Doctoral Degree recognises a substantial original contribution to knowledge in the form of new knowledge or significant and original adaptation, application and interpretation of existing knowledge.

This substantial and original contribution to knowledge may take the form of:

- a comprehensive and searching review of the literature;
- experimentation;
- creative work with exegesis;
- other systematic approaches; or
- advanced, searching and expansive critical reflection on professional theory and practice.

A graduate of a Doctoral degree is also able to carry out an original research project, or a project(s) addressing a matter of substance concerning practice in a professional at a high level of originality and quality; and present a substantial and well ordered dissertation, non-print thesis or portfolio, for submission to external examination against international standards.

Typical programs and entry pathways are:

- the research doctorate, which is primarily achieved through supervised research, with entry from a research or part-research Masters degree, or a Bachelor Honours degree (First or Second Class, upper division); and
- the professional doctorate, which may be undertaken through varying combinations of coursework and research, with entry from a combined research and coursework Masters degree, a Bachelor Honours degree (First or Second Class, upper division) or equivalent and requires significant professional practice either prior to and/or as part of the program.

Because candidates hold a range of relevant skills and knowledge, the duration of programs varies. A typical research or professional doctoral program would be expected to require the equivalent of three to four years of full-time work.

There is a further type of doctoral degree, the higher doctorate, which is awarded to candidates usually possessing a doctoral degree on the basis of an internationally-recognised original contribution to knowledge rather than supervised candidature, often in the context of a substantial association with the conferring institution.

Objectives and academic requirements of these courses are set by universities having regard to requirements of relevant professional bodies and employer groups. Universities are empowered by government to accredit their own courses and issue qualifications.