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Introduction

This report provides an overview of recent national and international developments in qualifications and pathways. Its purpose is to identify areas of tensions and contestation in qualifications and pathways policy and innovation, and to briefly explore the implications for Victorian and Australian qualifications and pathways.

The information for the report has been drawn from a detailed environmental scan of national and international data sources. These sources include the national, state and territory qualifications and education authorities in Australia, the main international education and training agencies and national agencies in a selection of other countries. This information has been supplemented through direct contact with qualifications agencies in each of the Australian states and with researchers and officials in the UK, Germany, South Africa, North America, New Zealand, Asia and the Middle East, and with officials from the OECD and the ILO. The report also has received input from three international experts:

- Professor Russell Rumberger from the USA is a leading researcher in the area of education and the labour market;
- Mr Richard Sweet has recently completed seven years in the OECD and is a leading authority on student pathways;
- Professor Michael Young of the UK is an acknowledged authority on qualifications systems and qualifications frameworks.

There is a vast amount of innovation, change and debate over qualifications and pathways across the regions of the world and the volume of materials that is available is considerable. Therefore, the information that is contained in this report unavoidably is selective. This selection is based upon judgments about those developments that are likely to be most relevant to stakeholders in qualifications and pathways in Victoria and Australia.

Qualifications and pathways

Qualifications have a number of definitions across the international literature. Most frequently they are described as *formal accreditation and certification of learning*, where the accreditation is frequently, but not always, through government or government endorsed agencies. Qualifications also are defined by their users who recognise the learning and attributes that they signal. Users are both the individuals who seek qualifications and the individuals and organisations (employers, companies, educational institutions) that recognise the value that the qualifications carry. Qualifications, therefore, are located within complex and subtle markets and qualifications policy and innovations need to be sensitive to these markets.

As Raffe (2005) notes, '*pathways*' are not tangible objects, and the term is really a metaphor for a wide range of experiences of young people and adults, and the institutions that support and direct these experiences. For policy makers and stakeholders pathways are influenced by the rules, facilities, opportunities and barriers that facilitate or hamper progression through education and training systems and the relationship of these systems with employment¹.

¹ Education and training 'systems' are loosely defined as the main elements of formal schooling, adult education, training and tertiary education within a country and region. Typically a system will be subject to government regulation and may be reflected in a 'qualifications system', as is the case in Australia.

The terms ‘qualifications and pathways systems’ are used frequently in this report. It is tenuous to describe the disparate collection of qualifications and the complexity of pathways within and between education and training and employment as systems. In some cases, such as Australia, national or regional authorities have attempted to systematise qualifications through frameworks and protocols for the relationship between qualifications. These frameworks and protocols invariably are imperfect, and this is possibly because the authority for qualifications cannot lie solely with government.

Nevertheless it is useful, for the purposes of this report to describe the main national or regional qualifications and the formal and informal relationships between them as ‘systems’. To the extent that these qualifications have both formal and informal relationships with employment, and together with the other institutions and mechanisms that are designed to support pathways, these qualifications, institutions and mechanisms can be regarded as ‘systems’.

Expectations of qualifications and pathways

Qualifications and pathways policies are also located in broader economic and social environments. The change in national and global economies and demography and social relations, while complex and to some extent disputed, is well known and need not be chronicled here. However, the changes in the economic and social environments have influenced the public and private demands upon qualifications and pathways.

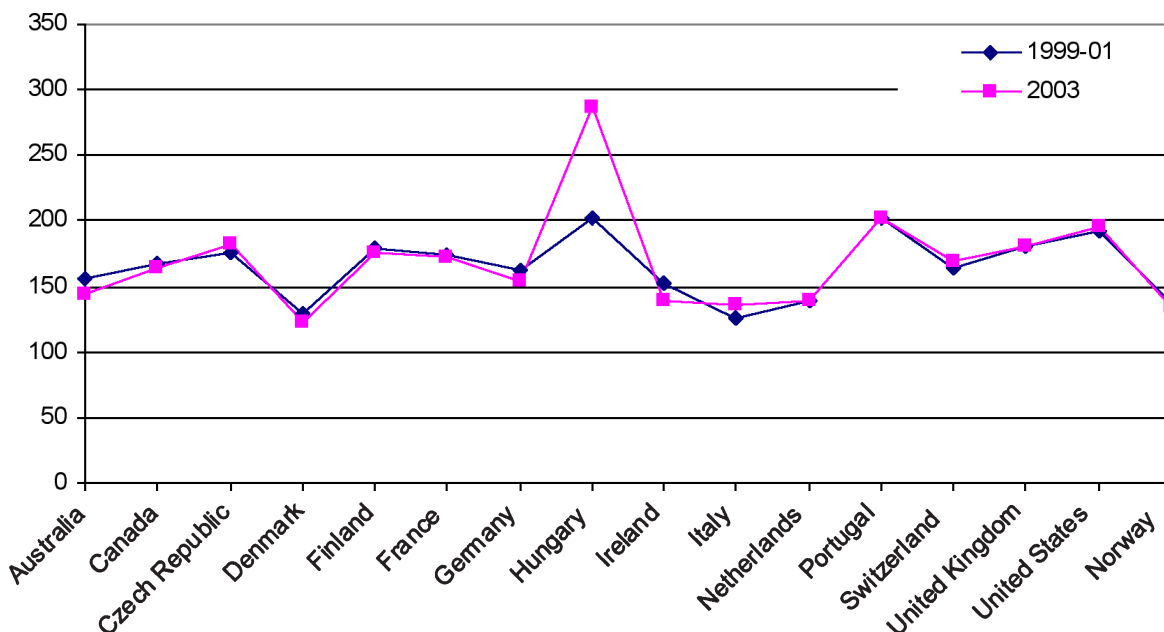
At the *public* level there are some broad agenda for education and training, and therefore for qualifications, that appear to be shared across most nations and regions. They are:

- **Employment.** Despite a long period of economic growth amongst developed nations, unemployment and under-employment remains a problem for most countries. Youth unemployment has grown across most regions of the world in the past decade (ILO, 2004), and unemployment amongst young adults also has emerged as a problem (OECD, 2005).
- **Skilling.** The issue of skills shortages that has been prominent in Australia over the past year and has been shared across most countries, especially developed countries. A common view is that unless advanced nations can develop high levels of innovative skills they increasingly will face the problem of the shift of skills offshore to cheaper labour markets ².
- **Lifelong learning.** ‘Lifelong Learning for All’ has been the guiding educational motif of the OECD since 1996.
- **Equity and social cohesion.** Global economic changes have widened wealth gaps in most nations and many governments are concerned about the impact upon social cohesion. Education is seen as a means of reducing the gaps and alleviating the tensions.

At the same time there is evidence that the *private* demand for education and training has increased. OECD data (figure 1) show that the relative private rates of return for degree level qualifications have increased in most countries over the past decade, despite the growth of degree holders within the labour forces. Education and training, therefore, is subject to increased private demand, as well as to increased pressures from public policy.

² Interview with Marc Tucker, Centre for Education and the Economy, Washington DC

Figure 1: Relative earnings³ of 30-44 year olds with Tertiary Type A⁴ qualifications with income from employment across OECD countries, 1994-6 to 1999-2001



Source: OECD, 1998, 2005

Stakeholders and tension between purposes

Historically, government had a minimal role in qualifications. This has changed radically with government assuming a central role in the design, accreditation and management of qualifications. However, at the same time the interests of the other stakeholders have not diminished.

The *other stakeholders* include:

- Individuals that seek qualifications to enhance their economic opportunities and for the intrinsic and social value of qualifications;
- Educational institutions that use qualifications as a means of judging the preparedness of potential students and as means of selecting students; and
- Employers that use qualifications as means of meeting their skill needs, and are the critical contributors to pathways.

Amongst these stakeholders qualifications play a signalling function (e.g. see Arkes, 1999). For employers and educational institutions qualifications signal capacities and experiences that they deem as appropriate for their needs or as the necessary preparation for entry into a course or job. Individuals invest in qualifications because of their capacity to signal attributes and experiences to employers and educational institutions and to a lesser extent to signal the social or 'educational' attributes of individuals.

The capacity of qualifications to signal attributes is dependant upon the degree of *trust* that stakeholders are willing to vest in them (Young, 2001). Qualifications are located within *communities of trust* and this trust cannot be mandated by government. Without this trust, qualifications lose their market value – their economic value and to a large extent their social and intrinsic value.

³ Tertiary Type-A corresponds to programmes at level 5A of ISCED, usually Bachelor, Masters and equivalent degrees.

⁴ The mean annual earnings of individuals with tertiary type-A educational attainment divided by the mean annual earnings from employment of individuals whose highest level of education is the upper secondary level

Most qualifications have been developed within occupational and professional communities, either independently or in conjunction with training institutions or tertiary education institutions. In most cases this occurred independently of government.

Governments typically are associated with education and training systems. School systems were formed by and for the needs of the state (Green, 2000), and continue to be funded, regulated and mostly administered by government. The systematisation of training has been through the aegis of government. Governments and education systems historically have made little use of qualifications. Students have been located within systems where the sequencing of pathways has been through year levels and streams.

As a consequence these systems have used examinations to measure learning and determine access to subsequent levels and streams. *Examinations* are not the same as *qualifications*, and within school systems most examinations do not lead to qualifications or qualify individuals for anything. The end of school examinations across countries have been known by various names – such as *leaving, baccalaureate, matriculation, higher, advanced* – and in most cases they referred to the examinations and the grades gained through the examinations, rather than a qualification.

Governments can play an important role in the quality assurance of qualifications through the supervision of assessments and the quality assurance of providers. However, they do not provide the market value for qualifications, except through their role as employers.

School and to a lesser extent training systems have notorious tendencies of ‘path dependency’. That is they tend to be rigid in their structures and practices. Governments faced with changed economic and social environments and with obdurate education and training systems have looked to qualifications as a means of reforming these systems.

So, as government has assumed a stronger role in the development, accreditation and management of qualifications (mainly VET) their relationships with other stakeholders has become more important. Control over qualifications by government is tenuous because government cannot dictate their market value. Furthermore, as governments increasingly look towards qualifications as a means of reforming education and training systems they face the danger of weakening the trust invested in qualifications by the key stakeholders.

The increased use of qualifications by government to achieve policy objectives, therefore, has led to sets of tensions within and over qualifications and pathways systems. Such tensions and contestation over qualifications exist within all systems to varying degrees. The degree of contestation appears to relate to:

- *The location or level of the qualifications.* Upper secondary qualifications tend to be contested in a variety of areas: assessment and grading, rules for completion, scope and structure of the qualification, and content.
- *The demands placed upon qualifications.* Where qualifications are used as selection instruments there can be tensions with principles of access and equity.
- *Where qualifications do not have strong relationships with the key stakeholders, especially employers.* In such cases the currency of qualifications (such as the US high school diploma) can be weakened and users will look towards alternative signals or evidence of the attributes that they are seeking.

The tensions between the historical purposes of qualifications located within their communities of trust and their use as reform instruments provides the conceptual and analytical theme for this report.

Four themes

The hypothesis posed within this report is that tensions within qualifications and to a lesser extent pathways systems have increased in recent years. This is due to the increased demands upon qualifications, in particular, and is manifest in:

- Increased government involvement in qualifications (for example through qualifications frameworks and authorities);
- Rapid innovations in qualifications, and pathways support mechanisms;
- Continued structural weaknesses in education and training systems and their interactions with employment markets.

These tensions are explored in the report through four broad themes:

- 1. Participation and opportunities** – how qualifications and pathways systems encourage individuals to participate in education and training and the opportunities that they provide for progress within and between education and work.
- 2. Standards and recognition** – how qualifications and qualifications systems retain their integrity and their currency amongst stakeholders in the context of the diverse demands upon them.
- 3. Seamlessness and flexibility and knowledge** – how qualifications work as systems through their inter-relationships, through the currency of knowledge and their relationships with employment.
- 4. Pathways and provision** – the institutions and mechanisms that are used to facilitate progression within and between qualifications and employment.

Other sets of themes could have been used. However, these themes constitute one approach to examining how countries and regions are attempting to achieve the broad objectives of qualifications and pathways within their own sets of constraints and the resulting tensions that are manifested.

The report contains numerous examples of government initiated or sponsored developments in qualifications and pathways. This is because governments increasingly are locating themselves as managers of qualifications systems, and most of the reportage of initiatives and developments is through government and government agencies.

However, it is important to stress that governments are only one amongst several stakeholders in qualifications and pathways systems. Qualifications are located in markets and in some cases these markets extend to global markets. These markets mediate governments' capacity to direct and manage qualifications and pathways.

1. Participation and opportunities

The goal of increasing participation in education and training, particularly at the upper secondary and post-compulsory phases, is shared by virtually all OECD nations, including Australia. Policy documents that relate to educational participation typically cite the objectives of:

- increasing “opportunities and incentives” (DfES, 2005);
- improving outcomes of the lowest attaining students (SEED, 2005);
- improving access to employment and job readiness (SAQA, 2005);
- second chances for people with weak scholastic records.

Opportunities for individuals to participate in education and training essentially are a provision issue. However, governments have tended to look at qualifications reform and innovation as a first step and possibly as a short cut to achieve wider participation.

There is a wide range of initiatives in and changes to qualifications in Australia and other countries aimed at boosting upper-secondary and post-compulsory education participation. Many have focussed on motivation for learning through increased flexibility and building capacity for future educational and employment success. Australia, as well as several OECD countries, has followed a trend of learner centrality in their policy documents. The initiatives include:

- the establishment of new certificates;
- changes to qualifications; and
- changes to regulations relating to participation in education.

New certificates

Two sets of initiatives in this area can be identified:

- In some countries there have been proposals to introduce **overarching senior secondary qualifications** that encompass separate and different certificates. An example of this is in Singapore, which has decided to introduce a *School Graduation Certificate* in 2008 for all students at the secondary and pre-university levels. The certificate will not replace the mainstream qualifications such as the ‘A’ Levels (Ministry of Education, 2005). It could be argued that some Australian states such as Queensland are moving towards this by allowing for greater diversity of types and locations of learning within their senior school certificates. An overarching diploma was proposed in the recent Tomlinson Report (2004) in England and Wales, but not accepted by the Government (DfES, 2005).
- The limitations of the mainstream certificates, especially in achieving equity in participation and outcomes, have induced some governments and authorities to introduce certificates that are **alternatives** to the mainstream qualifications at the upper secondary levels. Apart from Victoria, no Australian state has introduced a certificate like the VCAL (Victorian Certificate of Applied Learning), although there is some debate in some states about this option⁵.

⁵ Interviews with ACACA officials.

Beyond these 'official' initiatives there are examples from both the USA and the UK:

- The recent White Paper in England & Wales (DfES, 2005) has announced the introduction of 'specialised Diplomas at three levels'. 15 vocationally oriented diplomas are being developed and are intended to be delivered through schools, further education (FE) colleges and other education and training providers, and for both school age and mature aged students⁶.
- A group of USA of non-government organisations developing certificates to complement or supplement the high school diploma. They include a 'Work Readiness Credential' (NIFL, 2005; Education Week, 23/3/05), the expansion of the General Educational Development Certificate, and local state college preparatory initiatives (Education Week: 27/10/04; 20/4/05).
- At the other end of the spectrum there is evidence of growth of the IB (International Baccalaureate) in the UK (Times, 5/5/05) and the USA. In both cases this is related to fears that the value of the mainstream certificates (A levels and Diploma, respectively) in higher education selection may be weakening.
- The major Australian initiative is the Commonwealth Government proposal to introduce an Australian Certificate of Education. Currently different options are being investigated and they include those of a certificate: *as an alternative to the state and territory certificates; as an internationally recognised certificate like the IB; as a certificate that evolved from the state and territory certificates; or as an aptitude test* (ACER, 2005).

Upper secondary qualifications in the England and USA: two contrasting histories and agendas.

The English 'A' levels and the US High School Diploma have interesting and contrasting histories. The A (advanced) levels have been held up as the 'Gold Standard' of English education and have been based upon rigorous external assessment procedures. They have been criticised as a barrier to broader participation in senior secondary schooling. Despite many official proposals for their abolition over the past three decades, the most recent being the Tomlinson Report (2005), they have survived. Consequently innovations have been made in qualifications, alongside the A levels, that are designed to broaden access, including the recent decision to establish.

The US high school diplomas on the other hand have been criticised for their lack of standards and rigour, especially in the context of wider national testing under President Bush's 'No Child Left Behind' initiative. They are also seen as having a minimal role in higher education selection procedures. As a consequence a majority of states now have graduation tests, and college preparatory (college-prep) programs to complement the high school diplomas. Historically, requirements for high school diplomas only involved completion of set of course requirements, but a number of states and localities had exam requirements as well. In the past, these were mostly "minimum" competency requirements in basic subjects, like math and English. Now more states are implementing exit exams, which are intended to have a higher standard, but, in fact, many of the standards and passing scores have been lowered such that they resemble minimum competency tests.

⁶Presentation by Yvonne Onyeka (QCA), September, 2005.

Changes to qualifications

All **Australian states and territories** have reformed their senior secondary certificates over the past decade. Over the past year the South Australian Certificate of Education (SACE) has been reviewed by a panel appointed by the Minister for Education. At the time of writing, the report was with the Minister. Work has begun in Tasmania on a graduation certificate and in Western Australia the new Western Australian Certificate of Education (WACE) is being introduced from 2005 to 2009.

The most far-reaching recent reforms to the *senior certificates* have been those announced in October 2004 to the Queensland Certificate of Education (QCE). The reforms allow greater flexibility in learning and its recognition and include a Senior Statement that embraces a wide range of learning, including community and work based learning (QSA, 2005). Of the 20 credits that are required to gain a QCE, 12 need to be from core studies and 8 can be from the *core, preparatory, enrichment and/or advanced courses of study*.

VET in Schools (VETIS) programs now appear to be relatively stable after the period of rapid innovation in the early 2000s. Queensland somewhat ambitiously, is undertaking the “*full development of a ‘school to VET’ pathway that has parity of esteem with pathways to university*” (QSA, 2004).⁷ Tasmania is introducing VET courses into year 10 in some of the district high schools in more isolated areas in order to encourage students who are unlikely to transit to the senior colleges to stay on at school⁸.

At the **international** level many countries are continually making adjustments to their mainstream qualifications. For example:

- Switzerland has introduced a law stipulating that qualifications must guarantee equal access to people from different backgrounds⁹.
- Typically, European countries have three-year upper secondary phases and two year vocational programs have been extended to the three-year course in most countries.
- Some other systems have followed this trend, such Hong Kong that has recently announced the introduction of a three-year senior secondary certificate (Education and Manpower Bureau, 2005).
- New Zealand is continuing to implement the National Certificate of Educational Achievement. This certificate has internal levels or tiers that are designed to accommodate a diverse range of students and allow various forms of progression within the common certificate. The Higher Certificate in Scotland has a similar structure.
- A new “A Level” Curriculum is being introduced in Singapore from 2006 with an emphasis on flexibility.

⁷ This provides an example of a government agency assuming an influence over qualifications beyond its capacity. Parity of esteem cannot be established through the agency fiat. It will be vested or otherwise in the qualifications by the stakeholders – employers, students and tertiary education providers

⁸ Government secondary schools in Tasmania are divided into 28 district (7-10) high schools and 8 (11-12) senior colleges.

⁹ Zalauf, M (2003) *Faciliter la formation tout au long de la vie: le roles des systems nationaux de qualification*, Switzerland Background Report for the OECD, Geneva.

Tensions with the senior secondary certificates

With the evolution of mass senior secondary education, sets of tensions have emerged within the senior school certificates:

- the maintenance of standards and the inclusion of a broader range of students;
- academic or abstract and applied learning;
- breadth of studies and specialisation.

There are numerous examples of these tensions:

- Scotland, New Zealand and to a lesser extent Western Australia, have attempted to include forms of differentiation within their certificates by introducing levels;
- Scotland is piloting 'Skills for Work' courses that are designed for 14+ year olds that include work placements;
- For over a decade England and Wales has been trying to reconcile a common framework with the separation of academic and applied routes (a common framework has been achieved in countries like Norway and Denmark for some time);
- US states are increasingly supplementing or replacing the high school diplomas with higher standard certificates, and there is a movement away from 'technical schools' possibly prompted by the pressure for academic standards under NCLB;¹⁰ and
- Some countries allow flexibility in the length of the upper secondary phase (e.g. Denmark, Scotland).

The tension between a common award and the different achievement levels of students also has been addressed in England and Wales with the movement towards common nomenclature (A Levels and 'Vocational' A levels). However, the qualifications remain extraordinarily complex after partial implementation and government innovation from a succession of reports that have recommended more radical changes to the A Levels. The most recent example has seen the government's limited acceptance (DfES, 2005) of the Tomlinson report's (2004) recommendation for the replacement of the A Levels and the General Certificate of Secondary Education (GCSE) with an overarching diploma. The proposed Tomlinson reforms continue to be championed by sections of the education community, but governments typically have been wary of the popular charge that they are jeopardising standards.¹¹ Apart from the new diplomas, the major changes being introduced following the White Paper are:

- The introduction of 'functional core' skills of English, mathematics and ICT into the GCSE (General Certificate of Secondary Education);
- Attempts to reduce the assessment loads in the GCSE and A levels; and
- The introduction of higher education modules and an extended project into the A levels¹².

¹⁰ Olson, L (2004) 'No Child Left Behind Act Changes Weighed', Education Week, Vol. 24, Issue 4, p31-34, September 22.

¹¹ Taylor, M and White, M (2005) 'Fresh calls to scrap A-levels as pass rate set to rise again', The Guardian, August 15.

¹² Presentation by Sandra Stalker, QCA, 2005.

The high school diploma in the USA

There is considerable turbulence across the 50 states of the USA in the area of the High School Diploma. By March 2005, 27 states had exit exams, and with an earlier impact of higher failure rates a large number of states have 'alternative routes' for some students, including students with disabilities (Krentz et al, 2005). There is considerable agitation about the standard and quality of American high schools and by implication about the standards and quality of the high school diplomas (ACT, 2004). The reliance upon the SAT (Student Aptitude Tests) for college entrance also has its limitations and there is a growing prevalence of college preparation (e.g. Senior Years Plus in Virginia) and college credit programs in the high schools (ACT, 2005).

Changes to Vocational Education and Training Qualifications

In the area of Vocational Education and Training (VET) in Australia the most significant recent development has been the inclusion of Associate Degrees within the Australian Qualifications Framework (AQF). This has come about after a long debate within the VET and higher education sectors and the recent growth of degree or degree linked courses in some Australian TAFE institutes. The Associate Degrees are linked to diploma level qualifications and have some similarities with the Associate Degrees delivered in North American Community Colleges. However, Australian Governments and VET authorities do not seem to have greeted this development with any enthusiasm, although employers may have a different view. In contrast the UK Government is supporting the expansion of Foundation Degrees in England and Wales, which are located in Further Education Colleges, but accredited by universities (DfES, 2003).

Internationally the VET sector continues to be dynamic with continued changes in occupational labour markets and industrial regulations. The German VET sector with its famed 'Dual System' of apprenticeships has long been the most studied and is the most elaborate in its structure and size, but with economic and occupational changes it has been under constant pressure over the past two decades. As a consequence it is constantly being adjusted and recently measures have been taken to expand the fully provider-based courses (BMBF, 2005).

Vocational and general tracks

At the international level most countries continue to maintain bifurcated or multi-streamed general and vocational courses and qualifications. There has been a relatively long term but slow 'academic drift' at the upper secondary level and some countries have moved towards a more generalist upper secondary phase.¹³ The Anglophone countries have tended to have more generalist upper secondary systems, and in countries such as Australia, the USA, South Africa and New Zealand this has provided the context for developments in vocationalism in schools.

This distinction between tracked and generalist systems, however, hinges upon the distinction between schools and other institutions that provide for the school age cohort. In one sense Australia also has had a bifurcated system of schooling and vocational pathways, as the VET sector has always provided for the school aged cohort, including apprenticeships. In this context it is interesting to note that there has been a recent, strong growth in participation amongst 15-18 year olds in TAFE, including a growth in Victoria. Several states have recently moved to a stated or de facto position of accepting school age participation in TAFE.

¹³ Presentation by Sandra Stalker, QCA, 2005.

More recently some Asian countries have begun to introduce vocational courses into their senior secondary certificate. Examples include areas of China such as Chungqing¹⁴ and Hong Kong where Career Oriented Curriculum has been introduced into the senior secondary years (Education and Manpower Bureau, 2005). Similar initiatives in Japan in the 1990s were not very successful.

There has been a range of developments in school based vocational programs in the USA since the introduction of the Perkins ACT in 1998. Vocational education is also known as career and technical education (CTE) and has had a large role to play in recent high school reforms across the states (Hoachlander, 2005). However, there has been a distinct movement away from the vocational to the general tracks within American high schools.

Typically, the Scandinavian countries have continued to reform adult VET. Adult education has long been strongly supported in these countries. Denmark has recently announced a range of reforms including measures to increase flexibility in adult VET (National Education Authority, 2004). Finland has taken further measures to strengthen its polytechnics, which had been favourably reviewed by the OECD in 2001, and Greece has established new technical and vocational institutions.¹⁵ Spain also has introduced major qualifications reforms by combining the disparate set of qualifications for upper secondary education, for the unemployed and for adults into one set of arrangements.¹⁶

Increasing the age of compulsory participation and educational entitlements

Four Australian states (Queensland, Western Australia, Tasmania and South Australia) have recently announced or taken measures to increase the compulsory leaving age. Queensland (*Smart State*) and Tasmania (*Guaranteeing Futures*) have both introduced legislation that will require students to stay in school until the end of year 10 or until they turn 16. Young people will then be required to complete a further two years of education and training until they have gained a senior school completion certificate or a VET Certificate III or they have reached 17 years of age. In both jurisdictions, exemptions are made for those who find full-time employment. Victoria has followed these initiatives with a plan to increase compulsory participation in education, training or work until the age of 17 (DET, 2005).

These measures bring the states more in line with international practices. However, most European countries tend to have older starting ages for schooling. On the other hand they also have more universal pre-school programs than in the Australian states. In this regard the UK government has moved to follow the European trends by supporting universal pre-school education.

Another approach to participation is that of the Dusseldorf Skills Forum (2004) which has argued for the idea of a minimum education entitlement. This concept has also been considered in the context of the review of Education and Training Legislation in Victoria. This idea has not been taken up in other states, although there are some similar concepts in recent Queensland and Tasmanian (Department of Education, 2005) documents.

¹⁴ Personal correspondence CIVOTE officials (Beijing)

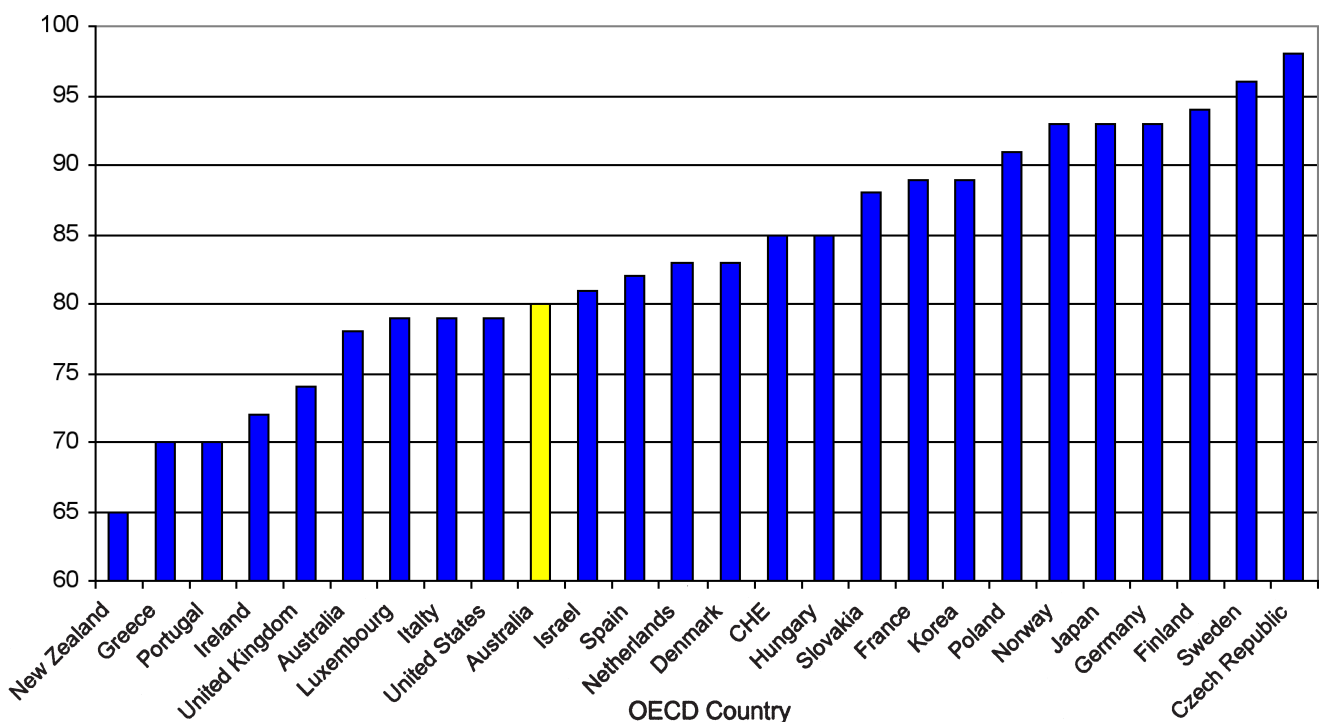
¹⁵ OECD Country Background Report (Greece).

¹⁶ OECD Country Background Report (Spain).

Implications

In relation to participation in education and training by international standards Australia has a mixed record. Levels of participation amongst the school age population remain relatively low. Figure 2 shows the levels of participation of 17 year olds in education amongst OECD countries. The Australian level is relatively low, and has not improved noticeably over a decade. This cannot be attributed to the state of the youth labour market alone. While the labour market has been strong and levels of youth unemployment have declined recently, Australia's level of teenage unemployment remains relatively high compared with equivalent OECD countries and with adult unemployment levels in Australia.

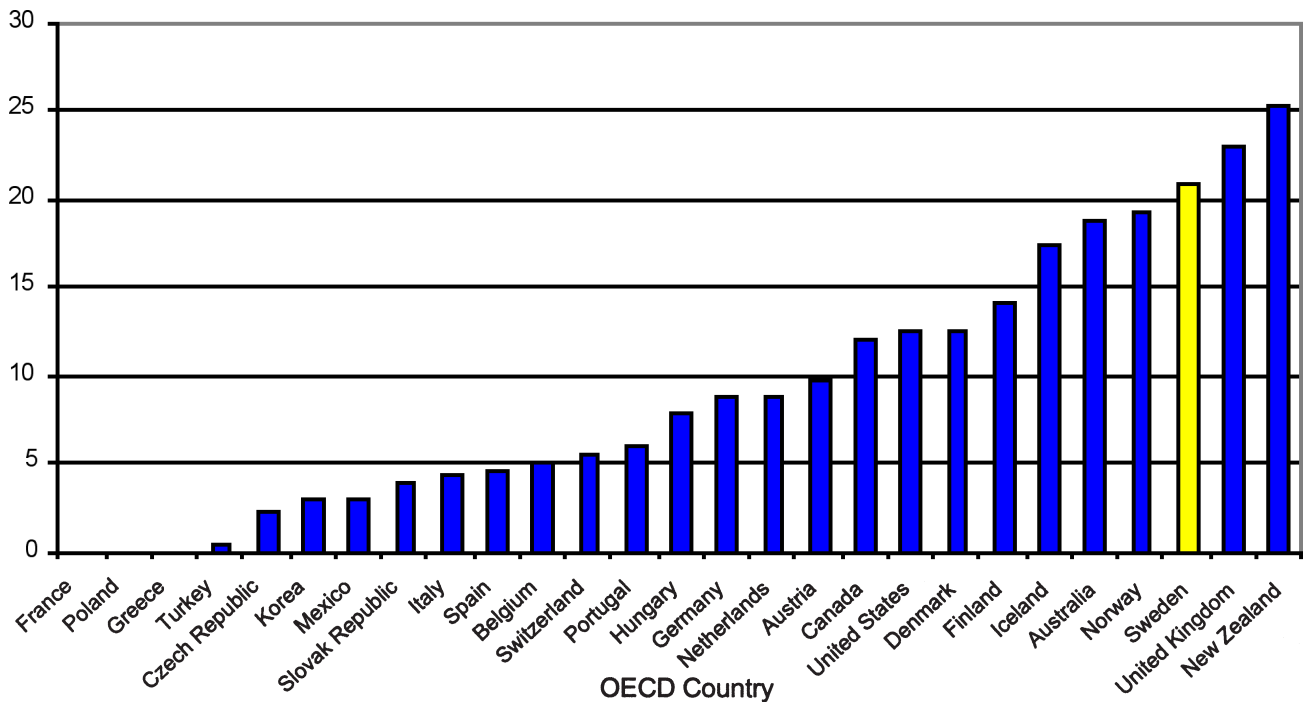
Figure 2: Levels of participation of 17 year olds in education in OECD countries



Source: Constructed by R. Sweet from OECD data

On the other hand, the levels of adult participation in education in Australia are relatively high, as shown in figure 3. Although the levels of education held by adults and adult literacy levels in Australia are relatively low. This is related to the lag caused by low levels of secondary school completion until the late 1980s and the high levels of immigrants who came to the country with low levels of formal education.

Figure 3: Persons aged 35+ as a percentage of total enrolments in education, OECD countries, 2003.



Source: Constructed by R. Sweet from OECD data.

Agenda for participation in education and training include:

- continued efforts to increase completion of year 12 or its equivalent;
- efforts to provide for young adults with low levels of education; and
- continued efforts to maintain and improve levels of adult education.

These agenda appear to have common support amongst Australian governments.

It would appear that the chief instrument that has been used in Australia for achieving the first of these is through the reform of upper secondary qualifications, which have continued apace across the states and territories for two decades. This also is the case in England and Wales, where after a rapid increase in participation rates until the late 1990s the levels have plateaued over the past seven years.

It may be that more radical *reforms are required in provision*. They might include:

- *Different provider models, such as those mooted for Moreland and Monash.*
- *Stronger vocational routes, including apprenticeships, that articulate more robustly with the general and higher education sectors.*

The second item relates, in part, to the relationships between qualifications and work. It is likely that Australian senior secondary certificates have a weak relationship with employment, as is the case in the USA. This contrasts with some European countries where these qualifications maintain a high level of currency. Governments cannot mandate trust or esteem in qualifications, either from employers or individuals. This may require consideration of **innovations in post school qualifications and provision**. They might include:

- *short cycle tertiary education provision, similar to some of the European (e.g. polytechnics in Finland and Austria; IUTs in France), and North American examples;*
- *stronger generalist elements within vocational qualifications, including those for apprenticeships.*

The strength of adult education participation in Australia is a testimony to the effectiveness of the TAFE system and the Adult and Community Education (ACE) sector. A possible weakness is the limited opportunities for adults with low levels of formal education to access the mainstream education systems, including universities. This may require consideration be given to provision and qualifications, apart from TAFE diplomas, that can **articulate with higher education qualifications**.

2. Standards and recognition

Standards

There has been a discernable policy shift across OECD and other countries towards achieving higher educational standards. The perceived contribution of education and training to the economic and social health of nations and regions has increased in the context of economic change and several prominent national leaders have nominated education as the key policy priority in recent years. The OECD first published 'Education at a Glance' in the early 1990s and since that time it has grown in size and has become the compendium for cross-country comparisons of educational performance. More recently the two OECD PISA (Programme for International Student Assessment) studies (2000, 2003) have gained a large amount of international and country policy interest and the OECD studies of adult literacy standards also have attracted widespread interest. As well the TIMSS (Trends in International Mathematics and Science Study) has also gained greater public and policy attention.

There are two concepts of standards used within education and training and qualifications systems:

- Standards in education are associated with rigour in learning and the relative performance of students, groups of students or systems against the performances of other students, groups and systems. They are not qualifying standards.
- Standards within qualifications, especially VET qualifications, are related to the knowledge and skills that are required by an individual to qualify for occupational competence or course entry.

There are tensions associated with these two ideas of standards and once again they have their source in the mixed role of qualifications as policy instruments and their traditional qualifying role. These two concepts have tended to merge within some policy objectives and other documentation. There is a case to be made for greater clarity and separation of the concepts.

Recognition

At the same time governments (and other stakeholders) have endeavoured to strengthen access to learning by broadening recognition mechanisms. The objective of lifelong learning has prompted considerable interest in the recognition of informal and non-formal learning, especially in Europe.¹⁷ Therefore, there are natural tensions within the **recognition** agenda between the objectives of access and the need for standards and quality assurance. The main issues and developments can be grouped under the following headings:

- Testing and Standards based qualifications;
- End of school assessments and university entrance;
- Recognition; and
- Value and trust in qualifications.

¹⁷ Informal learning is learning that occurs outside of formal programs of instruction. Non-formal learning occurs through planned programs, but has not been formally recognised.

Standards and testing

The Anglophone countries of the USA, the UK and Australia have implemented major national 'stages of schooling' testing programs in key skills areas, and in Australia some state governments have expanded testing programs:

- The UK has 'Key Stage' testing of all students at 4 stages (the 4th is the end of school certificate examinations);
- NCLB in the USA has compulsory testing at three stages;
- The Commonwealth Government has negotiated with the states for national testing in Australia;¹⁸ and
- Victoria, for example, has announced the extension of their testing program to year 10, complementing those at years 3, 5 and 7.

The mixture of the 'standards agenda' in these countries with 'qualifications' may not be helpful. There are some signs of the impact of the standards agenda upon school qualifications. This is especially apparent in the USA (see below) and each year the increased number of students completing the A levels in England and Wales is interpreted by some as a decline in standards. In both cases the traditional certificates (Diplomas and A-levels, respectively) are threatened by the 'standards approach', as they are exposed to perceptions of their weaknesses as sorting devices rather than signalling devices for established standards of quality of learning.

To an extent the Australia senior secondary certificates are protected by the continued use of the ENTER scores by the universities. However, in some states (e.g. Tasmania) there have been moves to complement the mainstream certificate, which is regarded as a participation certificate, with completion certificates.

PISA and TIMSS

The two sets of OECD PISA tests have been released in 2001 and 2004 respectively. Australia has performed well in both sets of tests across each of the three measures of literacy, numeracy and scientific literacy, and in problem solving in the latter set of tests. On the other hand the 2003 TIMSS results were relatively poor for Australia and for Victoria. An analysis of these two sets of results raises questions about the impact of a number of factors:

- the characteristics of the tests: TIMSS instruments are more content based and PISA tests are more generalised;
- whether the tests are age based or grade based; and
- the impact of school starting ages and the prevalence of pre-school education.

There have been some doubts about the soundness of the sampling of classes and schools that undertook the TIMSS tests. However, the PISA program has impressive quality assurance measures.

Source: OECD, 2005; TIMSS, 2005

¹⁸One interesting impact of these increased testing programs has been that the OECD PISA program has found it difficult to gain volunteer schools for its testing programs. It appears that schools in these countries have 'testing fatigue' (R. Adams, Inaugural professorial lecture, University of Melbourne, 7 October, 2005)

End of school assessments and university entrance

End of school assessments

Most Australian senior secondary certificates retain a series of externally set and administered set of examinations to establish or moderate rankings of students. These rankings are partially or in some cases wholly derived from school based assessments. These procedures have been relatively stable despite the continued implementation of changes to the certificates including the recent changes to the HSC in New South Wales and the WACE in Western Australia. There possibly are two important developments in this area:

- There has been a movement in some states (NSW, Victoria) towards some VETIS programs being incorporated within the mainstream assessment regimes for tertiary bound students.
- Two states (South Australia and Queensland) have moved towards the recognition of prior or informal learning (SSABSA, 2005).

Standards and assessment in the USA

The US Federal Government Policy of 'No Child Left Behind' requires the states to report annually on a number of measures of student performance, including high school graduation rates. The USA also has performed badly in the PISA results (but better in TIMSS) and there is a discernable climate of concern about the standards of US high school graduates and college entrants. As a consequence there are a range of graduation tests, college entrance tests, minimum college entrance standards and remedial courses. More than two thirds of American states are in the midst of a period of high school reform and students are for the first time being required to take compulsory maths, English and science courses until graduation (Achieve Inc., 2004). More broadly the VET sector in the USA appears to be in decline as high schools increasingly emphasise academic standards.¹⁹

Internationally the recent review of the A-levels in England and Wales has not resulted in any relaxation of the rigorous testing procedures, although the Government has accepted the inclusion of wider school based assessments (DfES, 2005). On the other hand there is a considerable degree of turbulence in the USA over the standards of and graduation requirements and assessment procedures for the high school diplomas. A number of states have introduced stricter graduation requirements (e.g. Illinois (Achieve Inc, 2005).

There is on-going debate in the public and the media about whether exit exams lead to an increase in high school drop out rates (Greene and Winters, 2004). Some states and districts have introduced compulsory classes for college entry and several have introduced tougher academic programs for prospective students (Education Week: 22/6/05).

¹⁹Discussions with Marc Tucker (Centre for Education and the Economy).

The International Baccalaureate

There is an increased popularity of the IB in UK high schools (Times, June 5 2005). The IB is also seen as a mechanism for distinguishing top students from students performing well in the A-levels, where there is no distinguishing between the increasing numbers of students getting A's in their A-levels, because the top mark in the IB is seen as being higher than the top mark in A-levels due to the broader scope of testing and additional demands for creative endeavour. In the USA, the Texas Governor has proposed a law that would allow the award of the IB to give a full year of college credits in universities. The number of schools across the country offering the IB has grown from 300 to 500 over the past two years and it appears that some schools are targeting 'minority' students to improve educational outcomes.²⁰

University entrance

University entrance and its relationship with end of school assessments has been one of the most contested areas of Australian education and training over the past three decades. Despite a major expansion in higher education places from the late 1980s and the implementation and subsequent increases in Higher Education Contributions (HECS), demand from school leavers has remained strong. After a period of increase from 2001, demand fell in 2005, as shown in table 1.

Table 1: Estimated unmet demand from eligible applicants for university places, 2001-2005.

	2001	2002	2003	2004	2005
New South Wales - ACT	3,300	6,600	10,000	11,400	5,700
Victoria	7,000	10,100	12,400	12,000	6,500
Queensland	4,800	5,600	9,400	8,400	4,200
South Australia	400	500	1,200	1,100	1,400
Western Australia	700	800	2,400	2,900	1,600
Tasmania	39	42	300	300	200
AUSTRALIA	16,200	23,700	35,700	36,100	19,600

Source: AVCC, 2005

UK universities appear to be following the USA trend of using separate scholastic aptitude tests for some elements of the university selection. Australian universities have not yet gone in this direction, although there are some signs of interest, as indicated in the possible uses of the proposed Australian Certificate of Education (ACER, 2005).

There have been major concerns in the USA over the quality of college entrants. (Greene and Winters, 2005). However, there is considerable diversity in the USA tertiary sector (e.g. between two year and four year degrees) and the level of preparation that is necessary for students to complete a course varies greatly across institutions.

Apart from the USA there have been concerns in other countries about the standards of students entering higher education. This was addressed in the recent white paper on higher education in the England and Wales (DfES, 2003) and reforms to the gymnasiums in Denmark are designed, amongst other things, to improve higher education completion rates.²¹

²⁰ Houston Chronicle, 'Bill offers fast track to college', June 15, 2005; Washington Post, 'Schools see IB degree as a way to boost minority achievement, August 17, 2005.

²¹ Country Background Report (OECD) - unpublished

Recognition

Most of the Anglophone countries accepted the principle of the recognition of learning outside of formal learning processes well over a decade ago. However, many European countries have only recently accepted this principle. International organisations such as the OECD (2004b), the ILO (Dyson and Keating, 2005) and the EU (Council of the European Union, 2004) have taken a strong, and to Australian audiences a rather late interest, in recognition of prior/informal learning.

Because of the institutional resistance to the principle of recognition, some countries have passed legislation that either provides a basis for recognition or which sets down principles upon which recognition approaches can be built. For example:

- The Belgium (Flemish) government approved a decree in 2004 that allowed for recognition upon the basis of work experience and allowed for universities to grant exemptions upon the basis of other learning experiences and assessments. An overarching recognition system that links employers, learners and providers is being developed in French speaking Belgium, which is moving towards outcome-based qualifications.²²
- In France, legislation underpins a *Validation des acquis de experience (VAE)*, that allows for recognition of non-formal and informal learning and workplace learning, has recently been implemented.
- The Danish Ministry of Education, presented to its Parliament a policy paper on *Recognition of Prior Learning within the Education System*, which included the concept of individual competence assessment in adult vocational training and basic adult education (Danish Ministry of Education, 2004).
- The National Qualifications Authority of Ireland (2005) has established principles and operating guidelines for RPL in further and higher education.
- The governments of New Jersey and New Hampshire in the USA have allowed students to apply out-of-school experiences towards their diplomas and to use assessments to bypass some traditional coursework.²³

Other examples of recognition are:

- Mexico has adapted the Australian competency based VET system for its labour competencies (norms) system. This is to be fully implemented in 2006 and allows for assessments outside of formal learning.
- As part of their senior school reform, Hong Kong has increased credit given to "Other Learning Experiences" (physical education, moral activities, community service etc) to a maximum of 35 per cent.

The Australian, New Zealand and UK experience of RPL and other recognition initiatives typically has been that of disappointed expectations. Barriers to RPL or recognition of informal learning include the lack of applicants and resistance from providers. Most of the examples noted above are enabling or in principle measures and it is likely that European countries will repeat the Australian experience.

At a more significant level it is possible that the relative failure of RPL is related to a failure on the part of policy makers to understand their location in communities of trust. Individuals possibly have not invested in RPL because they primarily want to achieve the learning, rather than the qualification. For employers qualifications signal both a body of knowledge and the experiences through which this knowledge was gained.

²² Country Background Report (OECD) – unpublished.

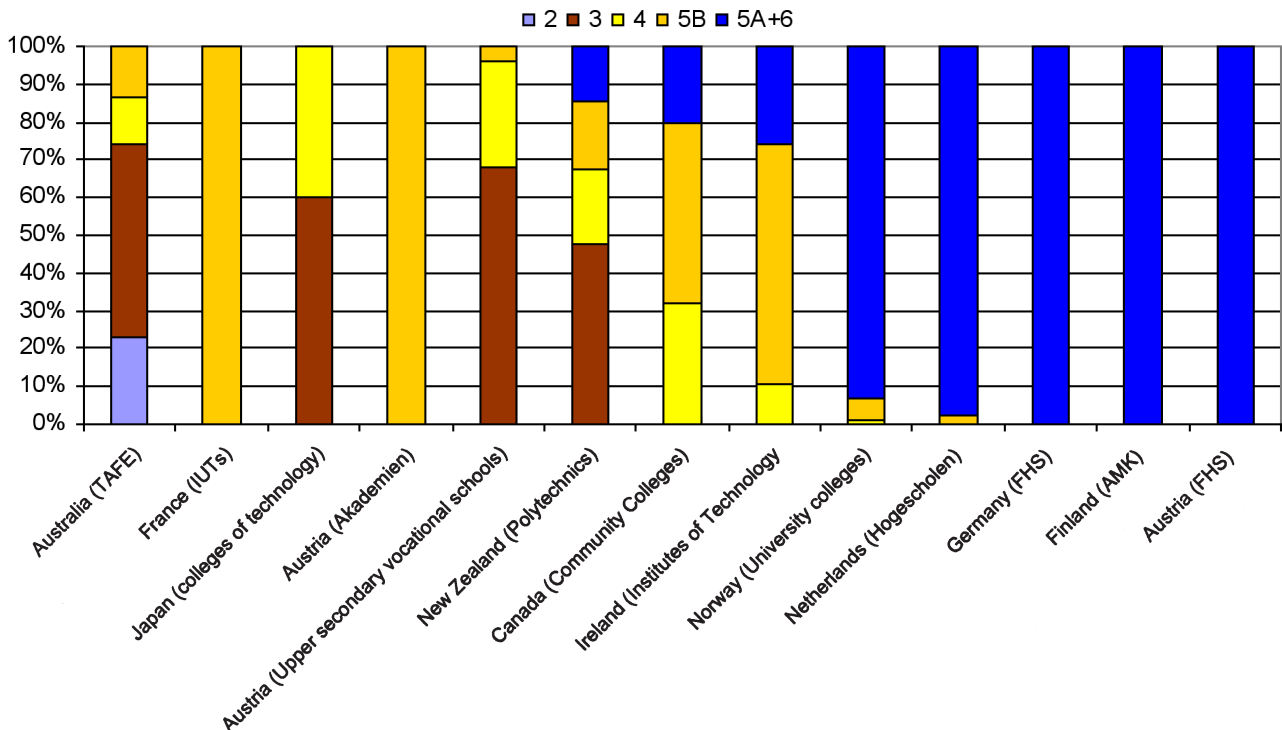
²³ Gewertz, C. (2004) 'New Jersey Expands Routes to Graduation', Education Week, Vol. 23, Issue 19, p20; Viadero, D. (2004) 'NH Board Seeks Broader High School Credit Options', Education Week, Vol. 23 Issue 2, p29.

Value of and Trust in Qualifications

In Australia there is evidence that most employers both recognise and trust most qualifications. In particular employers have shown a high level of acceptance of VET qualifications. However, the role of qualifications in most employment selection processes is not especially robust. Typically qualifications are just one factor used when employers short list and recruit workers. They frequently are used as secondary instruments for locating employees and criteria for their selection after networks and other evidence of skills and experience (Keating et al, 2005).

Internationally it appears that degree level qualifications lead to substantial and in most OECD countries increasing private rates of return (see figure 1). Rates of return for diploma level qualifications also are strong, but weaker than those for degrees. The gap between the two in Australia is relatively wide (OECD, 2004), and there is evidence that many Certificate III and IV qualifications have better rates of return than diploma level qualifications (Ryan, 2002). This is indicative of the weak role played by the TAFE sector in tertiary education. Figure 4 shows the percentage of enrolments in TAFE institutes in Australia by ISCED (International Standard Classification of Education) levels and compares them with level enrolments in non-university tertiary institutions in a selection of other OECD countries. Courses at level 5 and above can be regarded as post-school or tertiary level, and only 7 per cent of TAFE enrolments are at this level. This is lower than the percentages in any of the other countries. The poor recognition or currency of some diploma qualifications in the labour market possibly signals a residual status within the ‘tertiary sector’.

Figure 4: Enrolments by ISCED levels for non-university tertiary institutions, 2001



Source: OECD, 2004

Implications

The idiosyncratic array of Australian senior secondary certificates has remained relatively immune from recent movements towards more explicit standards in qualifications. They also have managed to prosper despite the evidence that they carry little value in the Australian labour market. The key to their survival has been the continued use of their assessment regimes for university selection and this possibly has prevented the turmoil of aptitude tests, alternative qualifications and special assessments that now characterise the final years of schooling in the USA.

However, there is a question of whether this stability can be maintained. While the IB has had only a limited impact upon upper secondary education in Australia, the Commonwealth has created a degree of uncertainty with its planned Australian Certificate of Education and its stated option of a test similar to the American Scholastic Aptitude Test. At the other end of the spectrum, developments such as VCAL show the limits of the certificate in catering for all.

The Vice Chancellor of the University of Melbourne (Davis, 2004) has predicted the inevitable break up of the unified higher education sector in Australia and the likely evolution of a variety of tertiary education providers, some of them being hybrids of universities, TAFE institutes and even schools. Under such a scenario the relationship between upper secondary education and tertiary education would change dramatically, and the upper secondary certificates would possibly lose their anchors in the form of the centralised and standardised tertiary selection systems.

Such developments may require consideration of:

- *The development of end of school qualifications in conjunction with employers that provide both tertiary and work based pathways;*
- *Provision that matches these qualifications – that is provision that incorporates learning in the workplace;*
- *How qualifications and provision can better assure minimum standards in areas that are broadly recognised by stakeholders as important for work and community life.*

3. Seamlessness and flexibility, and knowledge

Seamlessness

The objective of seamlessness has been the driver of many of the qualifications and pathways reforms across OECD countries and even more of the rhetoric of reform, over the past decade. Broadly the objective is that learners should not face unnecessary barriers in accessing courses, qualifications and pathways across education and training systems. The objective is based upon:

- the principle of greater equality of opportunity;
- the need to reduce costs in the context of rising individual investments in education and training (OECD, 2004);
- the facilitation of the mobility of labour (EU, 2004); and
- the need to provide incentives for lifelong learning.

The objective is articulated in practice through:

- credit transfer and advanced standing arrangements;
- modular course structures;
- qualifications registers, qualifications and credit frameworks; and
- moves towards regional and local qualifications.

'Seamlessness' like several other terms within the lexicon of qualifications and frameworks is a term that is sometimes used too frequently. 'Seams have a purpose'²⁴ and a qualification is likely to lose its integrity and its value amongst users if it becomes too seamless. The knowledge that is signalled by qualifications is important for the users of the qualifications. This is a further demonstration of the tension between the integrity of qualifications within their communities of trust and their use as reform instruments.

Credit transfer, advanced credit and advanced placement

Credit transfer arrangements between the three broad education and training sectors have been established since the 1980s. In recent years there has been little policy movement in Australian. VET in Schools programs have used national VET certificates for a number of years and the credit arrangements between VET and higher education awards have been in place for some time. Recently MCEETYA agreed to a set of '*good practice principles for Credit Transfer and Articulation*' from VET to higher education qualifications.²⁵ There are no reliable estimates of the amount of advanced standing granted in TAFE institutes for VETIS graduates. Data provided by the Commonwealth department indicates that 51.9 per cent of TAFE graduates received credit when they enrolled in university courses in 2001. In 2002 approximately 12 per cent of commencing students had a TAFE award as their highest qualification.²⁶

²⁴ Interview with Michael Young (15.09.05)

²⁵ MCEETYA, May 2005, online : <http://www.mceetya.edu.au/public/highered.htm>

²⁶ DEST, http://www.dest.gov.au/NR/rdonlyres/3125D1D4-6404-45E0-8898-C360AB5F6888/994/3_1.xls

Although some European countries formally permit student transfers between the higher education and the adult and vocational education sectors, the amount of traffic has been weak. With post-secondary education and training mainly built upon bifurcated schools systems and with strong apprenticeship systems in a number of the northern European countries (Germany, Denmark, Austria, Netherlands) this is not surprising. However, there is growing pressure upon these countries to allow greater articulation across the sectors. For example Ireland is implementing a Higher Education Links Scheme.²⁷

College credits in the USA

Many states and local schools have in place arrangements whereby high school students can take college courses, often at community colleges. In some cases, the community colleges teach the courses at the high schools. Students receive both college and high school credits. The College Board authorizes advance placement courses in high schools, but students only receive college credit based on their score on the end-of-course exam and the score required for college credit varies from college to college. Finally, the IB program is expanding in the U.S. All these arrangements allow high school students to earn college credit, but part of the appeal is to improve the chances on gaining acceptance at more prestigious universities. It's not clear how many of these credits are actually used to supplement college coursework.²⁸

The boundaries between secondary education and post-school²⁹ education and training in Europe are not always as clear as in Australia. Historically Europe (including Scotland) has had long first degrees (4-5 years) compared with the three-year degrees in England. This allowed some merging of elements of upper secondary and post-secondary education and countries typically had different lengths for general and vocational lines or programs in upper secondary education. The merging also is facilitated by the typical separation of junior and upper secondary schooling across Europe. For example some of the senior secondary colleges in Austria and France (lycées) deliver some elements of post secondary courses. England has been the main exception with a clear separation between school and post school education and training. However, this has changed over the past decade with the drift of students to Sixth Form Colleges and the high intakes of school age students in the Further Education (FE) colleges. There also has been a growth in the teaching of university modules in sixth form (Hall and Thomas, 2004).

European Credit Transfer System

The formal European Commission proposal on the European Credit Transfer System (ECVET) is due by the end of 2005. The aim of the ECVET is to *“facilitate the mobility of individuals during their vocational education and training”*. The design is heavily reliant on mutual trust and recognition across national borders and is based upon the accumulation of learning outcomes converted into credit points inclusive of both formal and informal acquisition of skills and competencies.

²⁷ Country Background Report (OECD) – unpublished

²⁸ Source: R. Rumberger, correspondence.

²⁹ The term ‘tertiary’ education in Europe refers to more specific types of vocational training providers, and does not have the generic meaning that is used in Australia.

Modular courses and qualifications, and credit accumulation

Modular courses and qualifications have been prominent in the VET sector for some time and are linked to the concept of vocational qualifications. However, they also have been championed by some countries, notably New Zealand, Scotland and South Africa, for their capacity to achieve greater flexibility in course design and implementation, credit transfer and credit accumulation. These countries have all used modular structures for their senior secondary certificates. New Zealand has used a 'unit standards' approach within its new National Certificate of Educational Achievement. Less ambitious moves into modular or unitised approaches have taken place in the Czech Republic and Portugal, for example (OECD, 2004c). Some of the traditional apprenticeship countries in Europe have resisted modularisation. It is seen as a possible means of narrowing and trivialising qualifications.

It is important to note that 'modules' are not the same as 'units'. Modules are seen as means of arranging sequenced elements of learning within coherent programs of learning. Units tend to be more isolated elements of learning or competence, and can run the danger of a lack of coherence and sequence.

Units

"Many countries around the world have at least an element of unitisation in their systems, although few have opted for fully unitised systems of education and training". Reasons for the reforms include:

- *rationalisation and simplification*: making the system easier to understand and use;
- *access and progression*: improving access to education and training and improving progression routes;
- *uptake*: increasing overall participation in education and training;
- *flexibility and responsiveness*: making the system more market oriented and market driven;
- *the quality of learning*: the outcomes of learning;
- *quality assurance of qualifications*: making assessments more valid;
- *recognition and mobility*: national and international recognition of qualifications to make it easier for workers to move within and between countries.

Source: Hart and Howieson, 2004

Qualifications registers and frameworks

The emergence of qualifications frameworks and qualifications authorities has been one of the most prominent features of international qualifications systems in recent years. The first set of countries to develop frameworks was Anglophone (New Zealand, Scotland, South Africa, Australia, England and Wales, and Ireland – in that order). However, several other countries have now moved towards the development of frameworks.

Typically qualifications frameworks have come from the VET sectors, where modular qualifications were first developed. Qualifications frameworks that are emerging in Europe were initially within the VET sectors (Netherlands, Portugal, Greece and Spain). However, most EU countries are now looking towards broader qualifications frameworks – mainly as a means of facilitating comparability between the qualifications of member countries.³⁰

Only three countries might be described as having ‘high forms’ of qualifications frameworks. New Zealand and South Africa have frameworks that are built largely upon common course currencies of unit standards and Scotland has a framework that embraces school, VET and higher education qualifications. The English and Welsh framework does not include any common currencies and is limited to level alignments and the AQF is based upon separate qualifications descriptors and does not include levels. The Irish framework includes 15 qualification descriptors and 10 levels.³¹ New Zealand, Scotland, Ireland and South Africa have separate qualifications authorities.

Qualifications frameworks have a variety of purposes. They include:

- the establishment of level equivalence between different qualifications;
- improved transparency of qualifications systems;
- linkages between qualifications, including credit linkages; and
- their use as a basis for funding and accountability arrangements.

A Danish framework

Denmark has established a ‘new framework for the adult vocational training programme’ – a CQAF (common quality assurance framework). This is a European concept and differs from the Anglophone frameworks in that it is less ‘outcomes based’ in its origins and formulation. It allows for single subjects (modules) and is designed to support credit transfer in adult and vocational training and to achieve greater harmonisation of qualifications, assessment and development work.³²

³⁰ Presentation by Mike Coles, QCA, 15.09.05

³¹ Country background reports (OECD) – unpublished.

³² Country Background Report (OECD) – unpublished

Typically the European developments have been less ambitious than some of the Anglophone developments and are confined to sectors or are registers of qualifications. For example:

- A register of all vocational qualifications (RNCP) is being developed in France. This is seen as a means of regulating and quality assuring qualifications as all new qualifications must be registered;
- There are “*great expectations for new qualifications frameworks, the certification of informally acquired competences and the introduction of a Credit Transfer System*” in Germany.³³ These frameworks are industry sector based (e.g. IT); and
- There are four legislative instruments working on developing and consolidating qualifications frameworks in Spain, and a national catalogue of qualifications has been developed (OECD, 2004c).

Beyond Europe there is a high degree of interest in and activity around qualifications frameworks and registries:

- Mexico has established a framework and an authority (CONOCER) that is implementing a program of competency based (norms) vocational qualifications for the country (national system of norms and qualifications of labour competencies).³⁴
- Other Latin American countries that are moving towards qualifications frameworks include Brazil, Chile and Colombia (ILO, 2005).
- Saudi Arabia is considering a proposal for the development of a national qualifications framework (Allen, 2005).
- Hong Kong has introduced an ‘accreditation and a regulatory framework’ for sub-degree and vocational courses (Leong and Wong, 2004).

The ILO and qualifications frameworks

“Members should develop a national qualifications framework to facilitate lifelong learning, assist enterprises and employment agencies to match skill demand with supply, guide individuals in their choice of training and career and facilitate the recognition of prior learning and previously acquired skills, competencies and experience.”

Source: ILO Recommendation 195, 2004

³³ Country Background Report (OECD) – unpublished

³⁴ <http://www.ilo.org/public/spanish/region/ampro/cinterfor/ifp/conocer/>

A small number of countries have gone beyond qualifications frameworks to develop types of credit frameworks or matrices. The main countries to attempt this are New Zealand, South Africa, Wales, Scotland and to a lesser extent Northern Ireland and the Irish Republic. These credit frameworks or matrices typically have a set of domain and level based descriptors that create a common language or currency for the development and linking of qualifications and parts of qualifications.

It must be said that the jury is still out on qualifications frameworks. Despite the intense developments their impact is not clear. Some national frameworks do not achieve what the rhetoric claims (Australia), have been partially dismantled (South Africa), are constantly changing and segmented (England – e.g. QCA, 2005) or very complex (Ireland). They await a proper evaluation.

Regionalisation and Internationalisation

There are two aspects of the internationalisation of qualifications. One is the growth of qualifications that are recognised internationally. The most obvious example is the International Baccalaureate, which has spread strongly across many countries, especially the Anglophone countries. There are other examples such as vocational qualifications issued by the large UK awarding bodies (e.g. City and Guilds), vendor qualifications (e.g. Cisco) and higher degrees (e.g. from Ivy League universities).

The second are measures taken by governments to achieve alignment between and recognition of qualifications across countries on a regional level. The most obvious examples are from the European union with the Bologna and Copenhagen processes, and now a proposal for a European Qualifications Framework (European Commission, 2005). The proposed framework has eight levels and three sets of learning outcomes: knowledge, skills and wider competencies (personal and professional outcomes).

European qualifications

The idea of common levels for VET qualifications was first mooted within the European Union (EU) more than a decade ago. However, countries proved to be reluctant to change their standards and qualifications and levels. Subsequently the European Parliament has adopted a stronger position of the development of a 'framework for the transparency of qualifications and competencies' (EU, 2004). The Bologna process for the alignment of higher education qualifications has been more successful – but not without its problems - and progress has been made. More recently the countries have agreed to a process for the better alignment and articulation of VET qualifications through the Copenhagen process.

The most recent development has been an agreement amongst EU countries to investigate a European Qualifications Framework (EQF). The EQF is to be an eight level framework that acts as a translation device for comparing qualifications across member countries. It is based upon learning outcomes – knowledge, skills and wider personal and professional competencies. The objective is to align the qualifications frameworks of member countries, rather than individual qualifications, against the EQF. ³⁵

³⁵ Presentation by Mike Coles, QCA, 15.09.05.

Beyond Europe there have been less forthright moves to align regional qualifications. In southern Africa, the member countries of the Southern African Development Community have released guidelines for its regional qualifications framework (SADCQF – SAQA, 2005). Covering all levels and types of education, the framework is seen as a way of developing comparability across the thirteen SADC countries and enhancing mobility of students and the labour force. Some have expressed doubt about the viability of this proposal.³⁶

Beyond these more overt initiatives there have been numerous developments across the Americas in forms of regional and sub-regional economic integration (Keating and Lamb, 2004). This has resulted in various attempts to align vocational qualifications or standards within sub-regions (e.g. Central America), regions (e.g. Latin America) and between parts of North and Latin America. Cinterfor has noted a:

*“renewed tempo in efforts towards sub-regional and regional integration. From North America, Central America, through the Andean Nations, the Caribbean down to the Southern Cone new movements are afoot to revive and consolidate sub-regional and regional integration initiatives. This has raised training to unprecedented heights in supranational interests, based on aspects such as the mobility of workers and recognition of their occupational skills in key sectors like hotels and tourism, transportation, manufacturing industries and many others.”*³⁷

Some of the Middle Eastern countries have expressed a desire to have common standards for vocational qualifications and the Asia Pacific Qualifications Network has investigated mutual recognition of qualifications (Kristoffersen, 2004).

Many of these developments might be treated with a degree of scepticism. One of the earliest regional developments – a common standards framework for European VET qualifications in the 1980s – collapsed, and progress on the Bologna agreement has been very slow.

³⁶ Michael Young, op cit.

³⁷ CINTERFOR, 2002, Inter-American Tripartite Seminar on Training, Productivity and Decent Work, Rio de Janeiro, 15-17 May: <http://www.cinterfor.org.uy/public/english/region/ampro/cinterfor/conf/2002/doc3/iv.htm>

Implications

Apart from the senior school certificates, the authority for issuing qualifications rests predominantly with education and training providers. These providers are subject to quality assurance and accountability procedures that restrict their capacities to issue the qualifications. However, these regulations and procedures have a minimal impact upon what the providers are willing to accept for the purposes of course entry and credit and the procedures for the recognition of prior or informal learning.

With growing demand for education and training and the associated costs, increased complexity and length of the transition from education to employment, governments have been concerned to minimise duplication, widen access to programs and improve educational re-entry. They have attempted to do this through changes in course and qualifications design, protocols and procedures and frameworks and matrices. The fact that these measures have been taken by government indicates the high degree of autonomy of educational institutions, especially at the tertiary levels, from government and the path dependency of these institutions. It also is this autonomy and path dependency that explains the limited success of most of these measures. In most cases the levels of realised recognition of prior or informal learning, the amount of credit gained and the wider articulation between qualifications have been less than anticipated.

The agenda of seamlessness and flexibility remain on the table for governments and qualifications bodies. Possible implications for the Australian context include:

- *The use of qualifications to create seamlessness in education and training pathways in isolation is likely to have limited impacts. Where possible they should be linked with other measures such as funding and accountability measures.*
- *The importance of coherence and sequence being built into and between qualifications, rather than depending upon the fragmentation of qualifications and frameworks to create strong and more flexible frameworks.*

4. Pathways and provision

Pathways policies are designed to facilitate the transition of young people from education to employment. Typically the strategies employed include:

- qualifications and courses designed to meet the needs of different types of students;
- guidance and mentoring support;
- the development of 'work-readiness' and entrepreneurial skills in school/education leavers;
- better employment, education and training information systems;
- combinations of education and work, including measures to encourage employers to 'take on' young people;
- regional or local responsibility for youth provision and employment; and
- strengthened employer involvement in education.

This section includes a brief overview of some of the national and international initiatives across some of these areas. It also includes a review of the patterns of transition in Victoria and Australia.

Personalised Learning in the UK

Personalised Learning was stated as a priority in the UK's five year education strategy released in 2004. The strategy has five core elements:

- assessment for learning to identify each learner's needs;
- teaching and learning strategies to engage and stretch every learner;
- curriculum entitlement and choice delivered through flexible learning pathways, among other ways;
- a student-centred approach; and
- strong partnership beyond the educational establishment.

Source: TLRP, 2005.

Guidance, mentoring, regionalisation and tracking

Following the MIPS (Managed Individual Pathways) initiative in Victoria other Australian states have moved beyond the traditional careers education and guidance to develop more intensive forms of guidance and mentoring:

- Tasmania has introduced Youth Learning Officers who work across a number of schools to give advice and mentoring support for students at risk of early leaving. It is also introducing a comprehensive program of pathways planning for all students.
- Queensland has supported trials of local initiatives to improve opportunities in the Senior Phase of Learning for all young people, with a particular focus on those young people at high risk of disengaging from learning. In 2003 it expanded its Youth Support Coordinators program to non-government schools and TAFE.
- Under its Futures Connect program South Australia has introduced transition brokers who are responsible for supporting students to develop transition plans and individual learning plans.

Guidance services

The OECD (2004) has argued that there is a need to have guidance services that are external to schools. While it is important for schools to have strong career and guidance support and programs, there is a danger that these services will be narrow in their focus and in particular will not encourage young people to take non-school pathways.³⁸

There have been similar developments in other states to the Victorian LLENs (Local Learning and Employment Networks). They include:

- Area Taskforces in Tasmania (Department of Education, 2005).
- Innovative Community Action Networks in South Australia that focus upon at risk 12 – 18 year olds. It also has established 19 Integrated Services School Clusters (DECS, 2003).
- ETRF clusters have been introduced in Queensland.

Some European countries have concentrated the management of pathways issues at the local level for some time. For example, municipal governments in Sweden are responsible for ensuring that all senior secondary students have access to a full range of upper secondary programs and Norway is able to deliver intensive case management to students at the local level. Denmark also concentrates pathways support at the local level.

Other states also have followed Victoria in tracking school leavers. Queensland piloted a tracking program in 2005 and NSW has piloted the tracking of VETIS students.

Provision

Most countries provide schooling for the majority of young people until the age of 18 or in some cases 19. While the VET sectors have provided for school age students, this provision is mostly, but not always oriented towards employment and vocational training. However, as countries have striven to achieved levels of participation in upper secondary education of over 80 per cent, the difficulties of accommodating a wider range of students within schools have grown.

These difficulties are most acute in those countries that have comprehensive secondary education provision (the UK, New Zealand and Australia). Most European countries and North America have separate upper secondary schools and colleges, while most European countries have separate general and technical and vocational schools. In England and Wales there has been a substantial enrolment shift of upper secondary age students from the comprehensive schools towards Sixth Form Colleges, University Colleges and Further Education Colleges. There has been a considerable amount of criticism over the past decade in England and Wales of the trifurcated qualifications for upper secondary age students: the academic A levels, the General National Vocational Qualifications (now called Vocational A Levels) and the National Vocational Qualifications (NVQs). A major criticism has been the lack of harmonisation between them. The same issue may confront the equivalent group of qualifications in Australia.

³⁸ Presentation by Tony Watts (OECD) September 11, 2005.

In Australia there are signs that some states are beginning to confront the issue of the limitations of comprehensive secondary schools in catering for and providing for the full range of students. Under its *Guaranteeing Futures* initiative the Tasmanian Government has adopted a position that students should be assisted to stay on in education irrespective of whether it is in schools or TAFE. Similar positions appear to be emerging in Queensland, South Australia and Western Australia.³⁹ In Victoria the Victorian Learning and Employment Skills Commission is investigating provision for school age students through TAFE and Adult and Community Education.

School leavers - patterns of transition

The destinations of Australian and Victorian school leavers are shown in table 2. It shows that more school leavers are engaged in full time study and fewer are unemployed in Victoria than the national average.

Table 2: Education and labour force participation of school leavers, 2002-2004

	Australia	Victoria
Full time study	46.0	55.5
Full time employment	23.6	20.7
Part-time employment	15.4	12.2
Unemployed	8.8	6.8
Not in labour force	6.2	4.9
Not in F/T study or F/T work	30.4	23.9

Source: ABS 6202.0

Table 3 indicates the patterns of participation of 2002 school leavers by the level of schooling. It shows that VET is the most important destination for students who leave before completing year 12 and when combined with apprenticeships and traineeships is the main destination for all school leavers.

Table 3: Destinations of school leavers, Victoria, 2002

	Year 9	Year 10	Year 11	Before Year 12	Year 12	Total
University	0	0	0	0	40.8	32.8
VET	27.6	23.6	22.2	23.6	26.8	26.2
<i>Cert IV or above</i>	-	-	-	-	19.8	-
<i>Entry level</i>	-	-	-	-	7.0	-
Apprenticeship	19.0	31.9	27.7	28.8	3.5	8.4
Traineeship	6.0	4.1	6.0	5.4	2.5	3.1
Employed	21.1	17.1	16.4	17.1	5.6	7.8
Unemployed	26.3	17.1	16.4	17.1	5.6	7.8

Source: Teese, et al, 2004.

³⁹ Interviews with state personnel.

TAFE: Provision for youth and young adults

TAFE is the largest provider of post school education and training in Australia and in Victoria. However, it also is a major provider for the school age cohort, with 15-19 year olds making up the largest group of participants amongst all age groups. VET and TAFE are the main providers for those groups of students who are most at risk in their transition from school and who have the fewest pathways options.

Table 4: Proportion of students in TAFE across Victoria, by age and gender, 2004

	Age (years)								Total
	15-19	20-24	25-29	30-39	40-49	50-59	60-64	65+	
Females	16.6	13.4	8.1	6.4	6.0	3.1	1.0	0.2	6.0
Males	24.6	20.9	12.1	9.4	7.3	4.7	1.8	0.4	9.2
Persons	20.7	17.2	10.1	7.9	6.7	3.9	1.4	0.3	7.6

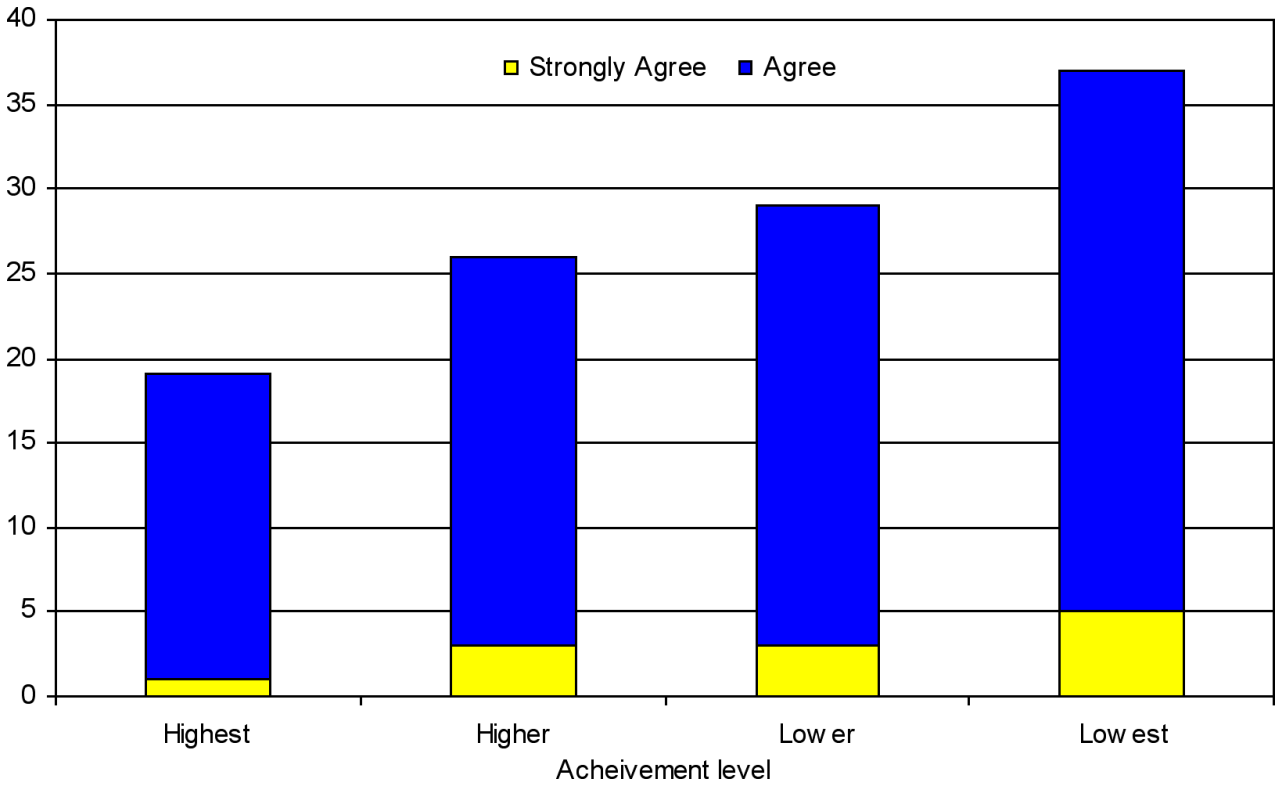
Source: University of Melbourne: data held by Centre for Post Compulsory Education and Lifelong Learning.

The strength and quality of pathways relate to information systems, student support – including income support and provision. Provision includes accessibility to courses, their quality and range and the environment for the provision. The British term ‘progression routes’ suggests that quality pathways should have the capacity for students to advance to other forms and levels of learning and types of employment.

Upper secondary education that can deliver students into university and VET studies and quality employment and work-based training do achieve this progression for most students. However, their capacity to achieve it for the more ‘at-risk’ students has been questioned through numerous studies. Given TAFE’s particular role with this group of students its effectiveness as a progression route is important.

However, several studies have shown that most students regarded TAFE as a secondary option after university studies. Data from the On Track survey shows that about a third of students from the lowest performing groups who did not apply for or commence tertiary studies had a view that TAFE is mainly for low achieving students. This image of TAFE appears to be acting as a disincentive for these students.

Figure 5: TAFE is mainly for low achievers: agreement by achievement level – non-applicants and non-commences



Source: On Track, 2005

Youth transition: Australia compared

Australia's (and Victoria's) overall performances in a range of measures relating to student transition from school against OECD averages are relative good. Figure 6 has been compiled by Richard Sweet using OECD data. The bars to the right of the horizontal axis represent outcomes that are better than the OECD average and those on the left are worse. It is only in the areas of teenage unemployment and unemployment amongst low qualified young adults that the Australian results are worse than the OECD average.

Figure 6: Comparative transition outcomes, Australia against OECD averages



Source: Constructed by R. Sweet using OECD data.

Implications

Youth transition is influenced by multiple factors in education and training, including qualifications. While Australian states have increased their investments in measures such as guidance and mentoring, and tracking and networking, the key influences upon youth transition are the behaviours of the education and training systems and the labour market, and the relationships between them.

The issue of youth transition has confronted policy makers and stakeholders for over two decades in Australia, and a number of states are now revisiting it. Of interest is that several of them appear to be moving beyond the recent innovations in mentoring, networking and tracking that were amongst the main outcomes of the Kirby report (2000) in Victoria and looking towards the more mainstream question of provision.

Upon the basis of the OECD data and the experiences of the past two decades, there is some evidence that attention should be given to:

- *non-school pathways for school age students;*
- *the role of TAFE as both a school age provider and a post school provider; and*
- *strengthening and broadening (especially for young women) the work based routes.*

Conclusion

Qualifications and pathways at the national and international levels are located in a policy context that is increasingly turbulent. The concept of qualifications has travelled in a relatively short period of time from symbolic objects within civil society, where they were sustained by and within relatively closed communities, to highly public mechanisms within the ever-increasing complex relationships between learning and work and social relations.

This journey has resulted in the evolution of sets of tensions within the demands upon qualifications. These tensions are manifest in the constant patterns of debate, innovation and adjustment to qualifications and qualifications systems that have been briefly described in this report. Four sets of tensions are suggested:

1. Standards and inclusiveness and diversity.

The tensions between these two sets of pressures are especially manifest in Anglophone countries. National governments in the USA, Australia and the UK have all exerted pressure to maintain or expand national key area testing programs and to maintain or build assessment rigour for the end of school certificates. On the other hand various reports and regional governments in all three countries have looked towards encouraging a broader range of students to participate and succeed in education. Recent activity includes:

- Some states (Qld) have taken measures to broaden the senior secondary certificates while the Commonwealth initiative may emphasise the importance of end of school standards. It also is possible that the IB may grow as an alternative and elite certificate.
- Pressures have emerged across the tertiary sector for some forms of differentiation within the sectors.

2. Senior secondary education and pathways

Secondary education has been constructed in Australia as a consolidated phase and with qualifications designed to support tertiary articulation. There are tensions over its capacity to maintain this role while also serving a large group of students for whom the established articulation mechanisms are inappropriate. Issues and options include:

- The options of a strong short cycle and non-university tertiary option;
- The pressures within the senior secondary years to accommodate a more diverse range of students;
- Broadening the senior years to a 3 year phase;
- Provision options such as senior colleges, community colleges and precincts;
- Umbrella certificates or alternative certificates;
- Tertiary studies within schools; and
- The use of these and other options as alternatives to the ENTER based university entrance systems.

3. Qualifications as organisational instruments

The growth of qualifications frameworks has been one of the most obvious innovations in education and training over the past decade. There are possibly two sets of tensions with these frameworks:

- their sectoral integration roles compared with the traditional autonomy and separation of purposes of the education sectors; and
- their place as centralising instruments compared with more localised authority for qualifications.

These tensions, especially the second are not inevitable. Internationally frameworks are diverse and it is difficult to form any judgement about their effectiveness. It is clear that the Australian model is minimalist and has very little role in cross-sectoral articulation or integration. This may be appropriate but raises questions such as:

- *Whether a more active national or regional framework that provides for systems of currency between qualifications should be developed? and*
- *Whether such a system would require a central agency, such as those in New Zealand and South Africa?*

4. Education and work

The persistence of youth unemployment and the growth in the transition period from schooling to employment makes the issue of the link between education and work unavoidable. The most successful countries in employment transition (e.g. Germany) face other consequences of their highly tracked school systems, while the countries with more open pathways tend to have unstable or fragile transition patterns for young people with weaker education and work backgrounds. In Australia there appears to be continued ambivalence over the relationship between education and work. For example, some issues include:

- the question of a broader educational base of apprenticeships and the option of allowing apprenticeships to articulate with tertiary education programs and qualifications;
- more extensive practices of work based learning within school programs;
- a more robust facilitation of part-time work and part-time education, including senior secondary education; and
- the recognition of work based learning within qualifications, including senior secondary qualifications.

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Glossary of terms

A Levels	Advanced levels
ACER	Australian Council for Educational Research
AQF	Australian Qualifications Framework
Cinterfor	Inter-American Research and Documentation Centre on Vocational Training
CTE	Career and Technical Education
DET	Department of Education and Training
DfES	Department for Education and Skills
ENTER	Equivalent National Tertiary Entrance Rank
GNVQ	General National Vocational Qualifications
HECS	Higher Education Contributions
IB	International Baccalaureate
ILO	International Labour Office
ISCED	International Standard Classification of Education
LLENs	Local Learning and Employment Networks
NCLB	No Child Left Behind
NVQ	National Vocational Qualifications
OECD	Organisation for Economic Cooperation and Development
PISA	Programme for International Student Assessment
QCA	Qualifications and Curriculum Authority
QCE	Queensland Certificate of Education
QSA	Queensland Studies Authority
SACE	South Australian Certificate of Education
SAQA	South African Qualifications Authority
SAQF	African Qualifications Framework
SAT	Student Aptitude Tests
SQA	Scottish Qualifications Authority
TAFE	Technical and Further Education
TIMSS	Trends in International Mathematics and Science Study
VCAL	Victorian Certificate of Applied Learning
VET	Vocational Education and Training
VETIS	Vocational Education and Training in Schools
WACE	Western Australian Certificate of Education