

**Emerging Developments in National
Vocational Education Systems: Singapore,
the United Kingdom, Australia and
New Zealand**

Centre for Evaluation and Innovation Research, IAL
Research Paper Series No. 1102, October 2011

GARY WILLMOTT

Visiting Research Fellow

ANNIE KARMEL

Research Officer

FIONA LOKE

Research Officer

CATHERINE RAMOS

Senior Research Officer

Copyright © 2011 Institute for Adult Learning

The Institute for Adult Learning Research Papers arise from research carried out by, or in association with, IAL, Singapore. They include edited research reports, conference presentations, working papers and reviews. Where papers have subsequently been published elsewhere details are given.

Research Papers may be copied and circulated without amendment for research purposes with due acknowledgement and citation. The views expressed in the research papers should not be taken as those of the Singapore Government or the Institute for Adult Learning, Singapore.

Published by the Institute for Adult Learning (IAL), Singapore
Research Division
1 Kay Siang Road
Tower Block Level 6
Singapore 248922

www.ial.edu.sg

For further information on the publication, please email:
researchpublications@ial.edu.sg

Please cite as: Willmott, G., Karmel, A., Loke, C., & Ramos, R. (2011). *Emerging Developments in National Vocational Education Systems: Singapore, the United Kingdom, Australia and New Zealand*. (Institute for Adult Learning Research Paper no. 1102). Retrieved Month DD, YYYY, from URL

Institute for Adult Learning, Singapore

The Institute for Adult Learning (IAL) aims to contribute to the competitiveness of Singapore by developing an effective, innovative and responsive Continuing Education and Training (CET) sector that is able to meet the needs of industries and the workforce. It achieves this by raising capabilities, catalysing innovation, and leading research in workforce learning.

Centre for Evaluation and Innovation Research, IAL

The research in this paper was conducted under the Centre for Evaluation and Innovation Research. The Centre for Evaluation and Innovation Research conducts research and evaluation to enhance understanding of the impact of CET at all levels, from the national to the individual. This centre, in particular, is concerned with the development of monitoring and evaluation processes for the measurement of outcomes, and development of the capability for effective evaluation in the CET sector. It also endeavours to stimulate fresh thinking to inform policy-making and development of practice and, through research, provide the basis for innovation.

Research Summary

As well as conducting original research, the IAL Research Centres commission and produce occasional reviews addressing specific areas of continuing education and training (CET) research and practice. This research paper presents an analysis of key developments in the vocational education systems of Singapore, the United Kingdom, Australia and New Zealand. It is based on the two reports produced for the IAL by Dr Gary Willmott, the first of which analysed systemic changes while the second focused on pedagogy, participation and development of the vocational education and training (VET) workforce.

The Singapore Workforce Skills Qualification framework has been heavily influenced by practice and policy in the UK, Australia and New Zealand. It is thus productive to look periodically at developments in these systems and consider how, firstly, these compare with each other and with the system in Singapore, and secondly, what can be learnt by Singapore from these developments.

This paper explores the various ways that the four national vocational education systems are responding to global issues and to related national policy imperatives, in particular the push for economic productivity and global competitiveness. It is notable that the four systems are all responding to similar imperatives, namely converging national agendas around skills formation and productivity, increased emphasis on quality assurance, the call for transferability and greater links with higher education, and the demand for improvement of professional trainer preparation.

The systems have, however, responded in different ways, confirming that whilst we can certainly learn from each other, practices and policies have to be appropriate to prevailing conditions, and thus cannot be uncritically ported across from one system to another.

Professor Andrew Brown
Director, Research Division
Institute for Adult Learning, Singapore

Emerging Developments in National Vocational Education Systems: Singapore, the United Kingdom, Australia and New Zealand

This research paper synthesises two reviews on the international “state of the field” of vocational and continuing education commissioned for the Institute for Adult Learning Singapore. The original purpose of these two reviews was to draw on secondary sources such as policy papers, existing literature, and relevant industry publications to identify learning points for the development of Singapore’s Continuing Education and Training (CET) sector. At a wider level these reviews also provide a valuable space for unveiling key points of interest and change in vocational education at an international level. While the original reviews provided a detailed examination of developments in the vocational education systems of Singapore, the United Kingdom, Australia and New Zealand, this paper is a condensed version and will highlight key points of wider interest. As many vocational education systems around the world are experiencing great change due to global issues, for example those relating to the growth of knowledge-based economies, such observations allow us to reflect on and gauge the international vocational education “climate”.

Before delving into the developments discussed in the original IAL reviews, this paper will provide some background on the commonalities and differences between the vocational education systems of Singapore and the UK, Australia and New Zealand to illustrate why these systems were chosen. The developments of interest will then be raised in the following section. These are grouped into four main arenas: the converging national agendas for skills formation; quality assurance, accountability and improving outcomes; the evolving systems, new methodologies and building bridges to higher education; and professional adult educator preparation and pedagogical developments.

This paper faces two limitations. First, it only focuses on just four systems, and does not take into account developments in other countries. Secondly, the discussion is limited to the areas addressed in the two IAL reviews. In drawing out comparative

observations the report seeks out the key changes and developments in similar systems facing shared global pressures. In drawing out these key developments, the report may not treat each country equally in terms of the attention given. Lastly, it should be mentioned that the term “CET” will be used to refer to both Continuing Education and Training as it is known in Singapore and “VET” (Vocational Education and Training) as it is more commonly known elsewhere.

Background

The original IAL reviews identified the vocational education systems of the United Kingdom (UK), Australia and New Zealand as relevant comparisons for Singapore due to their similarities and histories. Singapore’s WSQ system was shaped by the UK, and to a larger extent, the Anglo-Australian experience, in particular the Australian Quality Training Framework (AQTF). It is also noteworthy that New Zealand, with a broadly similar vocational education tradition, is a country with similarities in size, economic development and education profile to Singapore. It is thus appropriate that Singapore keeps an eye on the status of these three systems, the issues they are facing in skills development and adult learning and the ways in which these are being addressed. This section will firstly look at the broad similarities between all four systems before delving into some of the ways in which the Singapore system differs. It is useful to keep these in mind when we turn to the developments described in the following section. Even though the original intention of the IAL reviews was to glean learning points for Singapore, it is hoped that a wider audience will also find this paper relevant as it explores the development of four national vocational education systems from an international perspective.

The Shared Heritage of Vocational and Continuing Education in the UK, Australia, and New Zealand

The vocational education and training systems of the UK, Australia and New Zealand share common origins which date back to the apprenticeship structures and craft systems of the Middle Ages. Apprenticeship programmes for entry level training are still an important part of the systems in these countries. In each country, publicly funded and organised vocational education was formalised in the late 19th and early 20th centuries.

Beginning in the 1980s in the UK, a little later in Australia and New Zealand, the demands of increasingly complex economies, the beginnings of globalisation and wider social, labour market and economic reforms produced movements by the governments to build stronger, more coherent training systems. These were based on proper national recognition of qualifications and industry standards (as opposed to the more fragmented system being replaced which inhibited labour mobility, was inefficient and left many sectors without either training standards or pathways for skills upgrading). Important too was the growing concept of lifelong learning – that people needed to upgrade and retrain and that ‘entry level’ qualifications were no longer enough for career progression.

The concept being developed was a ‘competency-based’ system, national standards, industry frameworks (or in Australia, Training Packages) supported by a national qualifications framework and by structures to support national coordination, funding and quality assurance. An important new player in the new systems was industry – the new philosophy was of an ‘industry-led’ vocational training system. The National Vocational Qualifications system was introduced in the UK from 1986, the Australian Quality Training Framework and Australian Qualifications Framework from 1995, and the National Qualifications Framework in New Zealand from the mid 1990s. Associated with these new arrangements were expansion in all countries in training capacity – new Technical and Further Education Institutes, Further Education Colleges and Polytechnics, and the influx of large numbers of private providers (Australia has over 4,500 Registered Training Organisations, the UK, over 10,000). Also, as the systems bedded down, in Australia particularly, various forms of contestable funding models were put in place in which providers competed to secure public funds and trainees could select a trainer of choice within a ‘training market’. As part of the reforms, apprenticeships in all three countries were modernised and simplified.

But despite the advances in training standards, national recognition and consistency of training, and increased participation across many sectors and importantly, the building into the system of significant continuing, adult and workplace training, there were weaknesses. The national qualifications frameworks were not fully recognised or accepted by the higher education sectors and articulation was limited (in New Zealand universities formally opted out of the national qualifications system in 2004);

training was still heavily 'supply driven' and there was no good data on skills needs; industry engagement was fragmented and its quality variable. In the UK in the past decade the system has been destabilised by changing policy frameworks and institutional arrangements. In Australia, overlapping State and Commonwealth jurisdictions complicated vocational education and training funding and quality assurance.

Placing Singapore in this Picture

The CET system based on the Workforce Skills Qualifications (WSQ) system in Singapore shares many common features with the vocational education and training systems of the United Kingdom, Australia and New Zealand but also exhibits many differences. The similarities relate to their common foundations; they are all national systemic models of adult vocational training which are competency-based and as their core 'source codes' have developed national industry-sector based competency frameworks which span the occupations within the industry sector. All systems are thus 'industry led' and have formal national mechanisms to engage industry. Training leads to vocational qualifications based on an agreed national framework of qualifications. The systems have similar models of quality assurance and a mix of public and private providers which are to a significant degree publically funded.

But Singapore's wider educational context throws up many differences too. These differences, which need to be acknowledged in any comparative study, are listed below:

- Singapore has a clear distinction between "PET" (Pre-employment Training for youths) and "CET" (Continuing Education and Training for adults). In the UK, Australia and New Zealand, vocational education and training does not divide these learners into two separate systems.
- Differing interpretations of what is meant by 'adult and continuing education'. Unlike the UK, Australia and New Zealand, Singapore does not have a long history of non-vocational or "Adult Continuing Education" (ACE), or lifelong learning for personal enrichment.

- Singapore does not have the significant presence of vocational training in secondary schools that is seen in the other three countries.
- The UK, Australia and New Zealand developed “national” qualifications frameworks designed to relate to all three education sectors (schools, vocational training and higher education) in comparison to Singapore’s ‘CET centric’ WSQ framework.
- The three western countries also have a tradition of large public training providers, e.g, the TAFE (Technical and Further Education), Further Education Colleges and the polytechnics, as compared to Singapore’s reliance on private training providers for CET.
- The historical importance of an apprenticeship system is not seen in Singapore’s vocational training, while it has a long standing and strong presence in the UK, Australia and New Zealand.
- Lastly, compared with Singapore’s centralisation of CET under the Singapore Workforce Development Agency (WDA), the presence of multiple policy and other agencies with various roles in the vocational and continuing education enterprise is a notable feature, especially of the systems in the UK and Australia.

The UK, Australian and New Zealand vocational training and further education systems are similar to, and different from, the CET system put in place by WDA between 2003 and 2008 in Singapore. While the commonalities make them appropriate systems to compare with and learn from, the differences also need to be kept in mind as we now turn to some of the latest developments of these systems.

Developments of Interest

This section summarises the developments identified in the two original IAL reviews into four arenas. These developments illustrate the various ways that vocational education systems are reacting to shared global issues.

Converging National Agendas for Skills Formation

Australia, New Zealand, the UK, and Singapore have all produced a new mandate for their vocational education sectors that we might refer to as the ‘converging’ productivity agenda. This is a proposition that economic development and global competitiveness will, to a significant degree, be dependent on improving national, industry, and workplace productivity. This is closely linked with skills formation and workforce development, and in turn will require significant transformation of the vocational education sector. The ‘converging agenda’ is expressed in the Leitch Report (2006) and the UK Commission for Employability Skills (UKCES) *Ambition 2020 Report* (2009); the *Skills Australia (2010) Australian Workforce Futures Report*, the *NZ Skills Strategy (2008)* and the *Singapore Economic Strategies Report (2010)*. These reports stress the need for productivity driven growth, in much the same way as Singapore’s *Economic Strategies Committee Report (2010)* and the follow-up work of the Productivity and CET Council.

The strategies to achieve this goal are, however, varied. Singapore places emphasis on Professional, Manager and Executive (PME) development and ‘T’ shaped (broad and deep) skills. The UK also focuses on managing skills shortages, and like Australia, better use and application of skills in the workplace and better employer engagement. For example, the six priorities of the *Australian Workforce Futures (2010, p. 1-7)* report are:

- Sustain economic growth and raise productivity by increasing skills and avoiding future skills shortages;
- Lift the workforce participation rate to 69% by 2025 to provide the required workforce and improve social cohesion;
- Lift the unacceptably low level of adult language, literacy and numeracy to enable effective educational, labour market and social participation;
- Increase productivity, employee engagement and satisfaction by making better use of skills in the workplace;
- Position the tertiary sector to ensure it has the capacity to deliver skills for the new economy; and

- Lead a new partnership approach to workforce development at the government, industry and enterprise level.

Ambition 2020 in the UK sees the issue not simply in skills generation and participation in the labour market but also, as its title suggests, by generating greater ambition and aspirations in workers and employers to use and apply skills. This entails greater agility in the skills and labour market to respond to skills needs and shortages, especially regionally, reflecting the UK disparity in employment, education and productivity between for example, London and northern England and Wales. Its priorities stress “effective economic development in cities and local communities...more agile and responsive skills and employment provision...maximising the motivation and aspiration of people...building employer ambition” (2009, p. 14).

New Zealand’s 2008 Skills Strategy Action Plan focuses on four priorities (i) improve management and leadership capability in organisations to develop and use skills, (ii) increase the literacy, language and numeracy skills of the workforce (iii) create a better match between workers’ skills and industry and regional needs and (iv) increase the skills of young people in the workforce (2008, p. 13). New Zealand also stresses the importance of coordination, information services and government working more closely with industry.

While Singapore has stressed leadership and business development skills and the so-called cross-cutting generic skills with a particular brief for CET to engage with the needs of the PME segment, these strategies have a somewhat different focus.

First in the UK and Australia there is a stronger skills forecasting and research emphasis, backed up by the enhanced capability of new skills-focused research and advisory bodies, so that skills shortages are avoided and skills needs anticipated, with an extra focus on regional disparities, (regional disparities in economic development are issues in all three countries which are not shared with Singapore). Matching skills formation through the vocational education sector with future skills needs and complementing this with improved skills utilisation are key strategies for growth.

Secondly, the strategies in all three western countries recognise the importance of improving employer awareness and engagement if the goals of more effective skills utilisation and encouraging skills upgrading in the workplace are to be achieved. On other aspects there are commonalities with Singapore's approach, including building up literacy and numeracy, leadership development and building training capacity. Australia and Singapore also recognise the importance of raising the employment rate, especially among older workers. Overall, these reports have much in common:

- Medium to long-term skills projections for post Great Financial Crisis growth and structural reform
- Proposals to increase the employment rate (generally from around 65 - 70%)
- A focus on skills training for productivity improvement and related targets
- An increased focus on high-order generic skills and 'high performance work'
- Improved skills application, efficacy (the right skills in the right place)
- Greater enterprise engagement with the training sector
- Improved 'connectivity' and articulation' of vocational and higher education, and,
- Contrasting with this 'high skills' agenda, all note the challenges of low levels of literacy and increasing inequity in income distribution.

In all the countries studied, including Singapore, the vocational and continuing education and training sector has been implicitly, and in Australia explicitly, required to respond to these issues. The purpose of this was, for example, to develop training strategies for high productivity growth, and also to be more effective in attracting marginalised workers and generating social and economic mobility through skills training.

The participation data (Australian Bureau of Statistics, 2010; Coolbear, 2010; Department for Education, 2011; Mahoney, 2009; WDA Singapore Workforce Development Agency, 2010) shows that the vocational education sectors in the UK, Australia and New Zealand have a much more complex mix of people compared to Singapore's WSQ system. While serving to provide skills training for employment

and industry and development, they also perform an important social function, often working closely with welfare and community service agencies, correctional services, departments of immigration and ethnic or indigenous affairs.

As a result of these “new” issues being directed to vocational training, vocational education sectors now have what Skills Australia calls “a new mandate”. No longer is it just about training people for jobs, but vocational education is expected to also address, or at least contribute to, the resolution of the bigger national agenda. There are, however, important questions yet to be resolved that require policy improvement and research if this response is to be effective. They include:

- (i) What kinds of training and workforce development will most effectively impact productivity improvement, and in which sectors?
- (ii) What are the ‘high order’ generic skills and how are they most effectively developed?
- (iii) How are improved employer engagement and better skills transfer and application achieved?
- (iv) How can skills upgrading most effectively produce social and economic mobility, and can skills improvement alone lower income disparity?

These are issues on which, in all countries, there needs to be a better understanding, as well as better data and research, before the vocational and continuing education sectors can intelligently and effectively address these challenges.

The Challenges of Quality Assurance, Accountability and Improving Outcomes

Quality assurance, achieving better outcomes from training, and improved evaluation have become serious concerns for the vocational education sector. Quality assurance in all vocational and continuing education sectors has focused to a large extent on input measures – regulation of trainer standards, approval of training providers, and in some cases course accreditation. Currently in both Australia and the UK changes are occurring in relation to quality assurance and regulation with an increasing emphasis turning to outcomes and accountability measures rather than regulating inputs. The new government policy in the UK proposes a ‘transparency

agenda' which will be delivered through open public data on performance and spending. Four quality assurance measures include placement in employment and further study, international comparisons on outcomes with other OECD countries, funding per student and administration as a proportion of total cost of further education. Other high level indicators are increased productivity, skills formation, increased use of qualifications by employers, reduced skills deficiencies and measures of social mobility.

In Australia a concern with the quality of training and performance of providers, particularly the quality and skills of trainers, has resulted in a series of recommendations in the Skills Australia "Roadmap" report (2011) which include independent sampling and moderation of training outcomes, higher standards for Cert IV providers and publication of performance data on providers on the My Skills Website. Also in Australia, the Australian Skills Quality Authority will establish national standards across the country.

Figure 2 Aspiring to Excellence: A Package of Reforms for the Sector

| QUALITY PILLARS | | |
|---|--|---|
| Robust regulatory systems | A highly skilled VET workforce | Excellence in teaching, learning and assessment |
| KEY REFORM RECOMMENDATIONS | | |
| <ul style="list-style-type: none"> A well-resourced and effective regulatory framework | <ul style="list-style-type: none"> A strengthened Certificate IV in Training and Assessment (TAE) High-quality delivery of the TAE A Vocational Education and Training workforce funding package and strategy | <ul style="list-style-type: none"> Mandatory external validation of assessment New criteria for Registered Training Organisations to be eligible as entitlement place providers |

(Source: Skills Australia, 2011, p.81)

In New Zealand quality assurance of further education, including the registration, monitoring and auditing of non-university educational institutions, private training

providers and learning establishments, which offer approved courses and award credit for NZQA qualifications, falls under the jurisdiction of the New Zealand Qualifications Authority (NZQA). The NZQA also accredits Industry Training Organisations (ITOs) to register workplace assessors. The NZQA has delegated authority for approval and accreditation of Institutes of Technology and Polytechnic courses up to degree level to their own Institutes of Technology and Polytechnic Quality agency. The Universities provide quality assurance for university qualifications in New Zealand but the criteria applied in the universities and by the NZQA are the same. While, in New Zealand, trainer credentials are not regulated, the oversight of the Industry Training Organisations (ITOs) is strong and they have the power to remove providers who are unsatisfactory. Part of the reform of Australian Quality Assurance arrangements will be to strengthen the powers of the regulator to remove training providers who do not adhere to quality standards from the system.

It is thus noteworthy that the Australian Skills Quality Authority (ASQA) and NZQA are looking at commonalities and consistency in quality assurance between Australia and New Zealand with the potential to produce a regional alignment of quality standards and broadly similar regulatory processes in vocational education and training.

While the approval of providers by a central agency is a feature of QA which Singapore has in common with the UK, Australia and New Zealand, most of the other components vary significantly across the four systems. Only Singapore has institutionalised course accreditation as a core platform of quality assurance across the whole of the WSQ system. Unlike the other systems, Singapore has also centralised the management of certification. In the UK there are multiple certifying authorities and in Australia individual institutions issue certification. The UK has post approval auditing of providers but in Australia auditing and site visits only take place at the point of provider registration and re registration.

The main difference for Singapore is the centralisation and clustering, in one Statutory Board, of all the key policy and administrative functions supporting Continuing Education and Training (CET). The main underpinnings of quality assurance are (a) the training provider approval process, (b) course accreditation, (c)

a train-the-trainer qualification (but currently without formal regulation of trainers) (d) the Continuous Improvement Review (CIR) training provider auditing system, and (e) central management and documentation of the credentialing and certification process including the issuance of qualifications and Statements of Attainment. As the funding agency WDA has also exercised a powerful lever to ensure that training organisations comply with quality assurance requirements. Most recently WDA has set up its own research and development arm within the Institute for Adult Learning (IAL), with a key focus on programme evaluation. In none of the systems being studied is there a similar level of functional coordination.

So while all systems have a framework for quality assurance of the multiple private training providers, in general the large public providers like further education colleges in the UK and TAFE Institutes in Australia have their own internal QA processes. WDA has, at the moment, the most comprehensive *quality assurance* arrangements but in comparison with other systems a lighter mandated regulatory *framework*, particularly in terms of requirements for trainer qualifications.

The expectations of vocational and continuing education systems in responding to the larger national economic and social agendas, and workforce productivity strategies, are increasing. This has seen increased interest from governments and regulators about quality generally and more importantly about establishment of outcome measures, which can be used to judge performance of the whole system and of individual providers.

Evolving Systems, New Methodologies and Building Bridges to Higher Education

The UK, Australia, New Zealand, and more recently Singapore's CET system all share the same foundational 'source code', national competency-based training systems linked to national qualifications endorsed by industry and supported by a 'vocational model' of quality assurance. But there is a real sense that the larger "western" systems are changing and evolving to embrace a more broadly based platform of vocational learning methodologies requiring a more versatile trainer – or adult educator – who is able to employ a range of learning models, not just competency based training and assessment.

With the broadening of the client base of CET in Singapore, especially the increasing numbers of Professionals, Managers, and Executive learners (in all systems) there are calls from governments and regulatory bodies for closer links and articulation between vocational and continuing education and higher education. There are several reasons for this. First, in the UK it is recognised (as it is in Australia and New Zealand) that the challenge of skills formation and utilisation cannot be achieved by a fragmented education and training system. UKCES (2010) notes *“the greatest expansion in jobs has been and is forecast to be in high skill areas, given that over three quarters of the 2020 workforce is already of working age it is crucial we support the current stock of individuals in work to gain higher skill levels”* (p. 4). Many of these people have vocational qualifications, for them to access higher level skills there must be accessible pathways for them into higher education.

Secondly, targets for degree level education (particularly in Australia, where the Bradley report set a target of 40% of all 24-35 year olds having a degree by 2020 – now extended by the Australian government to 2025) cannot be achieved without widening the path between vocational training and universities. Thirdly, governments are recognising the wasted and inefficient use of public resources where skills pathways are truncated, Sectoral boundaries have led to programmes unnecessary duplication of programmes and failure to recognise people’s prior learning, both formal and informal. Furthermore aspirations for social mobility, career progression and lifelong learning are frustrated by truncated further and higher education systems.

Even with significant pathways between TAFE and higher education (see Figure 3) institutional cross recognition in Australia remains patchy and is often ad hoc. At the institutional level there are numerous examples of multi-sector institutions such as the Coffs Harbour Education Campus in NSW (school, TAFE and Southern Cross University), RMIT and Swinburne universities and some states, notably Victoria, that have developed regional partnership models. The University of Canberra has proposed an ‘omniversity’ incorporating a polytechnic. However, even some of the composite institutions, which have TAFE and higher education components, may retain barriers preventing the development of internal pathways between the sectors. It is clear that more needs to be done than creating cross-sectoral institutions if articulation is to be significantly improved.

Figure 3 Australian Qualifications Framework

| Schools Sector Accreditation | Vocational Education and Training Sector Accreditation | Higher Education Sector Accreditation |
|---|--|---------------------------------------|
| | | Doctoral Degree |
| | | Masters Degree |
| | Vocational Graduate Diploma | Graduate Diploma |
| | Vocational Graduate Certificate | Graduate Certificate |
| | | Bachelor Degree |
| | Advanced Diploma | Associate Degree, Advanced Diploma |
| | Diploma | Diploma |
| Senior Secondary Certificate of Education | Certificate IV | |
| | Certificate III | |
| | Certificate II | |
| | Certificate I | |

(Adapted from: Australian Qualifications Framework Council, 2011)

The barriers between successful vocational education and higher education integration in all of these systems stems back to their evolution. They all began with staunchly competency-based approaches to training, tightly controlled by various forms of quality assurance, inspection and auditing. This in itself was controversial at the time and led to major critiques of competency-based vocational training. The critique by Alison Wolf (*Does Education Matter* (2002)) of the NVQ system in the UK,

the 2002-3 High Level Review of Training Packages in Australia, and the withdrawal of the New Zealand universities from the NQF in 2004 were expressing a similar concern – that Competency Based Training was an overly rigid and constraining educational model that imposed a bureaucratic, rather than learning oriented, model of assessment.

Whether these critiques were warranted is a matter for debate but the result was that the systems changed. For example in Australia, training packages became more flexible, more graded assessment was used and in New Zealand a new model of credits was introduced to replace the former competency-based criteria for levels of study. In the UK the relationship of the NVQ to the NQF was changed. During the last five years the vocational education systems have continued to evolve with the expansion of professional level courses under the VET umbrella and with more partnerships between universities and further education.

The methodologies have evolved in concert with these changes away from competency based training models to graded assessment and inclusion of vocational skills components in higher education courses. In TAFE in Australia and the Further Education sector in the UK the boundaries are blurring between vocational education and higher education. This has called for a ‘new VET practitioner’ in Australia (Skills Australia, 2011, p.92) *“who can customise to suit enterprises and personalise learning... who can let go of old certainties...these attributes represent a new hybrid mix of educational and business thinking”* .

In the UK UKCES (2010) has called for greater opening up of pathways between further education and universities and the Bradley Review (2008) in Australia has proposed greater connectivity and eventually a single national regulatory body for both sectors. In all systems, including Singapore’s, the increasing numbers of PMEs entering CET are causing the systems to go beyond Competency Based Training and Competency Based Assessment to embrace other models of skills development and improved work performance.

Professional Adult Educator Preparation and Pedagogical Developments

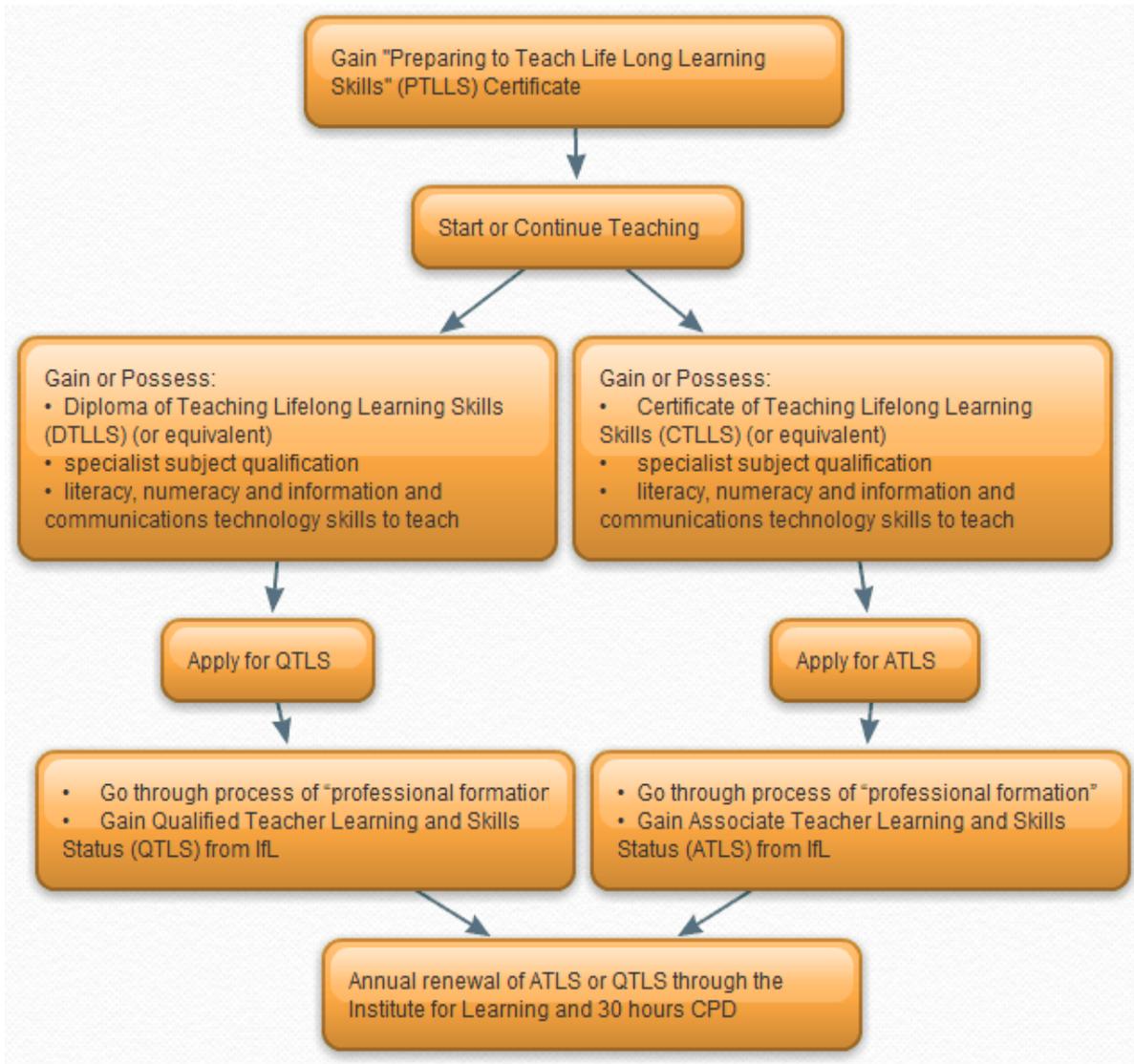
From the commencement of development work on Singapore’s WSQ system in 2003 the issue of trainer professionalism and trainer standards was of concern and still

remains a policy priority. In 2003 WDA inherited a disparate CET sector with a diverse community of trainers, the substantial majority of whom did not have a training qualification. The sector was (and remains) one largely populated by freelance trainers rather than full-time training staff attached to one institution. The numbers vary depending on who is counted and have been estimated at between 3000 and 5000 people who have, to date, delivered WSQ training. In 2003 there were no minimum trainer standards for the sector. This disparate state was a central factor in the establishment of IAL in 2008 and the recent introduction by the IAL of a Diploma in Adult and Continuing Education (DACE) in 2010. The currency of the issue has been reinforced by the recent introduction of mandatory requirements for trainers to gain the Advanced Certificate in Training and Assessment (ACTA), to be phased in over the next three years. This certificate is largely based on the Australian Cert IV (Training and Assessment)¹. In comparison, the UK (England) and Australia have a longer history of mandated minimum qualifications, while New Zealand has not implemented this requirement for vocational education teachers/trainers.

The sharpest differentiation in current adult educator/trainer requirements is found in the UK, where an initial qualification is no longer sufficient, and conferred professional status is required of adult educators in publicly funded institutions. This status is awarded by the Institute for Learning (IfL), an independent body, which does not conduct courses, but supports the professionalisation of further education teachers. Therefore, the individual, external training providers and places of work are responsible for gaining/providing the relevant qualifications, experience and referrals, while the IfL focuses on whether these attainments warrant the award of professional Associate or Qualified Teacher Status. In order to keep their professional status Further Education teachers must participate in Continual Professional Development and renew their membership with IfL annually. Such a movement away from mandating very minimal qualifications may encourage greater professional development and higher quality practice. Figure 4 illustrates the process of gaining professional status in England.

¹ The Cert IV (TAA) was replaced by the Cert IV (TAE) in 2010 (DEEWR, 2010).

Figure 4 Gaining Professional FE Teacher Status (England)



(Source: adapted from Lifelong Learning UK, 2011b)

As professional qualifications for adult educators, or trainers, have changed, so have some of the pedagogical approaches that are being used in vocational education courses. In some cases this is evidenced in the core and elective modules of trainer qualifications that, for example, draw attention to recent developments and innovations in workplace learning and e-learning. In Singapore, CET, and more specifically WSQ, pedagogy is heavily classroom-based and shaped to a considerable degree by the interpretation of competency-based training in the WSQ system, and by the way trainers have been trained in the Advanced Certificate in Training and Assessment course. Thus, the doctrine of 'competency' has adhered strongly to the classic Anglo-European concept of expertise in a Taylorist, predictive

task sense. In the UK and in Australia's apprenticeship system the doctrine of authentic work performance is stronger. It is also the case that more generally in Singapore's post-secondary (PET) education system, classroom and institutional teaching is the dominant mode. Singapore does not have the strong tradition of on-the-job and workplace training evident in the UK and Australia. Singapore has, however, begun to question the universal application of competency-based training and assessment which is at the heart of the WSQ system.

Two areas that are far stronger in the overseas vocational education systems than in Singapore are workplace learning and e-learning based systems. This is largely in response to meeting client and learner needs in a changing global environment and keeping all parties engaged in their effort to learn. Many training courses in the UK, Australia, and New Zealand have merged their content with the workplace and/or have an electronic or online aspect. This is done to optimise the flexibility and access of training courses, which can easily be slotted into (or around) work requirements. Some examples of technology and e-learning being used (often in blended forms with workplace learning) include mobile or online assessments, use of Point of View Glasses, Virtual Classrooms, Toolboxes/Toolkits, and virtual learning environments such as Moodle. Many of these technologies reduce the time needed to gain and recognise a competence, or provide flexibility for accessing and completing a course. Such innovations are being encouraged by governments through funding initiatives, like the Australian Flexible Learning Framework. Developments in workplace and e-learning are widely documented, see for example: Davis & Fletcher, 2010; Figgis, 2009; Hillier, 2009; Lemanski, Mewis, & Overton, 2011; Skills Australia, 2011; Walsh, Lemon, Black, Mangan, & Collin, 2011. The experience of on-line/flexible and workplace learning methodologies in vocational education in the UK, Australia and New Zealand may inform and assist Singapore's WSQ system in diversifying approaches used to go beyond the currently dominant mode of classroom based instruction.

Conclusion

Whilst the four vocational education systems addressed in this paper face similar challenges, it has been shown that there are some differences in the way they have responded. All four systems are being affected by (i) converging national agendas,

(ii) increased emphasis on quality assurance, (iii) the call for transferability and greater links with higher education and (iv) the demand for improvement of professional trainer preparation, including the development of new pedagogies. These demands are driven by wider global concerns that are calling for increased national, industry and workplace productivity to support future economic development and global competitiveness. The original intention of exploring and acknowledging these developments was to identify learning points for Singapore, which has drawn on the UK, Australian and New Zealand systems in formulating its own Workforce Skills Qualification Framework. It is hoped, however, that a wider audience will find this overview relevant as it demonstrates the differing ways that four national vocational education systems have responded to shared global pressures.

References

- Australian Bureau of Statistics. (2010). *Australian Year Book 2009-2010*. Canberra: Australian Bureau of Statistics.
- Australian Qualifications Framework Council. (2011). Australian Qualifications Framework. South Australia: Australian Qualifications Framework Council. Retrieved from http://www.aqf.edu.au/Portals/0/Documents/Handbook/AustQualsFrmwrkFirstEditionJuly2011_FINAL.pdf
- Bradley, D., Noonan, P., Nugent, H., & Scales, B. (2008). *Review of Australian higher education: Final report*. Canberra: Australian Government.
- Coolbear, P. (2010). The Emerging Context of Further and Higher Education in New Zealand: Issues, Challenges and Responses. *Institute for Adult Learning Symposium 2010*. Singapore: Unpublished.
- Davis, N., & Fletcher, J. (2010). *E-Learning for Adult Literacy, Language and Numeracy: Summary of Findings*. Wellington: Education Counts.
- Department for Education. (2011). *Education and Training Statistics for the United Kingdom: 2010*. London: Crown.
- Department of Education Employment and Workplace Relations. (2010). *Transition Guide TAE40110*. Canberra: Department of Education, Employment and Workplace Relations.
- Economic Strategies Committee. (2010). *Singapore Economic Strategies Report*. Singapore: Ministry of Trade and Industry.
- Figgis, J. (2009). *Regenerating the Australian landscape of professional VET practice*. Adelaide: National Centre for Vocational Education Research.
- Hillier, Y. (2009). *Innovation in teaching and learning in vocational education and training : International perspectives*. Adelaide: National Centre for Vocational Education Research.
- Leitch Review of Skills. (2006). *Prosperity for all in the Global Economy - World Class Skills*. London: UK Treasury.
- Lemanski, T., Mewis, R., & Overton, T. (2011). An Introduction to Work-Based Learning A Physical Sciences Practice Guide. *UK Physical Sciences Centre*. Hull. Retrieved from http://www.heacademy.ac.uk/assets/ps/documents/practice_guides/practice_guides/work_based_learning.pdf

- Lifelong Learning UK. (2011). *A guide to using the new overarching Professional Standards. For Teachers, Tutors and Trainers in the Further Education Sector in England*. London: Lifelong Learning UK.
- Mahoney, P. (2009). *Training Opportunities: Statistical Profile 1999-2007*. Wellington: Ministry of Education New Zealand.
- New Zealand Government. (2008). New Zealand Skills Strategy Action Plan 2008. *Skills Strategy*. Retrieved March 9, 2011, from <http://www.skillsstrategy.govt.nz/assets/Uploads/NZ-Skills-Strategy-Action-Plan-2008.pdf> on 09 March 2011
- Skills Australia. (2010). Australian Workforce Futures. Canberra. Retrieved from http://www.skillsaustralia.gov.au/PDFs_RTfS/WWF_strategy.pdf
- Skills Australia. (2011). *Skills Australia Skills for prosperity a roadmap for vocational* (pp. 1-176). Canberra.
- UK Commission on Employment and Skills (UKCES). (2009). *Ambition 2020: World Class Skills and Jobs for the UK*. London: UKCES.
- UK Commission on Employment and Skills (UKCES). (2010). *2010 Review: The Integration of Employment and Skills*. London: UKCES.
- WDA Singapore Workforce Development Agency. (2010). *Skills Connect*. Singapore: Singapore Workforce Development Agency.
- Walsh, L., Lemon, B., Black, R., Mangan, C., & Collin, P. (2011). *The Role of Technology in Engaging Disengaged Youth: Final Report*. Melbourne: The Foundation of Young Australians.
- Wolf, A. (2002). *Does Education Matter? Myths About Education and Economic Growth*. London: Penguin Group.