



HIGHER EDUCATION REVIEW - NEED FOR VET INTEGRATION AND BUSINESS FOCUS

On 13 March 2008, the Deputy Prime Minister, Hon Julia Gillard MP, announced a Review of Australian Higher Education to examine the future direction of the higher education sector, its ability to meet the needs of the Australian community and economy, and the options for ongoing reform.

Over 300 submissions were made in response to a June discussion paper and the Review Panel is due to report by the end of the year.

The Australian Chamber of Commerce and Industry was one of the organisations to make a submission.

ACCI recognises the value that higher education brings to the nation's economy through building a highly skilled and technically competent workforce and ensuring the sustainable supply of skilled labour to Australian industry.

Higher education has an important but not exclusive role to play in economic development.

Unless the higher education sector responds to the needs of its customers and improves its performance, the economic and social benefits that flow from a highly skilled and adaptable workforce will not be fully realised.

Adaptability, flexibility and creativity are the keys to being innovative and hence competitive in a challenging and uncertain environment, and they require the capacity for businesses to substantially change traditional patterns of production and work, skill uses and organisational systems.

HIGHER EDUCATION AND THE COAG AGENDA

ACCI believes that higher education in Australia needs to be part of the broader COAG productivity agenda. Higher education plays a significant role in developing the cognitive and technical skills needed in the Australian economy and the incorporation of the higher education sector into the COAG Productivity Agenda would enable a more streamlined approach to addressing skills shortages in critical industries.

There would also be considerable benefit from the reduction of duplication and the streamlining of funding across the post-secondary sectors. The current post secondary environment sees considerable flow of students between the sectors.

Including the higher education sector in the COAG Productivity Agenda would serve to strengthen links within the post compulsory sector and develop stronger pathways that allow transitions between universities and the VET sector.

Inclusion on the COAG agenda will provide a more holistic understanding of all skills that contribute to productivity growth, not just vocational skills.

LINKS WITH THE BUSINESS COMMUNITY

There is a strong need to improve links between the university sector and the business community.

ACCI acknowledges that universities play a strong role in the fostering of a broader education and the development of strong cognitive and meta-cognitive processes for students. ACCI sees that there is great value in having a highly skilled professional workforce with well developed problem solving skills and a capacity for broader application of knowledge.

However, current models of university governance and curriculum development processes are not conducive to industry input. Industry finds it difficult to enter into a strategic dialogue about current and future skill needs, because there is no formal mechanism for it to engage with

the university sector as a whole. The UK Lambert Review of Business-University Collaboration¹ has recognised that lack of sector-wide engagement between universities and industry is a major barrier towards affecting demand-driven change in the higher education sector.

Businesses that have links with universities for course development do so on an individual basis, and although these links are often effective, they are often limited to larger companies and cover particular business needs.

There needs to be more formal structures in place to ensure that students are able to build industry-relevant skills. This should include access to structured places in industry, including international exposure where relevant, as part of the learning undertaken in a course of studies. There should also be further investigation of course design processes to enable these relationships to be established, nurtured or expanded depending on the current level of involvement.

SKILLS PLANNING

The *SAI Global - ACCI Survey of Investor Confidence* shows that there is a significant concern amongst business about the availability of suitably qualified employees² Education reform is central to addressing this concern.

Education by itself does not directly raise living standards. Gains come through the application of skills and knowledge learned. Therefore it is important that reforms to the supply of education are combined with reforms aimed at improving the integration of education into the workforce.

Australia's ability to design and deliver an estimated \$400 billion in infrastructure projects over the coming decade could be under threat because engineering firms across Australia are delaying and even declining projects outright due to a lack of available staff, according to the Association of Consulting Engineers Australia. These skill shortages are based on existing technology, and current shortages do not account for changing technology and emerging needs.

There is a strong need to coordinate skills planning agencies across secondary, VET and higher education sectors, especially in relation to maths and science. Every consideration should be made of the impact that all

agencies have upon each other in identifying skills needs and devising education and training plans to meet those needs.

There is currently no governance structure at the national or state level to enable strong interaction between the business community and the university sector in a formal way. While advisory structures such as Business / Higher Education Round Table (BHERT) and Business, Industry and Higher Education Collaboration Council (BIHECC) exist, a more formal governance structure that involves business and industry representative organisations is required. This would provide leadership to the university sector and guidance around the types and levels of engagement that are mutually beneficial to students and businesses alike.

TRANSITIONS INTO HIGHER EDUCATION

Many students entering higher education from secondary school for the first time have gaps in their education. Many universities have cited incidents where remedial classes in language and literacy, academic writing and mathematics have become commonplace for first year students. This is often exacerbated by differences in curricula between states and territories.

Of particular concern have been reports that students entering science, technology, engineering and mathematics (STEM) fields of study do not have sufficient mathematical ability to cope with the course material.

There is not a simple solution to this problem as there are many complex factors that contribute towards this situation and conversely, many secondary school graduates have other highly developed skills in previously unimportant areas such as creativity, IT skills and confidence. What is needed is better connectivity between higher education institutions, businesses and schools so that students have a comprehensive understanding of the importance of Language Literacy and Numeracy (LLN) and STEM and are provided with the opportunity to redress any gaps in these areas.

This is in keeping with a lifelong learning approach but needs to be more actively pursued by all relevant stakeholders.

Lifelong Learning

Lifelong learning broadly describes an approach to learning that covers "cradle to grave" and recognises that all types of learning contribute towards a person's skills.

Lifelong learning is ongoing and does not cease once a person exits a learning institution.

1 HM Treasury, *Lambert Review of Business-University Collaboration* (2003).

2 The survey is published quarterly and the July 2008 survey showed that the *Availability of Suitably Qualified Employees* was ranked as the Number 1 Constraint on Investment. The survey is available at <http://www.acci.asn.au/SurveySOIC.htm>.

The majority of the current generation of students and people in the workforce will at some stage of their working career need to refresh their knowledge and upgrade their skills in order to maintain their competitiveness in the workforce.

The higher education sector, including universities and VET providers, will need to ensure the flexibility of study options and the ease of transition between work and academic study to allow individuals to engage in learning on an as needs basis.

This will mean institutes will need to offer a range of flexible study options including e-learning, self-paced options and access to other study options that fit around an individual's working life.

Articulation Issues

Issues in relation to the interface between higher education and VET include that:

- there appears to be a degree of academic elitism by higher education to VET provision. The inherent tension between competency-based learning and curriculum remains a major issue;
- articulation between VET and higher education is a constant problem, particularly as many of these decisions for VET students to enter universities are made at the institutional level;
- the increase in university graduates taking a VET course and the status that gives them for entry into courses; and
- any thorough examination of resourcing, particularly future projections, must take account of projected VET participation and relevant government resourcing and be based on a contestable, demand-driven approach.

Free movement between the sectors – differences between the sectors should not restrict the capacity of individuals to move between them. Higher education institutions are progressively delivering programs that are similar to those offered in the VET sector. Many more students are now moving from higher education into the VET sector. In addition, due to the increasing pressure from the growth of VET in Schools, the school sector will emerge as a key bridge between the VET and higher education sectors.

Cooperative ventures – this may include parts of higher education programs delivered by VET institutions and vice versa.

Education consortia – there are opportunities for the two sectors to deliver collaboratively a range of commercial consultancy, education and training services to industries and enterprises.

Pathways – are gradually opening up and now include provision for double or joint qualifications.

Funding models can assist in articulation between the sectors. They need to be equitable and provide students with access to income-contingent loans to assist articulation across the sectors and provide clarity around the value of qualifications provided within and across institutions.

The recent announcement by the Commonwealth and Victorian Governments of HECS and FEE HELP loans for students undertaking Diploma and Advanced Diploma courses is a move in the right direction and provides a model likely to be taken up by other jurisdictions.

Revised qualification descriptors are also necessary to enhance articulation. Reform in this area should be a national work priority for governments.

Rather than each university determining its own articulation requirements, a national system should be devised that includes Recognition of Prior Learning to facilitate easy movement between the sectors.

QUALITY OF TEACHING AND LEARNING

The former government as well as the Rudd Government have both acknowledged the need for a greater focus on the quality of teaching and learning in higher education.

The points in influencing the quality of teaching and learning include:

- better undergraduate courses for teachers which include an element of understanding the world of work;
- ongoing access to professional development;
- outcome measures which include retention, employment and utilisation of research work;
- auditing providers against agreed standards. This practice is used in the VET system against a nationally recognised framework with appropriate audit materials;
- the establishment of appropriate financial incentives for individual teachers. This requires more flexible workplace relations responses and enterprise agreements;
- student and employer satisfaction and destination surveys; and

- a revised graduate skills assessment survey which will closely align with the ACCI/BCA Employability Skills Framework.

If sufficient numbers of qualified teachers are not graduating from teacher education programs, then other potential pathways to teacher certifications need to be investigated, including accessing employees directly from business or research.

SPECIALIST AREAS

Language, Literacy and Numeracy (LLN) - From a business perspective the LLN skills developed and acquired as part of a qualification must be able to be used in the context where they will be applied, whether that is in an Australian or in an international environment.

Employers must have confidence that a qualification means what it says including implied standards of LLN. Too often employers bear the costs of providing additional training and assistance to employees who do not meet basic LLN workplace standards. No matter how bright a graduate may be, there is a risk of debasing the value of a qualification if students can obtain a qualification without meeting basic LLN standards.

Science Technology Engineering and Mathematics (STEM) - STEM plays a critical role underpinning many professional and technological occupations within the Australian workforce. Currently in Australia, there is a well documented and growing shortage of engineers and mathematics teachers. Government agencies, such as the CSIRO and the Bureau of Statistics, are also reporting difficulties in recruiting personnel with appropriate training in the STEM fields.

This trend mirrors workforce pressures felt across a number of industries as the population ages.

Australia performs above the OECD average in maths and science test scores which augurs well for the future quality of Australia's innovative and R&D future. Nonetheless, the supply of maths graduates from universities is particularly low when compared to historical trends. This is mirrored in the skills of maths teachers at the secondary school level. This is a major policy issue.

The supply of science graduates from universities has performed better, boosted by migration. However, demand is high. There are particular shortages in engineering for example. Also of major concern is the shortage of high school science teachers in areas such as physics.

Universities face a continuing decline in students enrolling in science subjects such as maths, physics and chemistry - there is a similar worldwide trend in high schools with students opting out of science subjects such as hard maths.

Demand is increasing from a range of industries and in order to remain competitive and become world leaders this demand must be met. Australia can always meet a proportion of its demand for skills from international sources. However, all OECD countries are in a competitive bidding race for international talent. In the longer term Australia must provide as high a proportion as possible of maths and science graduates through our domestic education system.

Teachers delivering maths and science classes could be more qualified with further education, through the introduction of a flexible wages structure in order to compete with other industries vying for the same skills.

ACCI proposes that while consideration can be given to reducing HECS and FEE-HELP obligations for those studying maths and science, it is not the most effective mechanism for improving teacher training

EMPLOYABILITY SKILLS

The UK Lambert Review contained a recommendation that *"Funding Councils should require universities to publish information in their prospectuses on graduate and postgraduate employability for each department (or faculty, if datasets are too small) by 2006. This information should include employability statistics ..."*

ACCI supports this recommendation.

A report to the former Minister for Education made by BIHECC last year made several recommendations in relation to employability skills. Not all of the recommendations made were supported by the ACCI network of organisations. ACCI did not support the establishment of an employability skills strategy fund, nor did it support the approach that work-integrated learning is the only way to obtain and develop employability skills.

While employability skills can be acquired via Work-Integrated Learning, the approach suggested in the report does not reflect a cogent understanding of the metacognitive nature of the employability skills framework.

The ACCI/BCA Employability Skills Framework which refers to skills such as problem solving, critical thinking and creativity, analysis of the impact of actions, and

communication and teamwork, would be a good basis upon which to build the set of skills required for innovation.

ACCI supports the integration of employability skills into university curricula and a better alignment with the Graduate Skills Assessment (GSA). An improved GSA and better promotion to employers would provide a more effective construct for the implementation of employability skills in the higher education sector.

WORK INTEGRATED LEARNING

There are a variety of formats that Work-Integrated Learning takes across the higher education sector and this provides a rich learning environment for students.

There is potential for expanding Work-Integrated Learning and other forms of experience-based learning across Australian universities.

Work-Integrated Learning is a powerful model of learning, which provides a wider range of experiences, including those not necessarily constructed by academics. This includes the work experience students already have when they enter university and the fact that most students engage in part-time work to support themselves while studying. Further investigation needs to be made about working for earning as well as working for learning, the value each contributes towards the development of employability skills, and what contribution a structured working experience can make towards a course of studies.

From a business perspective, encouraging partnerships with the business community will extend the resources available for learning in the higher education sector. Further, it will provide benefits to business through outcomes based on quality constructed learning experiences for students.

There is a need to look to the future through different ways of learning, different forms of knowledge and different ways of teaching. This will foster innovation and achieve improved standards of excellence in the higher education arena.

Work-Integrated Learning must be supported by mechanisms for giving experiences value, such as assessment and accreditation, as students tend generally to value what is assessed and accredited. This might be addressed as part of a degree itself, or through an additional award.

Connected to this is the need for graduate attributes (and their employability skills subsets) to be reflected in more intentional design of constructed learning experiences, within a frame which recognises and values a broader range of learning experiences, rather than assuming that their development will be the accidental outcome of conventional teaching processes.

ACHIEVING EQUITABLE AND APPROPRIATE OUTCOMES: INDIGENOUS AUSTRALIANS IN HIGHER EDUCATION

ACCI supports initiatives which promote quality education opportunities for groups with special needs. Therefore, supplementary funding should be provided to assist institutions to meet the needs of those most disadvantaged in the labour market. This includes provision of adequate provision of support services, graduate employment programs, the introduction of cadetships, and the establishment of appropriate mentoring services to increase completions.

In the case of Indigenous students, substantial money is provided to institutions to service students but success in relation to outcomes is unclear.

Indigenous student support services have varying degrees of success and the connection to employers is not always strong.

Opportunities for Indigenous graduates for cadetships for Australian Apprenticeships should be encouraged.

It may be necessary in some instances to conduct pre-undergraduate courses to enhance equity group participation. Often other non-educational factors impact on participation, including childcare, travel difficulties and isolation from family.

CONCLUSION

From the point of view of the business community, ACCI recommends an integrated post-secondary skills environment where skills and knowledge delivered are current and up-to-date, where the standards of the skills and knowledge acquired are deemed by industry to be excellent, and where articulation between institutions is easy and based on sound recognition principles.

Increased demand is coming from demographic pressures as well as pressure from employers and industry for skilled workers as opposed to unskilled workers. Increasingly, students and employers are requiring a mix of vocational and academic skills development options.

Factors affecting the level of demand include the fact that competition is increasing among higher education and other providers. Potential competitors now come from outside the established education network and from other education sectors.

It is imperative that there be a fundamental repositioning of the higher education sector, which takes account of a number of key elements, in particular:

a demand-driven system – this more closely aligns education and training to the needs of business, students and governments and shifts the focus to a business culture where incentives are created for maximising volume and quality, reducing costs and using resources more effectively;

a competitive and diverse market – competition and diversity will lead to a more efficient and cost effective system while increasing the range of options available. This will require a higher level of flexibility to enable better use of capital assets and to address issues such as economies of scale and third party access;

deregulating the system – ensuring quality outcomes and appropriate quality servicing arrangements across Australia, minimising Government intervention and relaxing many of the current points of regulation. This allows more effective, responsive delivery of services. At the same time a framework must be maintained that incorporates accountability, quality and accreditation;

universal access – the system must promote the concept of a universal entitlement to post-secondary education for all eligible Australian students (school leavers and mature age students) together with programs which have equity considerations based on ability rather than income;

student-centred funding – students should be able to purchase a course from any public or private provider (User Choice). Funding should be linked to student outcomes/achievements with prices determined by market forces. It is recognised that some transitional arrangements will be required to implement this arrangement;

simplified articulation pathways – this requires closer cooperation between the sectors on credit transfers and recognition of prior learning and articulation streams. In this context, the Australian Quality Framework (AQF) should be accepted as a standard continuum and credentials aligned with AQF levels; and

quality research and development – this should be closely linked to economic needs and close business collaboration.

The vision for higher education in Australia should take account of developments in other education and training sectors rather than perpetuating points of differentiation and separation.

The central goal of any reform should be the development of an integrated post-compulsory system which is driven by its primary customers (that is individuals and business) with the full spectrum of providers being supported by an incentives regime to deliver appropriate services of excellence in education, training and research.