

Community colleges for Australia

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Acronyms

AQF	Australian Qualifications Framework
HECS	Higher Education Contribution Scheme
ICT	Information and communication technologies
ISCED	International Standard Classification of Education
OECD	Organisation for Economic Co-operation and Development
TAFE	Technical and Further Education
UNESCO	United Nations Educational, Scientific and Cultural Organisation
UK	United Kingdom
US	United States of America
VET	Vocational Education and Training

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Overview & key features of the proposal

This monograph examines the extent to which the community colleges which are common in North America, particularly in the USA, may be appropriate for Australia. It is based on research commissioned by Griffith University, Southbank Institute of TAFE and the Queensland Department of Employment and Training.

Chapter 1 discusses why it is worth considering community colleges for Australia, particularly by reflecting on the implications of the recent reforms to higher education. These reforms have accelerated the development of a competitive market in higher education, and the report argues that a TAFE and university partnership can grow demand through co-operating rather than competing. Community colleges would sit outside existing sectoral structures, and give partners freedom to construct distinctive programs that meet the needs of learners, and complement the existing programs in each institution. John Dewey's notion of a vocation is used to situate the research.

The development of a community college needs to be informed by an understanding of the changing nature of work, and of the broader social, economic and cultural changes that have accompanied globalisation. This is the focus of chapter 2. This discussion is first contextualised by debates around globalisation and lifelong learning. Drawing from John Field's work, the chapter argues that debates about skill will be incomplete if the broader changes to social and cultural life (and not just the economic) and individual identity are not included. It argues that we need a more nuanced understanding of the relationship between skill formation and innovation, premised on an appreciation of the way in which institutional frameworks facilitate or impede complementarity between the two. Drawing from the *Varieties of Capitalism* literature (Hall and Soskice, 2001), and in particular, the work by Culpepper (2001), the chapter considers the policies that will be needed to support clusters of innovative industries, which includes, but is not limited to, education and training policy. It discusses the widespread perceptions of a skills mismatch between the needs of industry and graduate skills. Rather than simply seeing this as a 'supply-side' issue, attributable to apparent deficits in curriculum in tertiary education programs, the chapter instead locates part of the answer in the relatively immaturity of these industries, the over-supply of labour and the casualised nature of employment. Under conditions of high labour mobility, employers are cautious about investing in skills development because staff may leave (or be poached), and individuals are cautious about investing in high-level industry focussed skills if they cannot be certain of obtaining secure employment.

Chapter 3 examines the nature of qualifications and curriculum needed in the innovation economy. It argues that a clearer understanding of the role of qualifications is needed, particularly in what qualifications signify. This section draws on recent work in the Organisation for Economic Co-operation and Development (OECD) on the role of qualifications frameworks in supporting lifelong learning. Flexible and dynamic qualifications presuppose models of curriculum that engage the learner in learning for a vocation, and not merely in acquiring specific skills needed for a particular job. The discussion draws on recent findings about how we learn, in particular, the insights from activity theory and community of practice theory. If learning is, as these theories argue, about learning how to become a member of a community of practice, then implications follow for the design and implementation of curriculum. The chapter argues that associate degrees should be the main focus of the community college. These are short-cycle higher education awards recently listed on the

Australian Qualifications Framework, and provide the scope to offer vocationally focussed programs grounded in the disciplines that underpin them. This model of provision offers students the possibility of acquiring a qualification that will help them to enter a vocation, while meeting the needs of the new and emerging industries.

Chapter 4 examines what we can learn from overseas models, focussing particularly on community colleges in the United States, and further education and higher education partnerships in the United Kingdom. The chapter considers the nature of qualifications offered in these countries, focussing particularly on short-cycle higher education, and on the institutional frameworks which underpin them. While we can draw from the liberal arts associate degrees in North America, we also need to draw additional lessons concerning the importance of partnerships between institutions in different sectors. The chapter situates the community college associate degrees on a continuum that is between the liberal arts associate degrees offered in community colleges in North America, and foundation degrees, which are English short-cycle higher education qualifications offered in further education colleges and universities.

Chapter 5 sketches a possible community college. The example was developed for a university and a TAFE institute that considered establishing a community college in an area of the new economy. The chapter presents arrangements for: qualifications; curriculum; delivery; accreditation; institutional structure; and, financing. This is done so that different combinations can be considered, to allow for the possibility of establishing an evolutionary model that develops as the community college develops. The key features of the model include the following:

- The community college should offer a mixture of new and existing programs (in the case of the latter, where there is significant existing unmet demand and the programs sufficiently differentiated to ensure they are not regarded as residual) focussed initially on programs in the new economy.
- Community college programs should lead to pathways in programs offered by both sectors of tertiary education. Pathways should be in similar areas (in which case they are nested awards) or in complementary areas (in which case they are dual-awards).
- Qualifications should be initially focussed on associate degrees, rather than degrees, diplomas and advanced diplomas or VET certificates.
- The community college should be established as a new type of entity that sits outside existing sectoral arrangements, and offers qualifications not currently predominately associated with either sector.
- Curriculum should be based on the discussion in chapter 3: This is predicated on developing vocational expertise through structured learning that holistically incorporates the workplace and the community college around ‘discovery learning’, based on curriculum that is jointly developed and delivered by the community college and industry. This model regards learning as learning to become a member of a community of practice and helping students to develop the skills needed to work within the activity system that frames their intended community of practice.

- Where possible, programs should use a variety of modes in delivery, including institution-based, work-based and information and communication technologies (ICT)-based delivery. This model may include consideration of wholly online subjects. However, online subjects should be based on the same holistic principles as subjects delivered in mixed mode.
- Students should be enrolled in a single award (with or without accredited nested outcomes) delivered in a new entity – the community college.
- Programs should be governed by a single set of program regulations and student progress rules for new programs taught in the community college.
- While the community college may draw from the staff at partner institutions and from industry, a core staff needs to be employed in the community college to lead the development and teaching of programs. Consideration should be given to employing staff on consistent industrial arrangements and agreements.
- The community college associate degrees should be accredited by a State or Territory office of higher education. The community college may decide it is appropriate to deliver a VET accredited qualification, and if so, it must become registered as a Registered Training Organisation to do so.
- If a community college is established by partner institutions from VET and higher education, it should be a business legal entity that is jointly owned by the partners.
- The community college should be oriented towards programs accredited as higher education awards so that students can access Fee-HELP.
- If a community college is established by partner institutions from VET and higher education, the partners may wish to leave open the possibility that the community college comprise a mixture of full-fee paying and publicly funded places (HECS for higher education, and State funding for VET).

1. Introduction: why community colleges?

This chapter is in two parts. First, it examines the broader context of Australian tertiary education. This includes an examination of the tertiary education market, particularly as it is affected by the recent reforms to higher education, and also findings from the research literature on the relationship between education and training and innovation. The second part examines why a community college may be appropriate in Australia, rather than extending and developing further credit transfer and articulation arrangements between partners.

The context: markets & innovation

The aim of the reforms to higher education at the end of 2003 was to further stimulate the development of a competitive market. If implemented, these reforms will transform the market in higher education in Australia because they dramatically increase the scope for private higher education providers and for universities to expand and develop higher education full fee paying students through granting access to income contingent loans for students paying full fees for appropriately accredited higher education programs. As well, government funded higher education places will be subject to greater market influences than hitherto with the introduction of charges under the higher education contribution scheme (HECS).

The market in vocational education and training (VET) is more highly developed than the higher education market as a consequence of continual reforms commencing with the Dawkins reforms in the late 1980s. VET has been transformed by policies such as user choice, growth through efficiencies, competitive tendering and the creation of a training market in which TAFE is only one provider (albeit the dominant one) funded by government. TAFE has had to respond by developing its capacity to compete competitively in this market.

The VET and higher education markets have been relatively distinct until now except in the case of private providers who have the capacity to integrate VET and higher education programs because they are outside the normal funding and reporting frameworks. Private providers are only a very small part of higher education and VET. However, even if they remain a small part of the overall higher education market, private providers' ability to offer programs linked to income contingent loans will discipline the higher education market overall. The creation of markets in VET has shaped the behaviour of TAFE, even though private providers are only a small component. Universities will compete with each other and with private providers for the student full fee paying market.

As important will be the entry of TAFE into the higher education student fee-paying market. The introduction of associate degrees as a higher education award on the Australian Qualifications Framework allows TAFE to offer higher education programs and for their students to access income contingent loans. Associate degrees also allow TAFE to get around many of the problems that are perceived with training packages (because they are based on competency-based training). As well as the curriculum problems inherent in training packages, associate degrees allow TAFE to offer high level programs based on full fees in new economy areas. TAFE already offers full fee diplomas and advanced diplomas in these areas in many cases because they are too expensive to be funded through recurrent funding. The difference is that students will now be able to access income-contingent loans for these programs if they are

accredited by higher education processes. In some States (such as Victoria) TAFE is permitted to offer degrees in niche areas. TAFE and higher education will increasingly compete for the same market of students.

Students will benefit if the sectors and their institutions co-operate rather than compete. Providing new and innovative programs jointly developed and supported between sectors and institutions increases options for students and provides a good foundation for pathways into partner institutions.

There is another very important consideration, which is drawn from the literature on innovation and education and training. This is discussed in more detail later in this monograph.¹ The key finding is that if Australia is to develop innovative industries based on high skills and high wages it must now develop industry clusters which comprise enterprises that co-operate rather than compete (Porter and Ketels, 2003). The development of high level industry-focussed skills is likely to develop only if industry and the education and training providers are enmeshed in a dense network of interdependent relations (Culpepper, 2001; Estevez-Abe, Torben and Soskice, 2001; Hall and Soskice, 2001). Institutions and sectors are likely to maximise their access to enterprises and to develop reflexive and iterative relationships between the needs of industry and the programs that they offer if they work together rather than compete.

Why a new entity?

The next question to be considered is: why should we consider establishing a new entity – a community college – instead of collaborating through memoranda of understanding, and extending and developing credit transfer and articulation agreements?

There are three reasons. First, the community college offers institutions the opportunity to expand provision overall by developing a distinctive qualification that is not currently offered by either sector. This means that the community college would be focussed on a different sort of provision, and would not directly compete with the existing programs in either sector. The key recommendation is that Australian community colleges concentrate (at least initially) on offering associate degrees.

Second, we know from the Australian experience of cross-sectoral relations, credit transfer and articulation, that it is *very* difficult to develop seamless arrangements for students because of the different sectoral funding, reporting and quality assurance arrangements, and because of the different accreditation and curriculum models in each sector. It is possible to develop close relationships, but it is extremely expensive and time consuming to maintain them and requires constant attention by a range of individuals and support at senior management levels. Given this is so, it would be more productive to develop an entity like the community college that is able to avoid the problems of institutional cross-sectoral provision. If Australian community colleges at least initially concentrated on fee-for-service provision they may step outside the existing sectoral frameworks and avoid some (but not all) of the problems that are likely to ensue.

¹ See Chapter 2: Innovation, work and skills

Third, and most important: the community college allows the sectors to be partners in establishing a new type of entity for Australia, which draws from North American community colleges, but which is also informed by insights drawn from the experiences of the United Kingdom and Europe. This monograph elaborates this model and how it can be applied in Australia. The community college will make an important contribution to Australia because it is a model which overcomes the academic and vocational divide expressed in the divide between the sectors.

The philosophy underpinning this monograph is that new models of provision are required to meet the needs of an expanding and innovative economy and an increasingly complex democratic society. Individuals must establish their place locally, but in a way which allows them to participate in global markets and the accompanying social and cultural processes that are transforming local, national and international communities. Raffe *et al.*, (1998: 171-172) explain that:

“Current economic trends undermine the economic and social division of labour on which tracked systems, rooted in the industrial revolutions of their respective countries, are based. They create a demand for higher levels and new types of skills and knowledge, especially generic and overarching competences, and for their wide distribution across the workforce....Post-compulsory education and training systems have grown in functional complexity as well as in scale. They must meet a wider and more complex range of demands, which cannot be met by tracks which serve distinctive purposes and clientele. Old forms of specialisation by sector, course or institution are no longer viable.”

The model of community colleges developed in this monograph draws from North America the tradition of the liberal arts associate degree, while it draws from the UK and Europe the need for the development of high level industry focussed skills which are based on a holistic grounding in the various disciplines that underpin these skills. The aspects come together in Dewey's notion of a vocation (discussed later in this chapter).

‘New economy’ programs are particularly suited to community colleges because:

- these are the emerging industries which are the most innovative and least closely associated with (and typecast by) current sectors;
- these areas are likely to expand most; and,
- people already enter these industries as a vocation, and not just a job. Offering associate degrees designed to prepare students for a vocation will make sense to students, industry practitioners and enterprises.

Approach

Three factors shaped the approach adopted in this monograph:

- the rapid pace of economic, social, cultural and political change associated with globalisation, which gives rise to government policy objectives that seek to support innovation as a means of engaging with these changes on the one hand, while contributing to social inclusion on the other;

- the implications these changes and government policy objectives have for the nature of qualifications, and curriculum;
- the broader policy context in Australia shaping both the vocational education and training and higher education sectors.

While community colleges have multiple missions, these cohere around their responsibilities to their local communities (broadly defined), and are underpinned by “themes of *democracy* and *community*” (Morgan, 2000: 229). The ethos of the community college was understood to be based on a commitment to the development of individuals and their communities, while ensuring all had the opportunity to benefit from a liberal education as a key component of their education for a vocation. As we shall see, the reality is far more complex than this picture suggests, with debates occurring around the mission and role of community colleges (Bailey and Averianova, 2000; Coley, 2000).

North American community colleges also seemed to offer some possibilities for overcoming divisions between academic and vocational education. These divisions are becoming less sustainable (if they ever were), because of the economic, social and cultural changes associated with globalisation. Community colleges seem to offer scope to develop curriculum and qualifications that prepare students for a *vocation*, in the way that John Dewey conceived of it (Dewey, 1966 (1916)). Dewey, one of the great pioneers of democratic learning theory writing early last century, was one of the first critics of *both* liberal education and narrow vocational instruction. He sought to overcome the dichotomy between academic and vocational education, arguing that knowledge and skills cannot be divorced in this way (Hyland, 1999). We are thus using an old idea and applying it to an analysis of how to respond to innovation.

Dewey’s model of education considers and engages the whole person. Dewey (1966 (1916): 308) thought of a vocation as a person’s *calling*: “To find out what one is fitted to do and to secure an opportunity to do it is the key to happiness.” It goes beyond the technical requirements of an occupation and includes:

“...the development of artistic capacity of any kind, of special scientific ability, of effective citizenship, as well as professional and business occupations, to say nothing of mechanical labor or engagement in gainful pursuits.” (Dewey, 1966 (1916): 307)

A vocation is one where an individual is able to connect the meanings between the different parts of their lives:

“...each individual has of necessity a variety of callings, in each of which he should be intelligently effective; and...any one occupation loses its meaning and becomes a routine keeping busy at something in the degree in which it is isolated from other interests...No one is just an artist and nothing else....He must, at some period of his life, be a member of a family; he must have friends and companions; he must either support himself or be supported by others, and thus he has a business career. He is a member of some organized political unit, and so on. We naturally *name* his vocation from that one of the callings which distinguishes him, rather than from those which he has in common with all others. But we should not allow ourselves to be so subject to words as to ignore and virtually deny his other callings when it comes to a consideration of the vocational phases of education.” (Dewey, 1966 (1916): 307)

On the face of it, this approach may seem to be directly counter to prevailing views about the nature of education and globalisation, in which individuals need to prepare for several careers, and in which skills must constantly evolve to keep pace with technological change. This view holds only if education and training for work is restricted to narrow notions of specific skill acquisition. People will need to learn several skill sets throughout their lives, but this does not make a vocation.

Paradoxically, the notion of a vocation becomes *more* important during periods of rapid change. A vocation links a person to the broader notion of an occupation which encompasses the role of that occupation in society, the values that underpin it and the knowledge and skills that are needed to engage in problem solving. A vocation is predicated on change, and on active engagement by practitioners in creating change. Dewey (1966 (1916): 309-310) explains that a vocation is an organising framework which people use to make sense of, and invest meaning in, the changing environment within which they work:

A calling is also of necessity an organizing principle for information and ideas; for knowledge and intellectual growth. It provides an axis which runs through an immense diversity of detail; it causes different experiences, facts, items of information to fall into order with one another. The lawyer, the physician, the laboratory investigator in some branch of chemistry, the parent, the citizen interested in his own locality, has a constant working stimulus to note and relate whatever has to do with his concern. He unconsciously, from the motivation of his occupation, reaches out for all relevant information, and holds to it. The vocation acts as both magnet to attract and as glue to hold. Such organization of knowledge is vital, because it has reference to needs; it is so expressed and readjusted in action that it never becomes stagnant. No classification, no selection and arrangement of facts, which is consciously worked out for purely abstract ends, can ever compare in solidity or effectiveness with that knit under the stress of an occupation; in comparison the former sort is formal, superficial, and cold.”

This monograph explores what vocation means when there is perpetual innovation in all spheres of life, but particularly working life. It examines the implications of these findings for curriculum and qualifications, and for the institutional frameworks necessary to support new qualifications based on old ideas of vocation.

Institutions cooperating to form a community college would not seek to replicate what each of the partners currently do. It would seek to combine the strengths of both institutions and apply these to meeting new needs for new industries. It would aim to do so in ways which maintain the distinctiveness of what each institution does, while not being constrained by the sectoral frameworks in which each institution is located. In working together, institutions from each sector could achieve what they could not do alone.

The next chapter considers the socio-economic factors in skill development in Australia.

2. Innovation, work and skills

This chapter considers the impact of globalisation on the way we live, the way in which work is changing and the implications this has for the nature of skill. It examines processes inherent in innovation in a globalised economy and how skill must change in response. This is first contextualised by debates around globalisation and lifelong learning. Drawing from John Field's work, the chapter argues that debates about skill will be incomplete if the broader changes to social and cultural life (and not just the economic) and individual identity are not included. It argues that we need a more nuanced understanding of the relationship between skill formation and innovation, premised on an appreciation of the way in which institutional frameworks facilitate or impede complementarity between the two. Drawing from the *Varieties of Capitalism* literature (Hall and Soskice, 2001), and in particular, the work by Culpepper (2001), the chapter considers policy frameworks necessary to support clusters of innovative industries, which includes, but is not limited to, education and training policy.

In understanding whether North American community colleges and related international approaches are applicable to Australia, it is first necessary to understand the challenges we confront in Australia, and then to consider whether the model is useful to respond to those challenges. This chapter explores the impact of globalisation on the way we live, the way in which work is changing and the implications this has for the nature of skill formation. It argues that far from being a homogenising process, globalisation and the ensuing innovation in technology and in work processes are predicated as much on national differences as on globalised markets and financing, and internationally integrated production based in multinational corporations (Marginson, 2000; Hall and Soskice, 2001). Moreover, within each nation, processes of differentiation are occurring resulting in unequal outcomes, and different patterns of production, employment and education and training (Field, 2002b).

Globalisation & reflexive modernisation

Castells (2000: 137) argues that “three inter-related policies created the foundations for globalization: deregulation of domestic economic activity (starting with financial markets); liberalization of international trade and investment; and privatization of publicly controlled companies (often sold to foreign investors).” Castells says that the result is a globalised economy which has three distinctive, but mutually reinforcing features: first, it is informational, because the creation of knowledge is now a crucial factor of production (Chappell, Hawke, Rhodes and Solomon, 2003); it “is *global* because the core activities of production, consumption, and circulation, as well as their components...are organized on a global scale”; and, it “is *networked*, because, under the new historical conditions, productivity is generated through and competition is played out in a global network of interaction between business networks” (Castells, 2000: 77). However, while economic considerations by powerful nations may have been the initial impetus for globalisation, globalisation can no longer be reduced to these elements.

This is because globalisation has been accompanied by profound cultural and social changes, as well as economic ones. Castells (2000: 100) explains that the “generalization of knowledge-based production and management to the whole realm of economic processes on a global scale requires fundamental social, cultural, and institutional transformations...” He continues:

“This is why the economy is informational, not just information-based, because the cultural-institutional attributes of the whole social system must be included in the diffusion and implementation of the new technological paradigm, as the industrial economy was not merely based on the use of new sources of energy for manufacturing but on the emergence of an industrial culture, characterized by a new social and technical division of labor.” (Castells, 2000: 100)

Marginson (2000: 1) argues that:

“The trend to the global—‘globalisation’—is not just an economic process as is often presented. It also has social and cultural roots. In many respects it is in the cultural realm that globalisation has become associated with a distinctly new kind of working and living, with its many implications for education and training. Globalisation is more than international trade or production, both of which have been with us for a long time, and where the recent increase in activity is sometimes exaggerated....The process of globalisation is informed by the growing role of *world systems* and the creation of *more intensive and extensive relationships between people*, whether across national borders or close to home.”

The cultural and social changes associated with globalisation need to be emphasised, because too often debates focus almost exclusively on the economic, and in education and training, the nature of skills required to do a particular job. This misses important dimensions of globalisation and the consequences these social and cultural processes have for work and for education and training. It reduces the debate to the role and impact of the market, without recognising that the market as the principal mechanism for co-ordinating economies does not characterise *all* developed countries (Hall and Soskice, 2001). Hall and Soskice (2001: 19 - 20) distinguish between liberal market economies (the six OECD English-speaking nations) and co-ordinated market economies (Japan and the Northern European nations, with France being in an ‘ambiguous’ position).² The former relies on market mechanisms as the principal co-ordinating mechanism for the economy, while the latter relies to a greater extent on non-market forms of co-ordination (based around clusters, and employer, professional and trade associations) to organise the economy.

Globalisation and markets are often conflated, as if they were synonymous, whereas “...many of the phenomena that are often seen as aspects of globalisation are in fact the result of deliberate policies aimed at deregulating markets” (Field, 2002b: 19). These policies are characteristic of Anglo nations, but are often presented as a globalising discourse that subsumes all nations, and presumes similar policy prescriptions in education and training as appropriate responses.

Lifelong learning is the universal policy prescription (OECD 1998). The now common arguments for this proposition include: fluid markets and the rapid pace of technological change means that individuals will change jobs and occupations throughout their working

² This is discussed in greater depth later in this chapter.

lives; and this means that individuals need to engage with learning throughout their life, and to develop process oriented problem solving and learning-to-learn skills rather than task-focused skills. 'Front-end' models of education and training – where individuals complete all their education once and for all before entering the workforce – have been replaced by the need for individuals to participate in lifelong learning, which includes formal and informal learning.

Field argues that we live in a learning *society*, while arguing that the notion of a learning *economy* leads to too narrow a focus, particularly in education and training. He says that work while has fundamentally changed and is continuing to change, many of these changes have been exaggerated, as they have not been as totalising as is sometimes claimed (Field, 2002b). While work is being transformed this process has not be even, with many still employed in low skilled jobs, characterised by organisational hierarchies, Fordist forms of work organisation, and low levels of labour mobility. He says that:

“Much of the discourse of lifelong learning avoids [broader] social and cultural concerns, centering instead upon a narrow range of largely economic reference points.” (Field, 2002b: 70)

He says that nonetheless, we do live in a learning society:

A learning society is not necessarily either a pleasant, an efficient nor an egalitarian place; on the contrary, it may well generate even more deeply-rooted inequalities than we have yet seen...Its key features are surely that the majority of its citizens have become 'permanently learning subjects', and that their performance as adult learners is at least in part responsible for determining their life chances. (Field, 2002: 38)

In drawing on the work of Anthony Giddens and Ulrich Beck in particular, Field argues that a learning society is characterised by reflexive modernisation. Field (2001: 100) says that a society characterised by reflexive modernisation is one where “people are constantly required by events to weigh up alternatives, consider competing (and often contradictory) forms of knowledge, and make choices about their behaviour, their relationships and their values...Moreover, this is true of all areas of life: from the most public of interactions and formal of institutions to the most intimate and informal, tradition and habit are less and less reliable as guides to what we face tomorrow.”

He cites Giddens in explaining that reflexive modernisation refers to constant evaluation of social practices, in part through the social sciences, but also as a feature of life embedded in daily existence:

“The reflexivity of modern life consists in the fact that social practices are constantly examined and reformed in the light of incoming information about those very practices, thus constitutively altering their character...In all cultures, social practices are routinely altered in the light of ongoing discoveries which feed into them. But only in the era of modernity is the revision of convention radicalised to apply (in principle) to all aspects of human life.” (Giddens, cited in Field, 2002: 61)

In developed nations, but particularly Anglo nations (and France, see Mounier, 2001), the reflexivity of modern life is accompanied by greater levels of individual risk where “continuing employment depends ever more upon 'readiness to learn over lengthy periods of the working biography', and increasingly 'it is the subjects that, independently and with

growing levels of individual risk, must regulate their own vocational capabilities” (Alheit, cited in Field, 2002: 69).

Field (2002) argues that late modernity is characterised by individualising tendencies which are both the result and cause of:

- the decline of tradition and authority associated with it;
- the responsibility on the part of the individual to invest ‘wisely’ in their own skill development and the social approbation accorded those who do not; and,
- the “growing fluidity [of] adult identities” which is “accompanied by an increasing tendency for certainties to be replaced by provisional knowledge” (Field, 2002: 65).

Richard Florida (2002) addresses the transformation of everyday life in a different way, attributing these changes to the rise of a ‘creative class’, which, in his view, constitutes approximately 30% of all employed people in the United States. Furthermore, he says that “at the heart of the Creative Class is the *Super-Creative Core*, comprising12 per cent of the workforce” (Florida, 2002: 14). This ‘creative class’ includes the ‘symbolic analysts’ about whom Robert Reich speaks. The ‘creative class’ consists of:

“...people in science and engineering, architecture and design, education, arts, music and entertainment, whose economic function is to create new ideas, new technology and/or new creative content. Around the core, the Creative Class also includes a broader group of *creative professionals* in business and finance, law, health care and related fields. These people engage in complex problem solving that involves a great deal of independent judgement and requires high levels of education or human capital.” (Florida, 2002: 8)

Where Florida’s approach has some value is in identifying the fluid nature of individual identity, and the changes to the nature of work, including the way work is organised and knowledge produced in *some* spheres of the economy, particularly in the United States. He also identifies the growing social divides based on income, work, and ‘new economy’ areas.

However, his approach is less helpful in understanding the way in which globalisation and the accompanying process of reflexive modernisation affects the *whole* society, and the processes of individualisation which are particularly characteristic of Anglo nations (and to varying degrees, other developed and developing nations). His conclusion is that social capital inhibits innovation, while ‘creative capital’ – predicated on loose networks, weak ties, more individualistic pursuits, and the pursuit of ‘quasi-anonymity’ – underpins the kinds of societies able to generate economic prosperity (Florida, 2002).

To begin with, building ‘creative capital’ as he defines it brings with it the risk of greater social polarisation, which is not a useful premise for social policy or education and training policy. He says that:

“I fear we may well be splitting into two distinct societies with different institutions, different economies, different incomes, ethnic and racial makeups, social organizations, religious orientations and politics. One is creative and diverse—a cosmopolitan admixture of high-technology people, bohemians, scientists and engineers, the media and the professions. The other is a more close-knit, church-based, older civic society of working people and rural dwellers. The former is ascendant and likely to dominate the nation’s economic future.” (Florida, 2002: 281)

However, apart from stating that we need a new model, and that it can't be based on social capital, Florida does not offer a way forward, other than describing how creative capital can be built. Moreover, he leaves out of the analysis those who are disengaged from employment, education and training, and society more generally, who live in communities with low levels of *both* social capital and creative capital. In many ways, the risks are greater for those who are *not* members of the creative class, particularly those in low skilled, contingent and intermittent work.

In some ways, the approach by Giddens and Beck, and applied by Field to lifelong learning, is more encompassing than Florida's. This is because these writers emphasise the fluid nature of knowledge and individual identity, and argue that this process affects all of us, regardless of whether we are part of the 'creative class' or not. Paradoxically, this leads to the reassertion of regional identity and local difference in many areas *as a response to globalisation*, and not something which is a relic of the old society, soon to be over-run by the new (Giddens, 2000). In some ways their approach is more modest than Florida's because the policy implications of their approach are not as homogenous (focussing on the creation of creative capital and not on social capital), and relies on regional and local responses to the inequalities and social outcomes generated by globalisation.

The next section outlines the changing composition of the workforce, while the one after considers the *Varieties of Capitalism* thesis, which argues that we need to distinguish between liberal and co-ordinated market economies to understand the implications for skill development and education and training. This is followed by a discussion of Michael Porter's thesis that we (in liberal market economies) need to move to innovation oriented economies based on high skills and product differentiation, and underpinned by clusters (Porter and Ketels, 2003). This means we must change the way we implement education and training. *How* education and training should be changed, and the type of policies needed to effect that change will be discussed in the last section, through exploring the work of Culpepper.

What sort of jobs exist now, are likely to exist in future & what are the implications?

Much recent work in Australia demonstrates that work has changed in the following ways:

- Employment has grown most rapidly for professionals, and for intermediate clerical, sales and service workers. Cully (2003: 19) says that growth in these areas accounts "for roughly three in five of the (net) new jobs created over the past 15 years." Cully argues that there has been a 'hollowing' of the middle of the labour market, with jobs calling for intermediate skills levels declining relative to those requiring either high or low level skills. The ranking of occupations by size shows that there has been stability over the last 15 years, with the three top occupations remaining unchanged over that time (sales assistants, secretaries and personal assistants, and cleaners). He explains that there is a spread of high skill and low skill groups in the top occupations, with eight from the highest and eight from the second lowest represented, but "all skill groups were represented" (Cully, 2003: 21).

- Only just half of the work force is now employed full time, with rises in permanent and casual part-time jobs, and in contract and labour hire employment (Chappell *et al.*, 2003). This has led to a workforce characterised by a core full-time workforce with the benefits that this brings (sick pay, etc), and a large and shifting temporary workforce.
- Chappell *et al.*, (2003: 3), in their report on the first phase of the high level review of training packages in the VET sector, make the point that while low and medium level skills still characterise much work in Australia, that nonetheless, the overall level of skill required of these workers has increased. This is because the *work process* has changed as a consequence of flatter management structures, fewer core staff (as much work is now outsourced) and increased levels of responsibility at lower levels of the enterprise:

“In many occupations this has meant broadening the responsibilities and skill requirements of workers to include, for example, continuous improvement, quality management, teamwork, and inter-personal and inter-organisational collaboration. Rather than just being responsible for performing specific technical tasks, today’s workers are increasingly expected to contribute to the strategic performance of their organisation as a whole.”

- While the overall level of skill required may have increased, this does not necessarily apply to all aspects of skill. Cully (2003: 5) argues that the relationship between a ‘knowledge economy’ and an increase in the overall level of skill cannot be assumed:

“Putting it simply, the fact that more knowledge may be incorporated in the production process and the delivery of services does not necessarily mean that more knowledge is required on the part of workers. Knowledge can be codified into a machine or piece of software, the application of which may require little in the way of cognitive skill.”

- There is much more attention on the attributes and dispositions of workers, rather than focussing only on technical skill. Workers are:

“...being asked to bring more of themselves to work and to invest more of themselves in work. They are being asked to internalise sets of general behaviours or dispositions seen as essential in the new work order. New vocational outcomes appear to be focused as much upon the characteristics, identity and orientation of the person as on skills and knowledge as more traditionally understood” (Chappell *et al.*, 2003: 9).

The recent South Australian Ministerial Inquiry into skills explains that the effect of innovation has been uneven, and the report cites research that groups industry in Australia into three distinct groups: high, medium and low innovation intensive industries (Ministerial Inquiry into Skills for the Future, 2003: 17). The NSW Board of Vocational Education and Training (BVET) work identifies three categories of ‘skill eco-systems’: high value-added/skilled; high social value/intermediate, and low value-added/routine (Buchanan, Schofield, Briggs, Considine, Hager, Hawke, Kitay, Meagher, Macintyre, Mounier and Ryan, 2001).

Robinson (2003) in drawing on Reich, explains that work can be divided into three broad categories: symbolic analytical services (high skilled 'knowledge work'); in-person services (which involve direct contact with customers); and, routine production services (which are in decline). He explains that we need to view each category "according to their exposure to globalisation if we are to truly understand how the labour market is changing" (Robinson, 2003: 21). The first group is 'positively' exposed to globalisation, and involves high skill levels that are globally traded; the second contains jobs that are high, medium and low skilled, but as they are based on service occupations they are largely insulated from the effects of globalisation (we will always need doctors, chefs, and waiters, for example); and, the third is the most vulnerable to globalisation, with both high and low skilled jobs in areas that are being overtaken by technology and easily transferable to lower cost economies.

The BVET work provides a useful framework for understanding the way in which the labour force is differentiated. They use the concept of 'skill eco-systems' to analyse the relationship between skill and work. This has much in common with the *Varieties of Capitalism* approach (while also having important differences), and so will be explored in more depth in the next section. The implication that they draw however, is that Australia will always have skill eco-systems that support high, medium and low skill systems, and that these systems are internally diverse and dynamic.

This has important social policy implications, as government (Federal and State) seeks social equity objectives as well as economic growth (Ministerial Inquiry into Skills for the Future, 2003). Those working in low-skill eco-systems need support and access to training, particularly those in jobs most vulnerable to globalisation. Successful completion of secondary school and post-school qualifications are directly linked to positive employment outcomes (Gardner, 2002; Kosky, 2002; Ministerial Inquiry into Skills for the Future, 2003). Completion of higher level VET qualifications and higher education qualifications is directly correlated to access to high-skilled 'knowledge work' (Cully, 2003).

In summary, the conclusions drawn from the analysis so far in this chapter are that:

- individuals need broad knowledge and a range of skills which go beyond those required for a specific job. 'Reflexive modernisation' requires all of us to have skills to 'self-manage', engage in (and make decisions about) lifelong learning, relate to others, and guide our decision making which includes, but is not limited to, decisions about work;
- in many ways, individuals in occupations most vulnerable to globalisation need the skills of self-management and 'learning to learn' to a greater extent than those in other occupations, as they are most likely to move in and out of work and are not in powerful positions to bargain in the labour market;
- access to, and successful completion of, post-school qualifications is directly related to positive employment outcomes;
- the performance of individuals as adult learners directly affects their life chances, and this is a problem for those who have had negative experiences of education and training, or who come from backgrounds without a tradition of participation in education and training. This has direct social equity implications and so is a problem for government;
- the rise of casual, part-time work, much of which is through outsourcing and labour hire arrangements, means that "workers are unlikely to gain the necessary skills in a single enterprise" (Chappell *et al.*, 2003: 2).

All this has implications for education and training. To understand these implications, it is necessary to understand in more depth the dynamic underpinning skill formation, and the consequences for social policy (particularly education and training policy) if we seek to change the nature and mix of skills in the Australian workforce to underpin an innovation economy.

Varieties of capitalism

The *Varieties of Capitalism* literature provides insights into the nature of skill formation that is helpful in understanding the social policy challenges involved in moving to an innovation economy based on high skills and high wages. This literature does not start with the supply side – the nature of education and training provision. Its broader focus is based on the assumption that education and training policy is a necessary but not sufficient factor to support the development of high level skills. This is helpful in identifying the iterative relationship between complementary institutional frameworks in the economy and skill formation.³

The key argument underpinning *Varieties of Capitalism* is that economies can be broadly distinguished by the way in which they co-ordinate the economy. While both economies are based on markets, liberal market economies use the market as the principal co-ordinating mechanism, whereas co-ordinated market economies use non-market co-operative relations to achieve the same outcome. The former characterises the Anglo-Saxon nations, while the latter characterises much of Europe, particularly Northern Europe and Japan (Hall and Soskice, 2001).⁴ While there is variation within each model, and nations differ in the extent to which they conform to the ideal type, Hall and Soskice argue that broadly speaking, the empirical data shows propensities for economies to develop in ways consistent with the theory.

They explain the difference between liberal and co-ordinated market economies as follows:

“In *liberal market economies* firms coordinate their activities primarily via hierarchies and competitive market arrangements....Market relationships are characterized by the arm’s length exchange of goods or services in a context of competition and formal contracting....In *coordinated market economies*, firms depend more heavily on non-market relationships to coordinate their endeavours with other actors and to construct their core competencies. These non-market modes of coordination generally entail

³ The *Varieties of Capitalism* literature draws on rational choice theory, and specifically various notions of game theory that emphasise relational decision-making. However, the conclusions drawn could also be derived from other theories that emphasise relational interaction between individuals, between individuals and social groups, and between individuals, groups and social structures, which are not based entirely on ‘rational actors’ acting in their own self-interest in the context of markets. Approaches by Anthony Giddens, Roy Bhaskar, Pierre Bourdieu, Robert Putnam, C.B. MacPherson, Michael Young and John Field come to mind.

⁴ France, Spain, Italy and other Mediterranean countries are ambiguously situated between the two ends of the continuum, but may be emerging as a distinctive ‘Mediterranean’ model. The ‘Mediterranean’ model is “marked by a large agrarian sector and recent histories of extensive state intervention that have left them with specific kinds of capacities for non-market coordination in the sphere of corporate finance but more liberal arrangements in the sphere of labour relations...” (Hall and Soskice, 2001: 21).

more extensive relational or incomplete contracting, network monitoring based on the exchange of private information inside networks, and more reliance on collaborative, as opposed to competitive, relationships to build the competencies of the firm. In contrast to liberal market economies (LMEs), where the equilibrium outcomes of firm behavior are usually given by demand and supply conditions in competitive markets, the equilibria on which firms coordinate in coordinated market economies (CMEs) are more often the result of strategic interaction among firms and other actors.” (Hall and Soskice, 2001: 8)

Each approach to co-ordinating the economy elicits the development of complementary institutions⁵, which together form *production regimes* and provide the basis for *comparative institutional advantage*. Hall and Soskice (2001: 37) define comparative institutional advantage as follows:

“The basic idea is that the institutional structure of a particular political economy provides firms with advantages for engaging in specific types of activities there. Firms can perform some types of activities, which allow them to produce some kinds of goods, more efficiently than others because of the institutional support they receive for those activities in the political economy, and the institutions relevant to these activities are not distributed evenly across nations.”

The way in which these institutions interact with each other results in different outcomes in the nature of innovation, the social distribution of opportunity and resources, welfare regimes, and type of skill formation. Hall and Soskice (2001) use the firm or enterprise as a key unit of analysis, and argue that in all economies the problem of co-ordination within the economy exists, with liberal market economies and co-ordinated market economies resolving these in different ways. They argue that: “...firms must develop relationships to resolve coordination problems central to their core competencies” (Hall and Soskice, 2001: 6). There are five key problems of co-ordination that they identify, the resolution of which (although never complete and always changing) results in the development of inter-dependent and complementary institutions in each area: industrial relations (the broader legislative framework and industrial relations climate); vocational education and training; corporate governance; inter-firm relations; and, relations with the firm’s own employees.

Co-ordinated market economies tend to be characterised by “product differentiation and niche production, rather than direct product competition with other firms in the industry, since close inter-firm collaboration is harder to sustain in the presence of the intense product competition that tends to characterise LMEs” (Hall and Soskice, 2001: 27). These differences are reinforced by the institutional complementarities in each type of economy.

In co-ordinated economies, provision of finance by the financial system is less dependent on balance-sheet criteria, or on “publicly available financial data or current returns” than it is on reputational monitoring and ‘inside information’ which is available because “firms sit inside dense business networks from which potential funders can gain a considerable amount of inside information about the track records and projects of a firm” (Hall and Soskice, 2001: 23). The result is the availability of ‘patient capital’ which enables firms to retain their skilled workforce through economic downturns. In liberal market economies on the other hand,

⁵ They define ‘institutions’ “as a set of rules, formal or informal, that actors generally follow, whether for normative, cognitive, or material reasons...” (Hall and Soskice, 2001: 9).

financial systems “encourage firms to be attentive to current earnings and the price of their shares on equity markets” (Hall and Soskice, 2001: 27). This results in high levels of labour mobility and fluid labour markets, as firms fire and hire in response to fluctuations in profits.

Firms in co-ordinated market economies often have internal consultative arrangements, which include shareholders and employee representatives, and input from other stakeholders (including customers, suppliers and other managers within the firm) which limit the capacity for managers to take unilateral action. “This structural bias towards consensus decision-making encourages the sharing of information and the development of reputations for providing reliable information, thereby facilitating network monitoring” (Hall and Soskice, 2001: 24). In liberal market economies firms “rely heavily on the market relationship between individual worker and employer to organize relations with their labor force” (Hall and Soskice, 2001: 29). Management has the capacity to take unilateral action, and often hire and fire in response to short-term profit drivers. In both types of economy, the prevailing industrial relations framework is underpinned by legislation to a greater or lesser extent.

Liberal and co-ordinated market economies differ in the structure of inter-firm relations. In the former, these relations are mainly based “on standard market relationships and enforceable formal contracts” (Hall and Soskice, 2001: 30). Diffusion of technology across the economy largely occurs through the movement of personnel between different firms. Co-ordinated market economies organise inter-firm relations through “the presence of industry associations that encourages relational contracting among companies...” (Hall and Soskice, 2001: 26). Technological diffusion occurs through inter-firm relations rather than the movement of employees.

Hall and Soskice argue that the different product strategies of liberal and co-ordinated economies results in different approaches to innovation: while both are conducive to innovation, liberal market economies engage in radical innovation more effectively, and co-ordinated market economies in incremental innovation. Radical innovation “entails substantial shift in product lines, the development of entirely new goods, or major changes to the production process...” Incremental innovation is “marked by continuous but small-scale improvements to existing product lines and production processes” (Hall and Soskice, 2001: 38-39). The former relies on labor mobility, short tenure, poaching, hostile takeovers,⁶ products requiring general rather than firm or industry-specific skills, an emphasis on current profitability, unilateral control by management, and “contract law and antitrust laws [that discourage] inter-firm collaboration in incremental product development” (Hall and Soskice, 2001: 40). Incremental innovation relies on established high product quality lines, a highly skilled workforce with influence in the firm and with sufficient autonomy and security of tenure conducive to co-operation and risk-taking, “high levels of industry-specific technical skills”, and “where close inter-firm collaboration encourages clients and suppliers to suggest incremental improvements to products or production processes” (Hall and Soskice, 2001: 39). Contract law, systems of corporate governance and “dense networks of inter-corporate linkages” encourage relational contracts between firms, reduce threats of poaching and hostile takeovers, and “reduce their sensitivity to current profits” (Hall and Soskice, 2001: 40).

Hall and Soskice (2001: 41 & 44) apply this theory to an analysis of patenting, and find that the United States and Germany are the mirror image of each other:

⁶ With both poaching and takeovers contributing to the diffusion of technology.

“Firms in Germany have been more active innovators in fields predominantly characterized by incremental innovation, including mechanical engineering, product handling, transport, consumer durables, and machine tools, while firms in the United States innovate disproportionately in fields where radical innovation is important, such as medical engineering, biotechnology, semiconductors, and telecommunications.”

The German approach allows them to compete on quality involving high levels of skill, while the US approach allows them to compete on price, based on fluid labor markets.

The long-term investments by firms in co-ordinated market economies requires the implementation of “production strategies that rely on a highly skilled labor force given substantial work autonomy and encouraged to share the information it acquires in order to generate continuous improvements in product lines and production processes.” (Hall and Soskice, 2001: 24). Poaching is discouraged through industrial relations systems that rely on centralised or industry level wage setting and industrial conditions, in which both unions (a necessary partner for this to occur) and employers associations are bound. This encourages firms to invest in education and training (and also in apprenticeships) as they can be more confident that they will reap the benefits of this investment. Workers are encouraged to invest in firm specific or industry specific skills, because the risks in doing so are lower than they are in the fluid labour markets of liberal market economies.

In liberal market economies individuals are more likely to invest in developing more general skills that are applicable in a range of firms and industries. “Highly portable skills are less risky than highly specific skills because in the former case the market value of the skill is not tied to a particular firm or industry” (Estevez-Abe *et al.*, 2001: 150). Firms in liberal market economies are less likely to invest in long-term training, due to potential poaching and the need to fire and hire. Liberal market economies rely on higher levels of general education, as this reduces the cost of firm-specific training, and education and training systems are more likely to be based in formal institutions and not in partnership with employers, when compared to co-ordinated market economies.

Each has different “welfare production regimes” that supports the different corporate production strategies (product differentiation and co-operation in co-ordinated market economies versus product competition and market relations in liberal market economies) and different skill development strategies (high levels of industry and individual investment in industry and firm specific skills versus general skills and relatively less investment in industry skills by firms and individuals) (Estevez-Abe *et al.*, 2001). The conclusion is different to that of traditional neo-liberal economic theory in which “Social policy is often thought to interfere with labor markets by raising labor costs or the reservation wage” (Hall and Soskice, 2001: 50). Rather, “social policies can improve the operation of labor markets, notably from the perspective of the firm” (Hall and Soskice, 2001: 50).

In those co-ordinated market economies dominated by large firms the emphasis is on long-term employment and training within a single enterprise (employment protection), whereas in co-ordinated market economies dominated by small and medium enterprises the emphasis is on unemployment protection. In the former, the impact on skill formation is that firm-specific skills are emphasised, since individuals (and enterprises) have greater confidence that their investment in skill development will be rewarded, due to long-term tenure in the one firm or enterprise. In the latter, the emphasis is on industry-specific (rather than firm specific) skill development, since it is likely that individuals will move between firms, but usually within the

same industry (Estevez-Abe *et al.*, 2001). They can do this because the unemployment system is sufficiently generous and flexible to allow them to focus on finding ‘suitable’ employment, rather than having to take any job, regardless of its occupational skill level or industry, as in liberal market economies.

In contrast, in liberal market economies where there are relatively low levels of both employment and unemployment protection, “the best insurance against labor market risks for the worker is to invest in general, or portable, skills that are highly valued in the external labor market. If general skills are what firms need for pursuing their product market strategies, low employment protection can thus give these firms a competitive edge” (Estevez-Abe *et al.*, 2001: 153).

Estevez-Abe *et al.*, (2001: 156) argue that while welfare production regimes arise that are complementary to liberal and co-ordinated market economies, each results in different distributive outcomes in income, but also in access to, and achievement within, post-compulsory education and training. The focus on redistributive state policies as an explanation for these different outcomes is, they argue, too narrow an approach. Their basic proposition is that: “Product market strategies that rely on high levels of industry-specific and firm-specific skills are likely to create more egalitarian societies than product market strategies based on general skills.” This has implications for policies that aim to foster the development of high skills as one path towards a more equitable and inclusive society.

“The basic logic of our argument is straightforward. We argue that different skill systems and accompanying training systems have important economic implications for those who are academically weak and strong respectively. For the bottom one third, or so, of the academic ability distribution, a highly developed vocational training system offers the best opportunities for students to acquire skills that are valued by employers. When entry into vocational training is competitive, these students have an incentive to be as good as they can academically in order to get into the best training programs with the most promising career prospects. Therefore, countries with well-developed (and competitive) vocational training systems provide a stable economic future even to those students who are not academically strong. General education systems, in contrast, offer these students relatively few opportunities for improving their labor market value outside of the school system. As a result, there are fewer incentives for them to work hard inside the school system.” (Estevez-Abe *et al.*, 2001: 156)

There are other explanations for these outcomes that do not reduce the issue to the ‘rational choice’ made by students with ‘lower’ academic ability. The social distribution of opportunity based on socio-economic status and other indicators of disadvantage is an equally compelling explanation. It is quite possible to argue that students from these backgrounds have more options in co-ordinated market economies that offer highly skilled and highly valued vocational routes to work, which accounts for fewer becoming disengaged with the general secondary school system. Nonetheless, the evidence that Estevez-Abe *et al.*, offer is striking: they predict that early school leavers in co-ordinated market economies will do better in internationally standardised tests compared to those from liberal market economies:

“Whereas the percentage failing the test varies between 15 and 22 per cent in the Anglo-Saxon countries, it is only between 8 and 14 in the countries emphasizing more specific skills for which we have data. Although these differences could be due to the overall quality of the educational system, it is not the case that the Anglo-Saxon

countries spend less money on primary education, and there is no systematic difference in average scores. This points to the importance of incentives outside the school system, which vary systematically according to the dominant product market strategies of firms and their associated demand for particular skills.” (Estevez-Abe *et al.*, 2001: 178 - 179)

The difficulties that Australia has had in moving to a high-skilled economy based on highly skilled and highly valued vocational education and training becomes more understandable in the light of this analysis. So too, do the problems of engaging young people who have become disengaged from school, and for whom employment prospects are particularly bleak.

It also explains the almost universal aspiration of Australians for a university education, which as Robinson (2003: 1) notes, “is right up there with home ownership in the public perception in contemporary Australia about what today’s citizen must have.” He argues that there is a serious mismatch between jobs and skills at the VET level (or sub-degree level), while there is more balance between professional jobs and the numbers of higher education graduates.

The next section considers the implications in Australia for moving to an economy based on high skills, high wages, and high quality. The conclusion drawn here is that the type of system required seems closer to the co-ordinated market economy than the liberal market economy. This is followed by a discussion on the education and training policy implications in moving to such a system. It concludes with a discussion of the implications for the community college, particularly on the nature of the relationship between the community college and the relevant industries, and the network of relationships that need to be fostered to support the development of a cluster based around an industry.

What does an innovation economy look like?

Michael Porter (Porter and Ketels, 2003: 30), high priest of neo-liberal economic theory, argues that countries such as the United Kingdom and Australia need to develop national competitiveness through building collaborative networks and clusters:

“In the past, government, often at the national level, was in charge of improving competitiveness through policy decisions and incentives. Firms competed in the marketplace and took their environment as a given. In modern competition, however, improving competitiveness becomes a collaborative process involving multiple levels of government, companies, educational institutions, and institutions for collaboration (IFC). At the microeconomic level a large number of factors impact on competitiveness and hence only a broad coalition can hope to improve a nation’s foundations of competitiveness.”

He explains that the “competitive advantages of a nation’s companies must shift from comparative advantages (low-cost labour or natural resources) to competitive advantages arising from unique products and processes” (Porter and Ketels, 2003: 34). This sounds very much like the product strategy processes of co-ordinated market economies. Porter (2003: 40) explains that the problem in the UK (and one could argue here also) is that:

“The weaknesses in the infrastructure, science and technology system, and labour force skills make it harder for companies to compete on innovation and unique value. In contrast, historically the relatively low costs of labour and other costs of doing business compared to peer countries made it attractive to compete on efficiency and lower cost.”

He says that in the UK “Lower taxes, less regulation, and an even smaller role for the government are no longer the most critical elements for UK competitiveness” (Porter and Ketels, 2003: 43). Rather than economic development being based on producing standard products and services more efficiently and effectively, countries need to move to the “*Innovation-Driven Stage*” in which:

“The ability to produce innovative products and services at the global technology frontier using the most advanced methods becomes the dominant source of competitive advantage. At this stage, the national business environment is characterised by...the presence of deep clusters. Clusters become critical motors in generating not only productivity but innovation at the world frontier. Institutions and incentives supporting innovation are also well developed, increasing the efficiency of cluster interaction. Companies compete with unique strategies that are often global in scope, and invest strongly in advanced skills, the latest technology, and innovative capacity.” (Porter and Ketels, 2003: 42)

Supporting the development of clusters as engines of this growth and of innovation thus becomes a key role for government. Clusters are “geographically proximate groups of interconnected companies, suppliers, service providers, and associated institutions in a particular field, linked by commonalities and complementarities” (Porter and Ketels, 2003: 27). Porter appears to be arguing for the establishment of clusters as if they were micro-co-ordinated economies within a liberal market economy. This points to the importance of clusters based on regions, or other communities of interest. Porter cites the wine industry in Australia as an excellent example of an innovative and successful cluster. He says that clusters support competitiveness in three ways:

“First, clusters increase the *level of productivity* at which constituent firms can operate....Second, clusters increase the capacity for *innovation and productivity growth*...Third, clusters stimulate and enable *new business formation* that further supports innovation and expands the cluster.” (Porter and Ketels, 2003: 27)

A range of associations and institutions are required to facilitate the development of clusters and co-operative behaviours. These include “chambers of commerce, industry associations, professional associations, trade unions, technology transfer organisations, quality centers, think tanks, university alumni associations, and others” (Porter and Ketels, 2003: 31).

However, unlike arguments advanced by Gibbons *et al.*, (1997), in which universities have declined in importance relative to other sites of applied, multi-disciplinary research and knowledge, Porter (2003: 30) argues the reverse:

“Universities and other educational and research institutions have also become increasingly important factors for national and regional competitiveness. Traditionally they have been important in improving the skill base of the economy. But a shift in the way research and development (R&D) is organised is now also strengthening their role

in commercial R&D. In the past, universities did basic science, while companies worked separately on applications for commercial use. Today, these boundaries have blurred, and successful R&D often involves cooperation throughout the innovation process.”

To conclude and summarise this section: Robinson (2000: 17) (in citing Brown and Lauder), argues that “the advent of the knowledge based economy” means that

“...advanced economies are moving to new forms of workplace organisation that encompasses:

- global competition based on innovation, quality and value adding;
- the development of strategic alliances rather than competition;
- flexible production and niche markets with high skills/high wages;
- collective participation and high discretion in the workplace;
- good conditions for all workforce;
- skilling as a national investment with the state as a strategic player.”

Moving from our current base to this, is not, however, a simple matter. Porter (2003: 43) makes the point that it is a slow process, and that “companies need to move to new types of strategies, investment priorities must change and new institutions must be developed.” This is the focus of the next section.

The implications for skill development

The South Australian Ministerial Inquiry into Skills (2003: 20) proposes the term ‘workforce development’ as the organisational framework for skill policy in South Australia. It argues that the “existing language of ‘education and training’, ‘VET’ and even ‘skills formation’ does not capture adequately the dynamics of skill in the contemporary world of work where the content of skill is changing and where skills are developed formally and informally in multiple contexts through multiple pathways, physical and virtual throughout a working life. Nor...does it reflect the multiple contexts in which skills which are acquired are actually used.” This is a useful term because it points to the interaction and mutual dependence of complementary institutions in skill development, and the shifting nature of skill. It implies a relational perspective, which posits education and training as an active partner in workforce development (one of many) rather than merely the supplier of skills to order.

This report, the report of the first phase of the high level review of training packages (Chappell *et al.*, 2003), and the BVET work (Buchanan *et al.*, 2001), all argue that skill development cannot be conceived as residing within single enterprises, because, even though

“the performance of individual firms remains vital, they are increasingly embedded in wider sectoral and networked systems which have a key role in shaping the collective demand for and utilisation of skill. This suggests that skills formation policies need to balance the current emphasis on individual firms with strategies which seek to develop skill through industry networks, clusters and supply chains.” (Ministerial Inquiry into Skills for the Future, 2003: 22)

What we have yet to do in Australia is to think through what this means in practical terms. The South Australian report and the BVET report both talk about the need to support skill ecosystems and both offer a framework for beginning to develop this approach, as does the report on the first phase of the high level review of training packages.

However, we have yet to become more explicit about the policy initiatives required to make this transition. Following from the *Varieties of Capitalism* literature, this process is quite difficult, because it requires developing an infrastructure and associations to underpin clusters. This is demonstrated in the South Australian report that cites work from Blandy's analysis of the South Australian clusters strategies:

“The failure of SABV 2010's industry clusters to develop vertical linkages to skill, technology and infrastructure suppliers in South Australia is, correctly, seen as a weakness. By the same token, while there is a strong need to add skills, R&D, infrastructure, seed capital, incubation and similar foundations players to each cluster, the foundations players in general have not been very interested in doing so.” (Blandy, cited in Ministerial Inquiry into Skills for the Future, 2003: 43)

It is clear from the analysis by Porter and others that moving to an innovation economy – or a high skills economy – requires moving towards systems that are more characteristic of co-ordinated market economies, and consequently we need to examine the policy frameworks that foster and support the complementary institutions characteristic of clusters.

Culpepper (2001: 275) provides a framework that is helpful here. He argues that “such initiatives *can* succeed, even when countries lacking the framework of a coordinated market economy attempt to create non-market coordination *de novo*.”

The BVET report (Buchanan *et al.*, 2001: 15) critiqued early work coming from the *Varieties of Capitalism* stable because of its over-emphasis on the need to support firms:

“...attempting to solve the problem by making policy more ‘employer sensitive’ has merely exacerbated the problem....recent shifts in policy have assumed that the key problem resides in the system of skill formation. [This analysis did not address] employer behaviour, and the factors shaping/driving that behaviour. But as the most recent literature has revealed, it is an understanding of these issues that is vital if we are to understand both the context in which skills are formed and used and how effectively we can design policy.”

This deficit seems to have been addressed by Culpepper who bases his analysis on an understanding of employer behaviour and policy approaches that aim to elicit more co-operative behaviour. He refers to this a ‘decentralised co-operation’, arguing that governments can never have access to the level of nuanced information they need about training needs and the training practices of firms, and that they need to rely on partnerships with associations (of employers and other stakeholders, including unions) to develop targeted policy. He poses the question in this way: “How can companies be persuaded to cooperate with one another to improve the skill level of the workforce?” (Culpepper, 2001: 278). He says that the key to understanding policy challenges in periods of transition to co-ordinated approaches is to understand the role of *uncertainty*:

“The key to securing decentralized cooperation is the acknowledgement of the central role of uncertainty in blocking change. In such a situation of transition, the uncertainty of how other actors will behave undermines the effectiveness of the tool of sanctioning, either by the state or by private associations. Instead, what is important is to develop policies that target the most likely cooperators in the population, a group I designate as ‘waverers.’ Designing policies that can disproportionately attract waverers requires inside information about firms, and this is information that governments will not be able to acquire on their own. States are good at standardizing measures, not at assessing contextual information. ...Such policies can only be crafted if state policy-makers incorporate the private information accessible to employers’ associations in the design of public policies.” (Culpepper, 2001: 277 - 278)

Culpepper (2001: 279) develops an analysis about the role that associations play, particularly employer associations, and says that there are “four potential roles played by the institutions of employer coordination in vocational training reform: information circulation, deliberation, monitoring and sanctioning.” It seems that we need to understand what associations do if we are to understand how to best support the development of clusters.

Culpepper argues that in times of transition that sanctioning is not a useful mechanism, because firms have no experience of the behaviour sought, nor do they have insight into what others will do (poaching etc), and living with the status quo may seem to be the safest option: “So any attempted policy-led move to the high-skill equilibrium must overcome the uncertainty of companies about how others will behave” (Culpepper, 2001: 282). He describes two forms of uncertainty that firms grapple with: the first is ‘strategic uncertainty’, arising from their uncertainty concerning how other actors will behave. The second is ‘analytic uncertainty’, and that refers to uncertainty about the likely outcomes of the reforms themselves – will they deliver?

The way forward to decentralised co-operation is, Culpepper (2001: 284) argues, through understanding “the central role of information and the reduced role of sanctioning.” This recognises the respective strengths and contributions of private associations and government. He says that:

“My argument builds in particular on two capacities ...the ability of associations to get access to and be able to circulate private information, and the ability of the state to provide transitional aid (subsidies) to hesitant new cooperators. The inside information to which private groups alone are likely to have access is a necessary ingredient to develop policies that can target the most likely potential cooperators in the population. State aid and private information must be articulated so as to create clusters of supported cooperation, in which wavering companies are able to gain confidence not only in the ability of institutions to perform their prescribed roles in supporting high-skill training, but of the training investment itself to provide a positive benefit.”

He elaborates these two complementarities (the respective roles of the state and associations) and in doing so, develops five hypotheses:

H₁: State policies devised without inside information will target only those aggregate problems that state bureaucracies can measure.

H₂: State policies devised with inside information will be designed disproportionately so as to attract the most likely cooperators in the population....

H₃: *The presence of employers' organizations with capacities for information circulation, deliberation, and mobilization is a necessary condition for reforms premised on securing decentralized cooperation to succeed.*

H₄: *In times of transition, associations possess no credible sanctioning mechanisms to deter free-riding....*

H₅: *Programs specifically targeted at waverers are likely to succeed, whereas those subsidy policies that distribute aid indiscriminately will fail, in securing decentralized cooperation.” (Culpepper, 2001: 286-287) [italics in original]*

Culpepper recognises the importance of other actors, including unions and other groups of stakeholders in having input into the education and training system. The clear conclusion to be drawn from his approach is that subsidies need to be specifically targeted towards high-skills clusters, rather than indiscriminately and generically. The South Australian Ministerial Inquiry into skills makes a similar point. The report says that an assumption that must be challenged is that:

“...all industries are equally important and that investment in skill formation should not ‘discriminate’ between industries. This raises a major dilemma for government. Those industries most likely to deliver jobs in the short term are not necessarily those that, through knowledge-intensive production have the potential to create new jobs in the long term but show little employment or even declining growth in the short term. A stronger emphasis on skills for knowledge-intensive work is needed, to balance the current emphasis on skills for short-term and low-skill jobs.” (Ministerial Inquiry into Skills for the Future, 2003: 22)

From skills gap to workforce development

The usual response to evidence of gaps in and the under-supply of skills needed by industry is to blame the supply side – education and training providers. However, this is too simplistic because it fails to consider all the elements that contribute to creating a skills gap.

While curriculum may need reform, this skills mismatch is not entirely attributable to education and training, but sometimes to the relative immaturity of industries (particularly in the new economy), the oversupply of labour, and the casualised nature of employment. This apparent contradiction between an oversupply of labour and a skills mismatch emerges because of a paradox: in areas of high labour mobility it is less likely that people will invest in developing industry-focussed high level skills if they cannot be sure that they will be able to obtain sustainable work as a consequence. Moreover, employers are loathe to invest significantly in skills development in areas of high labour mobility because of poaching by other firms and because it may not be possible to realise that investment through offering individuals relatively secure and attractive employment (Hall and Soskice, 2001).

Increasing the effectiveness of the ‘supply side’ isn’t necessarily going to change this. Moreover, industries cannot just look to education and training providers to solve all their skill problems. Unless and until enterprises are actively engaged in training and prepared to invest in training, problems with skills’ mismatch will remain. This is because skills development is far broader than education and training. This is explained by the South Australian Ministerial Report on Skills (2003: 7):

“Skills need to be pulled back from an inward-looking education and training focus into a context of both work and community life. Likewise, skills formation policy need to be pulled out into a wider policy context which includes but goes beyond education and training policy to questions of state development, industry policy, innovation policy, employment policy and social policy.”

Skills development is a broader issue than formal education and training because of the rapid pace of change, and the need to develop creative relationships between processes of innovation and skills development within the workplace as well as within the classroom, and between the workplace and classroom:

“The overarching vision for a highly skilled and adaptable workforce cannot be achieved by a focus on education and training or on skills formation alone. It needs to be embedded in a wider system of innovation and economic and community renewal. This will in turn require co-ordination of government effort, long-term commitment and adequate resources.” (Ministerial Inquiry into Skills for the Future, 2003: 9)

It is for this reason that the South Australian Skills Report prefers the term ‘workforce development’ to skill formation or education and training or VET because the latter terms do not:

“...capture adequately the dynamics of skill in the contemporary world of work where the content of skill is changing and where skills are developed formally and informally in multiple contexts through multiple pathways, physical and virtual throughout a working life.” (Ministerial Inquiry into Skills for the Future, 2003: 20).

They define workforce development as:

“...those activities which increase the capacity of individuals to participate effectively in the workforce throughout their whole working life and which increase the capacity of firms to adopt high performance work practices that support their employees to develop the full range of their potential skills and value.” (Ministerial Inquiry into Skills for the Future, 2003: 20) (emphasis in original)

The South Australian report argues that government needs to resist a ‘one-size fits all’ approach and instead foster industry-specific collaborations which can minimise skill imbalances. This requires a whole of government approach, based on ‘joined-up-policy’. Fortunately, the Queensland government has gone some distance to providing such a framework through its policies on creative industries, cultural policy and the arts. This is discussed in the next chapter.

This analysis further reinforces the points made throughout this report of the need for the community college to sit within a broader network of associations that includes enterprises, government and other stakeholders, to ensure the co-evolution of the community college with the skill needs of these industries. In other words, while we need to rethink and radically renovate existing traditional approaches to education and training in these areas, this will only be effective if it is in partnership with organisations based on mutual inter-dependence. It also has specific implications for the community college, and that is that while the provision of qualifications as an *entry level* into these industries will be a key focus, so too should be *continuing* professional development.

Curricular implications

This chapter has argued that the community college needs to form associations with other parts of the industries it serves. This reinforces the conclusion of following chapter that learning and qualifying is principally about learning to become a member of a community of practice. If this is so, the qualifications offered by the community college need to be grounded in the working life of the practitioners in the various industries and the skill they need to survive.

This does not mean that learning should be limited to specific task-focussed competencies. Indeed, such an approach would be counter-productive as it would not result in the high-level industry focussed skills needed to work in innovative workplaces. Graduates need a sophisticated understanding of the disciplines that underpin the various occupations and a high level of skill in using these understandings in new and innovative ways. But it does mean that the curriculum should equip students with the skills they need to operate as members of a community of practice. More than this, they need skills to work in related occupations. A community college can try to distinguish itself from other education and training providers by providing graduates with the skills to work in occupations related to their vocational focus.

Implications for the community college

The above wide-ranging analysis of globalisation, reflexive modernisation, the changing composition and patterns of work, varieties of capitalism, the features of an innovation economy, and policy challenges involved in supporting clusters, needs to be considered in shaping the purpose of the community college. The following broad outlines are suggested:

- the community college's qualifications and curriculum approach should help students enter a vocation in an industry, rather than specific occupations based on defined skill sets. This should be premised on helping students to understand the broad work-process knowledge of the industry, and also in using learning towards the vocation to being able to understand the world more broadly, and their place in it. The curriculum also needs to be integrated so as to enable students and graduates to navigate through their vocation in the context of 'reflexive modernisation'. That is, students and graduates will need the skills and attributes of self-management and learning to learn, contextualised by the industries in which they will need to be able to function as highly skilled, autonomous workers;
- the development of high level skills needed by the new economy cannot be developed through the efforts of a community college alone, in isolation from the relevant industries. Formal education and training in institutions is only part of the solution, and as the *Varieties of Capitalism* analysis demonstrates, will likely be more generally focussed than industry focussed in the absence of a dense network of relations between industry partners, employees, practitioner associations and the community college;
- the community college needs to consider how to use existing government policy as levers to support the development of networks or clusters, particularly in 'new

economy' areas. The existence of associational frameworks are necessary to ensure industry is a real and working partner in developing the qualifications and curriculum of the community college, but also in helping to develop more nuanced understandings about the type of skills needed and how to develop those skills. Individual firms are unlikely to have a fully developed understanding of this, and how projected skill formation can contribute to their competitiveness and the development of innovative and differentiated products. Such an associational framework is essential not just for ensuring students have placements throughout their studies, or that industry views favourably graduates from the community college. This is important, but is a second order issue. The primary issue is the *co-evolution* between the community college and the relevant industries, as both develop a better appreciation and understanding of the type of skills needed, how to support students to develop those skills, and once students/graduates have these skills, how to keep them working in the industry and within the broad ambit of the cluster.

- as part of the cluster approach, the community college should consider supporting the development of research capacity in the new economy. This can take a variety of forms, but partnerships which build on government policy, teaching and learning capacity through a community college and research capacity provides a focus for industry based clusters which appear to be absent elsewhere. It may not be possible to include this in the initial planning, but it should be part of a longer-term plan which aims to make a cluster a centre for innovation in the new economy.
- 'unmet' demand for skills needs to be understood within a labour market characterised by over-supply and under-employment.⁷ Qualifications need to incorporate this understanding in the design of the curriculum;
- the mismatch between graduate skills and skills required by enterprises is not simply a 'supply-side' education and training issue, but is related to broader issues: the structure of the labour market, the relatively under-developed and immature nature of the industries, the lack of established clusters, and the lack of national infrastructure. This mismatch is consequently not going to be solved simply by tweaking existing qualifications. Following the South Australian Ministerial Report on Skills, the notion of workforce development is useful for understanding all processes required in developing skill, and that skill development is a continual process and inherent in innovation. The implication for the community college is that its role in skill formation is not limited to preparing graduates for entry-level positions, but includes working with enterprises to develop continuing professional development opportunities;
- qualifications need to be based on equipping graduates to survive in the workplace and labour market – their 'community of practice'. This means that graduates need the skills to develop their own portfolio and manage their careers. The Australian community college will need to work with industry and practitioners to shape its qualifications. This also gives the community college partners greater scope in developing pathways, as these may well take community college graduates into related and not identical qualification areas.

⁷ This may not be the case in all areas, but given the problems with defining these industries it is very difficult to determine issues of supply and demand for each. More research is necessary to determine this.

The community college model offers Australia the opportunity to develop a new model which incorporates all components necessary to underpin and sustain innovation: the development of clusters able to articulate existing and emerging skill needs, and support the development of niche products based on high skills and new technology; an education and training institution firmly located within a dense network of stakeholders in the industry; and, research capacity that feeds into product development, teaching and learning, skill development and diffusion of innovation.

3. Qualifications and curriculum

This chapter examines the nature of qualifications and curriculum needed in the innovation economy. It argues that a clearer understanding of the role of qualifications is needed, particularly in what qualifications signify. This section draws on recent work in the Organisation for Economic Co-operation and Development (OECD) on the role of qualifications frameworks in supporting lifelong learning. Flexible and dynamic qualifications presuppose models of curriculum that engage the learner in learning for a vocation, and not merely in acquiring specific skills needed for a particular job. The discussion draws on recent findings about how we learn, in particular, the insights from activity theory and community of practice theory. If learning is, as these theories argue, about learning how to become a member of a community of practice, then implications follow for the design and implementation of curriculum.

Learning theorists have tended to regard the question of qualifications as a rather grubby issue, divorced from teaching and learning, and belonging in the realm of policy. Policy makers, on the other hand, have tended to focus on the relationship between qualifications and the labour market, and to regard teaching and learning almost as an irrelevance – as something that ‘happens’ to students, but not related to the outcome at the end.

Both these approaches are problematic. There is a close relationship between the nature of qualifications, the curriculum and supporting innovation. The community college needs to consider new types of qualifications that support innovation, and to do so, we need to understand what qualifications signify, and what they need to do to achieve this goal. Qualifications need to meet the needs of all stakeholders and have the confidence of employers, unions, and the broader community, while being sufficiently flexible so that learning is open-ended, and not tied to closed, prescriptive outcomes. Policy needs to be informed by teaching and learning, and teaching and learning by policy.

This chapter draws on recent work in the Organisation for Economic Co-operation and Development (OECD) on the role of qualifications frameworks in supporting lifelong learning. It also draws on recent findings about how we learn, in particular, the insights from activity theory and community of practice theory. If learning is, as these theories argue, about learning how to become a member of a community of practice, then implications follow for the design and implementation of curriculum. In looking at what it means to become a member of a community of practice, the chapter also explores the holy grail of learning theory – curriculum approaches that help students to *transfer* the learning they acquire in one context to another context.

Qualifications: competing demands

Qualifications are the link between the formal education and training system and the labour market. As a consequence, qualifications and qualifications frameworks contain contradictions and tensions as they try to reconcile the different and competing claims and needs of stakeholders: learners, employers, government and the broader community. To this mix is added an additional requirement: the pace of change means that qualifications need to become

open-ended and equip learners with process oriented and problem-solving capacities contextualised by their vocation, rather than specific skills for specific occupations. This dilemma is nicely summed up Dewey (1966 (1916): 79), and although he wrote this in 1916, it seems to have renewed relevance today:

“Education may be conceived either retrospectively or prospectively. That is to say, it may be treated as process of accommodating the future to the past, or as an utilization of the past for a resource in a developing future. The former finds its standards and patterns in what has gone before.”

Current debates about qualifications reflect all these tensions:

- the past versus the future; specific skills or problem solving and process oriented skills;
- ‘generic’ skills or contextualised skills;
- academic versus vocational education;
- education and training for work or for broader citizenship;
- qualifications as a codification of specific skills or as signifiers of attributes and dispositions;
- reporting and accountability requirements against defined learning outcomes versus open-ended and loosely defined qualifications;
- institutional accountability versus institutional autonomy in meeting the learning needs of their community;
- the role of stakeholders in governance and standard setting versus the need for teachers to have autonomy; and,
- qualifications based on public and transparent criteria or qualifications based on communities of trust.

The above binaries are not necessarily mutually exclusive. They may exist in creative tension between each other. However, they do express many of the tensions besetting education and training systems, and both sides of the binary need to be actively engaged at the level of policy and teaching and learning. This does not always happen.

Education systems now are a network of pathways, and governments aim to influence the way in which individual decisions are made, to align them with national economic interests (Raffe *et al.*, 1998). Qualifications and qualification frameworks are used by governments to promote lifelong learning and encourage specific education and training goals to improve links between learning and employment (Young, 2001).

Co-ordinated market economies and liberal market economies have approached the nature of qualifications and qualifications frameworks differently. Young (2003: 200) explains that both the Anglophone (liberal market economies) and Germanic/Nordic countries (co-ordinated market economies)⁸ have reformed their education and training systems in response to “global economic changes and the related changes in skill and knowledge demands.” He contrasts the approach of Anglophone nations which “sees a *qualification framework* as the best way of responding to these changes” with the Germanic and Nordic approaches which focus “on improving a country’s *institutional framework*—primarily the links between different levels of educational institution and their links with private and public employers” (Young, 2003: 200).

⁸ Although Young does not use these terms liberal or co-ordinated market economies to describe these countries.

Anglophone liberal market economies have created quasi-markets in post-compulsory education and training, on the basis that Adam Smith's 'invisible hand' would result all the outcomes sought by government. These outcomes include:

- providers that produce qualifications and graduates sought by the labour market with the skills and attributes needed by enterprises;
- qualifications that accommodate the needs of learners (as they too are now customers);
- qualifications delivered at the lowest price, to the maximum number of students, and with high levels of accountability to government (Marginson, 1997).

These countries established qualifications frameworks as a currency framework and qualifications as the unit of currency (masters, degrees, diplomas etc).⁹ They are the mechanism through which fees, qualifications and jobs can be exchanged. That is, a qualifications framework is needed to structure a qualifications market. This is characteristic of societies in which the market is used as the principal means of co-ordinating the economy and regulating relations between actors, underpinned by defined regulatory arrangements.¹⁰

In contrast, co-ordinated market economies have implemented 'process-oriented' systems (characteristic of the Germanic and Nordic systems), which are underpinned by social partnerships between government, education and training providers, employers and unions. This is more characteristic of societies which use networks of interdependent relations and looser and more open-ended concepts of contract to co-ordinate the economy. In these systems:

“Qualifications ‘on their own’ are not used by governments as a lever for change...Reforms rely in broad rather than specific criteria, clear input definitions or learning programmes and peer and partnership trust to promote progression, primarily through institutional links.” (Young, 2003: 206)

Qualifications frameworks in the UK, Australia, and New Zealand are based on specified learning outcomes. Such frameworks are seen to be more applicable to VET systems based on competency-based training models of curriculum, and less to higher education and school education, which are based more on curriculum inputs (Keating, 2000). This has been part of the basis for the resistance (or often, indifference) by universities to qualifications frameworks because they are seen to undermine university autonomy (or are seen as an irrelevance) (Keating, 2003; Young, 2003). Nonetheless, they are still important for structuring the qualifications market – as the basis for ranking qualifications (and exchanging jobs on the basis of qualifications), establishing gateways, setting fees and so on. . This is why a qualifications framework applies to higher education even if the framework is unable to specify the learning outcomes for higher education awards with the same precision as with VET.¹¹

⁹ It is harder to make such generalisations in the case of the United States because education is a state responsibility and states have different frameworks and approaches. Young's analysis certainly applies to the UK, Australia, and New Zealand. South Africa could also be included in this group.

¹⁰ An analogy would be the stock market which is regulated by the stock exchange.

¹¹ I am grateful to Gavin Moodie for this observation.

In Anglophone systems, qualifications moved from being a guide to devising assessments and normative criteria to compare learners, to “claiming to be a precise definition of what a person could do—in other words, evidence of his or her competence (Young, 2003: 199). This represents, in Young’s (2001: 11) view:

“...a move away from “a system of qualifications based on the shared practices of teachers and trainers in different crafts and trades, professions and academic disciplines, each with their specific skill and knowledge requirements, to a system of qualifications based on agreed national criteria which underpin all qualifications within a single framework.”

However, Young asks if outcomes based qualifications frameworks are adequate for meeting the needs of the future. He argues that political reforms which sought to make qualifications independent of awarding institutions have robbed qualifications of the capacity to incorporate the open-ended learning necessary for societies experiencing perpetual change. He says that:

“...it may... be useful to explore evidence of the extent to which an over-emphasis on qualifications (and in particular, the tendency for this to lead to a greater emphasis on the assessment of outcomes) can unintentionally inhibit the on-going learning that is not geared to testing or assessment. If people are to become lifelong learners it is the learning that is not immediately tested or linked to qualifications that needs to be encouraged.” (Young, 2001: 9)

He argues that given the pace of change that “new kinds of learning may need to be encouraged that cannot easily be predicted in advance and may not be readily assessable for qualifications.” Further:

“It may be that the balance between control and risk will need to shift, with less emphasis on assessing pre-defined outcomes and more on enabling learners to explore new possibilities that cannot be predefined. In other words, supporting learning may not be equated with a greater emphasis on qualifications, unless qualifications are themselves defined in new ways with less emphasis on prior specification of outcomes and more on learning processes and the judgements of different stakeholders.” (Young, 2001: 10)

At first blush, this seems to have most relevance to VET qualifications, as the mandated model of provision is training packages containing industry-derived competencies. Despite policy intentions, research shows that training packages are not used flexibly in regions or by enterprises to tailor learning to local needs (Farrell and Wyse, 2003). Training packages are also criticised for decontextualising learning from work and the community, while at the same time tying learning to tightly defined (but decontextualised) outcomes based on the codification of existing skill, and focussed on atomised competencies rather than the ‘work-process’ knowledge (Boreham, 2002) inherent in a vocation.

However, arguably many higher education qualifications do not meet the criteria Young advances for qualifications for the future. The challenge for many higher education qualifications (including those serving the needs of the professions) is to contextualise learning with the broader world of work (Boud, 1998) and society. Higher education awards need to encourage cross-disciplinary as well as disciplinary learning, high level industry focussed skills (and not just ‘general academic’ skills and knowledge), and the development of

self-managing and autonomous workers and citizens who can manage their careers and future learning in the context of reflexive modernisation.

Consideration of appropriate qualifications and curriculum models for the community college are thus contextualised by broader debates about the role and nature of qualifications in both sectors. The proposition advanced here, which is similar to the signals (if not always explicit statements) in other research and government reports (Kosky, 2002; Chappell *et al.*, 2003; Ministerial Inquiry into Skills for the Future, 2003), is that we need new approaches to qualifications to meet the needs of new emerging and innovative industries.

In considering appropriate policy responses, Young does not propose wholesale adoption of the Germanic/Nordic ‘process-oriented’ models. The problems with these models are that they are slow to change, slow to adapt to learning needs of new occupations, and it is difficult to transfer between occupations and different sectors – particularly between vocational and general qualifications (Young, 2003). However, he also considers that outcomes based models need to change, as the decoupling of qualifications from the communities in which they were based (education and training institutions, as well as professional and trade organisations) has resulted in declining importance attached to the “communities of trust” that underpin them. He explains that

“...the credibility, quality and currency of a qualification is only partly based on what it says the person qualified can do or knows; far more important is the trust that society in general and specific users in particular (those whom select, recruit or promote) have in the qualification....If one or other of these communities does not underpin a qualification, it will have a problem of credibility, however well specified its outcomes.” (Young, 2003: 208)

Young explains that communities of trust have been, and many still are, elitist or exclusionary. However, the alternative – the apparently democratic criterion-based approach doesn’t do away with the reality that communities of trust underpin the extent to which qualifications are valued (Young, 2003). Consequently, government policies need to be directed at building associational frameworks that are inclusive, or helping to establish them in new and emerging areas where they do not yet exist.

Young’s conclusion is that there needs to be more convergence between process-oriented and outcomes-oriented approaches. It is not a zero-sum game. Rather, the conditions which underpinned both have changed. The shared practices model was sustainable when change was incremental and when most labour was unqualified – so this cannot be the basis for qualifications now. On the other hand, outcomes based models must be underpinned by communities of trust if they are to be seen to have value (Young, 2003).

This analysis is congruent with the conclusions drawn in the previous chapter. In analysing the changes to the nature of work, and the need to move to innovation characterised by high-skills, high wages and quality niche products and services underpinned by clusters, the chapter argued for the concurrent development of an associational framework based in the new economy in partnership with the community college to ensure the *co-evolution* of both.

It proposes a curriculum model based on the notion of a vocation, to ensure that graduates have the capacity to develop industry focussed, high level skills needed to support innovation, rather than exclusively general academic skills on the one hand, or narrowly defined occupational competencies on the other. Basing qualifications on communities of trust presupposes this approach to curriculum. While outcomes are important and need to be clearly defined, these need to be defined in broad terms to ensure that the qualification can help new industries to develop highly customised solutions to rapidly changing technology and work processes. The focus and content of the curriculum needs to be premised on a *partnership* between the community college and the industries, rather than the latter prescriptively determining in advance what the former should supply. This raises the possibility of innovation occurring *through* learning, rather than learning *for* innovation (Ellström, 1997). It also allows the community college to develop qualifications which, while signifying specific sets of learning, is also greater than the sum of its parts. The next section of this chapter explores what the curriculum needs to look like.

Curriculum

Recent literature is moving away from individualistic theories of learning (particularly behaviourist and cognitive approaches), to theories premised on the understanding that learning is fundamentally a social process, and involves transformation of the learner's identity (Engeström, 1999a; Young, 2000; 2002; Chappell *et al.*, 2003; Stevenson, 2003a).

Wenger (1998: 73) uses a 'community of practice' as his model of social learning. The community of practice coheres around:

- mutual engagement (in which individuals are engaged with each other in groups and "engaged in actions whose meanings they negotiate with each other");
- joint enterprise (in which there is a negotiated enterprise "defined by the participants in the very process of pursuing it" (Wenger, 1998: 77); and,
- a shared repertoire (shared stories, discourses, artefacts, concepts etc).

He uses the term 'legitimate peripheral participation' "to characterise the process by which newcomers become included in a community of practice" (Wenger, 1998: 100). This describes the process through which the novice comes to be recognised as a competent and then expert member of a community of practice, or a student/graduate a fully contributing and effective member of a workplace.

The pedagogical implication of this analysis is that learning (and qualifying) is a *process* and not a single outcome (Young, 2001), and learning outcomes (often defined as declarative knowledge) or competency outcomes (often defined as occupationally specific task-focussed skills) that are distinct from the *process of learning and from the context in which learning occurs* are unlikely to be as rich as they need to be (Chappell *et al.*, 2003). It implies that dividing learning objectives into 'declarative' and 'procedural' objectives is far too narrow a way of conceiving learning, as learning to be a contributing member of a community of practice involves holistic learning that goes beyond 'knowing that' and 'knowing how' (Stevenson, 2003a). It also implies that dividing learning into 'academic' and 'vocational' objectives or cognitive, psychomotor and affective objectives (or variations along these lines) results in disconnected learning (and creates artificial distinctions based on hierarchies

between different kinds of knowing (Stevenson, 2001; 2002), as learning to become a member of a community of practice must engage students in *all* these dimensions.

Moreover, it implies that learning that occurs in the learning institution and the workplace (or other site in which students become part of a ‘community of practice’)¹² needs to be considered holistically. This goes beyond ‘work placements’ in a course, or similar work experience. It conceives of the community of practice as encompassing both sites – the learning institution and the workplace, and the curriculum needs to be premised on making connections between the learning (and the different meanings) that ensue in each (Stevenson, 2003d). This is because it is within the community of practice that learning occurs, connections are made, and new knowledge created by the learner and other stakeholders. This is particularly relevant if we consider that, as argued in the previous section, the outcomes of learning cannot and should not be definitively and prescriptively predefined in advance, given the constant processes of change in work and in society. Learning, in this conception, is not just about achieving predefined outcomes that are parcelled up into distinct competencies or parcels of declarative knowledge, each of which is assessable, stackable and countable. It also about developing shared understandings within the community of practice.

However, while Wenger’s communities of practice approach makes a valuable contribution in understanding aspects of the learning process, particularly in defining a community with a shared enterprise as the site in which learning occurs (which is not limited to formal education and training institutions), it is not a sufficient basis for a theory of curriculum. It tends to be hierarchical, taking as a given prevailing power relations, depicting learning as a process of enculturation undertaken by novices, and not as an iterative process in which all members of the community are engaged; it is static, as it focuses on the *reproduction* of knowledge and practice, and not their transformation or even evolution; and it does not explain *how* learning occurs, only that it *does* occur, and that it is socially situated. Engeström and Mietinen (1999: 12) explain that the problem with communities of practice theory as follows:

“The theory of legitimate peripheral participation depicts learning and development primarily as a one-way movement from the periphery, occupied by novices, to the center, inhabited by experienced masters of the given practice. What seems to be missing is movement outward and in unexpected directions: questioning of authority, criticism, innovation, initiation of change. Instability and inner contradictions of practice are all but missing....”

This is important because, as Engeström (1999b: 385) explains (in a chapter on innovative learning in work teams), conflict, debate, and contradiction play a key role in knowledge creation and in innovation: “The whole process is seen as energized and often radically refocused by negation: questioning, criticizing, even rejecting accepted wisdom.”

¹² For example, the committee of management of the local child-care centre, the organiser of the local peace group, or member of the local council

Activity theory – a useful approach for the curriculum

Activity theory is increasingly applied in educational theory (and many other disciplines) as a socially-situated theory of human activity and practice that goes beyond the communities of practice approach to consider the interaction between all elements that make up an ‘activity system’ and the inherent contradictions that characterise systems. It is these contradictions that lead to change and innovation. Human activity is object-oriented activity characterised by complex interactions between individuals, between individuals and social groups, and between different social groups (or collectivities). The activity system emerges from previous practice, is culturally mediated, and mediated through the use of artefacts which include tools (for example, hammers or machines) and signs (for example, theories, ideas, concepts and language), and in the process is transformed. An activity *system* is:

“...*object-oriented, collective, and culturally mediated human activity*... Minimum elements of this system include the object, subject, mediating artifacts (signs and tools), rules, community, and division of labor... The internal tensions and contradictions of such a system are the motive force of change and development. They are accentuated by continuous transitions and transformations between these components of an activity system ...” (Engeström and Miettinen, 1999: 9)

Figure 1 is a visual representation of a model of an activity system. It shows the interaction between the various components of the system and the dynamic complexity of this interaction. Tensions and conflicts occur in working towards the object, indeed even concerning the nature of the object:

“No matter how clear the intention and assignment may be for management, the object will be creatively reconstructed by those who are supposed to solve the problem. This creative reconstruction often involves questioning, confrontation, and debate. If this is overlooked, the important dimension of power will be artificially separated from object-oriented collaborative work and innovative learning in work organizations and teams.” (Engeström, 1999b: 401 – 402)

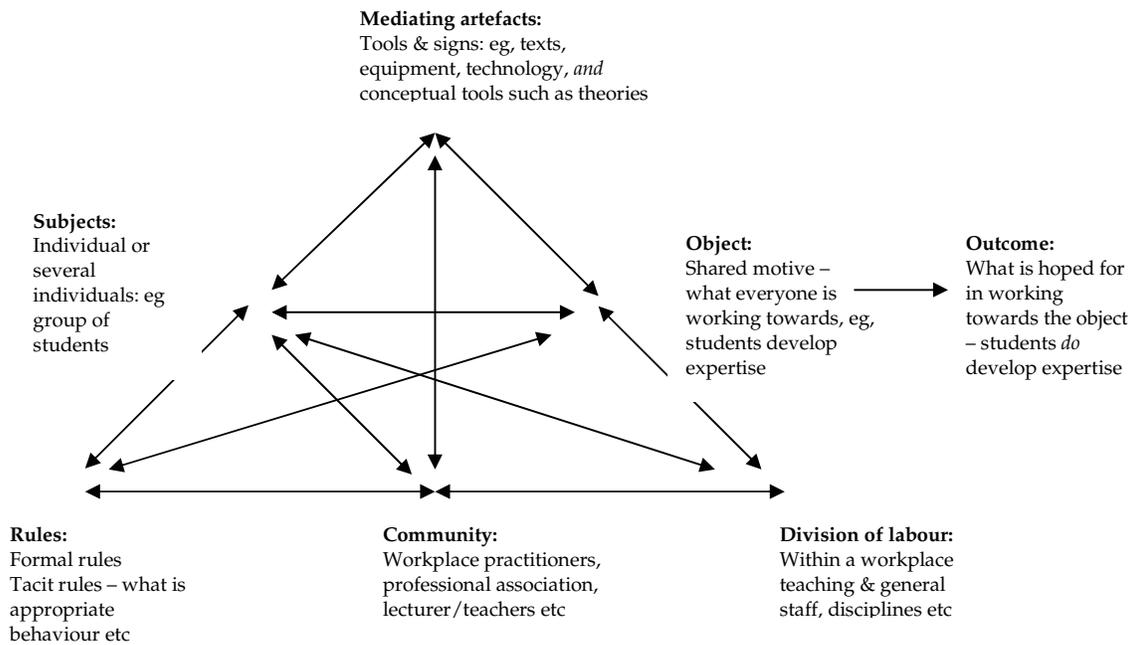


Figure 1: A model of an activity system
 Source: adapted from (Engeström, 1999a: 31; & Stevenson, 2003d: 38)

In working towards an object, individuals (and groups) use artefacts –tools and signs. As Figure 1 demonstrates, this includes conceptual tools, disciplinary knowledge, and other forms of knowledge as part (but only *part*) of the available arsenal. This restores theory and knowledge to education and training (the ‘underpinning knowledge’) as an *explicit* tool, while not privileging it over other tools. In this, activity theory differs from relativist versions of situated learning theory, particularly those which render different theories and approaches incommensurable:

“The underlying relativistic notion is that we should not make value judgements concerning whose cognition is better or more advanced – that all kinds of thinking and practice are equally valuable. Although this liberal stance may be a comfortable basis for academic discourse, it ignores the reality that in all domains of societal practice value judgements and decisions have to be made everyday. People have to decide where they want to go, which way is up. If behavioral and social sciences want to avoid that issue, they will be unable to work out useful yet theoretically ambitious intellectual tools for practitioners making those crucial decisions.” (Engeström, 1999a: 26)

This is no small issue. It has major implications for the curriculum, and underpins some of the tension between VET and higher education (over the role of theory and underpinning knowledge) and between proponents of an ‘insular’ curriculum (sometimes referred to as mode 1 knowledge, based on the traditional disciplines, usually occurring in universities) and proponents of a hybrid curriculum (sometimes referred to as mode 2 knowledge, based on cross-disciplinary approaches, occurring in sites where it is applied, with universities playing a less important role than previously in knowledge creation) (Gibbons, 1997). Young (2002) argues that both forms of knowledge (mode 1 and mode 2) need to be kept in creative tension.¹³

However, this is not to privilege theories and concepts as the sole point or focus of education and training and the curriculum. The point or purpose is the *object* individuals and groups in the activity system are working towards, with theories and concepts as a *tool* to achieving that goal. In education and training this means that the purpose (or the object) is helping students to develop expertise for their vocation. This relates to the importance once again of Dewey’s (1966 (1916): 318-319) notion of vocation, and of learning through the vocation:

“But an education which acknowledges the full intellectual and social meaning of a vocation would include instruction in the historic background of present conditions; training in science to give intelligence and initiative in dealing with material and agencies of production; and study of economics, civics, and politics, to bring the future worker into touch with the problems of the day and the various methods proposed for its improvement. Above all, it would train power of readaptation to changing conditions so that future workers would not become blindly subject to a fate imposed upon them.”

Figure 1 demonstrates why learning cannot be reduced to declarative knowledge (knowing that) and procedural knowledge (knowing how). The former limits learning to the artefacts, but only *some* artefacts – codified knowledge in texts and theories. The latter limits learning to trying to achieve the object, without the full range of artefacts and tools that are available. If learning is learning about the *activity system* (the vocation for which one is preparing) and all its components and one’s place within that system, then learning is more complex and multi-faceted than traditional notions of curriculum suggest. It is also about learning about how the activity system works, the rules (tacit and codified), the division of labour, the community, and the subjects and where they fit in.

How then can we conceptualise learning and what should our focus be?

¹³ For an in-depth discussion of this issue see (Young, 1998; Young, 2000; Young, 2002). Young proposes a ‘social realist’ approach to knowledge and hence curriculum, and critiques activity theory as being overly relativist, while also critiquing insular approaches to knowledge. In assessing the contribution of Vygotsky, one of the pioneers of activity theory, Young (2002: 33) says that “Vygotsky’s importance, in my view, is not in his specific theories which are suggestive but often too general to be clear how they might be developed. It is in his heroic attempt to hold together the processes of learning and the generation of new knowledge which over-specialisation within research communities has forced apart.”

Learning as connecting meanings

John Stevenson argues that expertise is associated with meaning. He asks: what is an expert and what is expertise?

“...the capacity to do something well, or expertise, is seen as being derived from meaning. That is, an expert is regarded as someone who has considerable facility with meanings and their interconnections. An expert derives this facility from many experiences, connecting the various meanings that the experiences offer, as well as meanings that others construct on those experiences. Expertise is being able to access and utilise the rich connections among meanings that enable an expert to perform well on routine tasks and to work out ways to solve creative and other problems.”
(Stevenson, 2003a: 5)

If expertise is defined as considerable facility with meaning and its interconnections, what then is meaning? Here Stevenson (2003a: 5-6) draws on Dewey and says that the:

“idea of meaning as the understanding derived from personally significant experience....In his work, Dewey saw the object of learning as developing the capacity to engage in appropriate practice based on experience—where appropriate practice was practice seen by the individual as related to intention in pursuit of vocation. That is, Dewey connected meaningfulness to the extent to which knowing grows out of some question of concern to the learner, adds meaning and enables accomplishment of purposes. He regarded experience as the basis for constructing meaning and learning how to interpret new situations.”

Going back to the model of an activity system in Figure 1, if learners are to develop expertise based on meaning, they must be able to directly engage with all aspects of the activity system, and *make connections* between the different meanings within that system. Stevenson (2003a: 19) explains that creating meaning is an active process of engagement:

“Meaning does not consist just in knowing-that and knowing-how, but also in understanding what is appropriate and being able to render this in doing.”

Learning must consequently be focussed around helping students to create connections between different kinds of meaning through active engagement. The implications for curriculum are that learning should be integrated and contextualised. Dividing learning between ‘skills’ and ‘theory’ does justice to neither. It divorces both from the context in which it is applied.

Much literature talks about the importance of tacit knowledge in a knowledge-based economy (Castells, 2000; King and McGrath, 2002; Chappell *et al.*, 2003). For example, Field (2002b: 86) cites a group of Nordic economists who say:

“It is a logical and interesting – though usually overlooked – consequence of the present development towards a knowledge-based economy that the more easily codified (tradeable) knowledge is accessed by everyone, *the more crucial does tacit knowledge become* in sustaining or enhancing the competitive position of the firm (Maskell *et al.*, 1998, 42; emphasis in original).”

The conclusion drawn from similar analyses is that tacit knowledge (defined as equivalent to skill) is becoming more important than codified knowledge, as codified knowledge is subject to constant change and is equally accessible by all, thereby reducing the competitive advantage inherent in having limited access to it. However, as Stevenson (2001: 657) explains

“...it seems inappropriate to dismiss tacitness as a characteristic only of skills. Tacit knowing also seems to have a central place in the situational, conceptual, procedural and strategic knowledge of experts.”

However, he explains that tacit knowing consists in knowing in many ways, not just in ways that can be reproduced in texts or manuals. Attempts to render all tacit knowledge (or indeed all ways of knowing) in language is problematic (Toulmin, 1999):

“The unpacking of this knowledge is difficult and likely to lead to qualitative changes in the knowledge and its fragmentation.” (Stevenson, 2001: 657)

If knowledge is experienced in different ways, and cannot all be rendered in language (Toulmin, 1999), then learners need to be engaged in various experiences that will help them to access these different ways of knowing. Toulmin (1999: 62) argues that the privileging of theory over practice is likely to result in impoverished outcomes:

“Knowing how a chair is made (even how to make it yourself) may not be *less* subtle and rich than knowing how a differential equation is to be solved (or how to solve it yourself) but *more*; and, even in mathematics, handling formal algorithms is only one small part of a larger art (*techne*) that requires us to recognize when, in what ways, for what purposes the algorithm can be applied to concrete practical situations.”

Helping students to develop connections between meanings, and to integrate and internalise different kinds of knowledge so that it is personally meaningful means that learning has to be an active process, and engage students in doing. Stevenson (2003d: 40) explains that:

“In order to build facility with meanings and their interconnections, learners need to be engaged in appropriate activity that makes meanings apparent, related to clear functions and purposes, related to their own senses of vocation, and related to alternative ways of constructing meaning.”

Stevenson distinguishes between different kinds of meaning and the relationship of each to expertise in Figure 2. The meanings on the outside of the circle are the various meanings available to us in taking action. However, to be able to take action we need to be able to make sense of these different meanings because unless they are *personally* meaningful, we cannot *use* them. Conversely, the actions inside the circle that are associated with expertise are all premised on how we act on the various meanings on the outside. The relationship between the two is iterative. Expertise is related to the extent to which we are able to connect these various meanings and use them holistically in understanding what action we need to take.

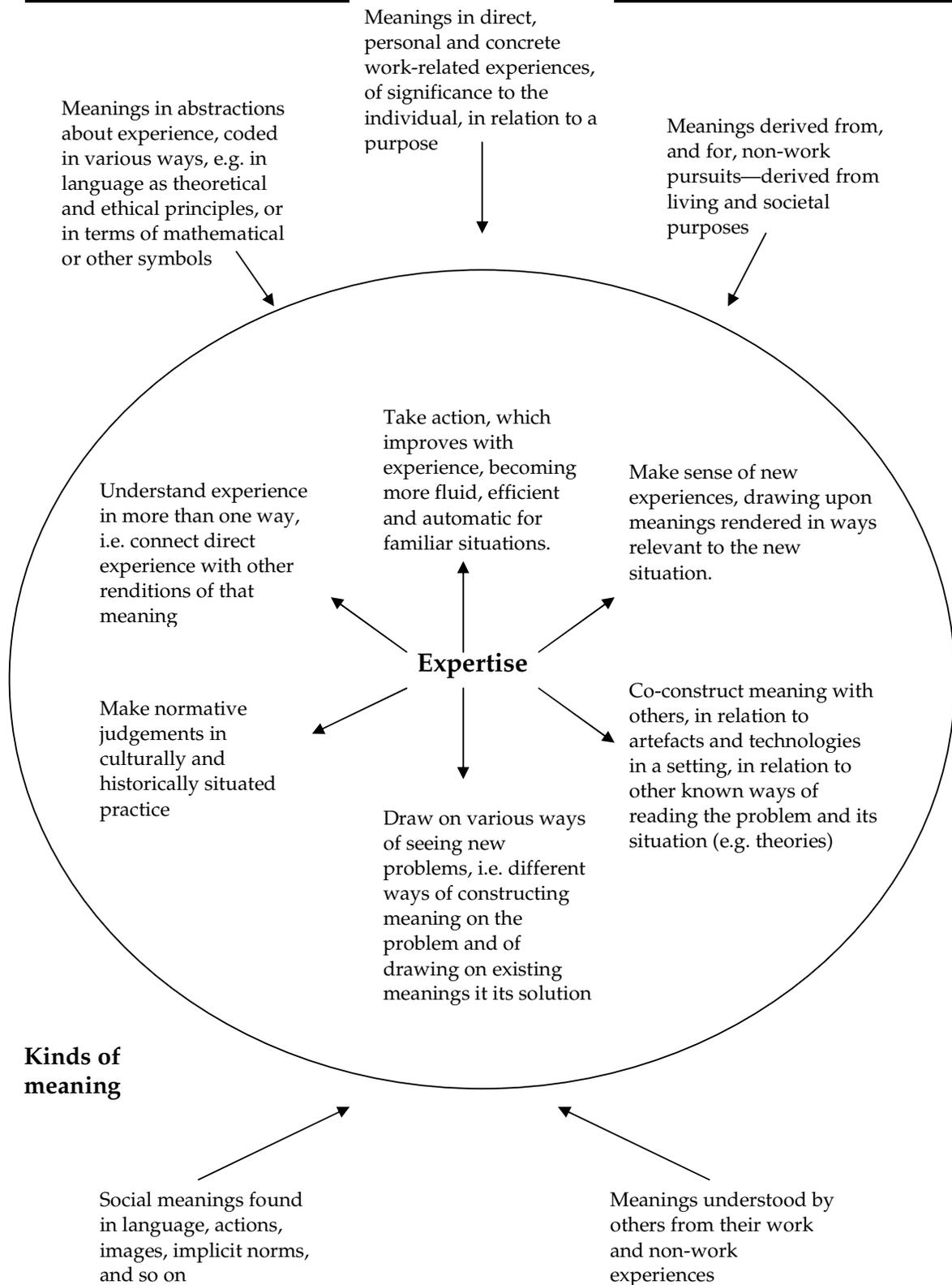


Figure 2: Relationships of expertise and meaning. Source: (Stevenson, 2003a: 22)

Bransford and Schwartz (1999) contrast the different ways of knowing of a novice compared to an expert. In citing the work of Broudy, they explain that novices don't have the depth of knowledge to be able to sufficiently 'read' a situation and implicitly understand it in all its dimensions – so novices miss important elements of the whole context. They refer to the expert as having a “well-differentiated knowledge structure” compared to novices who only see things on the surface, and discriminate using queues that may not be that important (Bransford and Schwartz, 1999: 75).

They refer to the differentiated knowledge of the expert as 'knowing with'. This in contrast to 'knowing that' (declarative or replicative knowledge), and 'knowing how' (applicative or procedural knowledge). People “‘know with’ their previously acquired concepts and experiences....By 'knowing with' our cumulative set of knowledge and experiences, we perceive, interpret, and judge situations based on our past experiences” (Bransford and Schwartz, 1999: 69 - 70). For example, in working with a new group of students, the expert and novice teacher both look at the same group of students, but see something different when they do so, and understand what they must *do* differently.-

This leads Bransford and Schwartz (1999) to advocate a model of 'discovery learning'. In discovery learning students engage in problem solving, drawing on hypotheses of their own that are derived from their past learning and applied to a new problem. After students apply their own hypotheses to a particular problem, they are exposed to further learning opportunities in which 'expert' analysis and approaches are presented. This helps students to appreciate the way in which experts have solved particular problems, and to identify the *range* of ways problems can be solved, rather than identifying a simple right or wrong answer. Students who engage in learning structured in this way use their prior experiences to solve problems, and *then* compare their approach with that of experts. This sequence is important. It allows them to develop a much more nuanced and differentiated 'knowing with' than students who are taught the standard 'correct' response to begin with. This approach has many similarities with student-centred models of learning like project based learning, problem based learning and work-based learning etc, however it is more structured than many of these in that learning is reinforced at key points (after students have engaged with problem solving) with expert analyses (which also may diverge), to allow students to develop a 'more differentiated knowing with'. When students have been through an experience in which they have had to develop their own hypothesis and use it to solve a particular problem, they bring this experience of problem solving (which is now part of their 'knowing with') with them when they encounter and try to understand expert ways of dealing with the same sort of problem. They have a far better understanding of the problem and engage with expert knowledge more thoroughly than can those students who have not been through similar experiences.

A highly differentiated knowledge structure – knowing with – represents expertise in connecting meanings, and is what separates novices from experts. Providing a variety of learning contexts and experiences in which students can connect meanings and thereby develop a differentiated knowledge structure should underpin the curriculum in the community college. This approach is also helpful in resolving problems with 'transferring' learning from one context to another – the holy grail of teaching and learning theory.

The transfer of learning and ‘generic’ skills

Learning theory has long been concerned with the notion of teaching students ‘transferable’ or ‘generic’ skills, which once acquired, can be used in other contexts. It has also been the subject of fundamental disagreement, disagreement that is still unresolved (Beach, 1999). The quest for transferable or generic skills has attracted renewed focus in the light of the pace of change associated with technology, changes to work processes, and other social, cultural and political changes associated with globalisation (Chappell *et al.*, 2003). VET has sought to include ‘generic skills’ and higher education ‘employability skills’ or ‘graduate attributes’ in courses and qualifications (DEST 2002a). This includes capacities such as problem solving, critical thinking, team work, communication etc.

Stevenson (2003d: 35) explains that: “These ‘generic’ codes are labels for capacities that the advocates believe are common to many different kinds of work, and even apply across work and other life pursuits.” He explains however, that the problem with this approach is that it confuses the *concept* (or label) of generic skills, with those skills themselves. It assumes one can ‘teach’ generic skills as generic skills:

“While these kinds of labels can be seen to point to capacities, which can be abstracted from analyses of various kinds of work, it is a mistake to believe that they can be learned as such. Rather...learning consists of constructing meaning on direct experience, where such activity is situated. That is, it is a mistake to think that being able to communicate adequately in one situation for one set of purposes will apply to another situation and purpose” (Stevenson, 2003d: 35)

Elsewhere, Stevenson (2002: 5) says:

“There is a growing recognition of the “cultural situatedness” of activity —the ways in which knowing is derived from socio-cultural activity and its historical construction, and the ways in which the socio-cultural features of new situations are read afresh when individuals seek to address them on the basis of previous learning and other experiences in order to engage in successful activity.”

Rather than trying to teach decontextualised ‘generic’ skills, our goal should be to try and help students develop far more nuanced differentiated knowledge structures as it is these that they use in ‘knowing with’ when they approach situations that are relatively new or unfamiliar. Beach (1999) explains that we should be trying to support learner continuity and transformation across contexts, institutions, local practices, problems and tasks. However, the way to do this is not to move students to greater levels of generalisation founded on further levels of abstraction. Rather:

“...curriculums and teaching should support generalization that moves toward an integration of the diverse aspects of a concept and reveals the interconnected nature of its different aspects.” (Beach, 1999: 112)

Beach uses the concept of ‘consequential transitions’ to explain how people ‘generalise’ knowledge, understanding and skills. These are transitions from one context to another. He explains that:

“Each of these experiences can involve transformation, the construction of new knowledge, identities, ways of knowing, and new positionings of oneself in the world. They are consequential for the individual and are developmental in nature, located in the changing relations between individuals and social activities.” (Beach, 1999: 113)

The construction of learning needs to build into it transitions from one context to another. The challenge is not, Beach argues, transfer in general, rather it is constructing opportunities for students to make these transitions and links. Stevenson (2003b: 14) cites Beach in arguing: “that generalization should be a process of continuous re-contextualisation, rather than one of de-contextualisation.”

This is put well by Bransford and Schwartz (1999: 82 - 83) who say:

An important way in which learners interact with their environments is by creating situations that allow them to ‘bump up against the world’ in order to test their thinking. If things do not work, effective learners revise.”

The implication of this for the community college is that while learning needs to be constructed holistically and oriented towards the student’s vocation, that it needs to include different sites of learning – the workplace and the institution. Learning in one site enables learners to use this lense in examining the learning they are undertaking in another site, and neither is really dispensable. It also brings together all elements of the ‘community of practice’ – the workplace, lecturers/teachers, and students. It also allows for the conflicts and different perspectives within a community of practice to be explored. Educators often have different views than practitioners in the workplace¹⁴ – rather than this being a problem it should be used to enhance learning, by helping students to engage with the differences to deepen their understanding.

Stevenson has developed some generalised principles to help us in thinking about what we need to do in constructing curriculum and structuring learning. He makes clear however, that these principles are not a prescription:

“In making specific suggestions for teaching and learning, then, it must be noted that any generalised principles must be contextualised or situated for a particular setting. That is, such principles must be viewed in relation to the elements of a setting and the relationships among those elements. In the process, such conceptual ideas are likely to undergo transformation in response to the setting—in other words, to be shaped by the setting.” (Stevenson, 2003c: 250)

While Stevenson (2003d: 44) elaborates these principles more fully, in summary they are:

- “to proceed from the learner’s sense of vocation;
- to situate learning in concrete, functional, purposive settings;
- to focus primarily on developing the capacity-to-do;
- to engage in understanding interrelationships in learning/working activity systems;
- to share meaning;

¹⁴ And this point was made to me many times in interviews with practitioners in teaching arts institutions around Australia as part of the consultation for this project.

- to relate meanings so derived to other activity systems and the wider community; and,
- to build connections among meanings and different renditions of meaning, together with a facility of operating upon such interconnections.”

Implications for the Australian community college

The analysis in this chapter concerning:

- the role and purpose of qualifications, what qualifications should signify, the need for open-ended qualifications which are locally responsive and capable of changing in response to rapidly changing circumstances, and the need for qualifications to be based in communities of trust; and,
- the social nature of learning, learning as learning to become a member of a ‘community of practice’, engaging students in the ‘activity system’ rather than focussing on declarative and procedural objectives divorced from practice, expertise as facility with interconnected meanings, the need for students to develop differentiated knowledge structures (‘knowing with’), and the need to recontextualise skills and knowledge as a way of generalising learning and developing continuity over different contexts (rather than decontextualised generic skills)

have implications for the nature of qualifications the community college offers, and the curriculum that it is based upon.

The following broad outlines are suggested:

- the qualifications used as the interface between industry and the institution need to be based on broad outcomes developed and agreed by the broad ‘community of practice’, which includes industry practitioners, the community college, and other stakeholders;
- this is unlikely to ensue if the qualifications are based on existing courseware in the VET sector, or broad generalist degrees. While both vehicles *could* be used, associate degrees (short cycle higher education courses) seem to offer the most freedom in constructing the qualification around a particular vocation, designed to develop student expertise in high level industry focussed skills. While the new associate degrees guidelines do not have a specific vocationally-oriented focus similar to foundation degrees in the UK¹⁵, they offer sufficient scope for the community college to craft qualifications that orient students to a vocation;

¹⁵ See the new AQF guideline for associate degrees <http://www.aqf.edu.au/ad.htm>. Foundation degrees in the UK are designed explicitly for higher level vocational occupations, but which articulate fully to a degree. The ‘distinctive’ features of associate degrees are, according to the AQF website:

- “The emphasis on the foundational, research-based knowledge of an academic discipline
- broad-based in conceptual and theoretical content, often multi-disciplinary
- generic employment-related skills as appropriate to the discipline(s)”

- student learning needs to be based on both the workplace and the community college, as a defining feature of its programs and the student learning experience. The curriculum needs to be constructed around helping students to make connections between the two, and to use the learning they experience in one to interrogate and understand the learning they experience in the other;
- program/qualification advisory committees should be established that include teaching staff and industry and workplace practitioners, and professional associations (where they exist); and,
- following from the discussion in the previous chapter about the possibility of working with associational frameworks, collective projects and other activities that engage an associational framework need to be considered. This is to help build links between an associational framework and the community college, to ensure the *co-evolution* of both, and result in industry taking increased responsibility for student learning.

4. Overseas models: the US & the UK

This chapter examines what we can learn from overseas, particularly from community colleges in the United States and further education and higher education partnerships in the United Kingdom.

Introduction

In establishing a new entity which is less constrained by existing sectoral structures and their funding, reporting and accountability requirements, the community college would have an opportunity to develop qualifications that are able to meet the needs of stakeholders, rather than that which is necessary to comply with sectoral requirements. A community college must meet the respective sectoral accreditation and quality assurance requirements underpinning the Australian Qualifications Framework (AQF) qualifications, but in other respects it can develop new approaches based on an analysis of how best to meet the needs of stakeholders. In other words, instead of using the *institutional* framework as the starting point, with all the consequent limitations that ensue for the type of qualifications that can be offered and the curriculum models that underpin qualifications in each sector, the partners can use *qualifications* as the starting point, and develop an institutional framework to support these qualifications. The analysis presented in this monograph so far suggests that community college qualifications need to:

- ensure graduates possess high level industry focussed skills for emerging industries; and,
- prepare students for a vocation, which includes grounding students in the academic disciplines and practices which underpin their vocation, while also ensuring they develop the capacity to be self-managing and autonomous learners, workers and citizens.

These two criteria underpin the comparative analysis in this chapter. It examines what we can learn from community colleges in the United States, and further education colleges in the United Kingdom. Each is examined from the perspective of helping us to understand how to meet these outcomes. In each instance, the chapter considers the nature of qualifications and the nature of partnerships, and concludes with a discussion of the implications of these findings for the community college.

Differences & similarities

Post-compulsory education and training in Anglophone countries is structured differently from Continental Europe. The latter tend to separate students, institutions and curriculum into vocational and academic sectors (tracked systems), whereas the former is characterised by overlap and the gradual merging of the vocational and higher education sectors (merged systems) (Furth, 1973; Clarke, 1983). This corresponds to two distinct patterns for structuring

and co-ordinating the economy; liberal market economies in Anglophone countries and co-ordinated market economies in Northern Europe.¹⁶

However, Australia does not follow the typical Anglophone pattern in structuring its tertiary education sectors. Australia has deeply differentiated sectors, and the divisions between the vocational and academic education sectors is in many ways similar to the separate sectors characteristic of Northern Europe, but unlike Europe, it does this within the framework of a liberal market economy (Wheelahan and Moodie, forthcoming).

Differing definitions (and the assumptions upon which they are based) make it difficult when undertaking international comparisons to distinguish between sectors of tertiary education and between academic (or general) and vocational education. Both ‘vocational’ and ‘academic’ have different meanings which are contested within countries, and understood differently between countries (see Grubb, Davis, Lum, Plihal and Morgaine, 1991; Hyland, 1999; Moodie, 2001; 2002a; 2002b; Douglass, 2003; Stevenson, 2001; 2003b for an overview of debates around these issues). The UNESCO International Standard Classification of Education (ISCED) offers a useful way out of this dilemma by distinguishing between tertiary type 5A and 5B programs and institutions as follows:

- 5A programs tend to be theoretically based degrees leading to higher research degrees or highly skilled professions with programs of at least 3-4 years duration for the first degree (long cycle higher education) which are taught by staff with advanced research credentials; and,
- 5B programs are shorter (2 - 3 years – short cycle higher education), more vocationally specific and practically oriented (while including “some theoretical foundations”) and usually do not provide direct access to research degrees (UNESCO 1997: 25).

Table 1 uses the UNESCO framework to analyse the education and training systems in Australia, the UK and the US. In Table 1, institutions that predominately offer 5A programs are classified as 5A institutions, while those that predominately offer 5B programs are classified as 5B institutions. This does not exclude an institution offering programs normally associated with the other sector, but it usually does not do so as a core part of provision. 5A institutions range from moderately to highly selective, while 5B institutions usually have less selective student entry, and 5A institutions are usually higher in status than 5B (Moodie, 2003a).

Table 1 belies the considerable complexity, ambiguity and overlap in each country in the way the sectors are defined and the qualifications that they offer. There are also differences between the states in the US and in Australia, and between the four nations of the UK. However, while this is so, in broad terms the table outlines the nature of the system in each country, and the qualifications offered in each.

Table 1 demonstrates that tertiary education in these three countries is differentiated *both* by the nature of provision *and* the sectoral designation, and that both of these are important in understanding the dynamics of provision and relationships between the sectors. Generally, the sectoral designation (as higher education *or* Learning and Skills/VET) identifies the putative mission of the sectors (while recognising that these missions are contested in *all* three

¹⁶ See Chapter two for a discussion of these different approaches to organising the economy.

countries), and allows insight into the relative emphasis on different types of provision in each sector.

Table 1: Sectors, institutions and qualifications in Australia, the US and the UK

Characteristic	Tertiary type 5B	Tertiary type 5A
Program duration	Short (1-2 years)	Medium-long (3-6 years)
Student admissions	Less selective – open entry	More – highly selective
Australia		
Institutions	TAFE institutes / VET providers	Universities/ HE institutions
Sectoral tag	VET	Higher education
Qualifications	VET certificates, diplomas & advanced diplomas	HE diplomas, advanced diplomas, associate degrees, degrees, and post-graduate qualifications
UK		
Institutions	Colleges of further education/ other providers	Universities/ HE institutions
Sectoral tag	Learning & Skills Sector	Higher education
Qualifications	General, vocationally-related & occupational qualifications from entry to advanced level, * & short-cycle HE (higher national certificates & diplomas, & foundation degrees)	Short-cycle HE, degrees, & post-graduate qualifications
US		
Institutions	2-year / community colleges	4-year colleges / universities
Sectoral tag	Higher education	
Qualifications	Vocational certificates & diplomas, & short-cycle HE (associate degrees)	Degrees & post-graduate qualifications

Source: based on (Moodie, 2003a: 1)

* English (Qualifications and Curriculum Authority, 2000)

As indicated above, Australia is the most sectorally differentiated of the three nations, with little cross-over in the type of qualifications delivered. This, of course, is disputed with some arguing that the diploma and the advanced diploma should be regarded as ‘cross-over’ qualifications (see Karmel and Nguyen, 2003; Moodie, 2003b; Wheelahan and Moodie, forthcoming), while ‘official’ figures show that the cross-over is minimal (see NCVET 2001). In the United States “About half of all students in postsecondary education are enrolled in 2-year institutions” (Phipps, Shedd, Merisotis and Carroll, 2001: iii), and community colleges provide between 10-30% of higher education load (depending on the state) (Moodie, 2003b: 52). However, most students who enrol in a community college as beginning higher education students aspire to degree level qualifications, with 42% and 37% aspiring to obtain a bachelor’s degree and a post-baccalaureate degree respectively (Coley, 2000: 12). In England, further education colleges deliver approximately 11% of higher education (Parry and Thompson, 2002), which constitutes approximately 7% of further education enrolments overall (Douglass, 2003). The picture is different in Scotland, with 34% of higher education students enrolled in FE colleges (Gallacher, 2003).

There are many similarities between the main public institutions within the ‘5B’ sector in the three countries (TAFE in Australia, further education colleges in the UK, and community colleges in the US). Compared to the universities in each country, the student population in all three is likely to be older, study part-time, come from relatively disadvantaged backgrounds,

and be seeking vocationally oriented qualifications or ‘second-chance’ education. Many are trying to use their studies as an entry mechanism to a degree (Coley, 2000; Karmel and Nguyen, 2003; Parry, Davies and Williams, 2003a).

Learning environments differ from universities, with smaller classes, higher levels of student contact, and more emphasis on helping academically ‘under-prepared’ students acquire the skills they need.¹⁷ There is constant debate about the extent to which transferring students are able to ‘cope’ with degree level studies, and whether the learning they have already undertaken is commensurable with that that the university offers (Murphy, 2002).

In all three countries debates abound about the ‘mission’ of the sector. These centre around:

- whether the institutions should be comprehensive in purpose and in the types of programs they offer or whether their mission should be defined more narrowly;
- whether the main focus should be on preparing students for work (and specific occupations) or further study (and if there is a difference between these two roles);
- whether the short-cycle qualification is valuable in its own right or only a stepping stone to a degree;
- the relative emphasis that needs to be placed on local and regional priorities versus national economic priorities; and,
- what the relative weight of ‘remedial’ education should be, particularly for those who don’t have the skills they need to study at associate degree and degree level. (See the following for more discussion of these issues: Rushbrook, 1997; Bailey and Averianova, 2000; Levin, 2000; Smithers and Robinson, 2000; Townsend, 2001; Department of Education Science and Training, 2002c; Marks, 2002; Parry and Thompson, 2002; Gallacher, 2003; Wheelahan, 2003)

There are also many differences. All three offer vocational education and training, but they differ over the extent to which this is part of their defining mission, and the way in which ‘vocational’ is understood (Moodie, 2001). The provision of vocational education and training is the *raison d’être* of the VET sector (at least since the reforms of the Dawkins era in the late 1980s, see Goozee, 2001) and more ambiguously of the Learning and Skills sector in the UK (Parry, 2003).¹⁸ However, this role has developed over time in the US, and while important, it does not tend to cover the range and scope of VET in Australia and the UK, particularly in apprenticeships. Apprenticeships do not feature in the US as they do in Australia and the UK, because many industries in the US are unregulated and enterprises often develop their own in-house qualifications as a response. In many US states “...community colleges’ vocational programs are largely restricted to what we would call para professional courses” (Moodie, 2001: 8).

¹⁷ Although, this is debated in Australia – allegations are made that TAFE can become overly preoccupied with academic learning rather than helping students develop competence, and that these are different – the implication being that the main focus of TAFE should be on helping students develop occupational skills rather than ‘academic’ skills.

¹⁸ The vocational focus of the Learning and Skills sector is perhaps more ambiguous through Australian eyes more so than British, given the role of the sector (and FE colleges in particular) in the provision of senior secondary school (with the matriculation colleges and FE colleges both playing a role), and the provision of general and further education. The Learning and Skills sector seems to be a combination of Australian senior secondary school, VET and ACE sectors, although the distinctions between these sectors in Australia are blurring, and doing so at an accelerating pace.

As indicated in Table 1, further education colleges in the UK and community colleges in the US both deliver short-cycle higher education, whereas TAFE institutes (and more broadly, the VET sector) do not (Moodie, 2003b). However, this apparent similarity between the US and UK disguises more fundamental differences between them: the provision of short-cycle higher education in community colleges in the US was from the start part of the mission of the sector and constitutes a major part of provision (Kintzer and Bryant, 1998). While higher education provision is being expanded in the UK through offering foundation degrees in FE colleges (as part of the government's policy objective to expand participation of young people in HE), overall this provision is still not the principal focus of the sector (Parry *et al.*, 2003a).¹⁹ Kintzer and Bryant (1998) distinguish between the binary system in the UK and the dual-system in the US and Canada: whereas community colleges in the US were established as *part of* the higher education system, in the UK (particularly since the 1992 reforms which established polytechnics as part of the university system, see Pratt, 1999), further education colleges were not seen as part of the higher education system (although they deliver higher education). This separation was reinforced in many ways by the creation of the Learning and Skills sector in the UK in 2000 which now includes further education colleges, sixth form colleges, adult and community education, and government funded training and workforce development (Parry, 2003).

Australia differs from both the US and the UK in that VET has not, till now, been a major site for the delivery of short-cycle higher education. While diplomas and advanced diplomas are listed on the Australian Qualifications Framework as both VET and higher education qualifications, they are mainly delivered in the VET sector as accredited VET qualifications. VET may become a site for the delivery of short-cycle higher education as a consequence of the introduction of associate degrees as higher education awards on the AQF, and should this eventuate, VET in Australia will begin to resemble more closely the further education colleges in the UK and to a lesser extent, the US community colleges (Moodie, 2003b).

The United Kingdom

Responsibility for education and training is shared between the national government, and the national assemblies of Wales, Northern Ireland and Scotland. The systems in Wales, England and Northern Ireland are similar: all three nations are covered by the same qualifications framework in each sector. However, administration, funding and oversight are devolved, as each nation has its own qualifications, curriculum and assessment authority in the Learning and Skills sector, and its own higher education funding council. The Scottish system is usually considered independently of the other three.²⁰ The Learning and Skills Council is responsible for all post-16 education and training in England, except for higher education. The Higher Education Funding Council of England is responsible for funding universities, higher education institutions, and most higher education provision in further education colleges (Parry and Thompson, 2002).

¹⁹ There are important differences among the four nations of the UK, particularly in Scotland, and this is explored in more depth later in this chapter.

²⁰ Reference:

<http://www.eurydice.org/Eurybase/Application/frameset.asp?country=UK&language=VO>

Qualifications

Further education colleges are part of the Learning and Skills sector in England. Unlike VET in Australia, where TAFE delivers VET qualifications almost exclusively, FE colleges in England deliver the senior school certificates, vocationally related qualifications (General National Vocational Qualifications – GNVQs) and occupational qualifications (National Vocational Qualifications – NVQs, which are similar to Australian training packages), preparatory and bridging programs and higher education qualifications. The National Qualifications Framework covers qualifications in the Learning and Skills sector, and qualifications are grouped into three streams: general, vocationally-related and occupational, from entry to advanced level (Qualifications and Curriculum Authority, 2000). The regulatory authorities have recommended that these three streams be removed from the NQF and replaced by a system of descriptors based on levels.²¹

Higher education qualifications in England, Wales and Northern Ireland are covered by a separate qualifications framework, which is quality assured by the Quality Assurance Agency for Higher Education.²² Qualifications range from certificate to doctoral level.

Responsibility for delivering short-cycle higher education in England is shared between further education colleges and universities. There are several short-cycle higher education qualifications in England, and when these are taken together as a whole, universities offer more short-cycle higher education than do further education colleges (Parry *et al.*, 2003a). The Blair government, following the recommendations of the 1997 Dearing Committee, is rationalising these sub-degree programs and progressively replacing them with foundation degrees. Foundation degrees are vocationally oriented higher education programs, developed with input by employers, with guaranteed progression to bachelor degrees. Foundation degrees have been developed to meet a perceived gap in intermediate skills at para-professional and technician level. They are also the principle vehicle the Blair government is using to meet its target of 50% participation in higher education of the 18-30 year old cohort by 2010 (Parry, 2003). The Dearing Committee explicitly nominated further education colleges as the principal site where foundation degrees would be delivered, and indicated that growth would be at this level, and not at bachelor degree level (Parry and Thompson, 2002).

Researchers have suggested that the Dearing Committee made the decision to implement foundation degrees based on little research evidence concerning the need for the qualification, and the likely demand (Field, 2002a; Parry and Thompson, 2002; Gallacher, 2003). The indications are that so far, demand has been relatively weak, and that where ‘recruiting’ universities were competing with FE colleges for enrolments, collaborative relationships suffered (Parry and Thompson, 2002). This is in contrast to Scotland, where short-cycle higher education (but not foundation degrees) is a key part of all higher education provision.

Douglass (2003: 5), a scholar of American HE, in undertaking a comparative study of the UK and US systems, offers two reasons why foundation degrees have not yet met expectations as the vehicle for expansion of HE and for meeting intermediate skill needs:

²¹ Reference: http://www.qca.org.uk/nq/framework/nqf_suggest_changes.asp

²² Reference: <http://www.qaa.ac.uk/crntwork/nqf/ewni2001/contents.htm#2>

“First, students intent on a university degree still do not see FE higher education programs as a stepping stone to a bachelors degree. And second, students do not see the advantages of the Foundation Degree for entering the job market.

There are also problems in generating new partnership programs in an environment of extreme budget decline and general policy uncertainty.”

Partnerships

Up until the recommendations of the Dearing Committee, the provision of higher education in further education occurred in an *ad hoc* and unplanned way. The creation of the unified national system of higher education in 1992 resulted in FE playing a residual role in the provision of higher education. Multiple delivery arrangements were in place, delivering a plethora of awards, funded in different ways and recognised and accredited by different bodies. Parry and Thompson (2002) refer to this as the period of ‘low policy’ or no policy.

Gradually these arrangements came to be rationalised and brought within the framework of national higher education policy, and this culminated in the Dearing recommendations which designated an explicit and important role for FE in delivering HE. Parry and Thompson refer to this as the introduction of ‘high policy’ (Parry and Thompson, 2002). The Higher Education Funding Council assumed responsibility for funding almost all higher education provision, and assumed responsibility for quality assurance as well.²³

Parry *et al.*, (2003a) explain that there are two kinds of higher education in FE (prescribed and non-prescribed – see footnote 23), and three kinds of funded provision:

- prescribed HE delivered in FE colleges which is *directly* funded by the HECFE at levels comparable to universities, and quality assured by the HE QAA. In this instance, the FE college has been accredited to deliver and award the qualification;
- prescribed HE which is delivered in FE but *indirectly* funded by the HECFE. This refers to provision funded through consortia of HE and FE institutions, or in which a HE institution franchises the delivery of its qualification to the FE college. In both cases, the body awarding the qualification is the university, and it is responsible for quality assurance, standards, curriculum and oversight of teaching; and,
- non-prescribed HE which is funded by the LSC, and quality assured through LSC inspections. The qualifications are awarded external bodies.

Franchised provision has become a major way in which HE is provided through FE. Government indicated that it preferred FE colleges to enter into collaborative arrangements (through consortia or franchise arrangements) in the delivery of HE, and that they work through a ‘lead’ university as a way of assuring the quality of the qualifications and the comparability of student experience, and to ensure economies of scale (Parry, 2003).

²³ The English distinguish between ‘prescribed’ and ‘non-prescribed’ higher education. Prescribed HE is funded by, and quality assured by the HECFE and the HE QAA. Non-prescribed HE refers to NVQs 4 & 5 and a range of technical, vocational and professional qualifications awarded by external bodies and funded by the LSC (Parry *et al.*, 2003a). The LSC commissioned research which recommended that non-prescribed HE be unambiguously defined as HE and mapped into the HE Qualifications Framework, including the possibility that it be funded by the HECFE (Greenwood, 2002).

In a study of the delivery of higher education in FE colleges Parry *et al.*, (2003a: 14) explore the ‘commonly understood’ differences (“large or small, real or imagined, asserted or evidenced”) “in the traditions, conditions and exchanges” which characterise teaching and learning in FE and HE. These concern “a series of separate but interconnected claims about the ethos, pedagogy and scale of learning in college settings.” Their conclusion is that these differences, while they exist on some dimensions, are not as great as is sometimes claimed:

“A ... compelling...conclusion of this study is the fragility of many of the claims to difference and distinctiveness. This is less to doubt the authority and veracity of the claims, but more to highlight their appeal to values, approaches and purposes that define ‘the FE ethos’. Given the divided and segmented character of higher education in the post-16 sector, together with its institutional and other diversities, it is not surprising that arguments for difference should rest on grounds unrelated to the academic division of labour in higher education.” (Parry *et al.*, 2003a: 21)

Parry’s (2003: 18) argument is that the FE colleges are yet to become “regarded as normal and necessary settings for undergraduate education.” This is in part because (unlike in Scotland) FE does not play a distinct role in the provision of short-cycle HE, and this ambiguity is compounded by the requirement that FE colleges (particularly the ‘mixed economy’ colleges in which HE constitutes a large component of their provision):

“deal with the funding quality and information regimes of another sector. In meeting the priorities of its own sector, and the modernisation objectives laid down by government, their role in higher education was but one source of multiple demands and uncertainties confronting these institutions.” (Parry, 2003: 17)

The implication from Parry’s work is that the role of FE in delivering HE would be enhanced and simplified if there was less overlap in provision with universities, and if the sectoral funding, reporting and quality assurance arrangements were more consistent. At a forum on TAFE/university partnerships at the University of New England on 21 November 2003, Parry reported on recent research he had undertaken on franchise arrangements, particularly around the delivery of foundation degrees. He argued that franchise arrangements have contributed to the asymmetry in power relations between the sectors, and resulted in FE playing a supplicant role, while HE often felt that the relationship was overly expensive. In other words, both sides often felt hardly done by. The key recommendation to emerge from his research is that rather than franchise arrangements, *partnerships* should be funded, with both partners owning and investing in the partnership. This has implications for institutions in the VET and higher education sectors who wish to develop a community college partnership.

The sectors in England seem to be embarking on new forms of partnerships through the creation of ‘dual-sector’ universities, combining an FE college and a HE institution. These are similar to the Australian dual-sector universities. These developments are relatively recent, and there is not much evaluative evidence available yet. England can perhaps learn from the Australian experience with dual-sector universities, while we can learn from their experience in delivering short-cycle higher education in FE colleges.

Scotland

Scotland is quite different to the other nations in the UK. Rather than two qualifications frameworks there is only one, which maps different qualifications by level and volume. It is not a regulatory framework like the English ones, but rather seeks to facilitate credit transfer and articulation, through establishing a shared national language and common approach to measuring learning. The aim is to eventually include community based, employment based and professional qualifications as well as vocational and higher education qualifications (Raffe, 2003).

Most short-cycle higher education is delivered in FE colleges (Parry *et al.*, 2003a), with 34% of all HE students enrolled in FE colleges (Gallacher, 2003), and over half of all entrants to HE begin their studies in a further education college (Gallacher, 2002: 7). Most of those students studying HE in FE (64%) are studying vocationally oriented higher national certificates and diplomas (Gallacher, 2003: 6), and there are no plans to introduce foundation degrees as in England. HE provision in FE is funded by and quality assured through the Scottish Qualifications Authority while universities work through the Quality Assurance Agency (Gallacher, 2003: 13). Gallacher (2003: 5) explains that these arrangements have:

“...enabled colleges to work within a national system of development, validation and certification, and to develop their own programmes of higher education which are distinct from and independent of the higher education institutions. This appears to have been a major factor in encouraging and sustaining the rapid growth of HN provision in the FE sector during the 1990s.”

Gallacher (2003: 10) explains that 36% of all graduates from higher education courses in FE progress to *full time* study in universities.²⁴ He explains that students mainly progress to the ‘new’ post-1992 universities, and not the ancient or 1960s universities. Rather than franchise arrangements (as in England) further education and higher education institutions are more likely to engage in articulation arrangements, with varying levels of credit. The different ‘types’ of higher education in the FE and HE sectors may, Gallacher suggests, contribute to difficulties in maximising credit transfer through matching programs. Gallacher (2003: 16) argues that while there are clear benefits from the distinct form of higher education provision in FE, that nonetheless “There is also a need for much stronger and effective bodies to co-ordinate the work of the FE colleges and HEIs, and encourage collaboration.”

The United States

Community colleges celebrated their 100th anniversary in 2001. In a stocktake of community colleges at the centenary, Coley (2000: 4) says that their “place in the history of higher education in the 20th century seems assured”. Clark Kerr thought that community colleges were the greatest innovation in higher education in the 20th century (Coley, 2000). Community colleges were established as junior colleges to provide both general education for high school graduates, and to help increase the level of education and skills in the workforce overall, without requiring universities to take on this role (Kintzer and Bryant, 1998).

²⁴ but they cannot say whether all students are enrolling in degree level courses.

Community colleges are in every state, enrol half of all students in post-compulsory education and training (Phipps *et al.*, 2001), offer a range of programs including vocational and liberal programs, and traditionally “thrived on the educative tasks that the universities could not or would not undertake” (Cohen, 1992: 1083). They underwent dramatic expansion in the post-war 1940s and became a national network in the 1960s as a consequence of further expansion to meet the needs of the baby boomers and a ‘robust’ economy (American Association of Community Colleges, 2003).

Douglass (2003: 1) explains the division of responsibility between the state and federal governments for higher education (which includes community colleges) in this way:

“...it is the duty of state governments to charter, organise, fund, and plan higher education systems. The contemporary role of the federal government is almost exclusively limited to: a) student aid focused on grants and primarily loan programs for students to attend public or private accredited institutions; b) funding of academic research; and c), the evolving and contested legal structure related to civil rights and access to higher education.”

California is one of the largest states in the US and is often used in international comparisons of higher education systems (Douglass, 2003; Moodie, 2003c). California has three inter-related levels of institutions:

- the University of California, a doctoral research university, which is highly selective;
- California State University, a comprehensive state university, that can award up to the level of masters degrees, and which is moderately selective; and,
- community colleges, that can award up to the level of associate degrees, and which are open access (Douglass, 2003).

There are mandated articulation arrangements which provide access from community colleges up to the doctoral university, on the basis of academic achievement. While not all states use the same model as California, many have similar structures, and all differentiate between community colleges which can offer up to associate degree, and ‘four year’ colleges and universities that can award baccalaureate degrees and research degrees. In many North American jurisdictions the states mandate articulation arrangements and other forms of institutional links (Prager, 1993; Ignash and Townsend, 2000; Windham, Perkins and Rogers, 2001). This is discussed further in this chapter.

Qualifications

Approximately 10.5 million students were enrolled in community colleges in 1997, and of these just over half were enrolled in ‘for credit’ courses (Coley, 2000). While provision of two year liberal associate degrees is a key part of what community colleges do, their role is broader, and their responsibilities include provision of:

- liberal or ‘academic’ education usually towards associate degrees, which is used for transferring to 4 year colleges or baccalaureate awarding institutions;
- specific occupational qualifications for designated occupations;
- tailored and customised private provision for firms and enterprises;

- community education, which is often not credit bearing, and most similar to Australian adult and community education; and,
- ‘second-chance’ basic adult education and labour force programs, again similar to much provision in the adult and community education (ACE) sector, but also similar to provision in the VET sector – particularly through TAFE (Cohen, 1992; Coley, 2000; Morgan, 2000)

Community colleges differ in the mix of programs they offer, with some emphasising associate degrees and others more vocationally specific programs (Coley, 2000). Associate degrees are referred to as ‘college transfer programs’ as their purpose is to facilitate access to higher education through providing an alternative means of access. Coley (2000: 18) explains that:

“Students enrolled in transfer programs take courses almost identical to those they would take in a bachelor’s degree program at a four-year college of universities. Most of the courses are in the humanities, mathematics, sciences, and the social sciences, and most transfer programs result in an associate degree.”

Striplin (2000: 67) cites research which finds that approximately 57% of associate degrees (sometimes called applied associate degrees, see Ignash and Townsend, 2000) in the 1994-95 academic year were awarded in fields outside the arts and sciences and that the “nonliberal arts accounted for slightly less than 50% of the total community college curriculum in studies conducted in 1991 and 1998.” Students also enrol in diplomas and certificates (Striplin, 2000: 67).

While associate degrees were established explicitly to articulate with degrees, and most credit transfer is on the basis of these qualifications, other qualifications are also used for articulation and credit transfer, particularly vocationally oriented qualifications in areas such as nursing, engineering and information technology (Prager, 1993; Winter and Harris, 1999; Striplin, 2000; Townsend, 2001). Morgan (2000: 232) in citing Griffith and Connor, explains that:

“While transfer is recognized as ‘unquestionably one of the chief functions of a community college’, it is not as clear and separate an academic track as often made out and ‘the curriculum line between vocational education and transfer education is very blurred’...”

Debates about the mission of community colleges

The increasing diversity in community college provision and the use of qualifications other than associate degrees has led to debates about the mission of community colleges, and talk of an ‘identity crisis’. Bailey and Averianova (2000) explain that:

“From their beginnings in the early 1900s, community colleges have undergone a significant shift in their purpose and mission. Starting primarily as junior colleges with an emphasis on academics, they are now complex institutions taking on a broad array of educational, social and economic functions.

Many community college advocates hail the comprehensiveness of these institutions, arguing that the ever-expanding mission meets a commitment to serve the changing

needs of the community. But critics suggest that the colleges have abandoned missions that should form the foundation of a democratic society and have squandered effort and resources in an attempt to ‘be all things to all people’.”

Levin (2000) argues that while the rhetoric surrounding the mission of community colleges remains (the broad notions of serving the community and providing liberal and general education) that throughout the 1990s the mission became transformed, and now community colleges are focussed on meeting the needs of industry, developing 'business oriented' behaviours in students, are fiscally motivated, and part of a globalised economy. He argues they are now driven by a liberal technological philosophy of education. This has resonances with debates in Australia about the role of the VET sector.

Given the role of community colleges in providing access to higher education for students from traditionally disadvantaged backgrounds, and the “themes of *democracy* and *community*” that are traditionally associated with education in general and community colleges in particular (Morgan, 2000: 229), it is not surprising that there is a vigorous debate concerning the purpose and mission of community colleges. Of particular importance is the debate concerning the ‘transfer function’. Prager (1993: 539) explains that:

“The attenuation of community college transfer education in favor of other emphases such as vocational and adult education has motivated a body of reform theory advocating either abandonment of the transfer mission or its revitalization with or without the structural realignment of community colleges in higher education.”

Some researchers argue that students are less likely to complete a degree if they start their studies in a community college rather than a four year college, while others dispute this conclusion (Coley, 2000). This is because, it is argued, the institutional characteristics of community colleges divert students from the ‘transfer track’ and that the environment lowers students’ expectations and aspirations. Coley (2000: 20) explains that “This is a particularly pernicious charge, since many of the affected students are from minority and disadvantaged backgrounds.” Data is invoked, interpreted and disputed.

Townsend (2001) (and others, see Winter and Harris, 1999) argues that criticism of the transfer function of community colleges is based on a narrow understanding of what that involves. She explains that if the notion of transfer is limited to vertical and upward transfer of students from associate degrees to degrees in four year colleges based on courses explicitly established for this purpose, then the transfer function has indeed declined. She argues in contrast that transfer must be understood more broadly, and that the transfer function of the community college has changed.

Transfer patterns are no longer linear and vertical and based exclusively on liberal arts courses. Townsend describes in detail the way students ‘swirl’ between institutions, including a significant number of students who ‘reverse transfer’, those who take summer units in a community college for credit in a university degree, and those who transfer between institutions (often and in large numbers). She explains students implement these transfer patterns to be able to complete the degree more cheaply, in less time, and in learning environments that are often more supportive (Townsend, 2001).

Townsend also argues that students are using vocationally oriented courses to transfer, and not just ‘transfer track’ academic courses. Moreover, student ‘swirling’ has become a significant

way in which students achieve their goals. This has developed gradually and was not envisaged at the time that community colleges were first established. She concludes her paper by arguing that:

“These new patterns necessitate a redefinition of the community college transfer mission as a function that facilitates attainment of the baccalaureate degree for college students in general, and not just for students who begin their undergraduate education in the two-year college.” (Townsend, 2001: 39)

Partnerships

Relationships between the sectors are often more highly structured than in Australia, and many are underpinned by state government mandate. Murphy (2002: 18) explains that “US states are...engaged in activities such as specialized services for transfer students, governance structures to coordinate transfer and articulation, technological networks to support the administrative procedures necessary for the transfer system, etc.”

Ignash and Townsend (2000: 5-6) report that of 43 states who responded to a survey on state articulation agreements, 34 had developed state-wide articulation agreements. They explain that the ‘traditional’ notion of linear and vertical articulation prevailed with 33 of the 34 states having agreements covering articulation from 2 year to 4 year colleges. Fourteen had articulation arrangements covering transfer from 4 year to 2 year colleges, 22 among 4 year colleges and 21 among 2 year colleges. Of the 34, 19 were considered to have ‘strong’ articulation agreements. Articulation agreements “provide both broad and specific direction to institutions regarding the transfer of general education” (Ignash and Townsend, 2000: 9). This sometimes includes specifying the numbers of students who will be permitted to transfer, and the credit they will be awarded when they do. In citing earlier research, Ignash and Townsend explain that articulation arrangements have increased in scope and complexity since the 1980s. They explain that:

“In some states, the impetus to develop strong statewide articulation agreements was a legislative mandate. In others, the impetus was to *avoid* a legislative mandate.” (Ignash and Townsend, 2000: 16)

As well as state-based articulation arrangements (whether legislatively mandated or not) there exist a range of other institutional arrangements that link community colleges with universities or four year colleges. Murphy (2002: 19) explains that:

“In the US, 5 types of arrangements exist between community colleges and universities:

- Articulation and co-ordination agreements
- On-site upper division course offering
- On-site degree programmes
- Satellite Campus
- Satellite university/university college”

Windham *et al.*, (2001: 48-49) surveyed states about their arrangements, and of the 25 states that responded, 19:

“...indicated they have joint-use facilities in their states. The survey revealed that the majority of joint-use facilities have been created by state governing boards or through regional inter-institutional agreements or both. Other methods cited were state legislative mandates alone or mandates coupled with interinstitutional agreements and state board input.” (Windham *et al.*, 2001: 48)

The most successful joint-use sites are developed at the local and regional level or both through collaborative partnerships that first identify specific workforce needs and then offer the educational programs to meet the needs.”

As well as co-locations, the US also has what we would call ‘dual-sector’ universities. Prager (1993: 540) defines these as institutions that “confer both bachelor *and* associate degrees.” She surveyed these to find out if articulation arrangements were more widespread, included more credit transfer, and were easier for students to access when compared to stand-alone institutions. She says that: “My analysis suggests that the four-year umbrella does not automatically assure lower-to-upper division movement (Prager, 1993: 541). She says that both dual-sector institutions and unrelated institutions display “some of the same characteristics inhibiting transfer within their institutions” which include:

“...elitist judgements degrading two-year students and programs, enrollment caps favoring baccalaureate track students, arbitrary rulings confusing curriculum parrallelism and comparability, and archaic notions about program terminality inconsistent with educational aspirations of occupation-technical students.” (Prager, 1993: 551)

Analysis of the US literature suggests that two factors are important in developing successful collaborative arrangements. The first is that state-wide legislation or policy is an important framework for structuring articulation, credit transfer and collaborative arrangements (shared resources etc). These set the minimum threshold level, and result in higher levels of student transfer than in either Australia or the UK, including access to the elite universities (Moodie, 2003a). The second is that good relationships between staff across institutions and leadership by management within institutions are also important in building on the legislative basis provided. Where these relationships are absent, institutions are more likely to apply ‘the letter of the law’ rather than the spirit of government mandate or policy. Both these factors seem to be needed to develop good collaborative relationships and thereby create opportunities for students.

Discussion

The above analysis of the United Kingdom and the United States has implications for the community college partners concerning the type of qualifications it develops, and the nature of the partnership arrangements it establishes with institutions in the VET and higher education sectors. These are explored in the sections that follow.

Qualifications

We need to be clear about the nature of the qualifications we wish to establish, the likely demand, and how potential students perceive the pathways and job opportunities that they may offer. Students must be able to understand these links and pathways: community college courses need to result in *both* articulation to degree level courses with credit transfer (at a level which makes articulation attainable for most students, rather than for only a tiny number of students) *and* in jobs. Employers must see real benefits from their involvement, and thereby help to build demand. This is the lesson we learn from the experience of foundation degrees in England, and the contrasting experience of higher national certificates and diplomas in Scotland.

We draw different lessons from the US. In Australia, community colleges are mostly known for offering two year associate degrees, based on a broad liberal education in the arts and sciences which are designed to articulate to the third year of a four year degree in a university. This has been the envy of those wishing to promote articulation, and those who argue for liberal education below the level of degree in contrast to occupationally specific competency-based qualifications.

This was reflected in debates about the merits of listing of associate degrees on the AQF as a higher education award. However, the debates in Australia often confused foundation degrees in the UK, which are vocationally oriented higher education qualifications designed to meet the needs of skilled technical and para-professional occupations, and the liberal associate degrees offered by community colleges in the US, which are designed primarily to articulate into broad based liberal baccalaureate degrees. Douglass argues that the structure of undergraduate degrees differ in the US and the UK: in the US students who enter a liberal arts program often have not decided what they will specialise in until the beginning of the 3rd year of a four year degree. In contrast, Douglass (2003: 6) explains that in the UK “The entire university program is highly specialised in a specific field of study.” The notion of higher education is understood differently in the two countries, and Australia’s conception is closer to the UK than that of the US.

In invoking the US model of the two year higher education qualification, Australians often fail to appreciate the diverse range of programs offered by community colleges. Because community colleges are designated as higher education, we often fail to understand the vocationally and occupationally specific nature of much provision. Moreover, it is clear that associate degrees are no longer the only basis for transferring to four year colleges. The lesson for us is that rather than the traditional liberal arts associate degree being the basis of articulation and credit transfer arrangements, it seems that the nature of the state legislation and partnership arrangements between institutions are now the key determinants. This relies on commonalities in curriculum in articulating programs for both liberal arts associate degrees and other qualifications.

The US applied associate degrees seem to be similar to the UK foundation degrees, in that they are vocationally oriented higher education qualifications. This is because way in which ‘vocational’ qualifications are developed in community colleges in the US is different to both Australia and the UK. Vocational qualifications offered through community colleges have more in common with short-cycle liberal arts degrees and other short-cycle higher education than they do with training packages in VET in Australia or National Vocational Qualifications (NVQs) in the UK.

The Australian associate degree guideline in the AQF seems to sit between the UK foundation degree and the US liberal arts associate degree. The AQF descriptor seems to suggest that the associate degree should be *both* a broad based entry for para-professional occupations *and* be a foundation of a discipline or several disciplines, with the emphasis being on the disciplinary foundation that it provides. It is premised on the notion that associate degrees will articulate fully to degrees, and shares this with foundation degrees in the UK and associate degrees in the US.

While the AQF associate degree descriptor is very broad (and intentionally so), it is important because it has implications for how community college awards are to be accredited. If the awards are to be accredited through a university, interpretation of the AQF descriptor will provide a very broad framework for the development of curriculum and intended outcomes. If, on the other hand, the community college seeks to accredit the associate degrees in its own name through the state higher education accreditation process for non-self accrediting institutions, interpretation of this guideline comes to the forefront of the process. The guideline seems to offer scope for qualifications that develop high level industry focussed skills, providing these are also grounded in the disciplines that underpin them. The associate degrees will not be different to many degrees in this regard. The associate degrees that we need to develop are more vocationally focussed than the liberal arts associate degrees in the US, while still ensuring students develop a well grounded understanding of the disciplines and how to apply these as part of a holistic understanding of the nature of their vocation.

Partnerships

The lesson that we draw from both the UK (including Scotland) and the US are that while a strong policy framework is essential to a successful partnership, they also require collaborative relations between staff from the different institutions, which are supported and led by management. The key lesson is from Parry, who argues that *partnerships* must be funded and jointly owned by the partners, in preference to consortia or franchise arrangements which are equally as expensive. The latter tends to cast the '5B' institution as the junior partner, beholden to the 5A institution for oversight, while the 5A institution often feels that they are not getting from the partnership benefits commensurate with their investment.

Implications

The implications of the above analysis for the community college are that:

- pathways need to be clearly identifiable, result in student progression, and be realistically accessible to community college students;
- the link between the qualification and jobs needs to be clear;
- employers need to have an investment in the qualifications, resulting in their participation in shaping the qualifications, in helping to build demand, and in providing employment;

- while the community college associate degrees share similarities to both the liberal arts associate degrees in the US and foundation degrees in the UK, as a curriculum model the community college associate degrees most probably sits between the two. The associate degrees need to be vocationally oriented, result in high level industry skills, but grounded in a holistic understanding of the disciplines which underpin them and a broad understanding of the nature of their vocation;
- partnerships between institutions in VET and higher education need to be jointly owned and funded by the partners, rather than premised on consortia or franchise arrangements; and,
- staff from partner institutions need to get to know each other and build relationships, to ensure that the spirit of any agreement is implemented, and not just the letter of the law.

5 An example

This chapter describes an example of a possible community college for Australia. It separates the issues involved in a community college into: qualifications; curriculum; delivery; accreditation; institutional structure; and, financing. This is done so that different combinations can be considered, to allow for the possibility of establishing an evolutionary model that develops as the community college develops.

This chapter outlines a possible community college. The example was developed for a university and a TAFE institute that considered establishing a community college in an area of the new economy. The chapter presents arrangements for: qualifications; curriculum; delivery; accreditation; institutional structure; and, financing. This has been done to try to separate the main issues, to focus on learning and learners, so that the institutional structure can emerge from the nature of the qualifications, rather than the institutional structure determining the nature of the qualifications. Experience of cross-sectoral institutional structures in Australia demonstrates that premature insistence on an institutional structure will foreclose the range of options available for constructing learning and qualifications. It is recommended that decisions be made initially on the qualifications and curriculum to be offered through the community college, and to develop institutional structures (over time) to deliver these models.

While we are developing an ‘ideal type’ of a community college in this chapter, it needs to be remembered that it is unlikely that it will be possible to achieve all aspects of each component of the model all at once. Under these circumstances, it may be that some aspects can be implemented more quickly than others, and that a strategic plan needs to be developed to allow the community college to grow into the various components of the model. This approach is most likely to result in long-term outcomes, with a community college in which both partners have a stake, because the community college can do what they cannot individually. It will take time for the staff of the two institutions to develop shared understandings and ways of working together – to develop a ‘community of practice’ – based in the community college. This process of institution building and partnership building needs to be managed carefully to ensure staff (teaching and administrative) are engaged, and do not feel their interests are threatened. This is perhaps the single biggest challenge in building the community college.

Qualifications

In addressing qualifications this section proposes a model based on:

- the nature of the *program*;
- *pathways* to and from the community college and the TAFE institute and university;
- the *level* of the qualification; and,
- the *sector* in which the qualification is to be offered;

Programs

The community college would offer a mixture of new and existing programs. New programs need to be confined to filling gaps in provision. While existing programs could be used where there is currently relatively high levels of unmet demand these should be developed and offered in such a way so that they are not regarded as residual programs compared to the programs offered by the partners.

Reconfiguring existing programs and offering them as combinations of existing programs currently offered by both partners is not favoured for two reasons: first, such programs are likely to lack the internal coherence needed for high-skills, industry focussed qualifications; and second, such programs are likely to be delivered as ‘bolt-ons’ delivered by staff in different institutions, under different sets of student progress conditions, and little coherence in the learning environment across both institutions. This approach does not help invest these programs with a distinctive appeal.

Pathways

Community college programs should lead to pathways in programs offered by both parties. This will result in enhanced outcomes for students and is one way of simultaneously building demand for programs in the community college and in the partner institutions. Pathways should be in complementary areas (in which case they are nested awards) or in complementary areas (in which case they are dual-awards). There are many different and effective models that can be used to construct pathways.

Level

It is recommended that qualifications be focussed on associate degrees (at least initially), rather than degrees, diplomas and advanced diplomas or VET certificates. This is for three reasons: first, associate degrees offer the most flexibility for developing qualifications that result in high-level industry focussed skills based on a highly developed knowledge of the disciplines that underpins these qualifications, and skill in using this knowledge in innovative ways. Second, associate degrees are higher education awards, and if appropriately accredited will enable students to access Fee-HELP for fee-paying programs. Given that the partners wish to focus community college provision on fee-paying programs, it will be essential that students be able to access Fee-HELP. Third, associate degrees are sufficiently distinct from the provision and type of qualifications currently offered by both universities and TAFE institutes, and this will help the community college to establish a distinctive identity, through providing a form of provision that neither partner currently specialises in.

Sector

Given that it is proposed that the community college focus on:

- offering new programs and extend existing areas in areas of high unmet demand, and
- associate degrees as a distinctive qualification

the sectoral position of the community college needs to be considered.

It is proposed that the community college be established as a new type of institution that sits outside existing sectoral arrangements, and offers qualifications not currently associated with either sector. This will establish the community college as an institution that straddles the sectors. Moodie (2003b) has termed this type of provision and institution as an intermediate sector or a 'higher vocational education' sector. It is often described as 'short-cycle higher education' and is the type of provision offered by community colleges in the US and further education colleges in the UK. It will be necessary for the community college to use the higher education accreditation process to accredit awards.

Curriculum

This monograph proposes that the approaches be used to design curriculum and structure learning be based on the discussion in chapter 3. This is predicated on developing vocational expertise through structured learning that holistically incorporates the workplace and the community college around 'discovery learning' based on curriculum that is jointly developed and delivered by the community college and industry. This model regards learning as learning to become a member of a community of practice and helping students to develop the skills needed to work within the activity system that frames their intended community of practice. It is this approach that will help students to develop high-level, industry-focussed skills.

An underpinning assumption is that all programs will use a variety of modes in delivery, including institution-based, work-based, and information and communication technologies (ICT). In other words, programs and subjects should be delivered in 'mixed mode'. This model may include consideration of wholly online subjects, particularly considering that one area of expertise the community college will be the new technologies. However, online subjects should be based on the same holistic principles as courses delivered in mixed mode.

While it may be possible to use existing curriculum models in either sector as the basis for the college's curriculum design, it would be very difficult to do so. It would involve taking curriculum designed according to other principles and for different purposes, and reshaping what exists to support a 'community of practice' approach to structuring learning.

Delivery

This includes the following areas:

- enrolment
- course regulations, student progress
- staff teaching teams

It is proposed that:

- Students enrol in a single award (with or without accredited nested outcomes) delivered in a new entity – the community college.
- Programs be governed by a single set of course regulations and student progress rules for new courses taught in the community college.
- While the community college may draw from the staff at partner institutions and from industry, a core staff needs to be employed in the community college to lead the development and teaching of programs. Consideration should be given to employing staff on consistent industrial arrangements and agreements.

Accreditation

It is proposed that the community college associate degrees be accredited through a State or Territory office of higher education. Whole awards can be accredited and offered in this way. The benefit is that there is only one accreditation process involved in this approach. Dual or nested awards must be accredited in both sectors, and this can be onerous, expensive and time consuming. The community college may decide it is appropriate to deliver a VET accredited qualification, and if so, it must become registered as a Registered Training Organisation in order to do so.

Institutional structure

It is proposed that the community college be a business legal entity that is jointly owned by the partners. The key lesson from the UK experience is that *partnerships* need to be funded, so that both partners invest in, and own the outcomes of, the partnership.

Financing

The financing arrangements of the *community college* will be determined by the institutional structure. This section focuses only on *student financing*.

The community college will be oriented towards fee paying domestic and international students.

Students paying full fees for under-graduate higher education awards will be eligible for Fee-HELP. Fee-HELP is modelled on Post-graduate Education Loans Scheme (PELS). Fee-HELP provides an additional option for students to defer their tuition fees rather than having to pay them up front upon enrolment as at present. Students can still choose to pay their fees as at present if they want. The amount of fee-HELP fees is determined by the provider, not the Commonwealth.

Fee-HELP will apply to all programs listed on the Australian Qualifications Framework (AQF) as higher education awards, including associate degrees, advanced diplomas, diplomas²⁵, graduate certificates and graduate diplomas.

Awards must be accredited as a higher education award by a State or Territory under the Ministerial Council on Education, Employment, Training and Youth Affairs protocol 3 on the accreditation of higher education courses to be offered by non-self-accrediting providers.

Protocol 4.22 states the criteria for higher education programs to be accredited:²⁶

- “the course design and content should satisfy the requirements set in the Australian Qualifications Framework for the award level;
- the course should be comparable in requirements and learning outcomes to a course at the same level in a similar field at an Australian university;
- the delivery arrangements, including matters of institutional governance, facilities, staffing, and student services are appropriate to higher education and enable successful delivery of the course at the level proposed;
- the provider has appropriate financial and other arrangements to permit the successful delivery of the course, and is a fit and proper person to accept responsibility for the course.”

The community college may wish to leave open the possibility that its programs comprise a mixture of full-fee paying and publicly funded places (HECS for higher education, and State department funding for VET). This may be limited by the extent to which publicly funded institutions can direct funded load to another institution, such as the community college, or the extent to which state governments wish to directly fund such provision.

Conclusion

It will not be possible to implement all aspects of this model at once, particularly if the community college is to develop and offer courses relatively quickly to ensure the community college becomes established over the next few years. This is particularly important, because the tertiary education market will be quite volatile as the reforms to higher education take effect. New private providers will emerge and try to establish their market position through offering students access to higher education accredited awards, and consequently to Fee-HELP. Existing publicly funded providers in both sectors will seek to increase their market share using the same strategy.

The community college can begin through offering qualifications, and allow the institutional structure to evolve. However, it will be important that a clear strategy be identified to give effect to the partnership, in which both jointly invest in and own. Otherwise, the problems that are well documented about co-locations, dual-sectors, franchise and consortia arrangements will undermine the shared enterprise.

²⁵ However, in order for students to be eligible for Fee-HELP, diplomas and advanced diplomas would need to be accredited as *higher education* and not *VET* awards. There does not appear to be any prohibition on accrediting diplomas and advanced diplomas as *both*, provided the accreditation requirements of each sector are satisfied. This has not, to my knowledge, been tested.

²⁶ I am grateful to Gavin Moodie for providing this advice.

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