Work based Learning: A flux for learners through the Australian Qualifications Framework.

Abstract

This paper sets out just one element of a long term project in which the authors have employed elements of activity theory and expansive learning theory to analyse both the Australian Qualifications Framework (AQF: 2013) and application of contemporary workbased learning approaches.

The framework for the review is built around 6 key areas of performance identified in previous reviews of education systems and qualifications frameworks (AQF Council 2009; Bradley et al., 2008; Burke et al., 2009; CEDEFOP 2010 & 2013; CEDEFOP & ETF 2013; Commonwealth of Australia 2009; deWeert 2011; Education and Culture DG & EQF 2013; Guthrie et al., 2011; Hackett et al., 2012). The researchers are progressively working through the sequence of learning actions within an expansive learning cycle (Engestrom & Kerosuo, 2007) and this paper represents one aspect of the work being undertaken as part of a step two [i.e. analysis] in the seven step expansive learning cycle.

Through this analysis we present a possible solution to enable an individual to progress through a vocational pathway into higher education by the application of a workbased learning pedagogy that is assessed against institutional based credentials. This approach tends to be a 'flipped' practice to the general principle of asking the learner to align their work based activity to the institution's pedagogical framework and more then the application of recognition of prior learning.

Introduction

Notions of learning being 'lifelong' [as opposed to learning up to when you finish your formal 'education'] have been evolving in parallel with related social and economic developments [such as changes in the nature of work, the expansion of information technologies and the globalisation of markets] over some 40 years or more (Andersson et al., 2013; Australian Workforce and Productivity Agency 2013; CEDEFOP 2010; Engestrom 2011; Pitman and Vidovich 2013).

During the latter part of this evolution, there has be a development in education management to construct qualifications frameworks [QFs] not only as a means of connecting a person's own lifelong learning journey with various levels of accredited learning [within the education services industry] and to recognise learning that occurs outside formal education settings (AQF Council 2009 & 2013; CEDEFOP 2013; Education and Culture DG & EQF 2013; Ministry of Science Technology & Innovation 2005).

As a result of this, QFs are now a part of governments' education policy menus, such as Australia, New Zealand Europe and Britain. From a policy perspective, it appears that one important function of QFs is to build capacity into the education system to be able to respond to the labour market's need for not only higher levels of skill but also, different skills.

However, it is clear that QFs do vary in purpose with these variations spread across a wide spectrum from being 'transformational devices to descriptive tools' (CEDEFOP 2010, p. 10). As well, QFs are a mechanism for bringing a level of 'regulation' over the education industry and its various layers and sectors. For example, standards and obligations regarding the transfer, accumulation and recognition of credit are generally incorporated within QFs. This brings the promise of clear pathways of progression, that enable students to not only see and plan how to progress, but to then use their progressive achievements as the foundation for the next step. As part of the credit process, QFs have been designed to incorporate the recognition of non-formal learning [be it from work or personal interests] as well as to give certainty to the credit that will be granted from a previous level of [lower or related] study.

Building capacity into the education and training system is an important driver for QFs because contemporary developed economies are facing ongoing challenges to produce sufficient numbers of graduates to meet labour market demands (Australian Workforce and Productivity Agency 2013; CEDEFOP 2011; deWeert 2011; Hackett et al., 2012). In recent years in Australia, there has been a significant increase in enrolments in bachelor degree awards (Commonwealth of Australia 2009; Bradley et al., 2008; Norton 2013); however, there are questions as to whether this is sustainable (deWeert 2011; Norton 2013).

It seems likely that to achieve longer term continued growth in the number of tertiary level graduates, the education and training system in Australia will need to have a number of different pathways for both entry into and progression through undergraduate degrees. It is surprising that the Australian education and training system has been reluctant to embrace some developments, which have proved to be effective in other developed countries and regions.

In a country noted for its early development of initiatives such as distance education and professional doctorates (National Qualifications Authority 2006), it is surprising that there appears to be such a strong focus on traditional, academic progression as

the primary pathway for responding to the emergent needs of the Australian labour market.

Australia first established its national qualifications framework in 1995 (AQF Council, 2013; Burke et al., 2009) with important iterations leading up to the current Australian Qualifications Framework [AQF], which came into operation from 2015 (AQF Council 2013). The challenges that have prompted such a policy are clear. One such challenge is that by 2025, according to modelling developed for Australia's latest workforce strategy, Australia could be 2.8 million short of the number of higher-skilled qualifications that industry will demand. (Australian Workforce and Productivity Agency 2013, p.9).

At the same time, another important challenge is that many Australians lack the language, literacy and numeracy skills to participate in training and work. Only just over half (54 per cent) of Australians aged 15 to 74 years have been assessed as having the prose literacy skills needed to meet the complex demands of everyday life and work (Australian Workforce and Productivity Agency 2013, p.9). The move from an 'egg ' to an 'hour glass' shaped labour market (Winter & Bryson, 1997) [with greater numbers of workers at the 'opposite' ends of the hour glass] is present in Australia as well as other developed countries and this represents a major challenge for the efficacy of policy tools such as the AQF.

In short, there is a reasonable level of doubt that the current approach to education and training service delivery in Australia will achieve the countries desired outcomes in regard to graduates. [The issues at the other end of the hourglass are just as important but our focus in this paper is on the education and training system.]

This review has been undertaken as part of an ongoing action research oriented project being undertaken by a small group of researchers seeking to develop and expand workbased learning in Australia. Workbased learning is an important pathway available to students in the United Kingdom [and to varying degrees in other European countries] and the project members set out to better understand whether workbased learning is likely to be a beneficial addition to the pathways for achieving these targets in Australia.

To support the review of the Australian education system's performance and to ensure the need for completeness, the researchers firstly undertook a desk review of this performance using key elements of the Australian Qualification Framework. The researchers identified from the literature (AQF Council 2009; Bradley et al., 2008; Burke et al., 2009; CEDEFOP 2010 & 2013; CEDEFOP & ETF 2013; Commonwealth of Australia 2009; deWeert 2011; Education and Culture DG & EQF 2013; Guthrie et al., 2011; Hackett et al., 2012), six key issues that would provide the basis for a complete review of performance. The issue headings identified are (1) Labour market (2) Standards and Quality (3) International (4) Credit and RPL (5) Pathways and (6) Responsiveness. The researchers use these issues as the foundation for a baseline assessment of the AQF with a view to using this baseline to assess the extent to which new offerings, such as workbased learning, would be likely to lead to improved performance.

Then, drawing on previous workbased learning research and literature (Cairns & Malloch 2011; Costley 2000 & 2011; Costley & Lester, 2012; Costley & Stephenson, n.d.; Garnett 2013; Garnett et al., 2009; Garnett & Young, 2008 & 2009; Cunningham et al., 2004; Portwood & Costley 2000; Roodhouse & Mumford 2010; The Higher Education Academy, 2010) the primary characteristics of workbased learning are

mapped against the overall baseline assessment of education and training services, to determine if and where improvements are likely to be achieved.

Review of Education and Training Services in Australia

As noted above, the contemporary concepts of lifelong learning and qualifications frameworks appear to be the foundation for extensive efforts by governments, educators and business to respond to major changes in labour markets. The characteristics and structure of labour markets are changing, in part, because the nature of work is changing. Work is changing because both the objects and means of production are changing and because product life cycles have shortened (Australian Workforce and Productivity Agency 2013; Engestrom 2011). As a result, the labour market now requires more people to have more knowledge skills and it also requires people to change jobs [and to re skill] more often. Andersson et al., (2013, p. 406) suggest that –

> *As a concept, lifelong learning partly replaces former concepts such as adult education (Lindeman, 1926), and lifelong education (Faure, 1972). Lifelong learning has become the dominant manner in which the education and learning of adults is addressed in policy terms.*

No longer is it expected that a person's original training or qualification will be the primary basis of what they do at work over their working life. This is the context within which the AQF has been developed. The primary intent of the AQF is usually illustrated as a wheel with equal segments given to each of the ten levels from leaving high school [Level 1] to the highest academic award [Level 10] (AQF Council 2013). The thrust of the AQF is directed towards supporting a learner's journey, through time, around the wheel (See Diagram One below). All segments are depicted as being equal in size and joined to the next one. Such illustrations convey the impression of a simple, consistent stepwise progression from the lowest level to the highest level of learning.

Diagram One: The Australian Qualifications Framework Wheel

In conjunction with detailed descriptions of the learning, and the learning outcomes, expected at each of the ten levels in the above circle, the AQF also includes several supporting policies that underpin the overall objectives of the framework (AQF

Council 2013). The material is comprehensive and framed in the familiar lexicon of QFs developed in jurisdictions throughout the world. Even so, this does not detract from the essential thrust of the material and it is very clear that the primary objective of the AQF is to enable a learner to progress around the circle on a supported, rewarding, integrated, open learning journey. This review endeavours to assess the extent to which this is what is actually experienced by learners in Australia.

As noted earlier, the framework for this review comprises six key issues [and their related questions], which have been identified from a review of the literature relating to qualifications frameworks. In simple terms, our objective is to make a broad assessment of how well what is depicted in Diagram One is actually a reflection of the operation of education and training services in Australia. Our particular focus is on the qualifications offered at the 7 and/or 8 levels predominately by the university and the vocational sectors. The primary issue headings and questions are as follows

1. **Labour Market** - how are education and training services linked to the needs of the labour market?
   Answer - The education and training sector has generally responded by increasing enrolments and graduates, with funding driven initiatives being evident in the VET area. Whereas the higher education sector has an emphasis on demand driven funding, uncapped numbers and student loan schemes, as the basis to achieve the government targets and this approach would be unstainable.

2. **Standards and Quality** - is there an integrated system to allow a progressive learning journey for each individual student/learner?
   Answer - The education and training sector is still a 'split' governance model, representing a flaw and substantial failure in governance design in the system. Without some significant change to this model it will not provide an incentive to adopt new practices or standards beyond traditional lecture style delivery.

3. **International** - to what extent is there 'mobility' for learners and workers across national boundaries?
   Answer - The AQF is well aligned with other QFs and there are clear and high levels of both student and worker mobility. The current market suits the education and training sector's formal academic orientation and traditional delivery and in fact the success of the approach to the migration of skilled workers provides a 'back up' to shortfalls in the provision of education services domestically.

4. **Credit and RPL** - are different forms of knowledge recognised and can learners gain full recognition of their prior achievements as they progress on their learning journey?
   Answer – The overall approach by the education and training sector is still somewhat limited by institutional traditions, system incentives that act as a disincentive for improvement in this area. Evidence indicates that this situation is developing more rapidly in the private VET sector.

5. **Pathways** - are there multiple connected/integrated ways in which learners can gain their learning and qualifications?
   Answer – At this stage it appears that other, alternative pathways, are more likely to be fully developed by alternative independent providers as institutional funding models provides for the single mass attendance tradition of teaching and learning.

6. **Responsiveness** - are there a variety of education products to suit varying needs of learners with different backgrounds?
Answer – The preferred approach by education and training institutions is towards students who 'fit the system'. The added demands and workload for staff is a barrier to look seriously at alternative education program offerings that change the sectors role and relationship with its content and its students.

Whilst previous reviews and literature provide a basis for developing these headings/questions, it is also considered that the objectives expressed within the AQF itself provide a good source for framing the review (AQF Council, 2013).

As we reviewed developments in regard to Australia's qualifications frameworks it was difficult not to note the potential for the 'reform' agenda of the AQF to be overtaken by a 'marketing' agenda that potentially shifts emphasis from driving change in education and training services to growing business opportunities and maintaining the status quo. Others have noted the scope for qualifications frameworks to be simply 'descriptive' rather than 'transformational'. It is difficult to avoid the conclusion that Australia is moving more towards a 'descriptive' QF as evidenced by the dilution of the strategic agenda of the Australian Qualifications Council, through its narrowing planning objectives over recent years (AQF Council 2014).

It is possible that, if there is no clear evidence of responsiveness in the AQF to the major issues confronting the community and its economy, then its policy life cycle is likely to be more short lived than anticipated. Of course it would not be the first policy agenda to be neutered by key stakeholders with opposing interests. It is against this background that we consider each of the six headings in turn and conclude with a summary 'answer' to each issue/question from a work based learning perspective.

Characteristics of Work Based Learning

The characteristics of WBL will be incorporated in the paper by using the same questions [used above to assess education and training services in Australia] simply by replacing 'education services' with 'workbased learning' in each of the questions. This provides a good opportunity to both explain some key characteristics of workbased learning at the same time as identifying the points where this pathway could make a material improvement to education and training services in Australia.
The revised set of questions then becomes-
Labour Market - how is work based learning linked to the needs of the labour market?
Standards and Quality - is there an integrated system to allow a progressive learning journey for each individual student/learner using workbased learning?
International - to what extent is there 'mobility' for learners and workers across national boundaries that have undertaken workbased learning?
Credit and RPL - are different forms of knowledge recognised and can learners gain full recognition of their prior achievements as they progress on their learning journey using workbased learning
Pathways - are there multiple connected/integrated ways in which learners can gain recognition and qualifications using workbased learning?
Responsiveness - does workbased learning provide a variety of education products to suit varying needs of learners with different backgrounds?

Labour Market

The curriculum of a workbased learning award is built upon and around the learning agreement, established through a process of resolution between the education and training providers, the student and the student's employer (Garnett, 2000). Learning objectives are established for each student and these are intended to reflect a consensus of the parties. The common ground that reflects this consensus means that the curriculum is not borne out of a particular disciplinary perspective, nor is it borne out of a predefined vocational or professional prescription (Portwood 2000; Portwood and Costley 2000). This means that workbased learning sits in a rather unique direct relationship between the workplace [and its needs] and the student's personal and professional aspirations. Therefore, unlike conventional vocational or disciplinary courses/programs, it is not separate to or outside the labour market. It is, to a large degree, embedded in it. Consequently, it is considered that the risks, associated with conventional programs [in that they sit outside the labour market], are much reduced through a workbased learning approach.

Standards and Quality

The philosophy of workbased learning is to recognise a broad range of learning and learning experiences but at the same time, no diminution in the standards and quality [relative to traditional, academically-centric programs] is countenanced (Brodie & Irving 2012; Doncaster 2000; Garnett 2010). There is no requirement to adjust any of the standards set out in qualifications frameworks and this is well evidenced by the accreditation of workbased learning programs across the UK and to a much lesser extent [by virtue of the limited number of such programs being offered] in Australia.
In fact the standards and quality of workbased learning are applied in an integrated manner to experiential learning and academic learning and, in so doing, ensuring that all forms [of learning] are dealt with in the same comprehensive manner. In this way the risks associated with the unstructured approach to different types of learning [evident in the current diverse and at times unstructured and unfunded approaches to RPL in Australian institutions] are thus avoided. The epistemological and pedagogical justification for workbased learning is now well established in universities (Costley 2000; Garnett and Young 2008 & 2009; Garnett and Workman 2009; Kennedy 2000; Portwood 2000). The primary issues for quality and standards in the Australian context revolve around the current ad hoc, institution-by-institution, department-by-department interpretation of different forms of learning.

International

It is clear that because the standards and quality of workbased learning operate within the overall existing qualifications frameworks in place in those jurisdictions where there are these two elements in place - QF and workbased learning, then the mobility issue is no different to any other award in those jurisdictions.

Credit and RPL

As noted above, workbased learning brings all credit and RPL considerations into a structured, formalised and financially sustainable environment. It is testimony to the enormous financial rewards accruing to Australian universities for their core academic programs that they have not recognised the further organisational and financial benefits to them in adopting the philosophy and structure of workbased learning. As set out in the literature (Armsby 2000; Armsby and Costley 2000; Ball and Manwaring, 2010; Costley & Armsby 2007; Costley et al., 2010; Cunningham et al., 2004), the structure of workbased learning is simple, with a focus on three

primary elements - (1) review of learning and claims for recognition of past learning [incorporating academic and experiential learning] (2) development of learning plan incorporating learning objectives and a preferred award title that encapsulates the thrust of the qualifications sought and (3) workbased projects that provide the opportunity for and evidencing of learning to achieve the student's desired learning outcomes.

Pathways

Unlike the majority of learning pathways offered by Australian providers, workbased learning offers a customised pathway for each student. To the extent that the structure set out above is the basis for all workbased-learning awards and is more or less a 'given', this 'framework' enables a student to pursue multiple pathways to achieve their learning objectives. This may involve elements of course work as required but also involves completely individualised project plans that plot the course of the student's learning journey. The way of achieving the learning is via the medium of the workbased projects but this may involve the student in multiple roles, in multiple settings and seeking to achieve divergent outcomes. The outcomes of this learning may be a new product or an improved way of doing a particular activity or project at work. In any event, the artefacts for assessment may be presented in a variety of ways consistent with the student's learning outcomes. All these divergent approaches are subjected to assessment in ways consistent with all education and training programs and in line with the qualifications framework for that jurisdiction. The scaffolding of the workbased learning program provides a multiplicity of in-built pathways.

Responsiveness

The responsiveness of workbased learning begins with the philosophy and orientation of the program to sit 'beside' the student, and in so doing, facing the world with them. This is the model championed by the early twentieth century educationalist, philosopher John Dewey and is the basis for the workbased-learning tutor assisting the learner in understanding and explaining the learning they are seeking (Elkjaer 2008; Lester 2004; McKernan 2007). Without having a predetermined set of knowledge facts to deliver to the student, the workbased learning tutor is able to respond to the circumstances seeking to be explored by the student and to advise the student on the way forward; on ways and means of handling the situation and in coming to terms with an environment where the learner is undertaking work in areas that have not been codified to the extent needed by the learner and their organisation.

It is the essence of this 'responsiveness' that we have noted, causes the hesitation on the part of some practising academics to entertain the practise of workbased learning. It is the necessity for this responsiveness that we contend is causing senior administrators to avoid such flexible, hand crafted solutions. There is a definite shift, implicit in workbased learning, in relation to the power relations between student and adviser. Our observation is that education and training providers have many staff who are not well experienced in workplaces outside of education and training and, further, with the 'casualisation' of the workforce (Halcomb et al., 2010), many staff who are responsible for the delivery of standard 'content' driven programs are contracted to deliver fixed, existing, content based programs. Under these circumstances and with the advantages of very large 'cohorts' in popular subjects this 'cookie cutter' method for education and training delivery offers substantial profitability under existing government funding arrangements.

Summary of WBL Key Characteristics

Utilising the brief review above, it can be seen that workbased learning has the potential to improve results in 5 of the 6 areas reviewed in this study. The reasons for this go to the heart of what makes contemporary workbased learning an important reform mechanism for education and training.

Workbased learning -
- connects the education and training into the workplace and builds the curriculum around what knowledge and learning is valued and needed by individuals and their workplaces
- puts equal value on accredited learning no matter its source or origin
- has an established pedagogy which aligns with existing qualifications frameworks so that it contributes to international [student and worker] mobility and conforms with established quality and regulatory requirements
- provides a multiplicity of learning pathways and responsiveness by virtue of a simple structure and it provides the opportunity for the teacher/tutor to 'sit beside' the student as they confront the issues and problems which are important to each student and their workplaces.

Given this, it is apparent that a broader implementation of workbased learning has the potential to create a much 'wider neck' in the hourglass, which we have used to characterise higher education services in Australia. This 'wider neck' is illustrated in Part One of Diagram Two below and is intended to represent a larger flow of students from experiential and vocational backgrounds into undergraduate programs. The 2013 National Workforce Development Strategy reiterates just how skinny this 'neck' currently is – in 2010 78% of students with a prior VET qualification were not given any credit on entry to university (Australian Workforce and Productivity Agency, 2013). Workbased learning is a well established approach to teaching and learning and provides an integrated method for assessing all types of prior learning.

Over time, a wider implementation of workbased learning could even contribute to building a single, 'connected' wheel of learning similar to the currently hypothesised one illustrated in on page six of this paper. The academic foundations of workbased learning are now well established and, with sufficient interest in and application of workbased learning, the AQF wheel could be reconnected by the incorporation of workbased learning providing the 'flux' between each of its segments. This reconnection is illustrated in Part Two of the Diagram Three below, with an element of workbased learning being able to contribute between all levels in the qualifications framework.
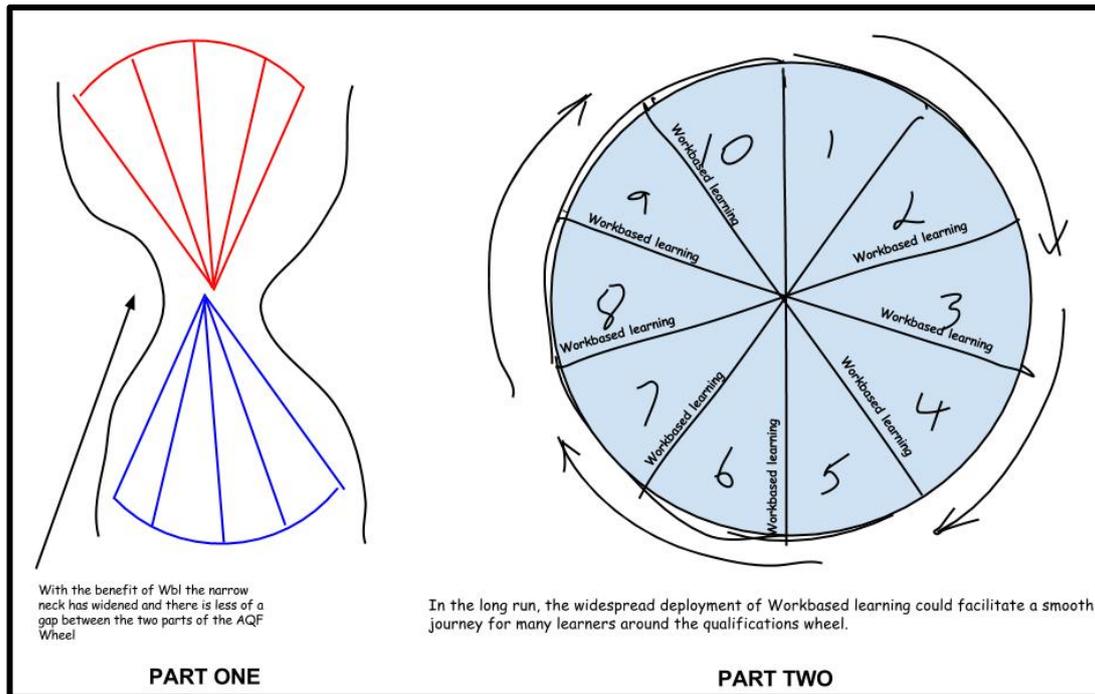
Diagram Two: *The evolutionary development of the Australian Qualifications Framework with the benefit of increased levels of workbased learning.*

In considering the two parts of the above diagram, it is important to recognise that workbased learning is only being presented as 'a' pathway and that a vibrant, sustainable education and training services environment will strongly support multiple, diverse pathways. The dominant, existing 'academic-centric' pathway provides excellent opportunities for many learners. This is because content driven, discipline/vocational centric programs are highly efficient and widely understood and accepted. However, those students who don't 'fit' this dominant pathway are less likely to progress and thereby, a significant opportunity for expanding our workforce skills is lost. The conclusion will now bring to a head our findings from this preliminary review of higher education services and the associated review of workbased learning.

Conclusion

This study arises from the confluence of three important areas of enquiry - (1) notions of lifelong learning (2) education policy approaches such as qualifications frameworks [QFs] and (3) workbased learning. The objective of this review was to assess the extent to which workbased learning could potentially improve higher education services in Australia. To do this, a desk review of education and training services in Australia was undertaken [using key elements of the AQF as a basis for the review] and areas of achievement and improvement were identified. Then, a review of workbased learning was undertaken to identify its key characteristics and to assess the extent to which it would operate as a mechanism for improving education and training services in Australia. Several elements of workbased learning were identified that would lead to a material improvement in education and training services in Australia. However, this research has identified underlying barriers within the Australian education and training system that are likely to inhibit future offerings of workbased learning by Australian providers. This however, will not necessarily impede its application.

Some authorities have already identified that new players and new institutions will enter the market to respond to the more flexible needs of individual students, businesses and the labour market (deWeert 2011). Australian universities have a strong future demand for bachelor degrees offered via the conventional academic pathway and the incentives are too high to falter from this path. In the absence of government policy, which was a significant factor in the development and growth of workbased learning in the UK (Garnett and Workman 2009), the growth of workbased learning will, most likely, depend on new entrants: be they new institutional structures or players from other jurisdictions. Early indications from the current research being undertaken into workbased learning in Australia, is that students' and employers' interest in workbased learning is likely to expand.

List of References

Andersson, P. Fejes, A. Sandberg, F. 2013, 'Introducing research on recognition of prior learning', *International Journal of Lifelong Education* 32, pp. 405–411, doi:10.1080/02601370.2013.778069

Armsby, P. 2000, 'Methodologies of Work Based Learning', in: Portwood, D. Costley, C. (Eds.), *Work Based Learning and the University New Perspectives and Practices Seda Paper 109*, Staff and Educational Development Association [SEDA], Birmingham, pp. 35–42.

Armsby, P. Costley, C. 2000, 'Research Driven Projects', in: Portwood, D. Costley, C. (Eds.), *Work Based Learning and the University: New Perspectives and Practices Seda Paper 109*, Staff and Educational Development Association [SEDA], Birmingham, pp. 67–71.

AQF Council 2014, AQF Council's Terms of Reference and Strategic Plan, viewed 17/01/15, URL http://www.aqf.edu.au/council/about/ref-n-strat-plan/

AQF Council 2013, Australian Qualifications Framework 2nd Edition 2013.

AQF Council 2009, *Building Better Connected Learning Through Improved Student Pathways (Pathways Project Report),* Commonwealth of Australia.

Australian Workforce and Productivity Agency 2013, Future Focus: 2013 National Workforce Development Strategy.

Ball, I. Manwaring, G. 2010, *Making it work: a guidebook exploring work-based learning (Guidebook)*. Gloucester.

Burke, G. Keating, J. Vickers, A. Fearnside, R. & Bateman, A. 2009, *Mapping Qualifications Frameworks across APEC Economies*. Singapore, APEC Human Resources Development Working Group, viewed 16/01/15, http://www.voced.edu.au/content/ngv17218

Costley, C. 2000, 'The Boundaries and Frontiers of Work Based Knowledge', in: Portwood, D. Costley, C. (Eds.), *Work Based Learning and the University: New Perspectives and Practices Seda Paper 109*. Staff and Education Development Association, Birmingham, pp. 23–33.

Cairns, L. & Malloch, M. 2011, 'Theories of Work, Place and Learning: New Directions', in M. Malloch, L. Cairns, K. Evans, & B. N. O'Connor (Eds.), *The Sage Handbook of Workplace Learning*, pp. 3–16, Los Angeles, SAGE.

Costley, C. 2000, 'The Boundaries and Frontiers of Work Based Knowledge', in D. Portwood & C. Costley (Eds.), *Work Based Learning and the University: New Perspectives and Practices Seda Paper 109,* pp. 23–33, Birmingham, Staff and Education Development Association.

Costley, C. 2011, 'Workplace Learning and Higher Education', in M. Malloch, Margaret, L. Cairns, K. Evans, & B. N. O'Connor (Eds.), *The Sage Handbook of Workplace Learning*, pp. 395–406, Los Angeles: SAGE.

Costley, C. Elliott, G.C. Gibbs, P. 2010. *Doing Work Based Research*, SAGE Publications.

Costley, C. Armsby, P. 2007. 'Methodologies for undergraduates doing practitioner investigations at work', *Journal of Workplace Learning 19*, 131–145.

Costley, C. & Lester, S. 2012. 'Work-based doctorates: professional extension at the highest levels', *Studies in Higher Education*, *37*(3), 257–269. doi:10.1080/03075079.2010.503344

Cunningham, I. Dawes, G. & Bennett, B. 2004, *The Handbook of Work Based Learning*, Aldershot, Gower.

CEDEFOP, 2010. *Linking credit systems and qualifications frameworks: An international comparative analysis (Research No. Report No. 5)*, European Centre for the Development of Vocational Training [Cedefop], Luxembourg.

CEDEFOP, 2011. *Labour-market polarisation and elementary occupations in Europe (RESEARCH PAPER No. 9)*, Publications Office of the European Union, Luxembourg.

CEDEFOP, 2013. *Qualifications frameworks in Europe: forging the right links (Briefing Note Report)*, European Centre for the Development of Vocational Training [Cedefop], Luxembourg.

CEDEFOP, EQF, 2013. *Information on the Cedefop study on "Qualifications at level 5 of the EQF,* EQF Advisory Group.

CEDEFOP, ETF, 2013. *Global National Qualifications Framework Inventory: Country Cases from EU and ETF Partner Countries (Research Report)*, European Training Foundation.

Doncaster, K. 2000. 'Recognising and Accrediting Learning and the Development of Reflective Thinking', in: *Work Based Learning and the University: New Perspectives and Practices, SEDA Paper 109*. Staff and Education Development Association, Birmingham, pp. 51–57.

Education and Culture DG, EQF, 2013. The European Qualifications Framework for Lifelong Learning.

deWeert, E. 2011. *Perspectives on Higher Education and the labour market (Review of international policy developments) (Research Report)*, Center for Higher Education Policy Studies, Netherlands.

Elkjaer, B. 2008, 'Pragmatism A learning theory for the future', in: Illeris, K. (Ed.), *Contemporary Theories of Learning: Learning Theorists... In Their Own Words*, Routledge, Hoboken.

Garnett, J. 2000, 'Organisational Culture and the Role of Learning Agreements', in: Portwood, D., Costley, C. (Eds.), *Work Based Learning and the University Seda Paper 109. Staff and Educational Development Association*, Birmingham, pp. 58–66.

Garnett, J. 2010. 'Recognising, Assessing and Rewarding Work Experience', in: *Understanding Work Based Learning*, Ashgate Publishing Group, Farnham, Surrey, GBR.

Garnett, J. 2013, Middlesex University Work Based Learning - Work Based Learning field of Study. Middlesex University.

Garnett, J. Costley, C. & Workman, B. (Eds.) 2009, *Work Based Learning Journeys to the Core of Higher Education*. Middlesex: Middlesex University Press.

Garnett, J. & Workman, B. 2009, 'The Development and Implementation of Work Based Learning at Middlesex University', in J. Garnett, C. Costley, & B. Workman (Eds.), *Work Based Learning Journeys to the Core of Higher Education* pp. 2–14, Middlesex: Middlesex University Press.

Garnett, J. & Young, D. (Eds.) 2008, *Work-based Learning Futures 11*. University Vocational Awards Council. Retrieved from http://www.uvac.ac.uk/resources/publications/ (accessed 23.11.13).

Garnett, J. & Young, D. (Eds.) 2009, *Work-based Learning Futures 111*. University Vocational Awards Council. Retrieved from http://www.uvac.ac.uk/resources/publications/ (accessed 13.2.14).

Guthrie, H. Stanwick, J. Karmel, T. 2011, *Pathways: developing the skills of Australia's workforce (Research Report),* National Centre for Vocational Education Research, Adelaide, South Australia.

Hackett, L. Shutt, L. MacLauchlan, N. 2012, *The way we'll work: Labour market trends and preparing for the hourglass (Research Report),* University Alliance.

Halcomb, E. Andrew, S. Peters, K. Salamonson, Y. Jackson, D. 2010, *Casualisation of the teaching workforce: implications for nursing education,* viewed 23.2.14, http://ro.uow.edu.au/cgi/viewcontent.cgi?article=1748&context=smhpapers

Harris, R. Rainey, L. Sumner, R. 2006, *Crazy paving or stepping stones? Learning pathways within and between vocational education and training and higher education (Research Report)*, National Centre for Vocational Education Research, Adelaide, South Australia.

Kennedy, P. 2000, 'Applying Work Based Learning to Undergraduate Study', in: Portwood, D. Costley, C. (Eds.), *Work Based Learning and the University: New*

Perspectives and Practices, Staff and Educational Development Association Ltd, Birimgham, pp. 85–90.

Lester, S. 2004, 'Conceptualising the practitioner doctorate' *Studies in Higher Education 29*, pp757–770.

Lester, S. & Costley, C. 2010, 'Work-based learning at higher education level: value, practice and critique', *Studies in Higher Education*, *35*(5), pp561–575.

McKernan, J. 2007, *Curriculum and Imagination: Process Theory, Pedagogy and Action Research*, Routledge, Florence, KY.

Moodie, G. Fredman, N. Bexley, E. Wheelahan, L. 2013, *Vocational Education's variable links to vocations (Research Report),* National Vocational Education and Training Research Program, Commonwealth of Australia, Adelaide.

Ministry of Science Technology and Innovation, 2005, A Framework for Qualifications of The European Higher Education Area.

Misko, J. Beddie, F. & Smith, L. 2007, *The Recognition of Non-formal and Informal Learning in Australia Country Background Report prepared for the OECD activity on Recognition of Non-formal and Informal Learning* (p. 244). Commonwealth of Australia viewed 18/01/15

http://vital.new.voced.edu.au/vital/access/services/Download/ngv:33965/SOURCE2 (

Portwood, D. 2000, 'An Intellectual Case for Work Based Learning as a Subject', in: Portwood, D., Costley, C. (Eds.), *Work Based Learning and the University: New Perspectives and Practices SEDA Paper 109*, Staff and Educational Development Association, Birmingham, pp. 17–22.

Pitman, T. Vidovich, L. 2013, 'Converting RPL into academic capital: lessons from Australian universities', *International Journal of Lifelong Education 32*, 501–517, doi:10.1080/02601370.2013.778075

Roodhouse, S. & Mumford, J. 2010, *Understanding Work-Based Learning*, Surrey, Gower.

Watson, L. Hagel, P. Chesters, J. 2013, *A half-open door: pathways for VET award holders into Australian universities (Research Report)*, National Vocational Education and Training Research Program, Commonwealth of Australia, Adelaide.

Wheelahan, L. 2009, *Programs and Pathways: A report prepared for the Pathways Project*, viewed 16/01/15 http://www.aqf.edu.au/resources/reports/