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Reconciling 'Graduateness' and Work-based Learning

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ABSTRACT

The last decade has seen a development of interest in the nature of 'graduateness'. Starting with the (former) Higher Education Quality Council's Graduate Skills project in the mid-1990s and culminating in the current preoccupation with transferable skills, the question has been asked what the common skills or attributes are that distinguish graduates from non-graduates. In contrast with business or government's interest in generic graduate skills, the view of graduateness within universities is very much associated with specific disciplines and undergraduate education with enculturation into a particular academic discipline. This focus on disciplinary content has posed some challenges for the design of Foundation degrees, which are intended to be a blend of academic and workplace learning, and it also reinforces the academic/vocational divide. Recently, a number of honours degrees entitled 'Professional Studies' have been developed; these awards are designed to offer successful Foundation degree students a route through to honours which uses work-based learning. These awards vary in content and structure but tend to be designed on the basis that generic graduate attributes, which Barrie defines '... as being the skills, knowledge and abilities of university graduates, beyond disciplinary content knowledge ...' (2004, p.262), can be developed outside a conventional academic discipline.

This paper examines the pedagogic principles underlying the design of one work-based learning 'top up' programme which leads to a BSc in Professional Studies. It explores the issues involved in drawing directly on experience in the workplace as the material for higher level learning. The programme challenges conventional pedagogic approaches which are dominant in the university, and emphasises the importance of direct action and experience to learning. The authors outline the challenges which need to be addressed in programme design when moving away from a focus on disciplinary content, and explain the importance of a focus on process in reconciling graduateness and work-based learning.

Introduction

The last decade has seen a development of interest in the nature of 'graduateness' and what this implies for how we should think of higher education, but attempting to define what it is to be a graduate is not new. Newman's summary of a graduate in his 1852 *The Idea of a University* as someone able '... to see things as they are, to go right to the point, to disentangle a skein of thought, to detect what is sophistical, and to discard what is irrelevant ... to fill any post with credit and to master any subject with facility' (Newman, 1999, p.160) sticks in the mind as an attempt to define 'graduateness', but Barrie (2005, p.1) points out that, at roughly the same time as Newman, a number of universities in Australia (e.g. Sydney), the United States (e.g. Yale) and Britain wrote statements of what it is to be a graduate of their institution. Today, many universities publish statements of the attributes that one can expect of their graduates; in Australia, such statements are mandatory to obtain government funding (Barrie, 2006, p.216). As an example, Barrie's own institution (the University of Sydney) has expectations of its graduates regarding scholarship, global citizenship and life-long learning and see these developed through the further skills of 'research and inquiry', 'information literacy', 'personal and intellectual autonomy', 'ethical, social and professional understanding' and 'communication' that it is the task of all individual courses of study to develop in students (University of Sydney, 2004). In what follows, we write of 'graduateness' when we intend to refer in the broadest terms to the common qualities that graduates should have. Other authors prefer the more specific 'generic graduate attributes'. Context will dictate whether we mean the general or the more specific notion.

In the UK, the discourse surrounding 'graduateness' in the past two decades has been shaped by two inter-related forces: the expansion of higher education and demand by bodies outside the university (such as government and employers) that universities produce 'employable' graduates. The authors of the 1996 Higher Education Quality Council (HEQC) report *What are Graduates? Clarifying the attributes of Graduateness* attempted to define 'graduateness' in order to establish a baseline for the quality of the graduates of UK universities (HEQC, 1996, p.3). In the wake of the scrapping of the binary divide, some anxiety existed regarding the quality of graduates and a need was identified to define what it is to be a graduate in order to establish a common country-wide standard – a 'gold standard' (Knight & Yorke, 2003, p.160) – that graduates of all institutions should meet.

Over the course of the last decade, however, 'graduateness' discourse has moved on from being a conversation between academics and funders regarding the quality of graduates to being a wider conversation centring on the needs of the business world. Graduateness has increasingly come to be seen as the quality that graduates have that prepares them for graduate-level work, or even for work as such. Graduateness has come to be ever more closely linked with another concept that dominates talk of the quality of graduates today: 'employability' (see, for instance, Su & Feng, 2008; Hager & Holland, 2006; Glover *et al.*, 2002). Not just in the UK but also in many other countries, it is claimed that exercise of the skills acquired through higher education is fundamental in supporting the competitiveness of the economy. In the consultation on higher levels skills undertaken by the Department for Innovation, Universities and Skills (DIUS) in 2008, the argument was that:

High level skills – the skills associated with higher education – are good for the individuals who acquire them and good for the economy. They help individuals unlock their talent and aspire to change their life for the better. They help businesses and public services innovate and prosper. They help towns and cities thrive by creating jobs, helping businesses to become more competitive and driving economic regeneration. High level skills add value for us all.

(DIUS, 2008, p.3)

Graduateness, work-based learning and the disciplines

However it is defined or identified, the debate relating to graduateness is couched in terms of generic characteristics and attributes, and adopts an attitude to knowledge and skills which is 'content free'. In attempting to define graduateness, the intention is to identify those attributes and skills that any university graduate should have, regardless of the subject they studied at university. Such an approach is in direct contrast to the dominant paradigm in higher education, where academic disciplines are the groups on which the organisation of higher education is based and in which the intellectual outcome of a university education is taken to be knowledge of a specific subject area. In a system where expertise is taken to be created by and organised into disciplines, a university education consists of induction into the practices in a given discipline and the acquisition of specified subject knowledge. In such a system, as Biggs explains, 'the curriculum is a list of items of content that, once

expounded from the podium, have been 'covered'. How the students receive that content and what their depth of understanding of it might be are not specifically addressed' (2003, p.22). In addition, as Gibbons *et al.* point out, confidence in academic standards has been assured 'essentially through the peer review judgements about the contributions made by individuals. Control is maintained by careful selection of those judged competent to act as peers which is in part judged by their previous contribution to their discipline' (1994, p.8). From the perspective of the discipline, the place of generic graduate attributes or skills will always be marginal because, historically, graduate skills have always been developed within a disciplinary context inside the university.

This perspective has considerably complicated the academic debate relating to the validity of work-based learning. By its very nature, work-based learning takes place outside the university – it takes place at work and is not centred on the acquisition of subject knowledge, but is focused on the student's own work context. Despite the development of the Foundation degree, an award that requires the integration of learning in the workplace and which emphasises the importance of recognising learners' prior experience, acceptance of learning that occurs primarily outside the university is still contested. Since the dominant mode of knowledge production is seen as disciplinary, and the assumption is made that theory is acquired in the university and later applied to the real world, academic recognition of experience-based learning acquired outside the institution is still regarded with some concern. This concern is exacerbated by the transdisciplinary nature of learning in the workplace and the acceptance by those concerned in supporting such learning that it does not fall into the neatly ordered categories of the disciplines. Distinguishing between Mode 1 knowledge (which is produced by the disciplines within the academy and therefore according to criteria which are familiar) and Mode 2 knowledge (which is produced outside the academy in the context of application and is therefore not susceptible to judgement by Mode 1 criteria), Gibbons *et al.* hold that, '[d]isciplinary boundaries matter far more in [higher] education than in research. They are more important inside the university than outside ...' (1994, p.148). Moreover, arguments have been put forward (Kivinan & Ristela, 2002; Tynjala, 1999) that the strong emphasis on the importance of the disciplines is affecting the development of more general graduate skills which are increasingly perceived to be important.

In addition, despite the fact that most students see a degree as a passport to better employment, whether on entry to the labour market or later in their working lives, it is frequently argued that it is

not the role of higher education to prepare students for employment. The assumption here is that an academic education and 'vocational training' are mutually exclusive, and that only the former is of relevance to universities. Brennan & Little claim that:

Conceptions of knowledge in higher education frequently distinguish between the 'pure' and the 'applied', entailing two further kinds of distinction: between the pursuit of knowledge for its own sake and the utilisation of knowledge, and between the creation ... of theory and its application (Henkel, 1988). The first mentioned in each case are seen by many to be the driving force of the disciplines.
(1996, p.32)

But how effective is this focus on disciplinary content in engendering the generic graduate skills and attributes which are seen to be so desirable? Tynjala postulates that the focus on subject content to the exclusion of high level skills development, and on a detached attitude to life outside the academy, may be part of the reason that 'academic practices in general, and higher education in particular, have been criticised for not developing the[se] prerequisites of professional practice' in students (1999, p.358). Tynjala also claims that, in many cases, the primacy allocated to theoretical subject content has meant that little attention is given to the development and enhancement of the informal skills and knowledge which students will need to operate effectively in professional life. Focusing on the disciplinary preference for decontextualised knowledge, Tynjala refers to institutional preferences for 'inert' theoretical knowledge which 'can be used in institutional settings but cannot be transferred into complex problems of working life' (1999, p.350).

Biggs (2003) also highlights what he sees as the shortcomings of the current approach to teaching and learning in higher education. He argues that the university focus on theoretical, declarative knowledge (which is often seen as irrelevant by students) frequently results in a surface approach to learning focused on 'passing' the course. In contrast, Biggs emphasises the importance of 'functioning knowledge', which extends the declarative knowledge into a specific context and can include integration of several domains of knowledge. Development of effective professional skills requires declarative knowledge (the relevant knowledge base), procedural knowledge (the skills necessary to apply this) and conditional knowledge (an awareness of appropriate circumstances in which to apply the rest). He argues that, traditionally, universities have taught much declarative knowledge and some procedural knowledge, but that

the students have had to develop the conditional knowledge which is necessary to achieve fully functioning knowledge on their own after graduation. This may be why Eraut *et al.* report that 'learning from other people and the challenge of work itself proved to be the most important dimension of learning for the people we interviewed. Although some reported significant learning from formal education and training, this was by no means universal, and often only of secondary importance' (cited in Skule, 2004, p.9). In addition, as Evans *et al.* (2004, p.222) point out, '[t]he part played by tacit skills and knowledge in work performance is well recognised but not well understood. It is one of the central tenets of adult education that adults draw on life experience to good effect in [formal] learning programmes'.

Concepts of graduateness: four possibilities

Against the backdrop of this dispute regarding the relative importance of disciplinary knowledge versus more generic skills and attributes, Simon Barrie helpfully outlines some of the different attitudes that academics take to the question of what graduateness is. In a phenomenographic study, Barrie (2006, pp.223-231) identifies four different conceptions prevalent amongst academics of the nature of generic graduate attributes. Generic graduate attributes may be:

precursory abilities that students bring to university and provide a minimum base for university study. Examples are a certain level of ability with reading, writing and arithmetic. These are the abilities that one takes for granted in someone who has been to university, even though university level study does not routinely seek to develop these abilities;

complementary abilities that are useful, additional, general functional abilities that complement discipline-specific learning. Examples of such 'by-products' of university study may be – even though Barrie does not explicitly mention them – attention to detail, working independently, skill in summarising information;

translation abilities that are the abilities to 'make use of or apply disciplinary knowledge' (Barrie, 2006, p.227). In this view, generic graduate attributes are developed in parallel with disciplinary knowledge and consist of such things as the ability to apply disciplinary knowledge, make it relevant to the outside world, or explain it to non-specialists;

enabling abilities that place students in the position to create new knowledge regardless of the discipline. If graduate attributes are enabling abilities, they are not merely additional abilities or abilities that are developed in parallel with knowledge of the discipline, they are those abilities that make it possible for graduates to develop as independent thinkers. According to the 'enabling' conception of generic graduate attributes, they are 'an integral substrate of all discipline knowledge' (Barrie, 2006, p.229), but they also transcend any specific academic discipline: enabling abilities are those general thinking abilities that not only make possible development in the discipline, but are those abilities that make it possible for students to conduct '... inquiry in many aspects of life, not just formal study' (Barrie, 2006, p.230).

As Barrie makes clear, views on the nature of generic graduate attributes vary, essentially, from the view that they are merely 'additive' (a mere handy addition to what else is learned at university, as one finds in the 'precursory' and 'complementary' views) to being viewed as 'transformative' (that is, essential to university study, as in the 'translation' and 'enabling' views) (Barrie, 2006, p.224). As one moves 'up' the scale from an 'additive' to a 'transformative' view of generic graduate attributes, the importance attached to discipline-specific knowledge decreases and the importance attached to generic graduate-level thinking skills increases.

If work-based learning focuses not on developing subject-specific knowledge, but instead focuses primarily on developing generic graduate attributes or skills, then only the strongest of Barrie's four concepts is reconcilable with whole degrees being delivered through work-based learning. If graduate attributes were merely additive attributes to some other learning, a whole degree could not be designed around developing them: there would always need to be some other discipline-focused learning that graduate attributes were additional to. Instead, champions of work-based learning degrees take a transformative vision of generic graduate attributes. Of the two transformative views that Barrie identifies – 'translation' and 'enabling' – an 'enabling' concept offers the more appropriate fit with work-based learning. In the 'translation' view, generic graduate attributes are abilities to use and apply disciplinary knowledge. Whilst generic graduate attributes are important in this view, it still presupposes a certain amount of disciplinary knowledge that has to be there to start with (or else there would be nothing that could be applied or used). Thus the only concept of graduate attributes that truly allows one to conceive of a whole degree delivered through work-based learning is the 'enabling' concept, according to which generic graduate attributes underpin disciplinary knowledge and can

be thought of (and presumably taught) separately from it. Briefly put, the answer to the question 'can one develop graduateness through work-based learning?' can only be answered positively if one has a concept of what it is to be a graduate that places a strong enough emphasis on entirely generic graduate attributes that can be developed in the absence of prescribed disciplinary content.

Graduateness through work-based learning

The foregoing discussion highlights the tensions between the perspective from the academic disciplines and that from work-based learning practitioners who design programmes that draw curricula directly from workplace activities. The Quality Assurance Agency (QAA) Code of Practice (2007) states that work-based learning is 'learning that is integral to a higher education programme and is usually achieved and demonstrated through engagement with a workplace environment, the assessment of reflective practice and the design of appropriate learning outcomes' (2007, p.4). This definition accommodates both established forms of work-based learning, such as sandwich and practice placements, where workplace learning 'usually sit[s] within conventional course structures and understandings about academic knowledge and learning' (Boud & Solomon, cited in Walsh, 2008), and the 'new' transdisciplinary work-based learning. Indeed, the QAA were explicit that they did not wish to define a particular model of work-based learning because a 'formal definition might even be counter-productive and act as a constraint to the further development of innovative practice in this area' (2007, p.4). This is a recognition that practices related to work-based learning are evolving and approaches to work-based learning vary according to institutional focus and mission.

Whatever the precise form that work-based learning practice takes, work-based learning practitioners engage with common challenges. This tension between the emphasis on the generic skills developed in the workplace through work-based learning and the discipline-specific skills developed inside the university can be apparent in the challenges which integrating work-based learning into Foundation degrees (which are, after all, academic awards) has produced. Additionally, as became apparent in the review of Foundation degrees undertaken by the QAA, articulation between many Foundation degrees and the required route through to an honours degree was often unsatisfactory. This was because, having completed a Foundation degree, with its distinctive emphasis on the workplace and the importance of work-based activities for learning, students were

often expected to transfer directly to a conventional academic award delivered in the traditional way.

In order to address the issue of appropriate articulation with a work-based learning route through to honours, a number of universities have designed 'top-up' routes to an honours degree consisting almost solely of work-based learning, sometimes with degree titles of the form 'BA/BSc in (Applied) Professional Studies'. In order to indicate how considerations of disciplinarity and the development of generic graduate attributes have come into play in the development of such a programme, we briefly sketch the development of the BSc in Professional Studies at our own institution.

The Birkbeck BSc in Professional Studies

At the beginning of the design process, the transdisciplinarity of the learning taking place in the workplace was explicitly acknowledged and the focus on work-based learning determined the structure of the programme. When discussing the particular nature of a work-based learning curriculum, Boud explains that, in contrast to curricula which are designed for discipline- or profession-based courses, course content cannot be specified in detail as it is defined by the learner's personal and professional needs and based on their particular workplace activities (2001, p.48). Challenging the established distinction between theory and practice, work-based learning draws on and combines professional, academic and experiential learning (Portwood & Costley, 2000). As Gray explains, 'WBL is centred around reflection ... it is not merely a question of acquiring a set of technical skills, but a case of reviewing and learning from experience ... it requires not only the acquisition of new knowledge but the acquisition of meta-competence – learning to learn' (2001, p.316).

In some ways, work-based learning is similar to the problem-based learning (PBL) approach to learning and assessment within the university which is advocated by Biggs. He argues that: 'Coverage, so dominant in discipline-centred teaching, is considered less important. Instead, the students learn the skills for seeking out the required knowledge as the occasion demands' (2003, p.233). 'PBL ... reflects the way people learn in real life; they simply get on with solving the problems life puts before them with whatever resources are to hand' (2003, p.232). From this perspective, instead of beginning with the necessity of learning declarative knowledge, the student starts with the problem and 'seeks out the necessary knowledge of disciplines, facts and procedures' (2003, p.233). In Biggs's view, 'PBL-taught

... students think differently from traditionally taught students; they have less declarative knowledge, but use what they have with richer reasoning chains; they have greater self-awareness and self-direction' (Biggs, 2003, p.248). Instead of undertaking PBL specifically designed for university programmes, work-based learning students often explore 'real life' problems which occur in the workplace. Such an approach actively encourages independence in learning by providing students with the skills they need and the confidence to exercise them in changing contexts.

This ability to operate professionally across changing contexts takes us back to the need for the generic skills outlined earlier in this article; the generic graduate attributes – such as skills of research and inquiry, information literacy, personal and intellectual autonomy, ethical, social and professional understanding and communication (University of Sydney, 2004) – that Barrie (2006) describes.

The undergraduate students at Birkbeck are mature, part-time learners who study in the evening: the overwhelming majority of students are already employed and are using their studies to gain formal qualifications to enhance their career prospects or to change career direction. Often they have considerable experience of the workplace and some are working at managerial level, so issues related to employability, which are fundamentally important in programmes designed for young undergraduate students who have not yet fully entered the labour market, are addressed differently.

The BSc in Professional Studies is available to students with a Foundation degree or equivalent qualification and/or professional experience as a progression route to an honours degree. In common with a number of other generic work-based learning 'top-ups' to honours which are now available, the award uses different approaches to support students in the development of generic graduate skills and capabilities. The fact that the content of the awards is generic means that they can accommodate students from a range of subject areas. Currently students on the BSc are drawn from Foundation degrees in pharmacy and in information technology, and also from general professional backgrounds.

The Birkbeck BSc programme is designed to provide a professional development experience for students at the same time as it develops appropriate research skills. The award is designed to allow part-time learners the opportunity to develop graduate skills while working and using their experiences of the workplace as a focus for their study.

As a direct progression route, the programme consists of three modules equivalent to 120 credits at Level 6 of the national credit framework. Students with a Foundation degree from an institution outside the University of London additionally need to complete two Foundation degree modules (each at 30 credits, level 5) owing to University of London *Accreditation of Prior (Experiential) Learning* regulations.

The first programme module, 'Professional Learning Review' (30 credits, level 6), alerts students to the importance of professional workplace experience and of the informal learning which takes place there. It requires them to review their professional history to identify the periods when they learned the most and to relate their formal and informal learning to experience-based learning theory. Having taken a retrospective approach to their professional learning, students are then supported in actively analysing and evaluating aspects of their current practice through critical reflection. The advantage of this approach is that, in addition to ensuring that students demonstrate they can deal with discursive written work, it changes students' perspective of their own workplace practice, helping them to problematise the familiar and thus to learn from it.

The second module, 'Approaches to Research' (30 credits, level 6), prepares students for the work-based research project. 'Researching the workplace' considers research methods specifically from the perspective of the 'insider researcher'. Conventionally, academics – for example, anthropologists undertaking ethnographic studies – leave the university to undertake fieldwork in order to access the 'reality' of the context they are studying and then return to the university to write up their findings. In contrast, work-based learning researchers are embedded in the context they explore and this raises particular methodological challenges and issues which are not familiar to conventional academic researchers, but which face all practitioner-researchers. In order to ensure the academic standards of the research eventually undertaken, students need to become familiar with the assumptions underlying both positive and interpretative epistemologies and research methods. As mentioned earlier, the experiences and practices in the workplace do not arrange themselves into neat disciplinary categories, so students must be aware of a variety of research approaches. The module prepares students for the exploration they will undertake into their own workplace, by ensuring that they are aware of the status of the knowledge they will be creating and of the types of knowledge produced by different methods.

In the third module, 'Researching the Workplace' (60 credits, level 6), students undertake a workplace research project as the culmination of study for the BSc in Professional Studies. The module counts for half of the final level of the award and is structured to meet the three-party knowledge interests which are present in work-based learning: those of the learner, the employer and the university. In contrast to a text-based dissertation, the project is applied and is designed to provide an information resource for the student's organisation. Current examples of projects include an evaluation of the learning acquired through information technology workshops and a feasibility study relating to the introduction into an organisation of ISO 9001. The direct relevance of the focus of their study to their professional interests ensures that motivation is extremely high. For the employer, what the workplace research project offers is an opportunity to get an appropriately objective insight into either professional practice or organisational structure. Often an organisational/process problem is the trigger for such investigations, with the result that work-based learning projects contribute directly to organisational learning.

Conclusion

When designing work-based learning programmes on the basis of generic outcomes, the interests of the university – with regard both to intellectual challenge and academic standards – are addressed through the integration of characteristics from the generic frameworks available: the Framework for Higher Education Qualifications and the Qualifications and Credit Framework (QCF). This provides a transparency which allows for the demonstration of equivalent academic standards in the absence of required subject content. The design of the programme therefore reconciles graduateness and work-based learning through an innovative approach which uses workplace experience and exploration as the basis for academic study. It develops the generic graduate skills which academic colleagues in the disciplines often assume to be complementary to subject-specific content, but focuses on the development of such skills as the primary purpose of the award, thus taking an approach to the nature of generic graduate attributes that can be called 'enabling' in Barrie's (2006) terminology.

The recognition of the importance of an experience base for learning, the development of generic skills and capabilities and the advocacy of a more collaborative approach to working with learners may have a strong academic rationale and pedagogic underpinning, but the introduction of such an approach has not been entirely

straightforward. Work-based learning is an entirely new model of higher education which has emerged in a context that is dominated by academic disciplines. As Silver points out, the disciplines are seen by the majority of academics 'as the cornerstone of personal interest, career and professional activity and identity' (cited in Walsh, 2006). From such a perspective it is easy to portray work-based learning 'as a "lesser and weaker" form of learning and as a "watering down" of the true nature of the University' (Wagner & Childs 2001, cited in Walsh 2006).

It is widely accepted that, in any area of established practice, 'when a new view is proposed it faces a hostile audience and excellent reasons are needed to gain for it an even moderately fair hearing' (Feyerabend, cited in Walsh, 2006). As Laycock points out, 'No practitioner, however adaptive, would ever doubt the political complexity of introducing such an innovation into ... conventional practice. In all work-based learning there is a serious challenge to the dominant discourse of higher education, to what counts as a legitimate site of learning, to what counts as legitimate knowledge' (1993, p.129). With the increasing pace and scale of knowledge production both inside and outside the university, however, 'a whole range of knowledge users ... become increasingly involved in determining the nature of knowledge' (Delanty, cited in Walsh, 2006). It is, therefore, important for work-based learning practitioners to engage with this debate and to move the discourse beyond the traditional academic/vocational divide, for, as Boud & Solomon point out, work-based learning 'is one of the very few innovations related to the teaching and learning aspects of post-secondary education that is attempting to engage seriously with the economic, social and educational demands of our era' (2001, p.3).

References

- BARRIE, S.C. (2004) A research-based approach to generic graduate attributes policy, *Higher Education Research and Development*, vol.23, no.3, pp.261–75.
- BARRIE, S.C. (2005) Rethinking generic graduate attributes, *HERDSA News* 27 vol.1, pp.1-6.
- BARRIE, S.C. (2006) Understanding what we mean by the generic attributes of graduates, *Higher Education*, vol.51, pp.215–41.
- BIGGS, J. (2003) *Teaching for Quality Learning at University* (2nd edition) Maidenhead, Berkshire: Society for Research into Higher Education and Open University.
- BOUD, D. (2001) Creating a work-based curriculum, in D. Boud & N. Solomon (eds) (2001) *Work-based Learning: a new higher education?* Buckingham: Society for Research into Higher Education and Open University Press.

- BOUD, D. & SOLOMON, N. (eds) (2001) *Work-Based Learning: a new higher education?* Buckingham: Society for Research into Higher Education and Open University Press.
- BRENNAN, J. & LITTLE, B. (1996) *A Review of Work-based Learning in Higher Education*, London: Department for Education and Employment.
- DIUS (DEPARTMENT FOR INNOVATION, UNIVERSITIES AND SKILLS) (2008) consultation document entitled *Higher Education at Work – High Skills: high value*.
- EVANS, K., KERSH, N. & SAKAMOTO, A. (2004) Learner biographies: exploring tacit dimensions of knowledge and skills, in H. Rainbird, A. Fuller & A. Munro (eds) (2004) *Workplace Learning in Context*, London: Routledge.
- GIBBONS, M., LIMOGES, C., NOWOTNY, H., SCHWARTZMAN, S., SCOTT, P. & TROW, M. (1994) *The New Production of Knowledge: the dynamics of science and research in contemporary societies*, London: Sage Publications.
- GLOVER, D., LAW, S. & YOUNGMAN, A. (2002) Graduateness and employability: student perceptions of the personal outcomes of university education, *Research in Post-Compulsory Education*, vol.7, no.3, pp.293-306.
- GRAY, D. (2001) Work-based learning, action learning and the virtual paradigm, *Journal of Further and Higher Education*, vol.25, no.3, pp.315-324.
- HAGER, P. & HOLLAND, S. (eds) (2006) *Graduate Attributes, Learning and Employability*, Springer.
- HEQC (HIGHER EDUCATION QUALITY COUNCIL) (1996) *What are Graduates: clarifying the attributes of 'graduateness'*, London: HEQC.
- KIVINAN, O. & RISTELA, P. (2002) Even higher learning takes place by doing: from postmodern critique to pragmatic action, *Studies in Higher Education*, vol.27, pp.419-430.
- KNIGHT, P. & YORKE, M. (2003) *Assessment, Learning and Employability*, McGraw-Hill.
- LAYCOCK, M. (1993) Enterprise in higher education and learner-managed learning: the use of learning contracts, in N. Graves (ed.) *Learner Managed Learning: practice, theory and policy*, Leeds: Higher Education for Capability.
- NEWMAN, H. (1999) *The Idea of a University*, Washington: Regnery (first published in 1852).
- PORTWOOD, D. & COSTLEY, C. (2000) *Work-based Learning and the University: new perspectives and practices*, Birmingham: SEDA Paper 109.
- QAA (QUALITY ASSURANCE AGENCY) (2007) *Code of Practice for the Assurance of Academic Quality and Standards in Higher Education, Section 9: Work-based and placement learning*, Gloucester: Quality Assurance Agency.
- SKULE, S. (2004) Learning conditions at work: a framework to understand and assess informal learning in the workplace, *International Journal of Training and Development*, vol.8, no.10, pp.8–20.
- SU, Y. & FENG, L. (2008) Assessing graduate attributes for employability in the context of lifelong learning: the holistic approach, *US-China Education Review*, vol.5, no.11, available from <www.teacher.org.cn/doc/ucedu200811/ucedu20081101.pdf> (accessed March 2009).
- TYNJALA, P. (1999) Towards Expert Knowledge? A comparison between a constructivist and a traditional learning environment in the university, *International Journal of Educational Research*, vol.31, no.5, pp.357-442.

- UNIVERSITY OF SYDNEY (2004) *Academic Board Resolutions: generic attributes of graduates*, available from www.itl.usyd.edu.au/graduateAttributes/unipolicy.pdf (accessed March 2009).
- WALSH, A. (2006) *Pragmatism or Principle? Academic recognition of work-based learning*, paper presented at the Society for Research into Higher Education annual conference.
- WALSH, A. (2008) What is distinctive about work-based knowledge and learning? *Work-based Learning - Workforce Development: connections, frameworks and processes*, York: The Higher Education Academy.

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