

Work-based learning at higher education level: value, practice and critique

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Abstract

Since the 1980s there has been significant growth in the engagement of higher education with workforce development, with among other things the emergence of a distinct if varied area of provision commonly referred to as work-based learning. Recent examination of practice and literature indicates a growing sophistication in the way that work-based learning is being theorised and facilitated in higher education, with its gradual emergence as a distinct field of practice and study supported by relevant pedagogies and concepts of curriculum. Tensions continue to exist between the demands and opportunities provided by the workplace and the need to develop capable practice, support personal development and maintain academic validity; however, universities are beginning to engage with these issues at a deeper level than that suggested by simple notions of employer engagement and skills development, and the evidence indicates that well-designed work-based programmes are both effective and robust.

Introduction

The last two or three decades have seen an expansion of universities' involvement in the development of the existing workforce through means such as part-time in-service courses and bespoke programmes for employers. In the United Kingdom, as in many other advanced economies, there is an emerging consensus that the number of people in the workforce with higher-level skills – those broadly associated with higher education – needs to be increased substantially (e.g. Leitch 2006), and that this cannot be achieved by growth in the number of full-time students alone. As a result universities are being exhorted to increase their involvement in workforce development and look beyond traditional school-leaver and early-career markets to engagement with a wider range of adult learners and their employers.

Beyond this, the type of upskilling that is needed has also undergone change. While specific technical, professional and administrative abilities will remain important, interventions that develop specialised workplace skills and impart job-specific knowledge have a diminishing lifespan as the repertoire of abilities needed by 'higher-level' workers continues to change and expand. From a socioeconomic perspective it is inadequate and inefficient to focus on upskilling at a purely instrumental level, when there is increasingly a need for people to be able to determine and develop the kinds of abilities they will require for their current and future roles. Individually, at least in professional, paraprofessional and management roles people are also tending to take more responsibility both within their workplaces and for their careers, leading to a general need for abilities of self-management and self-direction. The idea of workers as practitioners, in the sense of having

both a personal commitment to the work in hand and a view of their roles and careers that is broader than the scope provided by any one employer, is becoming particularly apposite; while at the same time the view of professional practitioners as being trained to apply a relatively well-defined body of knowledge and skills to technical or business problems appears increasingly out-of-date.

All of this suggests that there is a very substantial role for the higher education sector in workplace learning and workforce development. Within this there is a need for types of involvement that are both immediately relevant at a practical level, while also engendering the kind of high-level learning that supports people as self-managing practitioners and self-directed learners. Against this background there has been growing involvement of universities in genuinely work-based learning, particularly in the UK both through response to government-backed initiatives such as the UK Employment Department's work-based learning project of the early 1990s (Duckenfield & Stirner 1992) and the University for Industry's *Learning through Work* initiative a decade later (Ufi Ltd 2001), as well as through more organic development arising from interaction with industry, professions and individual professionals. The discussion that follows is grounded in experience at Middlesex University, one of the UK's largest providers of work-based higher education, while also drawing on wider practice principally from the UK and Australia.

Work-based learning

The term 'work-based learning' logically refers to all and any learning that is situated in the workplace or arises directly out of workplace concerns. The great majority of this learning is not accredited or otherwise formally recognised, although arguably much of it has the potential to be. It includes learning that takes place at work as a normal part of development and problem-solving, in response to specific work issues, as a result of workplace training or coaching, or to further work-related aspirations and interests. It overlaps with, but is not the same as, experiential learning, continuing professional development, and what is sometimes referred to as informal or non-formal learning. It is frequently unplanned, informal, retrospective and serendipitous, though it may also be planned and organised by the individual learner, the employer, or a third party such as an educational institution, professional or trade body, or trade union. Much of this learning is outside the scope of what higher education institutions could reasonably be expected to engage with in that it is either at too low a level academically or it is ephemeral in nature, but there is still a substantial proportion that is concerned with higher-level skills and knowledge and with the development and use of broad, high-level capability that suggests that it has capacity to be recognised and enhanced through university involvement.

Research into learning at work such as that of Gear *et al* (1994), Eraut *et al* (2000, 2005), Felstead *et al* (2005) and Eraut & Hirsh (2007) suggests that the most effective and valuable learning for people in work is often that which occurs through the medium of work or is prompted in response to specific workplace issues, as opposed to formal training or off-job programmes. While this kind of learning can be purely instrumental, it can also be highly developmental particularly when it is linked to a personally-valued purpose and engaged with critically and reflectively. Responding to this there is an ongoing trend within some universities to move into the "territory" of the workplace (Scott *et al* 2004) to enhance and accredit genuinely work-based, often individually-driven learning, as opposed to relying on extending more established approaches to education and training into work-based settings. The approach used at Middlesex and in the *Learning through Work* programme is sometimes referred

to as negotiated work-based learning, as it involves the substantive focus of the programme being negotiated between learner, university and often employer or other stakeholder. One of the distinctive features of this kind of programme is its emphasis on reflecting on and enquiring into work activity and on developing people as reflective, self-managing practitioners who are committed to their own development.

Following from this it is axiomatic that this kind of work-based learning will only 'work' if the work environment is capable of supporting learner-managed, reflective learning at an appropriate level. While opportunities can often be created around and sometimes outside of official work activities for learners who are sufficiently capable and motivated, some level of practical employer support is generally essential at least in jobs where workers have limited discretion of action. Much university involvement in work-based learning has therefore come to involve partnerships with employers, whether at a strategic level where the company views this kind of activity as contributing to its intellectual and structural capital (Garnett 2001), at a tactical level with specific or general staff development aims (Lyons 2003, Nikolou-Walker 2007), or less formally where employer involvement is driven by individual learners, often professionals or managers, taking the initiative (Nixon *et al* 2008). The growth in these kinds of relationships appears to reflect the increasing interest among companies in experiential and action-based learning when considering their longer-term development needs (Burgoyne *et al* 2004).

Finally it is worth mentioning that the 'work' in work-based learning is not confined to paid work: it can be any form of work or purposive activity that gives rise to learning. Work may be voluntary or community-based, it can involve caring for family members or others on an informal basis, or it can be concerned with domestic and leisure activities (Butler 2001, Harris & Chisholm 2008); more contentiously it could also include activities outside the legitimate economy, at least as a source of past learning. While work-based higher education will normally problematise the value of learning activities both to the learner and to the wider community, the essential criterion for including an activity within a programme is its ability to form a vehicle for learning rather than its perceived economic or social value.

Work-based learning as university practice

The development of negotiated work-based learning in higher education is part of an evolution from models concerned on the one hand with setting up and accrediting in-company courses and on the other with using the workplace as a vehicle for subject-specific learning (both legitimate practices in their own right), to the conception of an individual work-based 'curriculum' that grows out of the experience of the learner, their work context and their community of practice (Boud 2001, Nixon *et al* 2006). From this has emerged the idea of work-based learning as a transdisciplinary field that sits outside of subject-frameworks and has its own set of norms and practices (Portwood 2000, Costley & Armsby 2007a). This approach is particularly championed at Middlesex through a substantial institute alongside the main faculty structure, and it is also evident in the practices of some other leading providers of work-based higher education in the UK and Australia.

As work-based learning in this transdisciplinary sense 'departs substantially from the disciplinary framework of university study' (Boud 2001) it needs to be accompanied by appropriate methodologies and practices for organising individual programmes of learning, recognising existing skills and

understanding, and supporting and assessing learners. Over the last fifteen years or so the expansion of negotiated work-based learning has led to the development of a distinct pedagogical (or androgogical, to borrow a term from Knowles [1970]) approach that at a practical level can be summarised as consisting of four main components, all of which are imbued with a strong ethos of reflexivity and practitioner enquiry:

- ♦ individual (or part-individual and part-group) programmes that are negotiated around a learning contract or agreement
- ♦ recognition of previous learning, both for credit and as the starting-point for the programme
- ♦ the use of live, methodologically-sound projects and practitioner research, backed by appropriate forms of learner support
- ♦ valid forms of assessment, normally referenced to generic criteria representing the relevant academic level.

Individual work-based programmes are generally structured through a learning contract or agreement, according to Anderson *et al* (1998) “a formal written agreement between a learner and a supervisor which details what is to be learnt, the resources and strategies available to assist in learning it, what will be produced as evidence of the learning having occurred and how that product will be assessed” (p163). The agreement will include clear learning objectives, a process that is appropriate to the level and context of the programme, as well as agreement about what the learner will do, what support the university and often the employer will provide, and the types of evidence to be produced for assessment. Typically it will also ensure that the programme is coherent and balanced from an individual perspective and has learning objectives and assessment criteria that are appropriate to the level of award or credit being sought (Lyons & Bement 2001, Ufi Ltd 2001).

Within the transdisciplinary model of work-based learning the use of credit for prior learning has moved from ‘specific’ credit against an institutionally-owned curriculum to what has been described as ‘focussed’ credit (Garnett 1998), with learning outcomes being accepted if they form part of a coherent overall programme as described in the learning agreement. This accords with the idea that making a prior learning claim should be a developmental process in its own right designed to support skills of self-directed learning (Doncaster 2000a, Armsby *et al* 2006); it should provide the starting-point and the foundation for the work-based programme through processes such as helping learners to engage in critical reflection, evaluate past learning in relation to future goals, and engage in self-discovery and self-evaluation particularly in relation to organising ideas and planning future learning. More recently the distinction between prior and planned learning has begun to be challenged by ideas such as submitting a portfolio of work accompanied by an evaluative narrative as the basis of an entire programme (Chisholm & Davis 2007) or the programme taking the form of existing projects which are elaborated and built upon through reflection, theorisation and if needed further research and study (Lester 2007).

While work-based programmes often include course-based and peer-group activities, for most the central component of the programme is project-based. Projects normally address real workplace issues with which learners are involved, and they are often an extension of activities that learners are in the process of undertaking or have already planned to work on (Armsby & Costley 2000, Graham & Smith 2002). Activities may be small and localised, forming the basis for a single module in an undergraduate programme, or they can be major undertakings that produce significant organisational

or professional change and lead to the award of a doctorate. The majority of work-based projects can be conceptualised as research and involve learners in becoming practitioner-researchers (Costley & Armsby 2007b), even if to the learner it is the practice element – the desire to create (and learn from) change – that is in the foreground, with the research in the background (Doncaster & Lester 2002, Boud & Tennant 2006).

Work-based learning does not fit particularly well with the popular division of university programmes into either taught or research-based. Most work-based programmes contain elements of both teaching and research, although they are perhaps better characterised as involving the facilitation of active and enquiry-based learning from purposive (work) activity. To take research first, programmes are typically strongly research-focused both through the project activity described above and through a strong reflective and enquiry-based ethos that typically pervades the programme from the initial construction of the learning agreement and (where present) prior learning claim onwards. An unpublished 2008 survey of work-based learning staff at Middlesex University indicated that research is embedded into programmes both by the teaching of appropriate methodologies and, more centrally, through a ‘curriculum’ that is designed around active investigation and enquiry rather than the acquisition of specific content. Using the typology provided by Griffiths (2004) for linking teaching and research, work-based learning therefore appears most strongly *research-based* and *research-oriented*; it is also to an extent *research-informed*, where staff use appropriate pedagogical research to inform their own practices. Except where it is working within specific professional disciplines it is much less likely to be *research-led* in the traditional sense, i.e. where the research interests of staff inform student learning.

Work-based learning programmes generally require a different set of practices for learning facilitation and learner support than are appropriate to taught programmes or conventional research degrees (Stephenson *et al* 2006, Boud & Costley 2007). The role of the tutor often moves on the one hand from being a teacher to being both a facilitator and an expert resource, and on the other from supervisor to advisor or “academic consultant” (*ibid*). The role of the work-based learning tutor can be varied and extensive, and experience from several British and Australian universities involved in work-based learning suggests that activities will include:

- ♦ helping learners to become active in identifying their needs and aspirations and managing the learning process (Graham *et al* 2006)
- ♦ acting as a process consultant (Stephenson 1998a)
- ♦ helping learners develop their abilities of critical reflection and enquiry (Graham *et al* 2006)
- ♦ helping learners identify and work with ethical issues (Graham & Rhodes 2007, Moore 2007)
- ♦ helping learners make effective use of workplace resources (Moore 2007)
- ♦ developing learners’ academic skills and helping them use them in the workplace (Rhodes & Shiel 2007)
- ♦ providing specialist expertise (Stephenson 1998a)
- ♦ inspiring and encouraging learners (Moore 2007).

While few if any of these are specific to work-based learning, taken together they suggest a move from an expert or delivery model of higher education to a partnership or facilitative one (Lester 2002, Harvey 2007).

Finally, there is a need to assess work-based learning through methods that are adequate, valid, and avoid undermining the nature of the learning, given that it will typically be issue-based, driven by the learner, and transdisciplinary. The aim of assessment is generally to assess learners' progress as 'map-makers' or self-managing practitioners (Lester 1999), not to confirm their conformance as 'map-readers' i.e. their mastery of propositional knowledge or ability to demonstrate occupational competence. Its focus is typically concerned with learners' reasoning and critical reflection, how they develop their capability as practitioners and practitioner-researchers, and how they make critical judgements in the work context (Costley & Armsby 2007a, Brodie & Irving 2007). The technicalities of this are commonly supported through generic level statements and criteria such as those developed for the *Learning through Work* initiative (Ufi Ltd 2001), coupled with individual learning outcomes and sometimes assessment criteria that are negotiated as part of the learning agreement (Costley 2007) and reflect the kinds of social, cultural and contextual knowledge and skills that are used in the workplace (Poikela 2004).

Conceptual underpinnings

The enhancement and recognition of learning from workplace and other experience-based sources draws on well-established theoretical underpinnings. In particular the thinking of John Dewey (1916, 1933, 1938) is still influential, particularly in terms of his discussions of experience and reflection in relation to learning and his democratic reconceptualisation of vocational learning. These themes have been taken up in the context of professional and vocational learning by among others Knowles (1970), Kolb (1984), Schön (1983, 1987) and Boud *et al* (2003), who have been particularly influential in the development of models for adult and professional learning over the last two decades. Along with Schön's reflective practitioner philosophy, work-based learning draws heavily on the idea of action research (Lewin 1946, Carr & Kemmis 1986) and to an extent variants such as participative enquiry (Reason & Rowan 1981) and soft systems methodology (Checkland 1981, Wilson 1990); all of these are concerned with changing situations as much as researching them, and they are also essentially collaborative. Another influence that is evident in some work-based programmes is Reg Revans' action learning model (Revans 1980) where learners develop insights through tackling real-world issues and coming together to discuss them in a 'set' or structured forum, although the principles behind action learning are more widely used than the specific practices advocated by Revans.

The epistemological base of work-based learning tends to be rooted in a form of pragmatism (in the philosophical sense that emphasises the interdependency of knowing and doing) as articulated by Dewey (1938) and Sennett (2008) among others, coupled with a constructivist and to some extent phenomenological perspective in which the learner is regarded as an autonomous self who is making sense of his or her context and role through active participation (Tennant 2004). This is reflected in Schön's notion of constructionism, where knowing and doing coexist in a spiral of activity where knowledge informs practice which generates further knowledge that in turn leads to changes in practice, and so on (Schön 1987); a similar concept is discussed by Revans (1980) in the idea of programmed or disciplinary knowledge being modified through questioning insight to produce new, practical knowledge through engaging with live workplace issues. Through this process there is also a form of meta-learning in which the practitioner-learner can be seen as engaging in post-formal development (Czikszenmihalyi & Rathunde 1990) and developing towards epistemic maturity (Kitchener & King 1981).

This conceptualisation of work-based learning does not put it directly at odds with the idea of discipline-based learning that forms the basis of much higher education, but it does suggest that work-based learning takes place in a broader, essentially transdisciplinary or post-disciplinary framework that can incorporate disciplinary learning but also goes beyond it. There is increasing recognition that work-based learning makes significant use of what Gibbons *et al* (1994) term 'Mode 2' knowledge, where knowledge is both generated and used outside of the academy; as in Schön's reflective spiral it is generated through practice and used for practical purposes. The relationship of this kind of knowledge to the university has been the subject of considerable debate and has conceptually resulted in both 'colonisation' and 'reverse colonisation' between workplace and academic knowledge (Scott *et al* 2004).

Work-based learning is sometimes also conceptualised in terms of what it is adequate or effective for (Lester 2004), a perspective that draws on the idea of capability as developed by Stephenson (1998b), O'Reilly *et al* (1999) and others. A narrow version of adequacy might be concerned with reaching the threshold standards needed to do a particular job; a broader conceptualisation more relevant to university-level work-based learning might consider the kinds and levels of issues encountered by the practitioner and leave the detail open to negotiation. Particularly but not only at postgraduate level, work-based learning can be concerned with developing adequacy for what Schön (1987) terms the 'swamp' of real-world practice where practitioners engage with a mix of indeterminate problems, pieces that don't fit and people who don't behave according to the theory. It will also engage with what Ackoff (1974) calls 'messes' and Rittel & Webber (1984) 'wicked problems,' with issues of design rather than problem-solving (Simon 1972), and increasingly with environmental and human issues that call for the application of systemic wisdom (Pór 1996).

Impact and value

There is a growing body of evidence to indicate that work-based learning of various kinds is effective in increasing adult participation in higher education and in developing the capability of individuals and organisations. Many people who engage with universities through work-based learning will not otherwise have considered 'going to university,' or they will have been put off by lack of confidence, aversion to the classroom or simply the assumption that busy lives and academic study don't mix (O'Doherty 2006, Hughes *et al* 2006). In an evaluation of the Ufi-LearnDirect *Learning through Work* scheme Stephenson & Saxton (2005) note that of the first 1326 learners to enrol on work-based programmes with participating universities, 60% lacked formal qualifications at university entrance level (i.e. A-levels or the equivalent), including 9% who had no qualifications of any kind; some of these started directly on postgraduate programmes on the basis of their experience. At master's and doctoral level work-based learning appears to attract people who are either sceptical about the relevance of conventional course-based or academic research programmes or concerned about competing pressures of time, with for instance many candidates for work-based doctorates having already rejected enrolling on a conventional research PhD (Stephenson *et al* 2006).

For individuals, evaluations of work-based programmes suggest that they can provide an effective vehicle for personal and professional growth, as well as providing learning that addresses specific workplace issues. Benefits such as gaining expertise and specific skills, often around a practical theme rather than an academic discipline, are frequently mentioned by learners, but the outcomes

that learners most often value include increased confidence, a propensity to reflect and to want to understand, and a hunger for further learning and development (Stephenson & Saxton 2005, Costley & Stephenson 2008, Nixon *et al* 2008). Professionally, work-based programmes are often cited by learners as enabling them to take on greater responsibility, gain promotion or develop their businesses, as well as providing more immediate benefits such as greater competence and assuredness, reduced stress and better recognition (*ibid*).

The impact of work-based programmes on organisations appears to stem from three areas. The most immediate of these is in the value of the work-based project itself and the skills and changes that it brings with it (Costley & Armsby 2007b, Nixon *et al* 2008). Projects can result in knowledge creation that adds to the organisation's intellectual or structural capital (Garnett 2007), increasing its overall capability. Secondly the broader development of learners can also have an impact through their increased professionalism and motivation, particularly if this can be capitalised upon through their development and roles within the organisation. Finally, work-based programmes can have wider impact through bringing about organisational change or changes to ways of working, identifying new directions for a business, or gaining external recognition and prestige; these are often outcomes associated with postgraduate and particularly doctoral programmes (e.g. Costley & Stephenson 2008, Zuber-Skerritt 2006), but they can grow out of undergraduate programmes as well.

The value of high-level work-based learning to employers does however appear to depend on the ability of the work context to respond to individuals who are undergoing rapid personal and professional development. Evidence from both organisational perspectives (e.g. Sung & Ashton 2005, Teare & Neil 2002) and reviews of work-based learning (Brennan & Little 2006) indicate that some work contexts thrive on or at least respond positively to this kind of development, particularly where learners are already in positions of authority or autonomy or there is a positive orientation to maximising the benefits from personal development and initiative. Work-based programmes appear to have a highly positive impact for independent professionals (Stephenson & Saxton 2005), and there is evidence that small to medium-sized firms are more likely to value action-based learning than more structured education and training, at least for professional and managerial staff (Burgoyne *et al* 2004, PACEC 2006). For leaders and senior managers in larger organisations there is increasing evidence that the most effective and valued forms of learning are experience- rather than classroom-based (e.g. Ashridge/EABIS 2008). On the other hand there is a significant amount of unpublished and anecdotal evidence that suggests it is not uncommon for work-based programmes to act as a catalyst for learners to move out of their organisations, either because they have developed beyond what their work contexts could reasonably be expected to offer or less positively because despite of the obvious relevance of their learning their employers have proved too inflexible or short-term in their focus to capitalise on it (cf Gustavs & Clegg 2005).

Critiques and issues

The rapid growth of work-based learning in universities has attracted various criticisms and critiques, and raised a number of issues (Costley & Armsby 2008). Common criticisms which tend to be voiced through informal channels and to some extent the general educational press, but rarely in academic papers, tend to be based on three main themes. The first is that work-based learning doesn't follow established academic practice as evidenced by things such as lack of a substantive curriculum, no written examinations or set assignments, and lack of location in a specific academic or (sometimes)

professional discipline; as a result it can be viewed by some as easier, less rigorous, or simply inferior. The second theme, related to the first, reflects concerns about changes to ways of working, in particular the change in the tutor's role from being a teacher and arbiter of knowledge to a facilitator and resource, but also and more fundamentally the change implied in the institution's role in relation to knowledge. The third theme misequates all work-based learning with 'training' and with employer-led courses that lack wider relevance or academic rigour, sometimes viewing it as a commercially-driven exercise to increase student numbers at the expense of quality. While there can be genuine issues underlying these complaints, by themselves they are no different from concerns that can be expected when any new paradigm or method of organising emerges. They are however relevant to the way that work-based learning is managed within the university and whether for instance it is sidelined as a marginal or extra-mural activity, absorbed within faculties and disciplines, or regarded as a mainstream platform and part of the university's identity.

Nevertheless there are valid critiques of work-based learning that reflect tensions and issues that universities do need to engage with. Basing learning around work is potentially limiting if the opportunities provided by the workplace do not form a good match to learners' aspirations, suggesting that work-based programmes can be disempowering *vis-à-vis* conventional university learning by trapping the learner into an employer-driven or instrumental agenda. A Foucauldian perspective illustrates how the self- (i.e. learner-) managed focus in work-based programmes can be turned around into a form of self-disciplining, where individuals are inducted into managing themselves according to an employer-based or more broadly economically-focused agenda (Usher & Solomon 1999, Zembylas 2006). Wang (2008) discusses the limitations of working uncritically from within a human capital ideology and its tendency to gloss over the lived experiences of individuals, while both Rhodes & Garrick (2003) and Valentin (1999) critique the influences of corporate capitalism on the type of learning that becomes regarded as legitimate within workplaces. The latter goes on to discuss how terms such as self-direction and reflection can be subverted to produce an unchallenging problem-solving type of learning that lacks a genuinely critical dimension. While these critiques suggest that some workplaces are not good learning environments at least in the sense of learning that is valued in higher education, in terms of university-workplace relationships they also point to the dangers of the university allowing itself to be overly colonised by the workplace without retaining its critical perspective.

A different kind of workplace-university tension is explored by Gustavs & Clegg (2005), who cite the example of a major university-employer partnership in which it became apparent that the development of enquiring, self-managed practitioners was not in practice being valued by the organisation, and the people most attracted to the programme were often those with relatively weak attachment to their employer. Although as discussed in the previous section many organisations value and make good use of the kinds of abilities that work-based learning develops, there are dangers where work-based partnerships are initiated without the implications being thought through: the institution for instance attracted by partnership with a large, high-profile organisation, the employer seeing the kudos of a university stamp on its in-house development processes and the benefits of offering its staff higher education qualifications. More broadly there are suggestions that reliance on university-employer partnerships may actually be hindering the development of work-based programmes, particularly when they are not entered with the full commitment of both parties (Reeve & Gallacher 2005).

These critiques suggest that work-based learning has sometimes been construed somewhat naïvely as an intervention to meet employers' short-term needs or a means of expanding student numbers. There is an increasing body of evidence that points to the substantial benefits that work-based learning can provide for both individuals and employers, but to realise this more widely there is a need to approach it in a sophisticated way that considers organisational cultures and dynamics as well as individuals' motivations, aspirations and potential for development within and beyond their current work situations.

Conclusions

While research on the impact of work-based higher education of the type discussed here is still fairly limited, there is increasing evidence that universities' engagement in work-based learning is proving effective both in the sense of creating immediately valuable development, in contributing to the development of self-managing practitioners and self-directed learners in line with the needs of the 'knowledge economy,' and in facilitating personal growth and development. The value to learners already in work is often significant both at an immediately practical level and as a catalyst for personal growth.

A set of principles and practices have emerged that can be regarded as marking out work-based learning as a distinct field of activity within universities rather than purely as a mode of learning within disciplinary or professional fields. These are backed by a developing area of scholarship that has begun to theorise work-based learning as a field of study in its own right, juxtaposed with the more established view of it as a mode of learning within an academic or professional discipline. Both the practice and theorisation of work-based learning need to continue evolving in order for the field to become more mature and confident in integrating learning for the immediate context with learning that develops underlying capacity as a capable practitioner and builds capacity within learners' organisations or communities of practice. Currently however work-based learning is still constrained in many universities by assumptions based on disciplinary structures as well as on modes of operating that are geared to the needs of young full-time students. For work-based learning to develop in a way that is not limited to marginal provision of bespoke courses and accreditation of in-company training, universities will need to develop more appropriate infrastructures as well as better insights into the way that higher-level development can take place through workplace practice.

Attention is also needed to the work environment in which learning takes place. This includes the capacity of the workplace to provide adequate scope for learning, but it also extends to the opportunities available afterwards for learners to develop. Without suggesting that only certain types of organisational cultures and working practices lend themselves to work-based learning, it does appear that universities and employers both need to consider how the development of learners as self-managing professionals – as opposed to their technical or context-specific development – can be accommodated by the organisation. In turn this suggests more sophisticated partnerships than for instance the one explored by Gustavs and Clegg, as well as perhaps more attention to individual learners beyond the perspective of specific employment relationships.

Finally both the practice and research around work-based learning exposes weaknesses in the way that higher-level workforce development is often framed, with consequences for the quality of education and skills policy. There is still a tendency to think in terms of discrete skills that need to be

developed and upgraded, when more attention is needed to the development of 'meta-skills' or capabilities that enable people to become self-managing practitioners and self-directed learners. The notion that learners are 'employees' whose development supports and is largely subordinate to the objectives of an 'employer' appears increasingly outdated when applied to work-based learning; particularly (though not only) at postgraduate level many work-based learners are already in largely self-directing roles, some are key decision-makers in businesses or organisations, and a proportion are self-employed professionals and business principals. Similarly, workforce development needs to be conceptualised critically as more than a response to employer need, recognising the longer-term picture that extends beyond the requirements of any individual employer as well as the ability of higher-level development to create new capacity and opportunities through increasing the intellectual capital and overall capability of organisations, professions and industries.

References

- Anderson, G., Boud, D. & Sampson, J. 1998. Qualities of Learning Contracts. In *Capability and Quality in Higher Education*, ed. J. Stephenson & M. Yorke. London: Kogan Page.
- Ackoff, R. L. 1974. *Redesigning the Future: a systems approach to societal problems*. New York: John Wiley.
- Armsby P., Costley C. & Garnett J. 2006. The legitimisation of knowledge: a work based learning perspective of APEL. *International Journal of Lifelong Education* 25, no 4: 369-383.
- Armsby, P. & Costley, C. 2000. Research driven projects. In *Work based learning and the university: new perspectives and practices*, ed. D. Portwood & C. Costley. Birmingham: Staff & Educational Development Association (SEDA Paper 109).
- Ashridge Trust / EABIS (European Academy for Business in Society). 2008. *Developing the Global Leader of Tomorrow*. Draft report for the First Global Forum for Responsible Management Education, United Nations, New York.
- Boud, D., Cohen, R. & Walker, D. 1993. *Using Experience for Learning*. Buckingham: Society for Research into Higher Education / Open University Press.
- Boud, D. 2001. Creating a work-based curriculum. In *Work-based Learning: a new higher education*, ed. D. Boud & N. Solomon. Buckingham: Society for Research into Higher Education / Open University Press.
- Boud, D. & Costley, C. 2007. From project supervision to advising: new conceptions of the practice. *Innovations In Education and Teaching International* 44, no. 2: 119-130.
- Boud, D. & Solomon, N. 2001. *Work-based Learning: a new higher education*. Buckingham: Society for Research into Higher Education / Open University Press.
- Boud, D. & Tennant, M. 2006. Putting doctoral education to work: challenges to academic practice. *Higher Education Research and Development* 25, no. 3: 293-306.

- Brennan, J. & Little, B. 2006. *Towards a strategy for workplace learning*. Milton Keynes: Open University Centre for Higher Education Research and Information.
- Brodie, P. & Irving, K. 2007. Assessment in work based learning: investigating a pedagogical approach to enhance student learning. *Assessment and Evaluation in Higher Education* 32, no. 1: 11-19.
- Burgoyne, J., Hirsh, W. & Williams, S. 2004. *The development of management and leadership capability and its contribution to performance: the evidence, the prospects and the research need*. Sheffield: Department for Education and Skills (RR560).
- Butler, L. 1991. *Unpaid work: the developing potential for accreditation*. London: Learning from Experience Trust.
- Carr, W. & Kemmis, S. 1986. *Becoming Critical: education, knowledge and action research*. Lewes: Falmer Press.
- Checkland, P. 1981. *Systems thinking, systems practice*. London: John Wiley.
- Chisholm, C. & Davis, M. 2007. Analysis and evaluation of factors relating to accrediting 100% of prior experiential learning In UK work-based awards. *Assessment & Evaluation in Higher Education* 32, no. 1: 45-59.
- Costley, C. 2007. 'Work-based learning: assessment and evaluation in higher education. *Assessment and Evaluation in Higher Education* 32 no. 1: 1-9.
- Costley, C. & Armsby, P. 2007a. Work-based learning assessed as a field or mode of learning. *Assessment & Evaluation in Higher Education* 32, no. 1: 21-33.
- Costley, C. & Armsby, P. 2007b. Methodologies for undergraduates doing practitioner investigations at work. *Journal of Workplace Learning* 19, no. 3: 131-145.
- Costley, C. & Armsby, P. 2008. Critiquing WBL in higher education: a review. Paper presented at the University Vocational Awards Council annual conference, 13-14 November, in York.
- Costley, C. & Stephenson, J. 2008. Building doctorates around individual candidates' professional experience. In *Changing Practices of Doctoral Education*, ed. D. Boud & A. Lee. London: Routledge.
- Czikszentmihalyi, M. & Rathunde, C. 1990. The psychology of wisdom: an evolutionary perspective. In *Wisdom: its nature, origins and development*, ed. R. J. Sternberg. Cambridge: Cambridge University Press.
- Dewey, J. 1916. *Democracy and Education: an introduction to the philosophy of education*. New York: Free Press.

Dewey, J. 1933. *How we think: a restatement of the relation of reflective thinking to the educative process*. Boston MA: D. C. Heath.

Dewey, J. 1938. *Experience and Education*. New York: Collier.

Doncaster, K. 2000. Accrediting the experience of work-based learners: a case-study. *Journal of Access and Credit Studies* 2, no. 2: 269-277.

Doncaster, K. & Lester, S. 2002. Capability and its development: experiences from a work-based doctorate. *Studies In Higher Education* 27, no. 1: 91-101.

Duckenfield, M. & Stirner, P. 1992. *Learning Through Work: the integration of work-based learning within academic programmes in higher education*. Sheffield: Employment Department.

Eraut, M., Alderton, J., Cole, G. & Senker, P. 2000. Development of knowledge and skills at work. In *Differing Visions of a Learning Society*, ed. F Coffield. Bristol: The Policy Press.

Eraut, M. & Hirsh, W. 2007. *The Significance of Workplace Learning for Individuals, Groups and Organisations*. Oxford: University of Oxford (SKOPE Monograph 6).

Eraut, M., Steadman, S., Maillardet, F., Miller, C., Ali, A., Blackman, C., Furner J. & Caballero C. 2005. *Learning during the first three years of postgraduate employment*. Swindon: Economic and Social Research Council (Project LINEA).

Felstead, A., Fuller, A., Unwin, L., Ashton, D., Butler, P. & Lee T. 2005. Surveying the Scene: learning metaphors, survey design and the workplace context. *Journal of Education and Work* 18, no. 4: 359-383.

Garnett, J. 1998. Using APEL to develop customised work-based learning programmes at postgraduate level. In *APEL: Beyond Graduateness*. London: SEEC.

Garnett, J. 2001. Work based learning and the intellectual capital of universities and employers. *The Learning Organization* 8, no. 2: 78-82.

Garnett, J. 2007. Challenging the structural capital of the university to support work-based learning. In *Work-based Learning Futures*, ed. J. Garnett & D. Young. Bolton: University Vocational Awards Council.

Gear, J., McIntosh, A. & Squires, G. 1994. *Informal learning In the professions*. Kingston-upon-Hull: University of Hull Department of Adult Education.

Graham, S., Rhodes, G. & Shiel, G. 2006. Reflection through Work Based Learning. In *Putting Work Based Learning into Practice*, ed. S. Roodhouse, M. Bowley & C. McKeivitt. York: University Vocational Awards Council.

Graham, S. & Rhodes, G. 2007. Critical Reflection in the 21st Century Workplace: towards an interactive discussion area for practitioners. In *Work-based Learning Futures*, ed. J. Garnett & D. Young. Bolton: University Vocational Awards Council.

Graham, C. & Smith, R. 2002. Transdisciplinarity in practice: the Central Queensland University professional doctorate. Paper presented at the Fourth International Biennial Conference on Professional Doctorates, November 29-30, in Brisbane.

Griffiths, R. 2004. Knowledge production and the research-teaching nexus: the case of the built environment disciplines. *Studies in Higher Education* 29, no. 6: 709-726.

Gustavs, J. & Clegg, S. 2005. Working the Knowledge Game? Universities and corporate organizations in partnership. *Management Learning* 36, no. 1: 9-30.

Harris, M. & Chisholm, C. 2008. Recognition of learning through work in Lifeplace Learning Environments: an analysis of the way ahead. In *Contested values in work based learning*, ed. D. Holifield & C. Costley. Cardiff: UWIC Press Group.

Harvey, M. 2007. The changing power balance between learners, universities and work contexts. In *Work-based Learning Futures*, ed. J. Garnett & D. Young. Bolton: University Vocational Awards Council.

Hughes, J., Slack, K., & Baker, C. 2006. Learning Journeys research project. Paper presented at the British Educational Research Association Annual Conference, 6-9 September, Warwick.

Kitchener, K. S. & King, P. M. 1981. Reflective judgment: concepts of justification and their relationship to age and education. *Journal of Applied Developmental Psychology* 2: 89-116.

Knowles, M. 1970. *The modern practice of adult education: from pedagogy to andragogy*. Cambridge: Cambridge Book Company.

Kolb, D. A. 1984. *Experiential learning*. New York: Prentice Hall.

Leitch, S. 2006. *Prosperity for all In the global economy: world-class skills*. London: H. M. Stationery Office.

Lester, S. 1999. Assessing the self-managing learner: a contradiction in terms? In *Developing the capable practitioner*, ed. D. O'Reilly, L. Cunningham & S. Lester. London: Routledge.

Lester, S. 2002. Negotiated work-based learning: from delivery systems to realisation systems. *Capability* 5, no. 1: 6-9.

Lester, S. 2004. Conceptualising the practitioner doctorate. *Studies in Higher Education* 29, no. 5: 757-770.

- Lester, S. 2007. Professional practice projects: APEL or development? *Journal of Workplace Learning* 19, no. 3: 188-202.
- Lewin, K. 1946. Action research and minority problems. *Journal of Social Issues* 2: 34-46.
- Lyons, F. 2003. Customer-led learning environments: industry-university partnerships. Paper presented at the Higher Education Research and Development Society of Australia annual conference, July 7-9, in Canterbury NZ.
- Lyons, F. & Bement, M. 2001. Setting the standards: judging levels of achievement. In *Work-based Learning: a new higher education*, ed. D. Boud & N. Solomon. Buckingham: Society for Research into Higher Education / Open University Press.
- Moore, L. J. 2007. Ethical and organisational tensions for work-based learners. *Journal of Workplace Learning* 18, no. 3: 161-172.
- Nixon, I., Smith, K., Stafford, R. & Camm, S. 2006. *Work-based learning: illuminating the higher education landscape*. York: Higher Education Academy.
- Nixon, I., Willis, K., Major, D., Young, D., Tongue, A., Costley, C., Abukari, A., Biddle, P., Graham, S., McClenaghan, K., Helyer, R., Beadsmoore, A., Karuk, V., Siara, B. & Urwin, P. 2008. *Work-based learning impact study*. York: Higher Education Academy.
- O'Doherty, E. 2006. Foundation degrees and widening participation: public sector employees' work-based learning and foundation degrees. *Journal of Access Policy and Practice* 3, no. 2: 142-161.
- O'Reilly, D., Cunningham, L. & Lester S. 1999. *Developing the capable practitioner*. London: Routledge.
- PACEC (Public and Corporate Economic Development Consultants). 2006. *The leadership and management development programme for small and medium enterprises: an evaluation of the pathfinders*. Sheffield: Department for Education and Skills (RB770).
- Poikela, E. 2004. Developing criteria for knowing and learning at work: towards a context-based assessment. *The Journal of Workplace Learning* 16, no. 5: 267-274.
- Pór, G. 1996. The quest for collective intelligence. In *Community Building: Renewing spirit and learning in business*, ed. K. Gozdz. San Francisco: New Leaders Press.
- Portwood, D. 2000. An intellectual case for work based learning as a subject. In *Work based learning and the university: new perspectives and practices*, ed. D. Portwood & C. Costley. Birmingham: Staff & Educational Development Association (SEDA Paper 109).
- Reason, P. & Rowan J. 1981. *Human Inquiry: a sourcebook of new paradigm research*. Chichester: John Wiley.

- Reeve, F. & Gallacher, J. 2005. Employer–University ‘Partnerships’: a key problem for work-based learning programmes? *Journal of Education and Work* 18, no. 2: 219–233.
- Revans, R. W. 1980. *Action Learning: new techniques for management*. London: Blond & Briggs.
- Rhodes, C. & Garrick, J. 2003. Project-based learning and the limits of corporate knowledge. *Journal of Management Education* 27, no. 4: 447-471.
- Rhodes, G. & Shiel, G. 2007. Meeting the needs of the workplace and the learner through work-based learning. *Journal of Workplace Learning* 18, no. 3: 173-187.
- Rittel, H. J. W. & Webber, M. M. 1984. Planning problems are wicked problems. In *Developments In Design Methodology*, ed. N. Cross. New York: John Wiley.
- Schön, D. A. 1983. *The reflective practitioner: how professionals think in action*. New York: Basic Books.
- Schön, D. A. 1987. *Educating the Reflective Practitioner*. London: Jossey-Bass.
- Scott, D., Brown, A., Lunt, I. & Thorne, L. 2004. *Professional Doctorates: Integrating professional and academic knowledge*. Buckingham: Society for Research into Higher Education / Open University Press.
- Sennett, R. 2008. *The Craftsman*. London: Allen Lane.
- Simon, H. 1972. *The sciences of the artificial*. Cambridge MA: Massachusetts Institute of Technology Press.
- Stephenson, J. 1998a. Supporting student autonomy in learning. In *Capability and Quality In Higher Education*, ed. J. Stephenson & M. Yorke. London: Kogan Page.
- Stephenson, J. 1998b. The concept of capability and its importance in higher education. In *Capability and Quality In Higher Education*, ed. J. Stephenson & M. Yorke. London: Kogan Page.
- Stephenson, J., Malloch, M. & Cairns, L. 2006. Managing their own programme: a case study of the first graduates of a new kind of doctorate in professional practice. *Studies In Continuing Education* 28, no. 1: 17-32.
- Stephenson, J. & Saxton, J. 2005. Using the Internet to gain personalized degrees from learning through work: some experience from Ufi. *Industry and Higher Education* 19, no. 3: 249-258.
- Sung, J. & Ashton, D. 2005. *High Performance Work Practices: linking strategy and skills to performance outcomes*. London: Department for Trade and Industry.
- Teare, R. & Neil, J. 2002. Fast-forward to accredited corporate learning? *International Journal of Contemporary Hospitality Management* 14, no. 7: 342-348.

Tennant, M. 2004. Doctoring the Knowledge Worker. *Studies In Continuing Education* 26, no. 3: 431-441.

Ufi Ltd. 2001. *Learning through Work framework: design principles for application in higher education*. Sheffield: Ufi Ltd.

Usher R. & Solomon N. 1999. Experiential learning and the shaping of subjectivity in the workplace. *Studies in the Education of Adults* 31, no. 2: 155-163.

Valentin, C. 1999. Challenging the corporation: critical perspectives on workplace learning. Paper presented at SCUTREA, 29th Annual Conference, 5-7 July, University of Warwick.

Wang, L. 2008. Work-based learning: a critique. *The International Journal of Learning* 15, no. 4: 189-196.

Wilson, B. 1990. *Systems: concepts, methodologies and applications*. Chichester: John Wiley.

Zembylas, M. 2006. Work-based learning, power and subjectivity: creating space for a Foucauldian research ethic. *Journal of Education and Work* 19, no 3: 291-303.

Zuber-Skerritt, O. 2006. An executive action learning program (SEAL) for professional development and higher degrees. In *Management von Universitäten: Zwischen Tradition und Post-Moderne*, ed. H. Welte, M. Auer & C. Meister-Scheytt. Munich: Rainer Hampp Verlag.